

# The Design of Government Guarantees for Bank Bonds: Lessons from the Recent Financial Crisis

by

Aviram Levy and Sebastian Schich\*

*In 2010 authorities have taken the first steps to end some of the public support measures put in place in response to the financial crisis, starting with government guarantees for bond issues. Financial institutions have made extensive use of this tool, which has been effective in avoiding a further tightening of funding conditions, but this type of public support has, nonetheless, raised some concerns. First, the cost of issuing guaranteed bonds has mainly reflected the characteristics of the sovereign guarantor rather than those of the issuer, thus favouring “weak” borrowers with a “strong” sovereign backing. This situation has the potential to distort competition and create incentives for excessive risk taking. Such effects could have been reduced by the choice of a different fee determination mechanism. Second, the continued availability in 2010 of guarantee schemes, despite a declining overall usage, may be alleviating the pressure on some weak financial institutions to address their weaknesses: the average creditworthiness of banks issuing after mid-2009, when market conditions became more favourable, has sharply declined.*

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## EXECUTIVE SUMMARY

Over the past few months, authorities have taken their first steps to end some of the public support measures put in place in response to the financial crisis; thus, the exit that the OECD's Committee on Financial Markets discussed at its last few meetings has actually begun. The present article focuses on government guarantees for bond issues. Financial institutions have made extensive use of such bond issuance: in the period October 2008 to May 2010 close to 1400 guaranteed bonds have been issued by approximately 200 banks from 17 countries, for an amount equivalent to more than €1 trillion. In part reflecting the nature of the strains that the banking sector was exposed to and the specific structure of the banking system, the design of the guarantee schemes differed across jurisdictions.

The guarantee schemes which were put in place, together with other measures, have been effective in resuming overall long term funding for banks and reducing their default risk. This type of public sector support for the banking system has, nonetheless, raised a number of concerns.

First, the cost of issuing guaranteed bonds has mainly reflected the characteristics of the sovereign guarantor rather than those of the issuer: this situation has created distortions by favouring "weak" borrowers with a "strong" sovereign backing, which have been able to borrow more cheaply, even after accounting for the guarantee fee, than some "strong" banks with a "weak" sovereign guarantor. This phenomenon, which could have been prevented by choosing an appropriate fee determination mechanism, has become more acute with the increased differentiation of sovereign risk observed across advanced economies since early 2010. It tends to distort competition and create incentives for excessive risk taking.

Secondly, the phasing out of guarantees has to be managed carefully and a balance has to be struck between two conflicting needs. While the possibility of renewed market tensions makes it important to dispose of a safety net, it is crucial to prevent further distortion to competition by providing the incentive to sound banks to exit from government-supported refunding and to weaker banks to address their weaknesses. The evidence identified here is not inconsistent with the suggestion that the continued availability into 2010 of guarantee schemes, even when the overall usage of guarantees is declining, may alleviate the pressure on some weak financial institutions to address their weaknesses. This suggestion is supported by the fact that, in some large advanced economies, the actual usage of guarantees was concentrated in a few recipient banks. In addition, the average credit rating of the banks that issued guaranteed bonds in the second half of 2009 and in the first half of 2010, when market conditions were much more favourable, is much lower than the average rating of banks that issued in the "turbulent" period (October 2008 to April 2009). Partly reflecting these concerns, the EU decided in May 2010 that, starting from July 2010, in countries that continue to make guarantees available those banks which continue to heavily rely on guarantees will have to undergo a review of their long-term viability.

## I. Introduction

In response to the sharp deterioration of financial market conditions that followed the demise of Lehman Brothers, in October 2008 the authorities of advanced economies adopted a number of measures to support the banking system. These measures fall into three broad categories: capital injections to strengthen banks' capital base; asset guarantees and purchases to reduce banks' exposure to capital losses; and liability guarantees, both on customer deposits and bond financing, to help banks retain access to retail and wholesale funding. Overall, the rescue measures have contributed to avoiding a "worst case scenario" by reducing the default risk of major banks. In particular, the issuance of guaranteed bonds has been sizeable across regions and has provided banks with a precious source of funding.

*Government-guaranteed bonds form a new and significant segment of the financial landscape*

Some bank bond government-guarantee schemes expired at the end of 2009, while others will expire by December 2010. Thus, taking stock of the experiences with, and lessons learned from, these programmes is a timely exercise. Although the pace of guaranteed issuance has declined, significant amounts of government-guaranteed bank bonds<sup>1</sup> remain outstanding, and these securities represent a new and significant segment of the market for high-quality fixed-income securities. Their presence in the market has implications for pricing and other aspects of the broader structure of financial markets. In the absence of further difficulties, which may call for an extension beyond 2010, the segment will gradually shrink. At the current juncture (*i.e.* as of June 2010), the last issue is currently expected to be redeemed by December 2015. In the near term, however, with overall reliance on support measures declining, the question remains whether the continued availability of guarantees for bond issuance may shield weak banks from the market discipline that would normally prevail.

*Guarantees for unsecured bank bond issues are the most tangible form in which the government acts as guarantor of last resort*

All told, public authorities essentially have adopted the role of guarantor of last resort during the recent financial crisis,<sup>2</sup> expanding existing guarantees and introducing new ones. These included guarantees for bank liabilities and assets, as well as the assurance on the part of monetary authorities that liquidity would be made available for banks in sufficient amounts "as long as needed". Among these various forms of guarantees provided by public authorities as part of their insurance-of-last-resort function, the government-provided guarantees for unsecured bank bond issues are the most tangible form in which this function was provided.

The purpose of these initiatives was to prevent viable banks from failing during the systemic crisis by allowing them to continue to refinance themselves over longer maturities until private markets become receptive to non-guaranteed debt issues again. In other words, the purpose was to "gain time", while trying to minimise the distortions to competition and incentives created by the government-provided guarantees.

The specific structures of the programmes through which governments have provided bank bond guarantees have differed across countries, however,

and the present paper asks what lessons can be learned regarding the appropriate design of such programs, including, in particular, the issue of how best to structure guarantee fees in the least distortionary way. The present paper examines the context in which the guarantees were provided and the evolution of issuance over time, and then addresses two specific questions:

- How to design pricing structures to minimise cross-border competitive distortions introduced by differences in the quality of the sovereign guarantor;
- How to achieve exit and avoid subsidising banks (including non-viable ones) for too long.

## II. Government-supported guarantees as part of bank-support packages

*Bank funding strains have been a worrisome feature of the recent financial crisis*

Bank funding strains have been one of the key features of the recent financial crisis, and the introduction of guarantee schemes for unsecured bank bonds has addressed this issue in a direct way. In particular, to alleviate bank funding difficulties that opened up as counterparty risk rose to unprecedented levels and confidence in banks (including on the part of their peers) collapsed, many governments offered banks the option to issue unsecured bonds with a government guarantee against the payment of a fee by the issuer.

These facilities were, however, part of wider sets of support measures made available to banks, which included the following ones affecting either side of their balance sheets:

*Guaranteeing large parts of bank liabilities has been a key part of the policy response*

- As far as governments are concerned, there was a massive expansion of existing guarantees and widespread introduction of new ones. The latter included guarantees for specific types of investments, such as money market mutual funds, and a variety of assets for which guarantees are not typically available, at least not in normal times, affecting banks in a more indirect way. As regards bank balance sheets, as highlighted by Table 1, a large number of countries have either expanded existing or introduced new guarantees in relation to one of three parts of bank balance sheets: retail funding, wholesale funding and assets. Moreover, in many cases such guarantees have played a quantitatively important role (notwithstanding the conceptual difficulties involved in comparing guarantees with other support measures that involve upfront payments). For example, Figure 1 shows guarantees as a percentage of the total headline support provided in selected G-20 countries (not including, however, deposit insurance provided by deposit insurance agencies).

*Recapitalisation schemes have been introduced, but not used widely*

- Recapitalisation schemes were adopted in several countries, even if not all of them have been in use. Most of the actual capital injections took the form of non-dilutive actions, such as the purchase of new preferred shares. Treasuries bought the shares at deliberately low prices, while also applying additional conditions to those purchases, such as restrictions on executive compensation and dividend payments (so-called “behavioural constraints”).

Table 1. Government-provided guarantees targeting directly bank assets or liabilities

Country	Asset	Deposit	Bond	Country	Asset	Deposit	Bond
Australia		•	•	Korea			•
Austria	•	•	•	Luxembourg		•	
Belgium	•	•	•	Mexico			
Canada			◦	Netherlands	•	•	•
Chile				New Zealand		•	•
Czech Republic		•		Norway			
Denmark		•	•	Poland		•	◦
Finland		•	◦	Portugal		•	•
France	•		•	Russia		•	
Germany	•	•	•	Singapore		•	
Greece		•	•	Slovak Republic		•	
Hong Kong, China		•		Spain		•	•
Hungary		•	◦	Sweden		•	•
Iceland		•		Switzerland	•	•	
Ireland	•	•	•	Turkey			
Italy			◦	United Kingdom	•	•	•
Japan				United States	•	•	•

Key:

**Asset** = “•” Bank asset guarantee (or guarantee-like measures such as asset purchase with insurance elements) made available.

**Deposit** = “•” denotes deposit insurance coverage level expanded or explicit deposit insurance introduced.

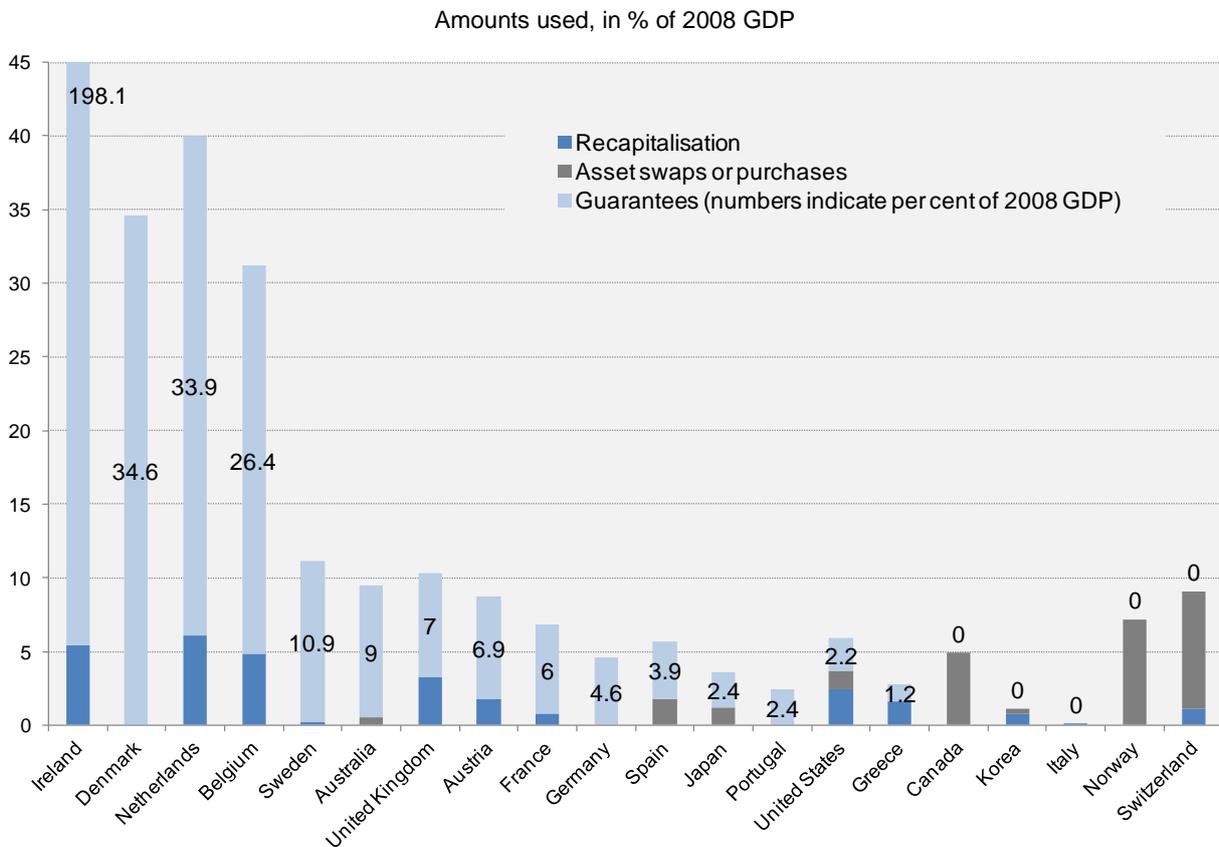
**Bond** = “•” denotes bond guarantee scheme introduced and used.

**Bond** = “◦” denotes bond guarantee scheme introduced but not used.

*Notes:* In Spain, a programme was introduced in mid-2009 that foresees the acquisition of financial assets and/or guarantee assistance in order to support banks in a restructuring process (*i.e.* merger). The programme is open to all credit institutions resident in Spain. In Switzerland, the purchase of illiquid assets from UBS by the Swiss National Bank through a special purpose vehicle involved several contingencies and assigned the first loss to that bank; thus, it is considered here as a guarantee-like policy measure. In Austria, the Financial Market Stability Act allows the provision of state guarantees for bank assets, although that option has not been used.

*Source:* Estimates by OECD Secretariat and Banca d'Italia.

**Figure 1. Composition of financial support measures**



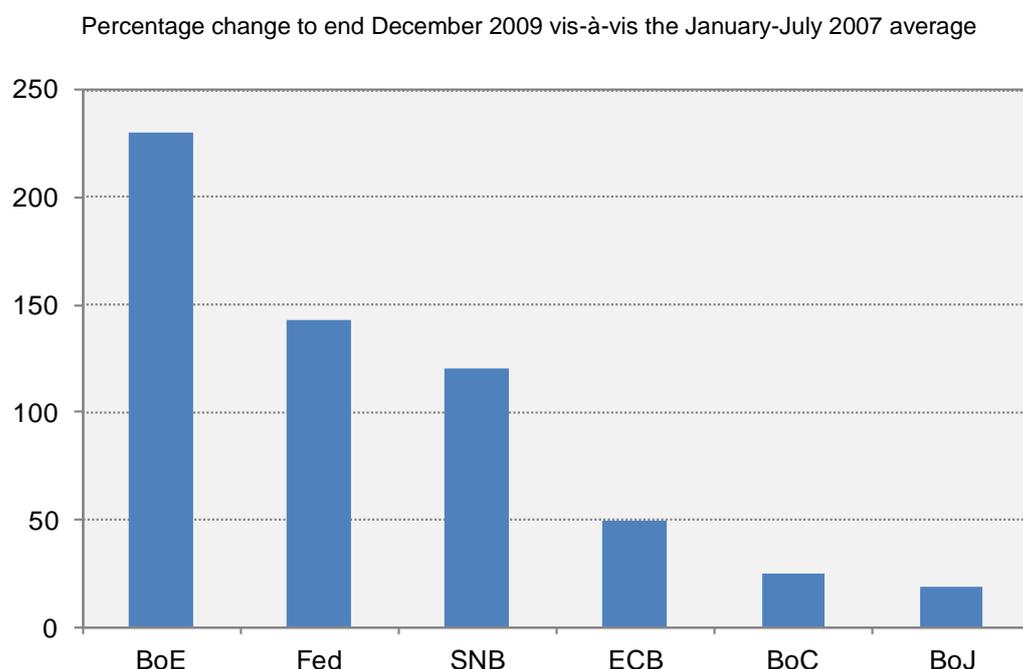
Notes: Announced amounts in the cases of Denmark and Ireland. For Switzerland, amounts actually transferred in the case of asset swaps or purchases. In Italy, recapitalisation amounts to 0.1% and guarantees used to 0% of 2008 GDP.

Source: OECD Secretariat and Banca d'Italia estimates based on IMF (2010a).

*The “division of labour” between treasuries and central banks has been effective*

After the demise of Lehman Brothers and the severe tensions that paralysed financial markets in the fall of 2008, public intervention in support of the financial system was characterised by a “division of labour” between policy makers.

On the one hand, central banks have expanded liquidity provision to the banking system by widening the range of counterparties, eligible collateral and average maturity of refinancing. Some central banks enacted so-called “quantitative easing” by purchasing large amounts of government bonds. On top of this, central banks have provided support to specific market segments deemed to have systemic importance by means of outright purchases of securities: commercial paper, asset-backed commercial paper, government sponsored enterprises (GSEs) residential mortgage-based securities and GSE bonds in the United States; and covered bonds in the euro area. These forms of liquidity provision and market support have translated into a significant expansion of central bank balance sheets, as illustrated in Figure 2, which shows monetary base increases for selected central banks in Committee on Financial Markets (CMF) member jurisdictions.

**Figure 2. Increases in the monetary base compared with pre-crisis levels**

Source: Minegishi and Cournède (2010).

On the other hand, treasuries took responsibility for “fiscal” support measures, such as guarantees on assets and liabilities and capital injections. Some of these support measures have entailed upfront expenditures, others only contingent liabilities.

*... but not as neat as it may seem*

While this division of labour seems to be neat, at least two considerations blur the dividing line. The first is the distinction between fiscal and liquidity support: it is rather evident that some liquidity and, especially, market support measures by central banks have also entailed a significant credit risk and therefore can be seen as quasi-fiscal measures. The second consideration is related to the experience in the United States: the Federal Reserve has stepped into the traditional treasury field by providing guarantees (including to money market mutual funds and to AIG), perhaps reflecting the need to intervene with a speed which was not available to the US Treasury (due to the need to ask for congressional approval).

*Many actions by public authorities actually consisted of providing the guarantor of last resort*

Actually, an important part of the policy response has consisted of public authorities providing the function of a guarantor of last resort (Schich, 2009), and this role goes further than the actions listed in Table 1 would suggest. In particular, other actions such as recapitalisations could be conceived as reflecting the role of the government as guarantor of last resort, to the extent that they provide stressed banks with some additional “breathing space”. This role also includes monetary policy, which aimed at providing not only liquidity but also assurance that such liquidity would be available as long as needed.

*...and it is difficult to isolate the effects of any specific type of measure*

Under these circumstances, it is difficult to isolate and separately analyse the effects of any specific type of policy measure implemented as part of the government's role as insurer of last resort. Thus, when assessing the effectiveness of bank bond guarantee schemes, one needs to be aware that the perspective adopted is only a very partial one.

### III. Bond guarantee programs and developments in bank funding

#### *Overview of selected features of the bond guarantee programmes, including fee structures*

What is remarkable is that despite broadly similar aims and significant co-ordination efforts, the frameworks within which the guarantees have been provided and the specific fees structures imposed for the guarantees have differed across countries, and so have the amounts of funds pledged by each country. A stylised overview of some key features regarding extent of coverage (in most cases just newly issued senior unsecured bonds), fee structures (in most cases risk-based fee structures), and the time window over which guarantees are available (in most cases available until a specific issuance date) is provided in Table 2, illustrating that there has been some variation in the specific features of different schemes.

*Fees charged for government-supported guarantees for bank bonds have been apparently risk-based*

All governments (or government-supported entities) have charged a fee in exchange for the guarantee provided. In most cases, fees levied have been risk-based, with either historical credit default swaps or credit agency ratings being used as references. That being said, despite broadly similar schemes, there were some differences in details: these differences were most pronounced across the Atlantic, but can be found also within the European Union (EU). In part, they reflected the different environment faced by each country. For example, while EU-agreed schemes used credit default swap (CDS) premiums as a main reference (or, in the absence of a bank's CDS, the CDS of a "comparable" institution), CDS histories are not available for all EU banks. Also, even where CDS histories have been available, slight differences existed in the choice of the reference periods for calculating median spreads (e.g. the UK scheme differed slightly in this respect from those used by euro area members). In the United States, the fees were specified only as a function of the term-to-maturity of the bond to be issued with a guarantee.

*In practice, the differences in fees charged across borders have not been substantial*

Data on actual fee charges are, as a general rule, not published. Private sector estimates suggest that the ranges of fees charged in practice have differed to some extent from one country to another. If one compares the average fees, differences appear not to have been very large: with the exception of France, where they were as low as 50 basis points, average fees elsewhere were mostly close to 100 basis points, with the extremes being Germany (91) on the low side and the United Kingdom (114) on the high side. This outcome is noteworthy given that pricing schemes have differed, with some of them being risk-based and others not; and even when risk-based, different risk indicators have been used.

Table 2. Selected features of government-provided guarantee schemes (schemes proposed initially)

Country	Coverage/ issuance				Fees		Availability		
	A	B	C	D	E	F	G	H	I
Australia			•	•	•				
Austria			•	•	•	•	•	•	
Belgium <sup>(1)</sup>			•	•	•	•	•	•	
Denmark	•			•	•	•	•	•	
France			•		•	•	•		
Germany			•	•	•	•	•	•	
Greece			•	•	•	•	•	•	
Ireland	•			•			•	•	
Korea			•	•			•	•	
Luxembourg <sup>(2)</sup>			•	•	(2)	(2)	•	•	
Netherlands			•	•	•	•	•	•	•
New Zealand			•	•	•				
Portugal			•	•	•	•	•	•	
Spain			•	•	•	•	•	•	
Sweden			•	•	•	•	•	•	
United Kingdom			•	•	•	•	•	•	
United States		•		•			•	•	•

- A** All outstanding and new debt guaranteed.  
**B** All new debt guaranteed unless bank has opted out of scheme.  
**C** New debt guaranteed if explicitly requested.  
**D** Issuance directly by bank or via special agency.  
**E** Guarantee fees based on measure of credit risk (rating).  
**F** Guarantee fees based on historical credit default swap prices.  
**G** Initial scheme with specific end date of issuance window.  
**H** Initial specific deadline extended (or eligible maturities increased).  
**I** Conditions tightened after extension of deadline.

(1) Belgium has set up two guarantee schemes: a) an ad-hoc scheme for Dexia, coordinated with France and Luxemburg; and b) a general purpose scheme, to which no bank has applied as of writing, whose pricing is consistent with ECB guidelines. (2) Luxembourg adopted only an *ad hoc* scheme for Dexia.

Source: Estimates by OECD Secretariat and Banca d'Italia.

Indeed, fee structures were not perfectly harmonised across the jurisdictions of CMF participants. They were not designed so as to rule out the possibility that, across borders, different fees are charged for similar issuer credit risks and/or similar fees are charged for different issuer credit risks. But, one might ask, should they have been harmonised?

*Actual yield spreads at issue mainly reflect investors' perception of the*

The total costs of a guaranteed bank bond for the issuer is represented by the sum of the fees paid by the issuer to the government (or entity providing the government-supported guarantee) in exchange for the guarantee and the yield at issue of the guaranteed bond. Yield spreads at issue may reflect in

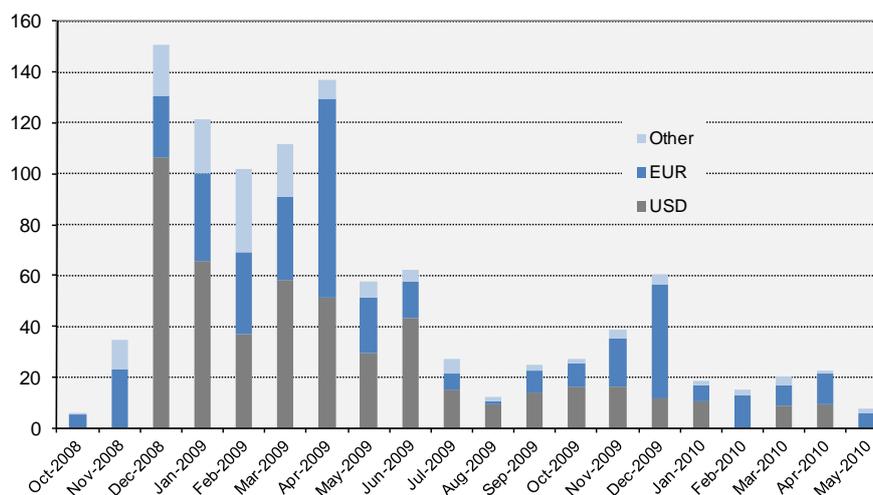
### value of the sovereign guarantee

principle three factors: the characteristics of the issuer, those of the bond and those of sovereign guarantor. As discussed in Schich (2009) and Levy and Zaghini (2010), in practice the actual spread paid at issuance has mainly reflected the characteristics of the sovereign guarantor: more precisely, one third of the spread paid by the hypothetical “weakest” issuer was accounted for by the sovereign CDS premium and by the sovereign rating; if one also includes among country characteristics the amount of budgetary resources committed to rescue measures and timeliness of payments in case of default, then country characteristics explain close to two thirds of the spread paid by the weakest issuer.<sup>3</sup> Thus, to avoid competitive distortions, one might argue, the sovereign guarantor needs to take into account the quality of the guarantee provided and charge commensurate fees (this discussion is taken up in section III).

### Market size and participants

The first government-guaranteed bank bond was issued in October 2008, but total issuance was relatively subdued during that month and the subsequent one, as only European banks were issuing (see Figure 3). Starting from December 2008, when US and Australian financial institutions started to issue, total issuance picked up briskly, with the US dollar becoming the main currency of denomination for most of 2009. From May 2009 onwards, total issuance appreciably diminished, although it picked up again towards the end of the year largely reflecting exceptionally large issuance by one single issuer (denominated in euros).<sup>4</sup> In the first half of 2010, overall issuance remained subdued but, reflecting the investors’ reassessment of sovereign risk, in some countries (*e.g.* Greece and Ireland) banks stepped up guaranteed issuance in order to reduce the cost of funding.

Figure 3. Monthly issuance of guaranteed bonds



Notes: In Euro equivalent billions.

Source: Estimates by OECD Secretariat and Banca d'Italia based on Bloomberg.

*A few countries account for most of the guaranteed bond issued volume*

A few countries account for most of the guaranteed bond issued volume. The United States leads the league (Table 3), also reflecting the fact that US guarantees were provided by default to all banks and all bonds (up to a maximum of around 125% of bonds outstanding as of fall 2008), unless the bank explicitly opts out. Robust issuance has also been recorded in the United Kingdom, France, Germany and Australia.

**Table 3. Characteristics of guaranteed bond issuance in individual countries**

For the period October 2008 to May 2010

Country	Total issuance (billion euro)	Number of issuers	Number of bonds issued	Average size of each bond (billion euro)	Average maturity at issuance (months)	Percentage of available guarantees
Australia	109,5	20	311	0,4	40	(3)
Austria	20,0	6	21	1,0	38	27
Belgium	4,0	1	4	1,0	23	21 (2)
Denmark	32,2	40	177	0,2	28	(3)
France	127,6	2	77	1,7	33	48
Germany	184,1	11	47	3,9	27	46
Greece	8,5	3	6	1,4	33	30
Ireland	61,2	10	174	0,4	30	100 (2)
Luxemburg	0,7	1	2	0,3	21	16
Netherlands	47,1	6	38	1,2	46	24
New Zealand	6,0	7	22	0,3	40	(3)
Portugal	4,4	5	5	0,9	36	22
South Korea	0,9	1	2	0,5	33	1
Spain	40,3	34	95	0,4	37	40
Sweden	18,3	5	71	0,3	40	14
United Kingdom	147,3	14	165	0,9	30	54
United States	248,2	42	191	1,3	33	14

(1) Source for committed amounts: European Commission.

(2) Authorised program size not available.

Source: Estimates by OECD Secretariat and Banca d'Italia based on Bloomberg and BIS.

*The United States and Spain stand out for the high number of issuing banks*

As far as the number of issuers is concerned, the United States, Denmark and Spain stand out for the high number of issuing banks: in the first case this reflects the fact that all US issuing banks were expected to use the guarantees unless they opt out. In Denmark, a general guarantee was adopted in favour of all unsubordinated and unsecured debt, covering the majority of commercial banks and savings banks. In the case of Spain, the number reflects the fragmentation of the savings bank sector.

On the other hand, despite the large overall amount of issuance, relatively few German banks issued guaranteed bonds. France is a special case because, with the exception of Dexia, issuance on behalf of French banks has been carried out by the agency SFEF, which did not disclose the names of the "client" banks. The table also shows that Australia is the country with the highest number of bond issued (311), followed by the United States (191), Denmark (177), Ireland (174) and the United Kingdom (165). As for the characteristics of the issue, the average size of the bond differs significantly across countries: average size is very large in Germany (€3.8 billion), is €1.7 billion in France and around €1 billion in Austria, Belgium, Greece, the

Netherlands, Portugal, the United Kingdom and the United States. It is below €1 billion in the other countries.

*Take-up ratios have differed across countries*

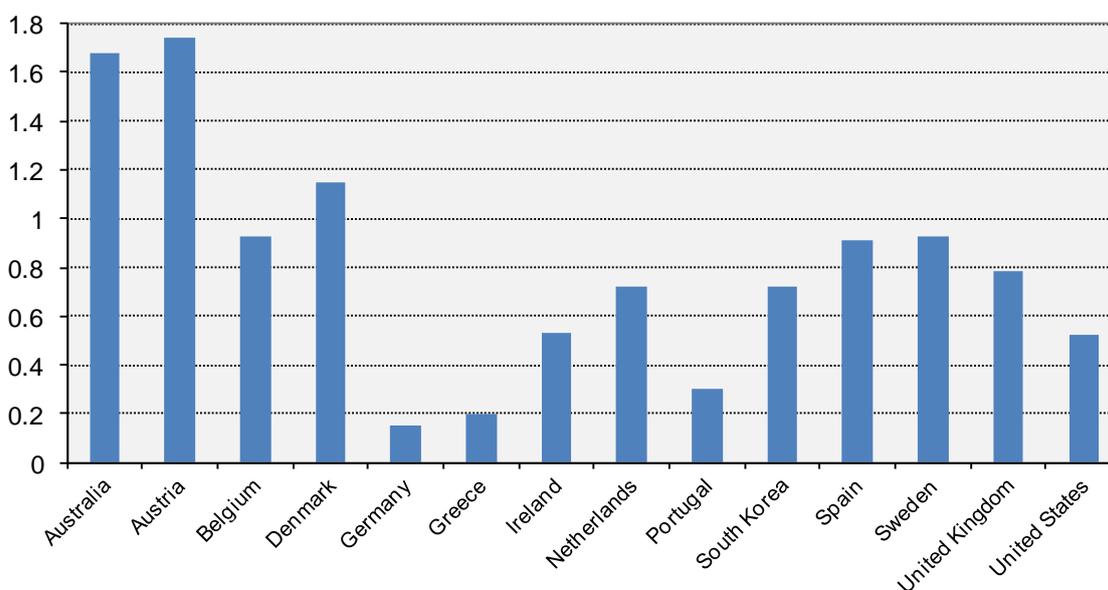
The amounts pledged by different governments for guarantee programmes differ, as do take-up rates, that is, the ratio of actual issuance to the amounts pledged by authorities. Take-up is relatively low on average: for most of the 17 countries considered, the rate is in a range of 20% to 50% (with the authorised programme size not being available in the case of three countries). On the high side are France (48%), Germany (46%), the United Kingdom (54%) and, especially, Ireland (100%).

*...as have the ratios of newly guaranteed to expired debt*

Another way of measuring the extent to which banks relied on guarantees for issuing bonds is to look at those banks that made a heavier use of their “ceiling” for guaranteed issuance. Although the rules differ in each country, the generally agreed principle in G20 countries is that each bank is allowed to issue guaranteed bonds as long as it aims to roll over the expiring (non-guaranteed) debt (see Panetta *et al.*, 2009). For this purpose one may look at a so-called “rollover ratio” for individual banks, calculated as the ratio, over the whole period, of new (guaranteed) bond issuance to (non-guaranteed) expired debt. Data show that rollover ratios differ significantly across banks and across countries. As shown in Figure 4, for the banks with bonds maturing over the period October 2008 to May 2010, the country median rollover ratio ranges from 0.2 to 1.8.

**Figure 4. Ratio of new guaranteed issuance to expiring bonds**

October 2008 to May 2010; for each country, median of all banks



Source: Estimates by OECD Secretariat and Banca d'Italia based on Dealogic DCM. For France, only Dexia (issuance by other banks via SFEF not included).

*... with countries falling broadly into three groups*

The ratio is below one in all countries except Australia, Austria and Denmark, where rollover ratios are between 1.2 and 1.7. These figures suggest that, by and large, most participating banks used the guarantees to roll over the existing debt or, in some cases, to slightly increase bond liabilities (in the United States the ceiling per institution was 125% of liabilities at end-October 2008). An important caveat in this regard is that the proposed measure of rollover ratio has an upward bias because the data provider (Dealogic) covers only “international” bonds: to the extent that a bank’s expired bonds were “domestic”, Dealogic will understate the denominator of the rollover ratio.<sup>5</sup>

### *Towards some normalisation of bank funding patterns?*

*After the adoption of guarantee schemes, overall bank bond issuance volumes increased in most areas*

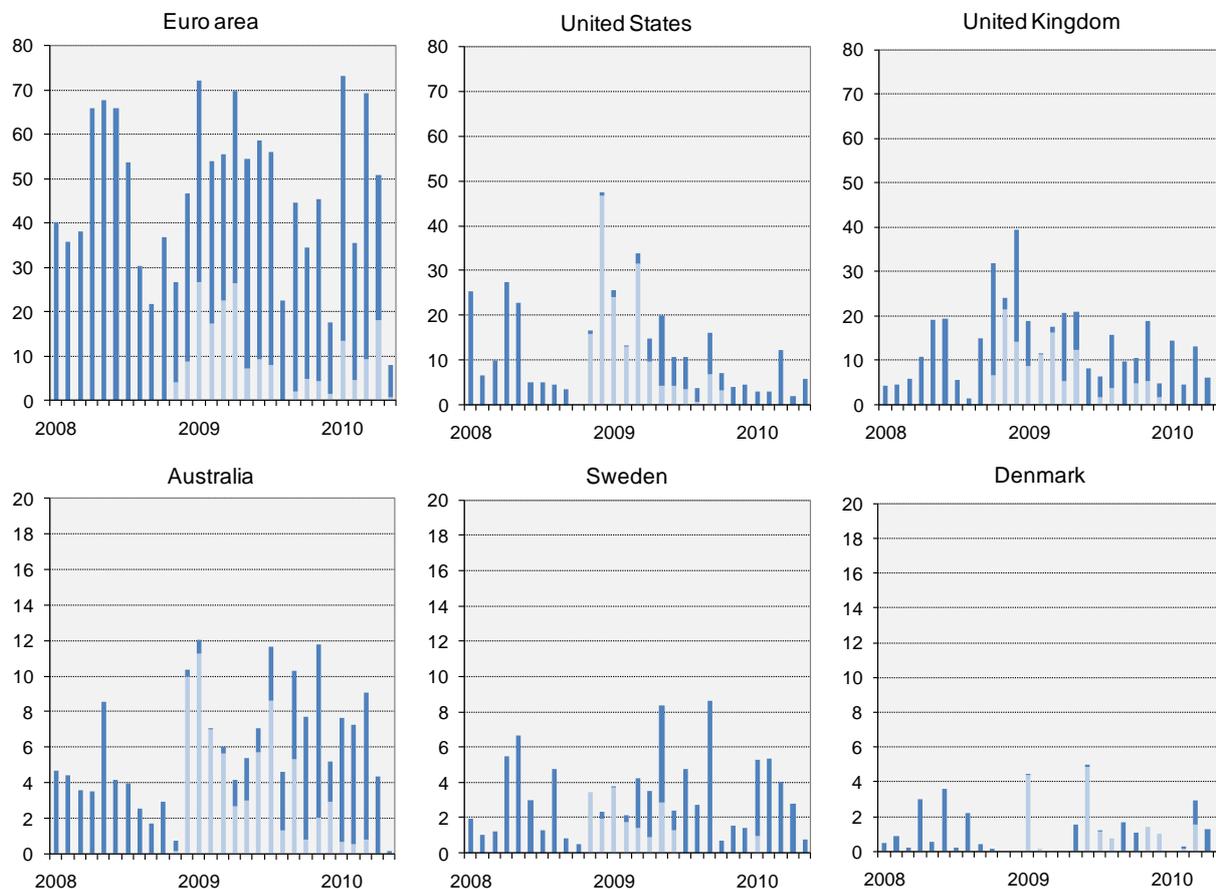
In most major markets, total bank issuance was low in the last three months of 2008, but picked up somewhat during subsequent months, regardless of the composition: in some cases guaranteed bonds have more than offset a decline of non-guaranteed debt; in other cases public rescue schemes have provided indirect help to the banks’ ability of raising funds without guarantees by reducing their “funding liquidity risk” (*i.e.* the risk that the bank cannot roll over its debt). Figure 4 shows the monthly profile of banks’ bond issuance since 2008 for the euro area, the United States, the United Kingdom, Australia, Sweden and Denmark. It is evident that after the adoption of guarantee schemes overall issuance volumes increased in most of these areas. The increase was particularly pronounced in the United States, the United Kingdom and Australia. In the United States, total issuance almost doubled, whereas in the euro area the gross issuance was robust in the first half of 2008, then sharply declined and, thanks to guaranteed issuance, recovered to the levels of one year earlier. For the United States and the United Kingdom, however, debt issuance declined in the third and fourth quarter of 2009. What is noticeable is that non-guaranteed bonds have again replaced guaranteed bonds as the major source of bank funding in almost all markets (Figure 4).

*In the second half of 2009 funding markets progressively reopened and issuance of non-guaranteed bank bonds picked up*

In the second half of 2009, funding markets progressively reopened and, up to April 2010, issuance of non-guaranteed bank bonds picked up significantly in many markets (Figure 5). This situation implies that up to April there was a return towards normalisation of bank funding patterns. That being said, some issuers continue to rely in part on the issuance of government-guaranteed bonds, and guaranteed issuance activity increased again between August and December 2009 before falling off significantly in January 2010 (Figure 3). In part, the drop in activity reflects changes in the availability of programmes, while the peak in activity towards the end of 2009 is largely due to exceptionally large issuance by a single issuer (accounting for about 75% of total issuance in December).<sup>6</sup> In May 2010 there was a steep decline in gross issuance of bank bonds in Europe: the increase of sovereign risk, especially in some smaller euro area countries, has translated into a flight to quality and a drying up of demand for both guaranteed and non-guaranteed bank bonds.

**Figure 5. Gross issuance of guaranteed versus non-guaranteed bonds**

January 2008-May 2010



Notes: Guaranteed bonds in light blue and non-guaranteed bonds in dark blue.

Source: Estimates by OECD Secretariat and Banca d'Italia based on Dealogic.

Reflecting the easing of strains on bank funding observed up to April 2010, many government-guarantee schemes, including in the United Kingdom, France and Korea were allowed to expire at the end of 2009. Others, such as the United States, have been extended but in a significantly curtailed version, which will expire at the end of 2010. In Australia the government closed the scheme on 31 March 2010 and in New Zealand on 30 April 2010. Several schemes closed at the end of June 2010. An overview of issuance windows is provided in Table 4, illustrating that most remaining programmes are scheduled to be closed to new issues by the end of 2010.

**Table 4. Overview of selected issuance windows and estimated end dates of validity of guarantees**

Country	Name of programme	Maximum tenor	Issuance window open until...	Estimated end date of validity of any guarantee
<b>Australia</b>	Wholesale Funding Guarantee Facility as of Oct 2008	5 years	31 Mar 2010 (before: “until conditions normalise”)	Mar 2015
<b>Austria</b>	Interbankmarktstärkungsgesetz as of Oct 2008	5 years	30 Jun 2010 (extended from 31 Dec 2009)	Jun 2015
<b>Denmark (new)</b>	Credit Package Agreement as of Jan 2009 (following the Act on Financial Stability as of Oct 2008)	3 years	31 Dec 2010 (extended from 30 Jun 2010)	Dec 2013
<b>France</b>	Société de financement de l'économie française	5 years	12 Nov 2009 (expired)	Dec 2014
<b>Fra./Bel./Lux. - Dexia Group</b>	First Demand Guarantee Agreement as of Oct 2008, updated in Sep 2009	4 years (until 31 Oct 2014)	30 Jun 2010 (voluntary stop)	Jun 2014
<b>Germany</b>	Sonderfonds Finanzmarktstabilisierung as of Dec 2008	3 years, but extension to 5 years possible	31 Dec 2010 (extended from 30 Jun 2010)	Dec 2015
<b>- NORD/LB</b>	NORD/LB GMTN programme as of Dec 2008	5 years	31 Dec 2010	Dec 2015
<b>Greece</b>	Law for “Enhancing the liquidity of the economy to address the effects of international financial crisis”	3 years	30 Jun 2010 (extended from 31 Dec 2009)	June 2013
<b>Ireland (initial)</b>	Credit Institutions (Financial Support) Act 2008 as of Oct 2008	Until 29 Sep 2010	29 Sep 2010	Sep 2010
<b>Ireland (new)</b>	Eligible Liabilities Guarantee Scheme as of Dec 2009	5 years	31 Dec 2010 (extended from 27 Sep 2010)	Sep 2015
<b>Italy</b>	Italian Guarantee Scheme	5 years	16 Dec 2009 (expired)	Dec 2014
<b>Korea</b>	Government Guarantee for Foreign Currency Debt of Korean Banks	5 years (extended from 3 years)	31 Dec 2009	Jun 2012
<b>Netherlands</b>	2008 Credit Guarantee Scheme	5 years (but not maturing beyond 31 Dec 2012)	30 Jun 2010 (extended from 31 Dec 2009)	Dec 2012
<b>New Zealand</b>	Wholesale Funding Guarantee Facility as of Nov 2008	5 years	30 April 2010	30 April 2015
<b>Portugal</b>	Portuguese State Guarantee Scheme as of 20 Oct 2008	3 years (exceptionally up to 5 years)	30 Jun 2010 (extended from 31 Dec 2009)	Dec 2012
<b>Spain</b>	Royal Decree of 13 October	Up to 5 years	31 Dec 2010 (extended from Jun 2010)	Jun 2015
<b>Sweden</b>	Guarantee Scheme as of Oct 2008	5 years	30 June 2010	Apr 2015
<b>United Kingdom</b>	Credit Guarantee Scheme as of Oct 2008; updated in Jan 2009	3 years	28 Feb 2010 (expired, although roll-overs until 9 Apr 2014)	April 2014
<b>United States (initial)</b>	Temporary Liquidity Guarantee Programme	Until 31 Dec 2012	31 Oct 2009 (extended from 30 Jun 2009)	Dec 2012
<b>United States (new)</b>	Six-month emergency guarantee facility as of Oct 09	Until 31 Dec 2012	30 December 2010	Dec 2012

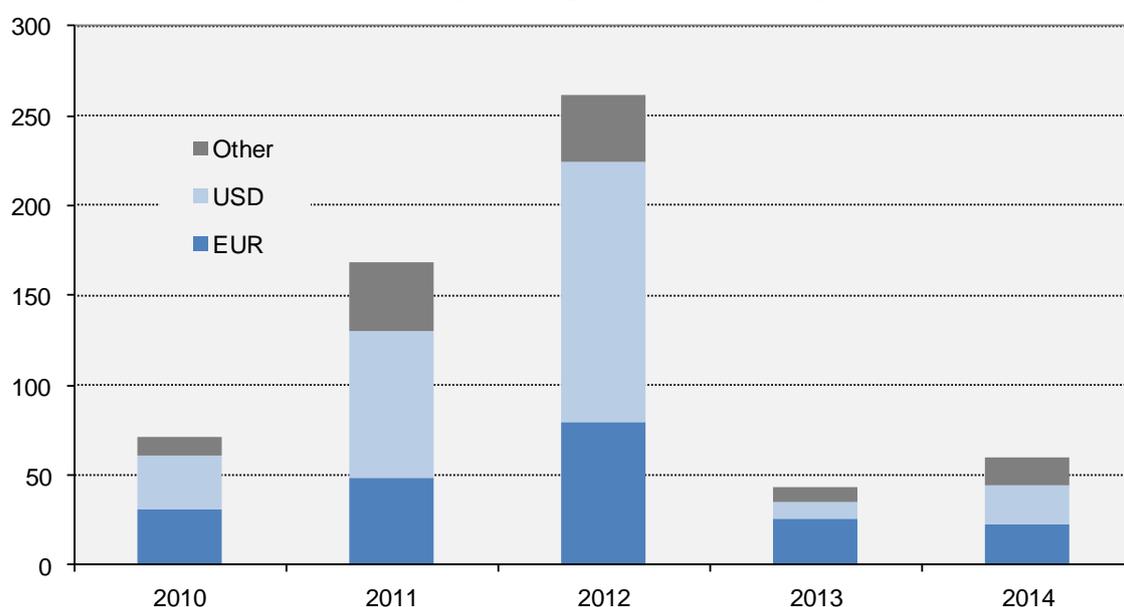
Notes: Countries with “active” programmes under which at least one bond has been issued. Grey-shading indicates that issuance windows have been closed by the time of writing. The “estimated end date of validity of any guarantee” is the latest date until which guarantees extended under these programs are currently projected to be ending. For completion, this estimate is reported even for some of those cases where no guarantees have been issued.<sup>7</sup>

Source: Estimates by OECD Secretariat and Banca d'Italia based on EU Commission (2010), Royal Bank of Scotland (2009, 2010) and Schwartz (2010).

### *Redemptions projected to peak in 2012*

Still, given the current maturity profile of outstanding issues, most government-guaranteed bank bonds will mature by December 2014 and, on aggregate, redemptions will peak in 2012 (Figure 6), raising the possibility of funding challenges in that year (on the concentration of bank bond redemptions in 2010-2012, see also IMF, 2010, and BIS, 2010). These aggregate data mask, however, considerable differences in the patterns of redemptions of guaranteed bonds in individual countries: while redemptions peak in 2012 in the case of many countries, in some cases such peaks occur before that year, leading to potentially relevant funding challenges in the short term (see Appendix 1 for individual-country data). In Europe, where bank funding relies on bonds more than in the US, the current time profile of aggregate bank debt (including non-guaranteed bonds) implies that a significant part of wholesale funding matures between 2010 and 2012.<sup>8</sup>

**Figure 6. Redemptions of guaranteed bonds by year**



Notes: Amounts outstanding, in billions of euro equivalents, of guaranteed bank bonds maturing between 2010 and 2014; as of 1 June 2010. Amounts converted using the exchange rate of the day of issuance.

Source: Estimates by OECD Secretariat and Banca d'Italia based on Dealogic.

### *Summary assessment of benefits and costs of bond guarantee programmes*

#### *Schemes have allowed banks to roll over their maturing debt at a time when traditional sources of funding were drying up*

There appears to be widespread agreement that, on the whole, government guarantees have been successful in meeting their stated objectives, which was to allow banks to tap funds on the markets and roll over their maturing debt at a time when traditional sources of funding were drying up (see *e.g.* ECB, 2010; IMF GFSR, 2009; Levy and Zaghini, 2010; Panetta *et al.*, 2009; Schwartz, 2010; Schich, 2009). Clearly, as mentioned at the outset, it is difficult to isolate the effect of guarantees from those of the wider set of support measures to the financial sector and from monetary policy measures,

as all of them can have important influences on expectations and confidence. For example, the IMF's Global Financial Stability Report of October 2009 noted that government-supported guarantees may not just have favoured guaranteed but also non-guaranteed issuance, by reducing the funding liquidity risk of banks. According to other commentators, the support measures may have favoured the banking system also by signalling that an "implicit guarantee" was being provided by governments to a large set of banks, especially the big ones.

In any case, these overall positive assessments notwithstanding, various distortions have arisen, including to incentives and competition, also reflecting the chosen pricing schemes.

#### IV. Minimising cross-border distortions and avoiding subsidising non-viable banks

##### *How to minimise cross-border competitive distortions through appropriate pricing?*

*There is considerable variation in the quality of sovereign guarantees*

Using similar fee structures in order to avoid creating competitive distortions is only helpful to the extent that the value of the guarantee provided is identical across countries. In reality, it is not, however. Actually, there is considerable variation in the quality of sovereign guarantees, as highlighted e.g. by the differences in sovereign CDS premiums. These in turn have affected the yield spreads at issue and hence the total costs to the issuer of the issue.

A graphical illustration of the disconnect between the issuing bank's creditworthiness and the cost of issuing guaranteed bonds is provided by Figure 7 (taken from Levy and Zaghini, 2010): for instance, Portuguese banks (Banco Commercial Português, Banco Espírito Santo, both rated A, and Caixa Geral de Depósitos, which was rated A+) paid much larger spreads at launch (90–100 basis points over the swap rate) than German banks such as Commerzbank (rated A), Bayerische Landesbank and HSH Nordbank AG (both rated BBB+), which paid less than 20 basis points.

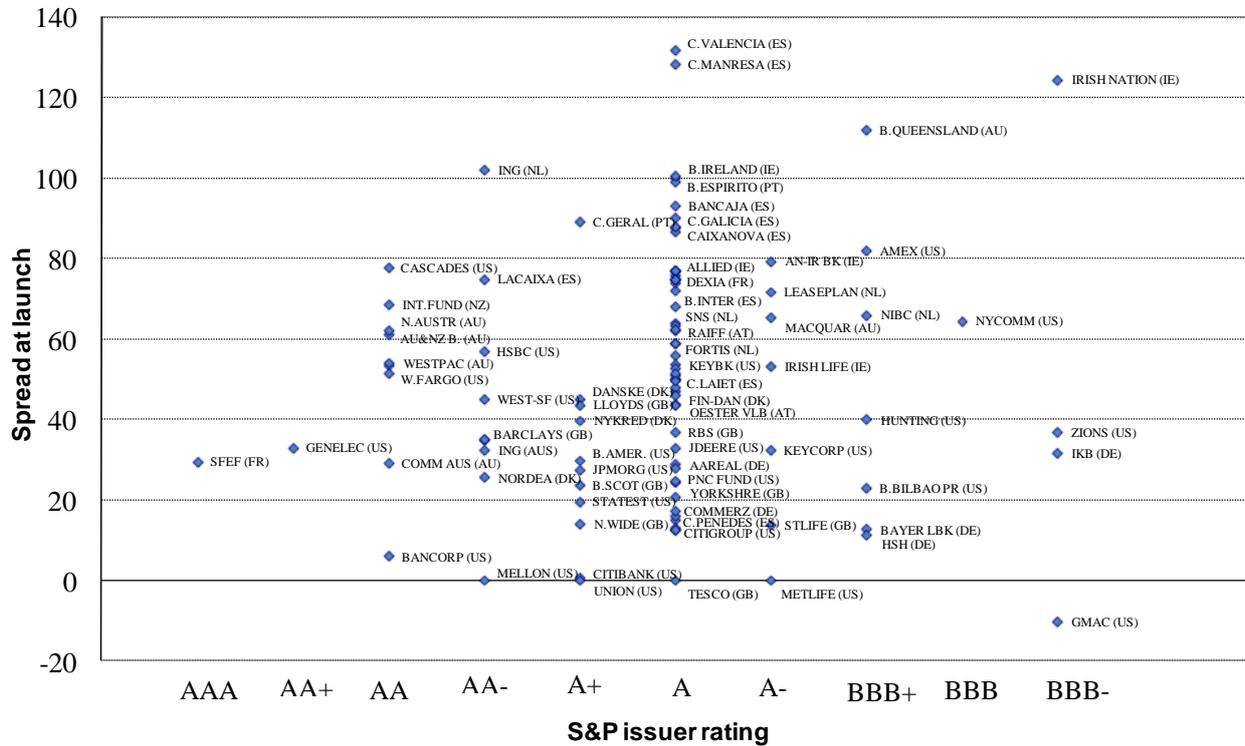
There is, of course, another component of the borrowing cost faced by the issuing bank, namely, the guarantee fee. As already mentioned, however, the fees paid by European banks were roughly similar across countries.

As a result of this effect, "weak" banks from "strong" countries (where the sovereign guarantee has a high value) tended to have had access to cheaper funding than "strong" banks from "weak" countries (where the sovereign guarantee has a low value).

*"Weaker" countries could (be allowed to) charge higher fees for their guarantees*

To avoid such distortions, guarantees could have been designed so that they are consistent across countries. By contrast, pricing schemes that ignore the fact that the value of a sovereign guarantee differs depending on the individual guarantor tend to induce competitive distortions. In particular, "weaker" countries could (be allowed to) charge lower fees, while "stronger" countries could (be allowed to) charge higher fees for their guarantees.

Figure 7. Dispersion of spreads at launch on guaranteed bonds (1)



(1) Includes guaranteed bonds issued in the period October 2008–October 2009. Averages, basis points.

Source: Levy and Zaghini (2010).

In the European Union, the recommendation about pricing schemes made by the ECB Council was by and large adopted by all EU member states and it essentially implied a homogenisation of fee charges. By opting for a variable component of the fee calculated as the median CDS over the 18-month period ending in August 2008, two effects were achieved: first, crisis-level data did not significantly influence the level of the fee and, second, by using the median, the effect of extremely high (or low) CDS premia was essentially eliminated.

*Allowing more heterogeneity of fees, distortions would have been smaller*

One might argue that by allowing more heterogeneity of fees, *e.g.* by opting for a variable-component window including the post-Lehman period (*e.g.* September–October 2008 and/or using the mean instead of the median), distortions would have been smaller. For example, German banks would have paid higher fees than Irish and Portuguese banks, perhaps offsetting the “sovereign-quality” advantage and thus “equalising” the overall cost of issuance (fee plus spread at issuance).

An additional complication arises because the quality of a sovereign guarantee is not constant over time. It varies, among other things, as a function of public finance variables (which, in turn, can be a function of the expansion of the national financial safety net for banks). The public finance situation in many advanced economies worsened dramatically in 2009, and this situation has drawn the spotlight on the issue of sovereign credit risk.<sup>9</sup> There has been an increase in sovereign risk premia in the case of many countries, as reflected, for example, in the prices of bonds or CDS, and this increase has been directly

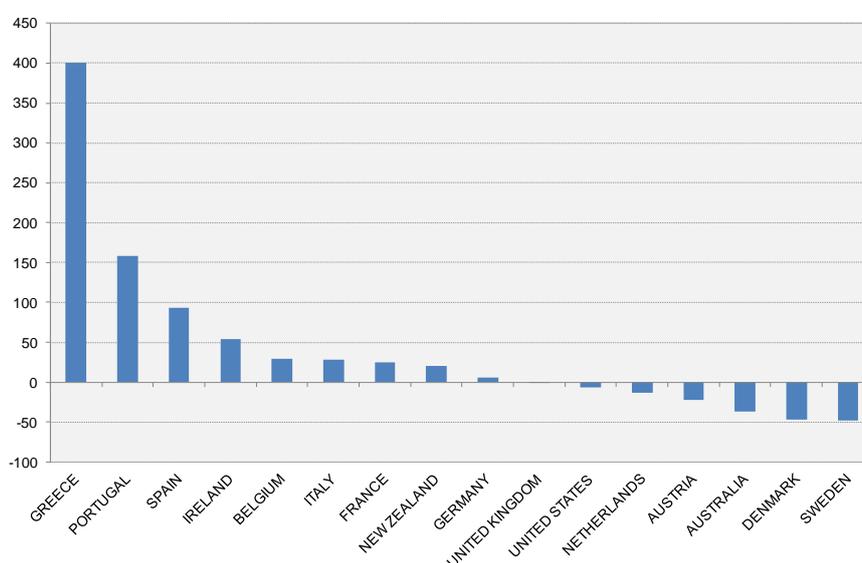
linked by some observers to the expansion by governments of the financial safety net for banks (*e.g.* Alessandri and Haldane, 2009).

*The cost advantage for “weak” banks from “strong” countries may have increased recently*

There has been a particularly large increase in the costs of sovereign credit default protection in the case of some small or medium-sized countries, including some of those in which banking sectors are relatively large compared to the size of the country in terms of its GDP or fiscal “capacity” (see Figure 8, which shows the increase of sovereign spreads on the vertical axis). As a result, the value of these sovereign guarantees has declined and the cost advantage for “weak” banks from “strong” countries may have increased, thus making a continuation of guaranteed issuance particularly attractive for the latter.

**Figure 8. Changes in sovereign CDS premiums since guarantee programmes were introduced**

Difference between second quarter of 2010 and fourth quarter of 2008; period averages



Source: Estimates by OECD Secretariat and Banca d'Italia based on Thomson Financial Datastream.

### ***How to achieve exit and avoid subsidising banks (including non-viable ones) for too long?***

*Most governments have extended issuance windows for guaranteed bonds*

Continuing uncertainty about the underlying strength of financial markets and institutions and a broadly still weak real economic environment have led most governments to extend issuance windows for government-guaranteed bonds into 2010. There is, however, a non-negligible risk that leaving guarantee schemes in place for too long leads to institutions, including non-viable ones, being subsidised.

*CDS- and rating-based fees are, to some extent, a tax levied according to risk*

The choice of pricing mechanism determines the distribution of subsidies. For example, in the United States, authorities charge a flat fee, which depends only on the maturity of the bond. In Australia and Europe the cost of the guarantee is also based on each bank's credit agency rating and CDS spread over a given time window, respectively. An implication of the

different pricing mechanism is that the European CDS-based fee and the Australian rating-based fee can be seen, at least to some extent, as a tax levied on banks according to risk. By contrast, a flat-fee system can be characterised as a subsidised system, in which the government and “strong” banks subsidise “weak” banks.

*...although the discrimination power has been limited as a result of the specific choice of the fee-setting formula*

That said, where risk-based premiums are levied, the discrimination power has been limited by the choice of the formula for determining premiums. For example, the European Union has opted for a variable component of the fee being calculated as the median CDS over the 18-month period ending August 2008. Both the choice of excluding the turmoil period from the “reference time window” for pricing and selecting the median tend to reduce the cross-country and cross-bank variation of fees in practice. Indeed, apart from France, which levies a fixed guarantee fee of only 20 basis points on top of the median CDS over a pre-defined time window, the actual variation across countries is relatively limited, as discussed in section II.

*Schemes where participation is optional at the level of each single bond issue tend to lead to a “separating equilibrium”*

Optionality of participation also affects the allocation of subsidies. In the United States, all financial institutions participated in the programme unless they opted out. And if they did not opt out, all their new senior unsecured liabilities were insured by the FDIC. Similarly, in Ireland, all new bonds issued by banks covered by the scheme are automatically insured.

By contrast, in most European countries, participation is optional at the level of each single bond issue. This difference will influence the signalling effect. The schemes used in most European countries tend to lead to an outcome known in the literature as “separating equilibrium” (Acharya and Sundaram, 2009). In particular, that mechanism may reveal to markets which intermediaries are stronger and which are weaker, allowing banks to raise debt and equity accordingly.

Indeed, market sources report that in many markets, issuance of guaranteed bonds as compared to non-guaranteed bonds or equity was considered a “stigma”. However, a role in deterring some banks from issuing guaranteed bonds has also been played by “relative cost” considerations (see Levy and Zaghini, 2010), as in some countries the sum of fees plus spread at issuance of guaranteed bonds have been close to or even higher than the issuance spreads of non-guaranteed bonds, reflecting the low quality of the sovereign guarantee.

*An opt-in approach can avoid the potential stigmatisation of guaranteed issuance*

An opt-in approach, whereby bank bonds would be automatically covered (up to a specific maximum level defined as a function of outstanding debt at the time of the introduction of the scheme) unless they opt out, allows one to avoid the potential stigma effect associated with issuance of guaranteed debt.

*Over the past few months, the role of guaranteed bond issuance as part of*

With the normalisation of market conditions observed since mid-2009, the role of guaranteed bond issuance has declined when considered in the broader context of capital market financing for banks.<sup>10</sup> Figure 9 shows the evolution of all market financing sources for banks since 2007: as can be seen,

*capital market  
financing of banks  
has declined*

before the crisis (2007 and first half of 2008) banks in all major countries relied primarily on bond financing. After the demise of Lehman Brothers (end of 2008 and early 2009), in most regions non-guaranteed bond issuance declined sharply and was replaced by guaranteed issuance and, especially in the United States and the United Kingdom, by equity issuance (convertible, preferred and ordinary shares) aimed to a large extent at government purchases. In the second half of 2009 the normal pattern of external financing was resumed, with non-guaranteed bond issuance returning to its leading role and, in countries such as France and Netherlands, a revival of equity issuance aimed at market investors.

*Some banks may be  
dependent on such  
issuance, however*

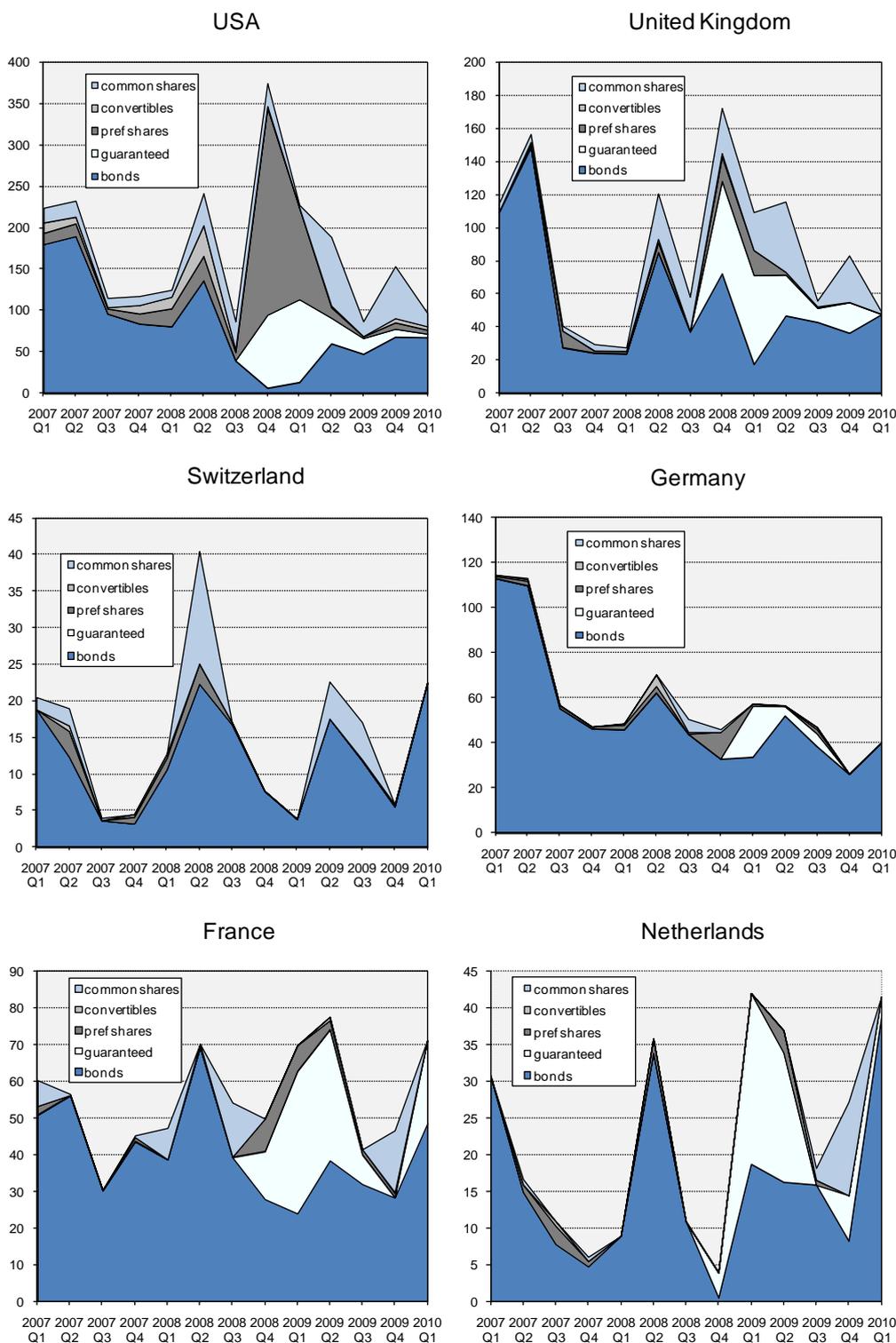
A key issue to consider in assessing bond guarantee schemes and devising the exit strategy is the extent to which some banks are “dependent” on guarantees. Without carrying out a full-fledged analysis of individual balance sheets of all issuing banks, a broad concept of “dependency” can be operationalised by checking whether the guarantees have been targeted at a small number of banks (in which case some of them would possibly be non-viable) or at a large number of banks (in temporary difficulty but viable). In particular, against the background of improved market conditions, the question is whether the overall decline of guaranteed issuance hides some localised weakness. Several indicators can provide information for this purpose.

*Issuance is  
concentrated among  
very few issuers in  
some countries*

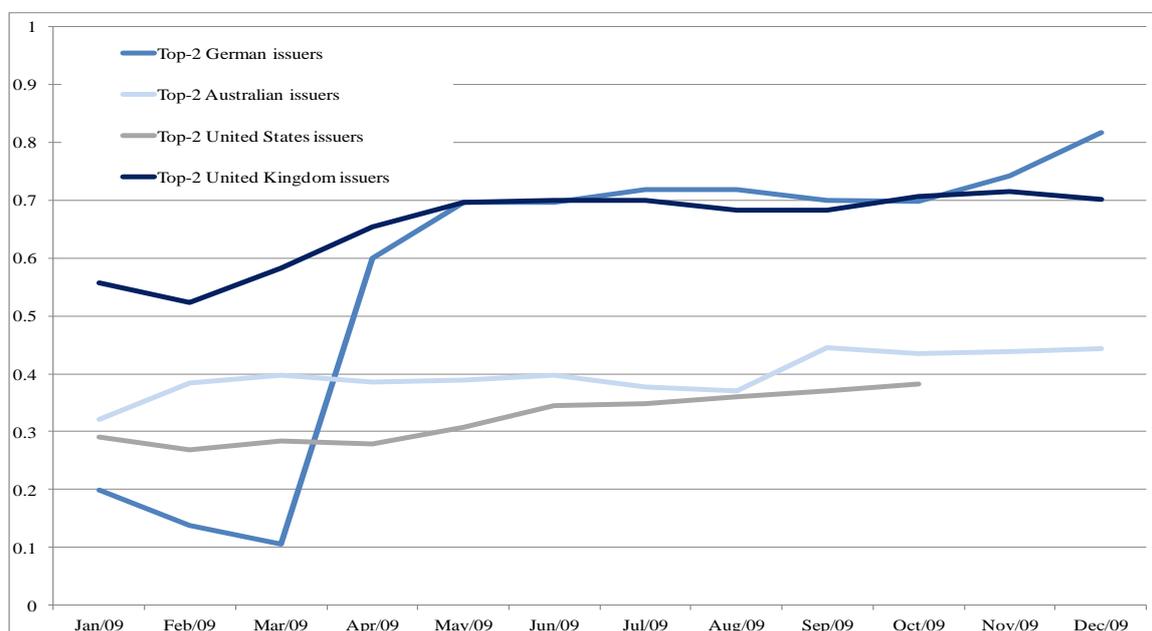
First, consider a measure of concentration (market share of banks) of guaranteed borrowing:

- At a global level, in the period under examination (October 2008-May 2010), the five largest borrowers (in order: HRE-DT Pfandbriefbank, RBS, Lloyds, Citigroup and Dexia) accounted for roughly one third of overall guaranteed issuance (approximately 350 billion euro equivalent out of 1 060 billion).
- Within the countries with largest issuance, one may look at the share of guaranteed issuance accounted for by the two largest issuers. Figure 10 shows the evolution of a measure of “issuance concentration” for the United States, Germany, United Kingdom and Australia over the period ending in December 2009:<sup>11</sup> as can be seen, for Germany and the UK the market share of the two largest issuers is in a range of 70% to 80%, whereas for the US and Australia it is about half (close to 40%), reflecting widespread participation. In 2010, when activity on this market was very subdued, guaranteed issuance by these “heavy issuers” has virtually ceased (not shown in chart), implying that this measure of “market concentration” has sharply declined.

**Figure 9. Sources of financing**  
 First quarter 2007 to first quarter 2010



Source: Estimates by OECD Secretariat and Banca d'Italia based on Dealogic.

**Figure 10. Share of GGB issuance accounted for by two largest borrowers**

Notes: “Largest” issuers are defined in terms of their share in total issuance over the whole observation period.

Source: Estimates by OECD Secretariat and Banca d’Italia based on Dealogic.

*Compared to the “turbulent” period after fall 2008, more recently “weaker” banks account for a relatively larger share of GGB issuance*

Second, consider an indicator that compares the characteristics of banks that issued in the “turbulent” period October 2008 to April 2009, when guaranteed issuance was very sustained, with the characteristics of banks that issued mainly during the subsequent “tranquil” period (May 2009 to May 2010):

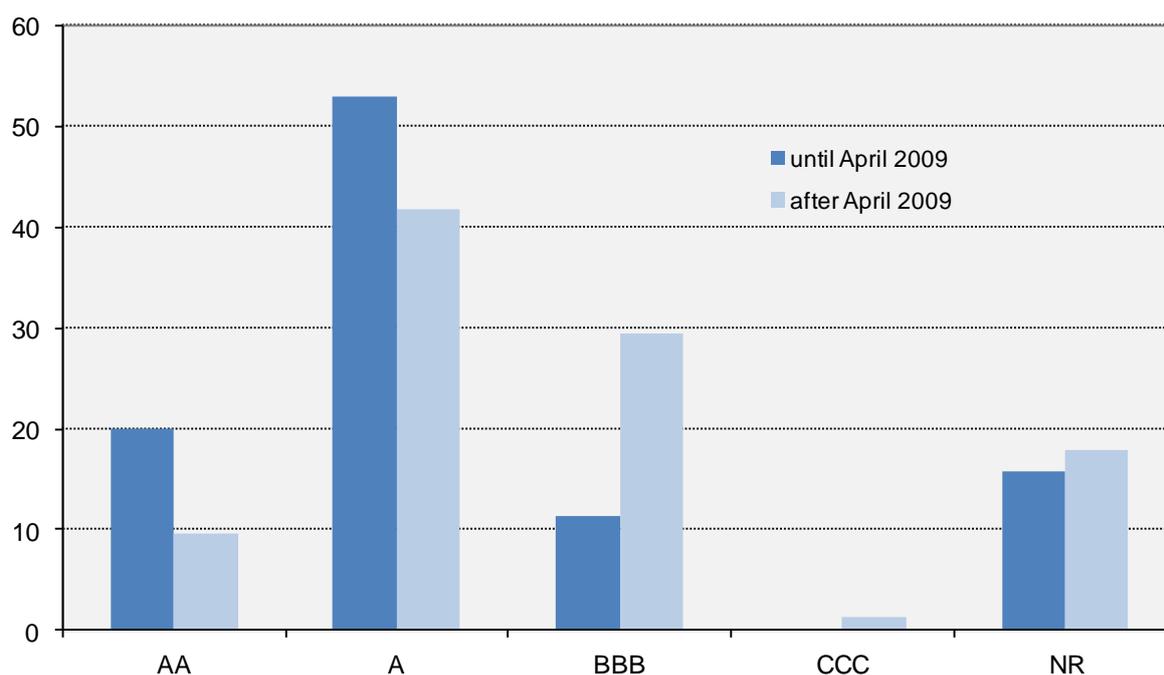
- One stylised fact is that out of the 200 banks that have issued guaranteed bonds worldwide, roughly one third issued only in the “turbulent” period, one third issued only in the “quiet” period and the remaining third issued in both periods.
- Another stylised fact is that the average creditworthiness of banks (as measured by their credit ratings) that issued in the second period has declined significantly as compared to the first “turbulent” period: the shares of banks rated double-A and single-A have declined by roughly 10 percentage points each, to 10% and 40%, respectively, and the share of banks rated triple-B has risen by roughly the same amount (20 percentage points), to 30%. In the same vein, the share of triple-C and non-rated issuers has increased (Figure 11).

Thus, “weaker” banks account for a relatively larger share of total issuance more recently, as compared to the “turbulent” period, possibly suggesting that declining issuance in the second half of 2009 and first half of 2010 hides weaknesses and a “dependence” of some banks. It is against this background, and with a view to mitigating these concerns, that in May 2010 the EU Council of Ministers of Finance and the EU Commission announced

new rules for the issuance of bank bonds with public guarantee, starting from 1 July 2010: on the one hand “*guarantee fees will be increased in order to bring funding costs closer to market conditions*”, on the other “*banks continuing to heavily rely on guarantees and not under restructuring obligations should undergo a review of their long-term viability which will be conducted by the Commission*” (see Ecofin, 2010).<sup>12</sup>

**Figure 11. Issuance by rating of issuers**

As a percentage of total issuance in the period October 2008-May 2010



Source: OECD and Banca d'Italia calculations based on Bloomberg and Dealogic.

## V. Concluding remarks

*Reflecting the specific country circumstances, specific elements of the design of bank bond guarantee schemes have differed*

Financial institutions have made extensive use of government guarantees on bond issuance: in the period October 2008 to May 2010 more than 1 400 guaranteed bonds have been issued by approximately 200 banks from 17 countries, for an amount equivalent to more than €1 000 billion. Largely reflecting the specific strains that the banking sector was exposed to and the structure of the banking system, the parameters of the design of such guarantee schemes differed from one country to another, and there appears to be no single best approach to the design of such schemes that would have fitted the circumstances of all countries.

*Guarantees have been effective in resuming overall long-term funding*

While the guarantees have been effective in resuming overall long-term funding for banks and reducing their default risk, this type of public support to the banking system has raised two major issues:

*for banks; nonetheless they have also raised (at least) two major issues*

- The pricing of the guarantees has brought non-negligible distortions and has “altered” the level playing field for banks from different countries.
- Despite a declining overall reliance on guarantees, there is a risk that non-viable institutions benefit from the continued availability of such guarantees.

*The pricing of the guarantees has brought non-negligible distortions to competition*

Concerning the first issue, the pricing scheme adopted by virtually all participating countries has implied charging very similar guarantee-fees for all banks across countries. In principle, such harmonisation was aimed at providing a “level playing field”. In practice, however, the significant differences in the creditworthiness across sovereigns, especially within the EU, and the fact that investors have considered such creditworthiness as the main variable for pricing each bank’s guaranteed bonds, have led to a paradox: relatively weak banks with strong sovereign guarantors have been able to borrow more cheaply, even including the guarantee fee, than strong banks with weak sovereign guarantors, which implies an inefficient allocation of resources.

The increase in the sovereign risk observed in some small or medium-sized EU countries since early 2010, in a much stronger form since May, has made the issue of cost advantage for weak banks from strong countries even more relevant. One commentator noted that the cost advantage may not be confined to the issuance cost savings, but may also include a facilitated access to the market, permitting issuances of larger amounts and, in some countries, at longer maturities.

*Governments with lower sovereign risk would have to charge higher fees to “offset” the funding advantage for domestic banks*

One way of preventing this distortion would have been to incorporate and “offset” the difference in cross-country sovereign risk by choosing an appropriate price of the guarantee: in practice, this would have implied that governments with lower sovereign risk would choose to charge a higher fee to their banks (and *vice versa* in the case of governments with higher sovereign risk).

*But requiring such a choice was not considered a valid policy option*

One could argue, however, that going so far as to require that stronger sovereigns charge higher premiums would penalise virtuous countries. Indeed, as one delegation noted, in order to encourage “fiscal virtue”, the strong sovereign should be allowed to charge a similarly low premium as other (perhaps weaker) sovereigns, so that the strength of the fiscal and credit risk position is recognised as a worthy achievement. That said, that delegation added, greater consistency could be achieved by other means, such as harmonising the timing of the phasing-out of guarantees.

In principle, an alternative solution to dealing with the potential distortion to competition arising from differences in the quality of the guarantor would be to establish some form of “joint guarantee” scheme (an issue that is not covered in the present article). But as such solutions would require a significant strengthening of cross-border fiscal burden-sharing, they are politically difficult to implement. More important, perhaps, they may also not be desirable, as they can introduce other distortions (*e.g.* limiting the potential

role for market discipline). In any case, absent such arrangements, recent efforts to achieve similarity in fee structures for government-provided guarantees for banks are not necessarily helpful to minimise the potential distortions arising from such guarantees.

*Despite declining overall reliance on guarantees, there is a risk that non-viable entities benefit from the continued availability of such guarantees*

Concerning the second issue, most governments have extended bank bond guarantee schemes into 2010 (some of them with higher fees and restrictions on issuance) out of a concern that, despite the improvement in financial market conditions, some institutions might still be fragile and possibly require the “safety net” of public guarantees. There is, however, the risk that, on the one hand, additional competitive distortions arise, and, on the other, non-viable banks take advantage of the continued availability of guarantees and postpone addressing their own weaknesses or, even worse, adopt excessive risks in a “gamble-for-redemption”. The EU Council’s Conclusions of 2 December 2009 reflect this consideration and, incidentally, suggest that countries begin the phasing out of government support measures starting with government guarantees.<sup>13</sup>

*...and the evidence identified here is not inconsistent with that suggestion*

The evidence identified here is not inconsistent with the suggestion that the continued availability into 2010 of guarantee schemes might, indeed, even when the overall usage of guarantees declines, shield weak banks from the market discipline that would normally prevail. In some large advanced economies, actual usage of guarantees was concentrated in a few banks. In addition, the average credit rating of the banks that issued in the second half of 2009, when market conditions were much more favourable, is much lower than the rating of banks that issued in the “turbulent” period (October 2008 to April 2009). While this evidence is consistent with the hypothesis of a “tiering” of banks, with some weaker banks being “dependent” on guaranteed issuance, only a closer look at individual bank characteristics, such as size, capitalisation, leverage and liquidity, would allow one to reach stronger conclusions.

In Europe, for example, these concerns were partly assuaged by the decisions taken in May 2010 by the EU Council of Ministers of Finance and the EU Commission: starting from 1 July 2010 guarantee fees will be increased in order to bring funding costs closer to market conditions and those banks that continue to rely heavily on guarantees will have to undergo a review of their long-term viability.<sup>14</sup>

## NOTES

- <sup>1</sup> The expression “government-guaranteed bank bonds” is used here since almost all bonds issued under such programs were issued by banks. That said, some programs were, in principle, also open to non-bank financial institutions. For convenience, the remainder of the paper refers to these bonds as “government-guaranteed bonds” (GGB).
- <sup>2</sup> See also Schich (2009), especially section V.
- <sup>3</sup> An important feature of each country’s guarantee scheme is the timeliness of the repayment in case of the borrowing bank’s default; the non-negligible differences that exist across countries in this regard seem to have affected the value of the guarantee and hence the actual issuance costs (see *e.g.* Levy and Zaghini, 2010). Among those governments that have provided details in this regard, two main approaches have been followed. On the one hand, the French authorities have devised a pre-payment structure, by setting up an agency (SFEF), which issues the bonds on behalf of individual institutions. In other countries the guarantor steps in, upon request, only after the issuer has failed to pay on the due date (in some countries, with a grace period before the guarantee becomes effective).
- <sup>4</sup> With a view to alleviating funding pressures arising from the large amount of medium-term bank debt expiring in 2009 (and, reportedly, to avoid direct competition for investors between GGB and government bonds), most countries made guarantees available for bonds with a maximum maturity of 3 years, with some countries allowing 5-year maturities (and others later extending the maximum tenor from 3 to 5 years). Reflecting this initial constraint, a large amount of bonds was issued with a tenor of 3 years and are thus scheduled to expire in 2012 (around €300 billion, representing 40% of all bond issuance).
- <sup>5</sup> One CMF delegation emphasised the relevance of this statistical bias, drawing attention to the fact that authorities in that country do not calculate such data and that, therefore, the data shown should not be seen as official estimates.
- <sup>6</sup> There were two large issues of Deutsche Pfandbriefbank DEPFA in December 2009. DEPFA Deutsche Pfandbriefbank and Hypo Real Estate Bank AG merged to form Deutsche Pfandbriefbank AG on 29 June 2009.
- <sup>7</sup> In establishing the guarantee scheme in Australia, the government announced that the scheme would remain open until markets normalise. On 7 February 2010, it was announced that the scheme would be closed to new borrowing from 31 March 2010. In Denmark, an extension of the window for applying for an individual government guarantee on bond issuance from June 2010 to December 2010 has been approved by the European Commission. In that country, a general state guarantee on all unsubordinated and unsecured debt will expire on 30 September 2010 (also affecting outstanding bonds, which will lose the public guarantee). Ireland and Spain have received approvals by the EU Commission for a three month and six-month extension, respectively, to end-December 2010 of their bank debt guarantee schemes.
- <sup>8</sup> FitchRating (2010) draws attention to the maturity profile of European bank debt (guaranteed and non-guaranteed), which is characterised by a large amount of redemptions concentrated in the years 2010 to 2012 and poses a refinancing risk for European banks.

- <sup>9</sup> Schuknecht, von Hagen, and Wolswijk (2010) suggest sovereign bond yield spreads can largely be explained on the basis of changes in economic fundamentals principles. They argue that markets penalise fiscal imbalances much more strongly only after September 2008, with this shift accounting for much of the spread increase for EU country government bonds relative to German or US treasury benchmarks until May 2009.
- <sup>10</sup> In this context, note that exiting from bank bond guarantee programmes should also be facilitated by ongoing efforts to strengthen the resilience of alternatives to issuing unsecured bank bonds. For example, there are efforts to strengthen deposit insurance arrangements as well as to promote a recovery in securitized funding by improving disclosure, standardization and simplification of structures. Also, there are initiatives aimed at reducing the risks associated with custodian banks, increasing the use of central counterparties and standardization and automation of settlement arrangements with a view to improving the infrastructure for interbank and repo markets. The results of such efforts will not be available quickly, however.
- <sup>11</sup> For France, no information is available for individual issuers of guaranteed bonds, as the SFEF Agency issues on behalf of banks, under anonymity. If one looks at the Annual Report on 2009 for the three largest French banks, only BNP discloses that in 2009 it issued €11 billion of guaranteed bonds (which compares with a total issuance by SFEF close to 75 billion).
- <sup>12</sup> The Staff Working Document published on 18 May 2010 by the DG Competition of the EU Commission (see EU Commission, 2010) provides the operational details: in particular, the approval of the extension of a guarantee scheme beyond 30 June 2010 requires the fee for a government guarantee to be higher than under the pricing formula recommended by the ECB in October 2008 at least by 20 basis points for banks with a rating of A+ or A, by 30 basis points for banks rated A, and by 40 basis points for banks rated below A- or without rating. Also, guarantee schemes to be prolonged beyond 30 June 2010 should include a threshold concerning the ratio of total guaranteed liabilities outstanding over total liabilities of a bank and the absolute amount of guaranteed liabilities which, if exceeded, triggers the requirement of a viability review by the Commission.
- <sup>13</sup> “In this respect, a coordinated strategy should be based on facilitating adequate incentives to return to a competitive market. [...] The timing of exit should take into account a broad range of elements, including macro-economic and financial sector stability, the functioning of credit channels, a systemic risk assessment and the pace of natural phasing out by banks. [...] Depending on individual Member State's circumstances, the phasing out of support should start with government guarantees. Action to phase out guarantee schemes would incentivise the exit of sound banks and give other banks incentives to address their weaknesses.”
- <sup>14</sup> These concerns are also acknowledged and addressed by efforts at the national level. For example, one country's CMF delegation reported that in that country already now “banks which show a significant proportion of guaranteed bonds in relation to overall liabilities are almost all subject to restructuring plans”.

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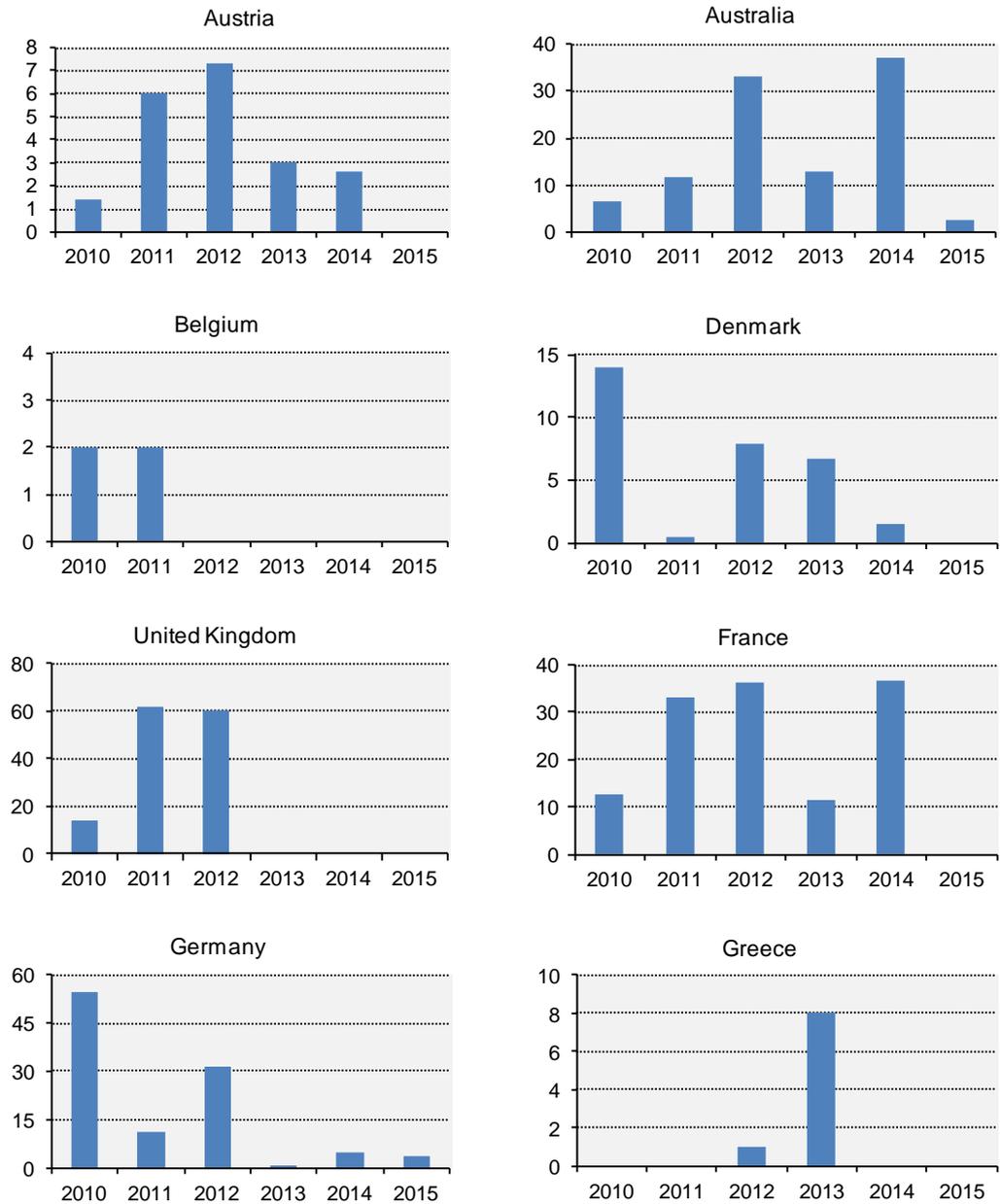
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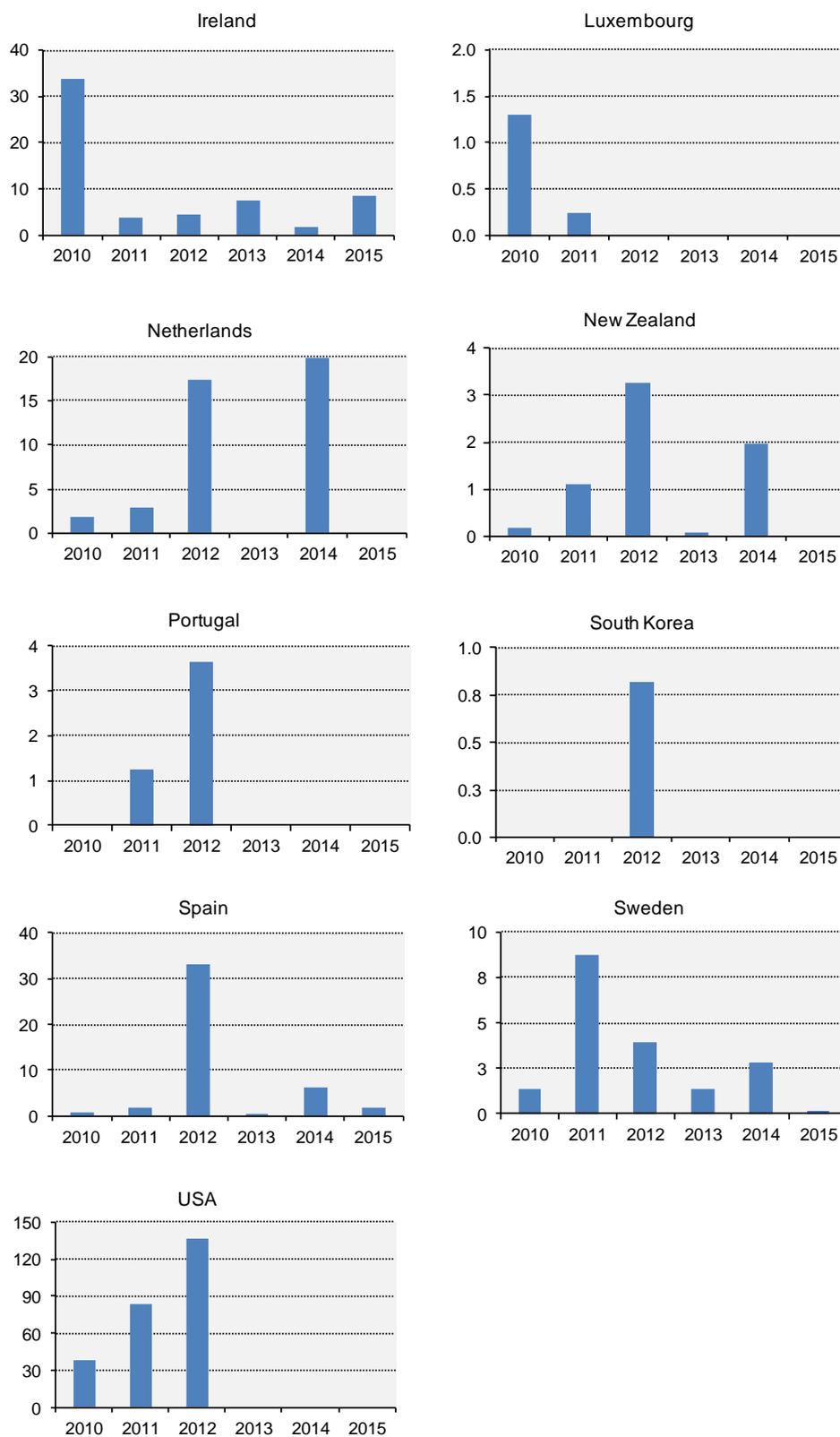
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**APPENDIX 1: REDEMPTIONS OF GUARANTEED BONDS BY YEAR BY COUNTRY**

Billion euro equivalents; countries in alphabetical order; different scales



(Continued on next page)



Source: Estimates by OECD Secretariat and Banca d'Italia based on Dealogic.