

1.2 COVERED BONDS AND THE EU CAPITAL REQUIREMENTS DIRECTIVE

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The Directive 2006/48/EC, the capital requirements directive (CRD), implies that the new framework will have a significant impact on the covered bond market, given that banks represent the largest single group of covered bond investors (taking about 45% of new Jumbo issues). The market could see an overall reduction in capital requirements, but also an increased differentiation in risk weightings with respect to issuer credit quality and maturity. Importantly, the net effect may rather strongly depend on the implementation of CRD across the EU. Finally it is also worth noting, that many Covered Bonds will become a less interesting investment compared to triple-A rated senior ABS/MBS notes from a bank investors point of view, once Basel 2 / CRD will become fully effective in 2010.

EXPIRING REGIME FOR ASSIGNING RISK WEIGHTS TO COVERED BONDS

Within the EU, the treatment of Covered Bonds used to be regulated by the EU directive 2000/12

The expiring regime for the treatment of Covered Bonds with respect to capital adequacy is generally stipulated by individual countries. The bottom line for the risk weighting of Covered Bonds within OECD countries is 20%, the same as for debt issued by credit institutions. However, within the EU, the treatment of Covered Bonds used to be regulated by the EU Directive 2000/12. This directive stipulated that Covered Bonds may benefit from a 10% risk weighting if they fulfil the criteria of Article 22 (4) of the EU Directive 85/611 (Directive on Undertakings of Collective Investment in Transferable Securities or UCITS). UCITS 22(4) gives a legal definition of a covered bond along the following lines:

- > The covered bond must be issued by an EU credit institution.
- > The credit institution must be subject to special public supervision by virtue of legal provisions protecting the holders of the bonds.
- > The investment of issuing proceeds may be effected in eligible assets only; the eligibility criteria are set by law.
- > Bondholders' claims on the issuer must be fully secured by eligible assets until maturity.
- > Bondholders must have a preferential claim on a subset of the issuer's assets in case of issuer default.

EU notification is another prerequisite for a lower risk weighting

In order to benefit from a preferential treatment, the governments of the issuer's home countries must notify the European Commission whether they have issuers of Covered Bonds, and whether they have stipulated higher investment limits (in general, this would mean 25% instead of 5%) for the covered bond holdings of investment funds. The respective notifications are published on the following EU website: http://europa.eu.int/comm/internal_market/securities/ucits/instruments_en.htm. The following table gives an overview of Covered Bonds from countries which fulfil UCITS 22(4), which is the notification about specific investment limits and the application of risk weights to domestic and foreign Covered Bonds across major European countries. It is important to note that in the past, countries that applied a 20% risk weighting switched to a 10% approach once they introduced their own covered bond legislation. In addition, some new EU member countries, namely Latvia and Poland, have not submitted a notification to the European Commission, although they have covered bond legislation in place, which fulfils the criteria of UCITS 22(4).

> FIGURE 1: OVERVIEW ON THE CURRENT TREATMENT OF COVERED BONDS ACROSS EUROPEAN COUNTRIES

Country	Fulfils UCITS 22(4)?	Special investment limits according to EU notification	Risk weighting of domestic CBs	Risk weighting of foreign CBs
Austria	Yes	Yes	10%	in general, 10%*
Belgium	No	Yes	-	in general, 10%*
Czech Republic	Yes	Yes	10%	in general, 10%*
Denmark	Yes	Yes	10%	in general, 10%*
Finland	Yes	Yes	10%	in general, 10%*
France**	Yes	Yes	10%	in general, 10%*
Germany	Yes	Yes	10%	in general, 10%*
Greece	Yes	Yes	-	in general, 10%*
Hungary	Yes	Yes	10%	in general, 10%*
Ireland	Yes	Yes	10%	in general, 10%*
Italy***	No	No	20%	20%
Latvia	Yes	No notification	10%	in general, 10%*
Lithuania	Yes	Yes	10%	in general, 10%*
Luxembourg	Yes	Yes	10%	in general, 10%*
Netherlands	No	No	20%	in general, 10%*
Norway	No, but only because there is no EU membership	No	10% expected	in general, 10%*
Poland	Yes	No notification	10%	in general, 10%*
Portugal	Yes	Yes	10%	in general, 10%*
Slovakia	Yes	Yes	10%	in general, 10%*
Spain	Yes	Yes	10%	in general, 10%*
Sweden	Yes	Yes	10%	in general, 10%*
Switzerland	No, but only because there is no EU membership	-	10%	in general, 10%*
United Kingdom	No	No	20%	20%

Note: *Except Dutch, Italian CDP and UK CBs. **to be decided with regards to French structured Covered Bonds. ***refers to CDP Covered Bonds; Obligazione Bancarie Garantite will meet the criteria of UCITS 22(4) and thus will qualify for a 10% risk weight under the Revised Standardised Approach (RSA) Source: Barclays Capital.

NEW EC CAPITAL REQUIREMENTS DIRECTIVE

EC legislation to implement Basel capital adequacy framework published in mid-July 2004

In mid-July 2004, the European Commission published its proposals for implementing the Basel Committee proposals for a new capital framework within the EU context. Specifically, the EC has adopted a proposal for the amendment of the Consolidated Banking Directive (2000) and the Capital Adequacy Directive (1993). This followed the final publication in June of the Basel Committee's "International Convergence of Capital Measurement and Capital Standards" and is intended broadly to mirror that document in order to maximise consistency between EU legislation and the international framework. The special treatment of Covered Bonds is an important feature of these proposals, as it goes beyond the Basel II framework.

Final agreement reached in October 2005

The draft EC directives were subject to debate in the European Council of Ministers in November 2004, amendments to the draft directive were stipulated at this stage. The initial proposal for the CRD of the European Commission was amended by the European Council on 7 December 2004. The amended draft was reviewed by the European Parliament and finally, in October 2005, the European Council and the European Parliament agreed on the wording of the new CRD. In June 2006, the final directive was published in the official journal.

Eligibility criteria for assets securing Covered Bonds

With regards to Covered Bonds, the CRD text (Annex VI, PART 1, paragraph 68-70) continues to refer to UCITS 22(4). In addition, a series of eligibility criteria for cover assets were stipulated. According to these criteria, the asset pool of a covered bond may include:

- a) exposures to or guaranteed by central governments, central banks, public sector entities, regional governments and local authorities in the EU.
- b) exposures to or guaranteed by non-EU central governments, non-EU central banks, multilateral development banks, international organisations with a minimum rating of AA- and exposures to or guaranteed by non-EU public sector entities, non-EU regional governments and non-EU local authorities with a minimum rating of AA- and up to 20% of the nominal amount of outstanding Covered Bonds with a minimum rating of A-.
- c) substitute assets from institutions with a minimum rating of AA-; the total exposure of this kind shall not exceed 15% of the nominal amount of outstanding Covered Bonds; exposures caused by transmission and management of payments of the obligors of, or liquidation proceeds in respect of, loans secured by real estate to the holders of Covered Bonds shall not be comprised by the 15% limit; exposures to institutions in the EU with a maturity not exceeding 100 days shall not be comprised by the AA- rating requirement but those institutions must as a minimum qualify for an A- rating.
- d) loans secured by residential real estate or shares in Finnish residential housing companies up to an LTV of 80% or by senior RMBS notes issued by securitisation entities governed by the laws of a Member State provided that at least 90% of the assets of such securitisation entities are composed of mortgages up to an LTV of 80% and the notes are at least rated AA- and do not exceed 20% of the nominal amount of the outstanding issue.
- e) loans secured by commercial real estate or shares in Finnish housing companies up to an LTV of 60% or by senior CMBS notes issued by securitisation entities governed by the laws of a Member

State provided that, at least, 90% of the assets of such securitisation entities are composed of mortgages up to an LTV of 60% and the notes are at least rated AA- and do not exceed 20% of the nominal amount of the outstanding issue; national regulators may allow also for the inclusion of loans with an LTV of up to 70% in case a minimum 10% overcollateralisation is established and such overcollateralisation is protected in case the respective issuer is subject to insolvency procedures; in addition, ship mortgage loans with an LTV of up to 60% are allowed.

Until 31 December 2010 the 20% limit for RMBS/CMBS notes as specified in (d) and (e) does not apply, provided that those securitisation notes are rated AAA. Before the end of this period the derogation shall be reviewed and consequent to such review the EC may as appropriate extend this period.

Standardised and Internal Ratings Based options

As with other categories of risk exposures, the assessment of risk weightings is conducted within the context of either a Revised Standardised Approach (RSA) or an Internal Ratings Based Approach (IRBA). The latter comes in both Foundation and Advanced forms. Application to individual banks depends on the level of sophistication of their risk management systems. Compared to the debate about the definition of the term covered bond, the application of the general CRD/Basel II framework for corporate exposures to Covered Bonds was much less in the limelight. Thus, from the beginning, a rather strong link between the credit profile of an issuer's senior unsecured debt and the covered bond risk weighting was made in the RSA as well as in the IRBA.

Thus, from the beginning, a rather strong link between the credit profile of an issuer's senior unsecured debt and the covered bond risk weighting was made in the RSA as well as in the IRBA. In this respect the CRD is in some contrast to most central bank regulations for repo business with Covered Bonds. For example in the Eurozone, in Denmark and in Switzerland, banks issuing Covered Bonds are allowed to use their own Covered Bonds as collateral for repo transactions with the central bank, as the respective authorities concentrate on the generally low likelihood of payment interruptions in case of the bank's insolvency and thus focus more strongly on the default probability of underlying assets.

THE REVISED STANDARDISED APPROACH

The RSA links covered bond risk weights to those of the issuers' senior debt

Under the Revised Standardised Approach (RSA), Covered Bonds are assigned a risk weight on the basis of the risk weight attributed to senior unsecured exposures to the credit institution which issues them. For banks with a senior weighting of 50%, the covered bond weighting has been reduced to 20%. In contrast, banks with a senior, unsecured risk weight of 150% will have a covered bond weight of 100%. The correspondence between senior and covered bond risk weights is as follows:

> FIGURE 2: RISK WEIGHTINGS FOR SENIOR DEBT AND COVERED BONDS

	%	%	%	%
Senior Unsecured risk weight	20	50	100	150
Covered bond risk weight	10	20	50	100

Source: European Commission.

Two options for assigning bank senior risk weightings: sovereign-linked and bank credit-based

The derivation of risk weightings for Covered Bonds is complicated by the fact that the Basel Committee has set up two ways of linking bank credit ratings to bank risk weightings, which link the bank risk weighting to the credit rating of the home country sovereign or to that of the bank itself. This approach has also been followed in the EC directive. On this basis, the correspondence of covered bond risk weightings to issuing bank credit ratings under the two calculation methods, are shown in the following two tables:

> FIGURE 3: RISK WEIGHTS UNDER OPTION 1 (%)

Credit rating of sovereign	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
Sovereign risk weight	0	20	50	100	150	100
Bank senior unsecured risk weight	20	50	100	100	150	100
Covered bond risk weight	10	20	50	50	100	50

Source: Basel Committee, European Commission, Barclays Capital.

> FIGURE 4: RISK WEIGHTS UNDER OPTION 2 (%)

Credit rating of bank	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
Senior unsecured risk weight	20	50	50	100	150	50
Covered bond risk weight	10	20	20	50	100	20

Source: Basel Committee, European Commission, Barclays Capital.

So, for example, under Option 1, if a bank is based in a country with a sovereign rating of AA- or better, its senior debt will be assigned a risk weighting of 20% and its Covered Bonds a weighting of 10%. For investing banks whose regulator applies Option 1, all banks within the Euro zone, except for Greece, would attract a 20% risk weighting on senior unsecured debt because their sovereign ratings are all at least AA-/Aa3 (except for Greece, which is single-A). Hence, under this option, all covered bond issues within the Euro zone would be assigned a risk weighting of 10%. (As yet, there are no Greek Covered Bonds.)

Option 2 leads to 20% covered bond weightings for sub AA- issuers

In contrast, Option 2 would introduce more differentiation in risk weightings as the determining factor is the credit rating of the individual issuing bank. For banks that have a credit rating of less than AA-, this would lead to a senior unsecured risk weighting of 50% and a covered bond weighting of 20%. The choice between Options 1 and 2 is at the discretion of national regulators. The process of implementing the CRD in national legislation is not terminated yet in all countries. > figure 5 below gives an overview on those EU countries which already decided on the respective options.

THE INTERNAL RATINGS BASED APPROACH (IRBA)

The IRBA specifies functions for deriving risk weights from inputs on risk components

Under the IRBA, banks that have been so authorised by their regulators can determine their capital requirements on the basis of internally generated estimates of the risk of loss on their assets. These estimates require inputs relating to the one-year probability of default (PD), the loss given default (LGD), the exposure at default (EAD) and the effective maturity (M), which are combined to give capital requirements and risk weightings using functions specified by the Basel Committee and the EC (which in most cases are broadly comparable). Variations on the standard functions are provided to apply to different groups of assets, such as retail exposures and securitisations.

Two levels of IRBA have been established, namely the foundation and advanced levels. Those banks qualifying only for the foundation IRBA are allowed to provide their own estimates only of PD; the other risk components are provided by the regulator. Banks qualifying for the advanced approach are allowed to provide their own estimates of all the risk components, subject to any constraints that may be specified by the regulator.

EC specifies constraints on key risk components for Covered Bonds

The Basel framework for IRBA calculations makes no separate reference to Covered Bonds. However, the CRD provides a specific framework for calculating internal ratings-based risk weights for Covered Bonds. (Non-EC based banks applying the Basel framework to Covered Bonds would have to treat them as senior bank debt.) The EC legislation specifies constraints on risk components as follows:

- > PD (which relates to issuer rather than issue default risk) must be at least 0.03%.
- > LGD should be assigned a value of 12.5% and 11.25% in case all exposure to public sector entities and all substitute assets have a minimum rating of double-A minus, securitisation notes make up only up to 10% of the total nominal amount of outstanding Covered Bonds, no ship mortgages are included in the cover pool OR the respective Covered Bonds are rated triple-A. For banks applying the advanced version, a lower LGD is possible. Historical data for residential mortgage assets underline that LGD levels are basically below 10%.
- > M, the effective maturity of the bond, is limited to a range of one to five years. For the foundation approach, regulators may specify an effective maturity of 2.5 years for all bonds. All banks using the advanced approach would have to apply this maturity range.

> FIGURE 5: NATIONAL DISCRETIONS REGARDING OPTION 1/2 IN THE RSA AND THE CALCULATION OF M IN THE IRBA ACROSS EU COUNTRIES

Country	Within the RSA, exposures to institutions are assigned according to option 1 (central government risk weight based method) ?*	Explicit Maturity adjustment required under IRBA?***
Austria	Yes	No
Belgium	No	Yes
Bulgaria	No	No
Cyprus	No	Yes
Czech Republic	-	-
Denmark	No	No
Estonia	No	No
Finland	Yes	No
France	Yes	No
Germany	Yes	No
Greece	No	Yes
Hungary	Yes	No
Ireland	No	Yes
Italy	Yes	No
Latvia	Yes	No
Lithuania	No	-
Luxembourg	No	Yes
Malta	No	Yes
Netherlands	No	Yes
Poland	-	-
Portugal	Yes	No
Romania	No	No
Slovakia	-	-
Slovenia	No	No
Spain	Yes	No
Sweden	Yes	No
United Kingdom	No	Yes

* within the scope of CRD Article 80 paragraph 3 and Annex VI Part 1 Paragraph 6.3; ** according to CRD Annex VII Part 2 Paragraph 12; Source: Committee of European Banking Supervisors (CEBS), Barclays Capital

As the majority of Covered Bonds are rated AAA or comply with the criteria for the application of an 11.25% LGD level, our illustrations of risk weightings are based on a 11.25% LGD. Also, we illustrate figures for the range of possible effective maturities, as well as the central 2.5-year case.

The room for discretion on the part of individual banks is clearly rather limited, given these constraints on the specification of LGD and M. For PD, the default probability input, one-year default probabilities published by the rating agencies provide at least a starting point.

> FIGURE 6: RATING AGENCY CUMULATIVE ONE-YEAR DEFAULT RATES (%)

	S&P (1981-2006)	Moody's (1985 - 2006)	Fitch (1990 – 2006)
AAA/Aaa	0.00	0.00	0.00
AA/Aa	0.01	0.00	0.00
A/A	0.03	0.02	0.03
BBB/Baa	0.22	0.24	0.26

Source: S&P, Moody's and Fitch.

Room for debate on default probabilities

These figures reflect default history for corporates globally and so there may be reservations about their applicability to European banks. The different time periods used in the agencies' surveys complicate comparisons, but the divergences in the agencies' figures highlight that this is not exactly a precise science. Standard risk management caution would counsel using the highest figure in each of these comparisons. In any event, the implication is of a very sharp rise in default probabilities for BBB issuers.

Bank risk models probably apply higher default probabilities

Default probabilities produced by risk models used by individual banks may also show some variation from these figures. Our impression is that bank risk models generally operate on the basis of slightly higher rather than lower default probabilities than the rating agencies' historical studies suggest and also that banks apply more differentiation than is provided by the rating agencies' broad alphabetic bands.

Figure 7 provides an illustrative matrix of risk weightings based on plugging a range of different default probabilities and the average life figures in the EC functions.

> FIGURE 7: RISK WEIGHTED ASSET RATIOS (%) FOR DIFFERENT DEFAULT PROBABILITIES AND AVERAGE LIVES (LGD = 11.25% IN ALL CASES)

Probability of default (%)						
Bond Life (yrs)	0.03%	0.05%	0.10%	0.20%	0.25%	0.35%
1	2.01%	2.97%	4.95%	7.96%	9.19%	11.29%
2	3.22%	4.46%	6.89%	10.41%	11.80%	14.14%
2.5	3.83%	5.21%	7.86%	11.63%	13.11%	15.57%
3	4.43%	5.95%	8.83%	12.86%	14.42%	17.00%
4	5.65%	7.44%	10.77%	15.31%	17.03%	19.86%
5	6.86%	8.93%	12.71%	17.76%	19.65%	22.71%

Note: as five years is the maximum bond life that can be input, the bottom row of the table also provides the risk weighting to be applied to all longer maturities. Source: Barclays Capital.

Fall in risk weightings for issuers with AA credit ratings... especially for shorter maturities

The 0.03% floor for PD is likely to be applied by most risk models, at least down to banks rated at the bottom of the AA range. For Covered Bonds issued by banks in this top category, the risk weighting will range from 2.0% to 6.9% depending on maturity. This represents a significant capital saving relative to both the current regulatory regime and to the risk weightings under the RSA. It also highlights that in the IRBA, the risk weighting is significantly affected by the remaining life of the bond, which is not the case in the RSA. Banks applying the IRBA will have a significant incentive in terms of capital utilisation to invest in shorter maturities.

The third column shows that at a default probability of 0.10%, the risk weighting for longer-dated bonds is approximately in line with the current standard 10% risk weighting. This looks likely to be the appropriate risk weighting for single-A flat to A-issuers, depending on investing banks' individual risk models.

Steep rise in risk weightings for bonds issued by BBB banks

For Covered Bonds issued by banks in the BBB range, the risk weighting rises steeply. Just how steeply again depends on the values used for the one-year default probability. Rating agency data suggest a value of 0.25%. As before, it may well be that bank risk models apply a higher figure. The 0.35% column gives a reasonable guide.

For $M = 2.5$, risk weightings will be less than 10% for A- rated issuers and better For $M > 2.5$, the threshold increases to AA-

The general point here is that different banks may use differing assumptions about default probabilities, and Figure provides a matrix from which readers can derive or interpolate risk weightings based on their own assumptions. The matrix also highlights the importance of the assumption regarding the effective maturity requirement specified by individual regulators. In the case where all bonds are given a value of 2.5 for M, all Covered Bonds from issuers with senior ratings of A- or better would have a risk weighting of less than 10%. If regulators apply the range of one to five years for M, the 10% threshold moves up to A flat issuers for longer-dated Covered Bonds.

TIMING

To allow reasonable transition arrangements, institutions are able to continue to use the expiring rules as an alternative until the end of 2007. Banks qualifying for the advanced version of the IRBA are expected to implement this by end-2007.

Transitional arrangements when the IRBA produces lower capital requirements

For situations in which the IRBA of the new regime produces lower risk weightings than in the expiring regime, there is a further three-year transitional period during which the amount of capital allocated to positions is subject to minimum levels related to the levels that would be required by the current capital directives as indicated in Figure 8.

> FIGURE 8: TRANSITIONAL PROVISIONS FOR PHASING IN LOWER CAPITAL REQUIREMENTS

Period from implementation of new directive	Minimum capital requirement as % of current
First 12 months (2007)	95
Second 12 months (2008)	90
Third 12 months (2009)	80

Source: European Commission.

Increased risk weightings have to be implemented immediately

Hence, the lower risk weighting for many Covered Bonds will not materialise until 2010. Note, however, that there is an asymmetry in the transitional treatment of changes in capital requirements. Where the new regime results in higher capital requirements, there are no transitional provisions. Bank investors in Covered Bonds issued by BBB banks have had to apply the increased risk weightings to their positions since the start of 2007, or in case they opted for maintaining the expiring rules in 2007, they will have to apply higher risk weightings from 2008 onwards.

No transitional delay for RSA implementation

For banks applying the RSA, the new regime had to be implemented at the beginning of 2007. There are no corresponding transitional arrangements. Therefore, for banks that find the regulatory requirement of their Covered Bonds changing, this has to be already applied.

REGULATORY IMPLICATIONS

Implementation of CRD

The final agreement on CRD was the starting signal for regulators and lawmakers in EU countries to implement the new capital adequacy regime in national regulations. Obviously, now the focus is on a consistent implementation of CRD across EU countries. This is important in order to optimise regulatory efficiency and maximise clarity for the financial services industry, which frequently operates in several jurisdictions. However, this is not facilitated by the fact that the legal system in many EU countries differs. Whilst the large part of the transposition of CRD in continental European countries is done through primary and secondary legislation, in the UK, rules were issued by the FSA, following a public consultation process.

Signs of inconsistent implementation across countries

With regards to Covered Bonds, at this stage it is difficult to get a full overview on how CRD rules are implemented across EU countries. In many cases, the process is either not yet complete or not transparent. At first glance, assessing CRD implementation in those countries where the respective rules are visible is disillusioning. For example, the definition of Covered Bonds according to §20a of the amended German Banking Act (Kreditwesengesetz – KWG) is in contrast to the way that Covered Bonds are described in Annex VI, PART 1, paragraph 68-70 of the CRD text. Unlike the CRD text, the German Banking Act explicitly mentions Pfandbriefe as Covered Bonds, irrespective of whether they fulfil a catalogue of rules, which any other covered bond has to comply with to benefit from preferential treatment under German capital adequacy regulation. Whilst similar to CRD, reference is made to the criteria of UCITS 22(4), in particular the catalogue of eligible assets is more restrictive than CRD. For example, it does not contain securitisation notes backed by real estate exposures. In addition, non-

Pfandbrief issuers have to demonstrate that mortgage assets which are used as collateral do satisfy the specific rules of article 16 of the German Pfandbrief Act.

Rather narrow implementation in France, Ireland, Spain and the UK

The German example is in some contrast to the French, Irish, Spanish and UK regulations, which either refer to Annex VI, PART 1, paragraph 68-70 of the CRD text or contain a definition with similar wording. In the French case, article 24 of Arrêté 2007/220a stipulates that the domestic product, Obligations Foncières, should fulfil the requirements of the respective rules in the French Banking Code (L.515-13 Code Monétaire et Financier). The relevant eligibility criteria, which are defined in L.515-14 to L.515-17, basically reflect the rules of CRD Annex VI, PART 1 paragraph 68-70. Otherwise, we assume that with “similar bonds issued by an institution with head office in the EU,” the French regulatory bodies would accept Covered Bonds fulfilling CRD Annex VI, PART 1 paragraph 68-70.

Individual definition also in Austria

According to our observations, other than Germany, only Austria also implemented an individual definition of Covered Bonds. It is stipulated in §18 and §19 of the Solvabilitätsverordnung (Solvav). However, unlike in the German §20a KWG, there is no explicit legal privilege for the domestic product. In addition, the Austrian law leaves open whether the list of eligible assets is exclusive. Thus, there could be some more tolerance for interpretation compared with §20a in Germany, although we would regard this as rather limited. Figure 9 gives an overview of the implementation of the covered bond definitions in selected countries.

> FIGURE 9: IMPLEMENTATION OF COVERED BOND DEFINITION ACCORDING TO CRD IN SELECTED COUNTRIES

	Name of Regulation	Reference to CRD text	Narrow implementation of CRD text	Individual definition of «covered bond»	Inclusion of ABS/MBS	Explicit legal privilege of domest. product
Austria*	Solvav §18			o	No	
France**	Arrêté 2007/220a Art.24 / CMF L.515-13 & L515-14 - 515-17	o			Yes	
Germany***	KWG §20a			o	No	o
Ireland	S.I. No. 661 of 2006 Part 6 Art.59 (1) I	o			Yes	
Spain	CBE 404 12/2006 Norma SA4 (12) 41,42		o		Yes	
UK	FSA Prudential Sourcebook 3.4.107 – 110		o		Yes	

*The text leaves open whether the list of eligible assets is exclusive, there might be some discretion of the financial regulator; **we assume that with “similar bonds issued by an institution with head office in the EU” refers to covered bond fulfilling Annex VI, PART 1, paragraph 68-70 of the CRD text; ***in the explanatory statement of the draft CRD implementation law it is said that “it is assumed that Pfandbriefe fulfill the minimum requirements of the CRD” Source: Laws and financial regulations in the respective countries, Barclays Capital.

Mutual recognition unlikely before year end

There are efforts to use the instrument of mutual recognition of Covered Bonds via a similar EU notification process which is currently in place for clarifying whether the respective bonds fulfill UCITS 22(4). However, we understand that no formal plan has been adopted to establish such a notification procedure. Thus, it is regarded as rather unlikely that an appropriate mechanism will be put in place before year end. We also believe that the Austrian and German laws leave rather limited room for interpretation

when it comes to the application of the covered bond definition by the respective regulators. As a result, German and Austrian banks investing in Covered Bonds issued after 31 December 2007, which do not comply with the narrower definition of Covered Bonds in both countries (ie, Covered Bonds containing ABS/MBS in the cover pool) will have to apply an LGD of 45% and, thus, under IRB from 2010 onwards may incur a four times higher risk weighting than comparable products which were either issued before this date or which do comply with CRD.

Level playing field may change again if German lawmakers allow the inclusion of MBS in the cover of a mortgage Pfandbrief

Interestingly, it is currently discussed to enhance the range of eligible assets for a German mortgage Pfandbrief to MBS.² If such a change is implemented, without a respective change of §20a KWG, Pfandbrief issuers would have a material advantage versus their European peers, as the mortgage Pfandbrief would be automatically regarded as covered bond, while non-German products containing MBS would be non-compliant with §20a KWG. Still, in case MBS is made eligible for the cover pool of a mortgage Pfandbrief there is some likelihood that either lawmakers will amend §20a KWG or at least there would be an enhanced tolerance by regulators to allow for a rather broad interpretation of the current rules. However, an outcome of these discussions will very likely not be clear before year-end.

Adjustment of existing regulations

The final agreement on CRD was also the starting signal for many regulators in countries with existing covered bond legislation to review their frameworks to ensure that the respective products will be compliant with the definition of Covered Bonds as set out in the CRD. This was the case, for example, in Ireland. On 9 April 2007, an amendment of the Asset Covered Securities (ACS) Act was passed. Among other things, the limit for the inclusion of substitution assets was lowered from 20% to 15% and the definition of substitute assets was redesigned to fulfill CRD Annex VI, Part 1 point 68(c). At the same time, this was used as an opportunity to enhance the existing framework and adjust it to market trends. In particular, the instrument of commercial mortgage ACS was introduced and in compliance with CRD rules also, MBS were made eligible for ACS cover pools. In France, too, the limit for the inclusion of substitution assets was lowered from 20% to 15% and the definition of substitute assets was redesigned to fulfill CRD Annex VI, Part 1 point 68(c). Again, other modifications to the regulations for Obligations Foncières were made. However, given what is said above, the respective amendments in Ireland and France do not seem to ensure that Covered Bonds issued out of these countries will benefit from a preferential treatment in all EU countries.

UK Treasury presents proposal for UK Recognised Covered Bond regime

The discussions surrounding CRD have also resulted in a shift in opinion in the UK. Historically, the FSA has been resistant to the argument for allowing 10% risk weightings for Covered Bonds, mainly due to concerns relating to the potential adverse implications for the rest of an issuing bank's balance sheet and, hence, its unsecured debt holders. However, on 23 July 2007, the UK Treasury and the FSA published a joint consultation document entitled «Proposals for a UK Recognised Covered Bonds legislative framework». The consultation paper contains the proposals for both the legislative framework and FSA guidance on its implementation of the regime. The new regime is scheduled to come into force on 1 January 2008. Under the legislation, the FSA will act as a special public supervisor of covered bond programmes which meet the requirements of the legislation. It is expected that all existing UK covered

² Boersenzeitung 12 May 2007 and 9 June 2007

bond programmes will be capable of meeting these requirements. Whilst it also can be assumed that the existing programmes will fulfill the requirements of CRD Annex VI Part1 paragraph 68-70 once the regime will come into force, the proposed framework as well allows for the issuance of covered bonds which are not CRD compliant.

SPREAD IMPLICATIONS

We estimate that a 5 percentage point lower risk weighting would reflect in a 3.1 bp spread gain

Ultimately, the new regime will reduce the total capital required to support bank holdings of Covered Bonds. In order to estimate the potential spread gain in bp of a respective bond in a Basel II/CRD environment, the following model calculation might be helpful. In a first step, we calculate the give-up in yield a typical EU bank investing in Covered Bonds would be willing to accept in return for a lower risk weighting under Basel II/CRD. In the model, the bank would be rated A+ and would have a target total capital ratio of 11.2%. Thus, on a 5 percentage point change in the risk weighting of a bond, the bank would benefit from a capital release of 0.6% on the nominal amount. Assuming that the respective bank would have a weighted average cost of capital of 5.9%, the yield give-up that the generic bank would be ready to accept in a Basel II/CRD environment would be 3.3 bp. Finally, one has to take into account the fact that banks (excluding central banks) make up about 47% of the investor base in AAA debt instruments. Thus, the reduced yield requirement may only reflect up to this share in the yield, which will be observed in the market. Consequently, we estimate that a 5 percentage point lower risk weighting would reflect in a 1.6 bp spread gain of the respective instrument.

> FIGURE 10: SUMMARY OF ASSUMPTIONS

Model parameters	Model values
Difference in risk weighting	5%
Target total capital ratio (assuming an A+ rated bank)	11.3%
Capital release	0.6% of nominal
Weighted average cost of capital*	6.5%
Spread give up	3.7 bp
Assumed take up of banks	45%
Estimated spread give up	1.7 bp

Note: assuming a target tier1 ratio of 7%, a hybrid tier 1 share of 10% and a target return on equity of 8%. Source: Barclays Capital.

Model results are in line with anecdotal evidence

Clearly, this model can only serve as a reference. The final spread movements will also depend on other factors, such as supply and demand patterns, bond-specific features, credit fundamentals and other regulatory issues such as eligibility for central bank repo transactions. However, the estimated spread difference is in line with anecdotal evidence. For example, it reflects rather well the difference that could be observed until the UK's FSA announcement in February 2006 between 20% risk weighted UK Covered Bonds and 10% risk weighted Covered Bonds from most continental European countries. However, it is important to note that there are limits to the relationship between risk weighting and spreads in

particular when comparing 0% risk weighted debt with the area of low risk weighted (0-20%) and high risk weighted products (100%), as other factors, such as the structure of the typical investor base, might differ significantly.

Covered Bonds of highly rated institutions become more attractive

The implementation of Basel II/CRD will encourage banks to extend their holdings in Covered Bonds issued by higher quality issuers versus their holdings in existing 0% risk weighted debt, and 20% weighted public sector debt. In addition, banks operating in jurisdictions that under expiring regime apply 20% risk weightings have an incentive to increase their investment in Covered Bonds.

More differentiation among Covered Bonds

CRD will also introduce greater differentiation in risk weightings related to the maturities of individual Covered Bonds and the credit ratings of issuing banks. This differentiation arises both under the IRBA and the RSA (Option 2). The key thresholds for higher risk weightings are at different levels for the two approaches – ie, below AA- for RSA (Option 2) and below A- for the IRBA – although there is also variation within rating categories. Furthermore, this is also subject to some variation depending on the risk models employed by individual banks. Given the greater volume of assets represented by banks that will be applying the IRBA, this implies that BBB issuers of Covered Bonds will be particularly disadvantaged by the new regime.

COVERED BONDS, ABS/MBS AND THE CRD

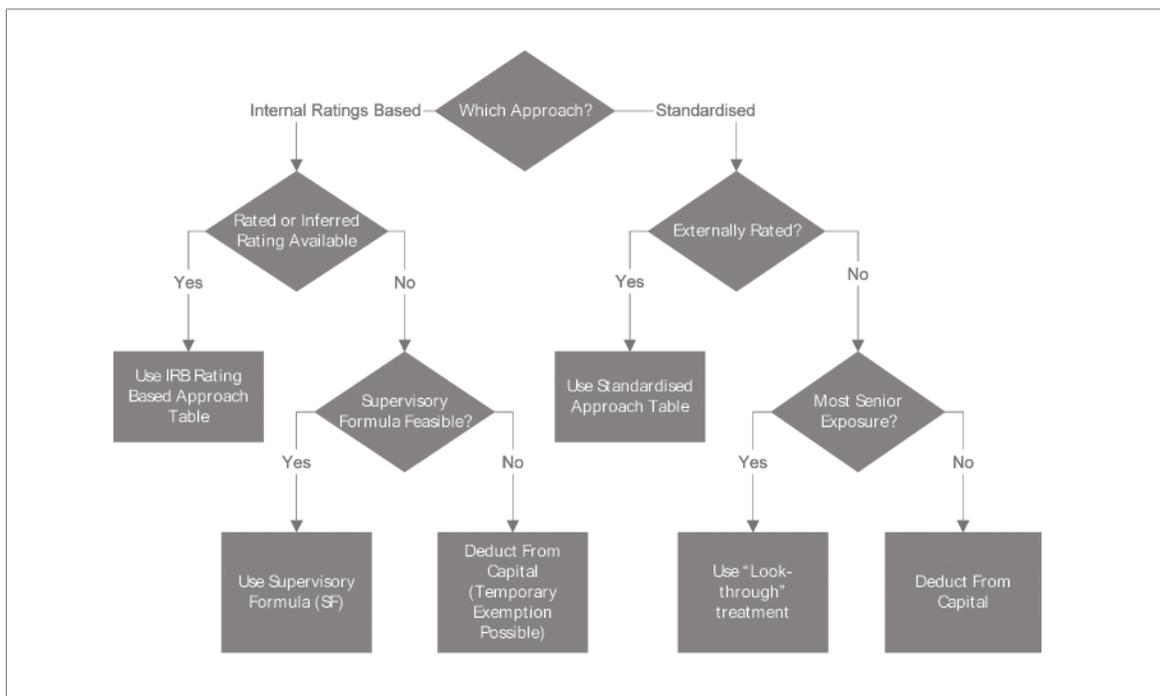
MBS versus Covered Bonds

Whilst the application of Basel 2 and CRD will lead on average to a lower risk weighting of Covered Bonds it is worth noting, that when it comes to the comparison with ABS/MBS, in many areas, the significant decrease of risk weightings in particular for highly-rated securitisation notes will outpace the general drop in covered bond risk weightings. Thus, in this section the treatment of securitised notes under the Basel II regime will first be discussed and then the trade-off between ABS/MBS and Covered Bonds under CRD from a bank's investor perspective will be analysed.

The risk weighting of securitised notes

When considering the treatment of asset backed securities, that is, the different tranches of notes backed by securitised assets, a brief look at Figure 11 should be helpful. It shows the process for arriving at the risk weight of securitised notes held by a bank.

> FIGURE 11: THE RISK WEIGHTING OF SECURITISED NOTES



Source: Basel Committee on Banking Supervision – June 2004 Framework, Barclays Capital.

As most securitised bonds do have a rating and investments in such notes are the most common by far, the calculation of risk weights basically boils down to a single table, shown in Figure 12. The table highlights that the most senior tranche of a transaction, whether granular or not, will fall under the IRB Senior column. Most retail assets (RMBS, Consumer ABS) and more granular CMBS would fall under the IRB Base column. However, single borrower CMBS or a transaction with a very small number of loans would fall under IRB Non-Granular. So for RMBS and granular CMBS transactions, a 7% risk weighting would be applied to the senior tranche compared to 50% for RMBS previously and 100% for CMBS previously.

> FIGURE 12: RISK WEIGHTS OF RATED SECURITISED NOTES

Securitised Bond Rating	Basel I RMBS/Other ABS	Basel II Internal Ratings Based (IRB) Approach			Standardised Approach
		IRB Senior (1)	IRB Base (2)	IRB Non-granular (3)	
AAA	50%/100%	7%	12%	20%	20%
AA+	50%/100%	8%	15%	25%	20%
AA	50%/100%	8%	15%	25%	20%
AA-	50%/100%	8%	15%	25%	20%
A+	50%/100%	10%	18%	35%	50%

Securitised Bond Rating	Basel I RMBS/Other ABS	Basel II Internal Ratings Based (IRB) Approach			Standardised Approach
		IRB Senior (1)	IRB Base (2)	IRB Non-granular (3)	
A	50%/100%	12%	20%	35%	50%
A-	50%/100%	20%	35%	35%	50%
BBB+	50%/100%	35%	50%	50%	100%
BBB	50%/100%	60%	75%	75%	100%
BBB-	50%/100%	100%	100%	100%	100%
BB+	50%/100%	250%	250%	250%	350%
BB	50%/100%	425%	425%	425%	350%
BB-	50%/100%	650%	650%	650%	350%
A-1/P-1	50%/100%	7%	12%	20%	20%
A-2/P-2	50%/100%	12%	20%	35%	50%
A-3/P-3	50%/100%	60%	75%	75%	100%
Unrated or Below BB-	50%/100%	SF or DEDUCT	SF or DEDUCT	SF or DEDUCT	DEDUCT

Note: 1) Backed or secured by a first claim on all the underlying assets, ie, the most senior tranche in a standard securitisation structure.

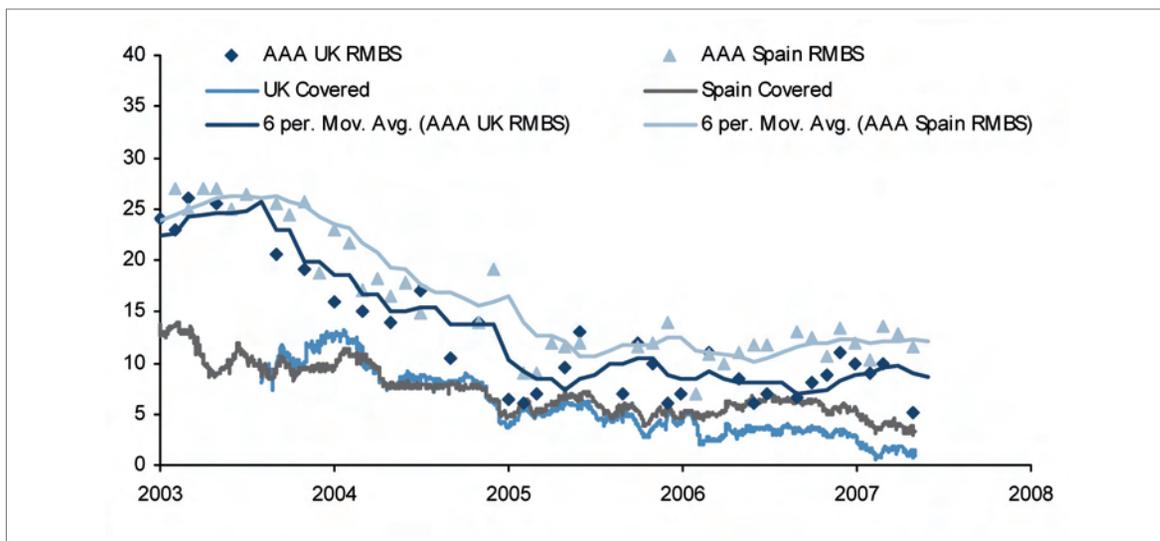
2) Neither senior nor non-granular 3) Where N, the number of effective exposures (as defined), is less than 6. In practise, any securitisation of retail assets should qualify as granular. So in the above table, the most senior tranche of a transaction, whether granular or not, will fall under the IRB Senior column. Single borrower CMBS or a transaction with a very small number of loans would fall under IRB Non-Granular. More granular CMBS and most other retail assets (RMBS, Consumer ABS) would fall under the IRB Base column.

Source: Basel Committee on Banking Supervision, Barclays Capital.

Currently, AAA rated RMBS notes offer a 8.5bp premium over Covered Bonds backed by assets with a comparable risk profile

AAA rated RMBS notes offer a significant premium over Covered Bonds which are backed by similar types of assets. In Figure 13 we show the development of average primary market margins of UK and Spanish AAA RMBS notes and compare this with the asset swap margin, which on average could be achieved over Euribor when swapping fixed coupon payments of outstanding UK and Spanish Covered Bonds into floating rate payments. Interestingly, the margin differential of AAA notes versus Covered Bonds is currently 8.5bp for both, the UK and Spain. Clearly, there is a rather complex mix of factors, such as different supply and demand structures, liquidity requirements and regulatory treatment, which explains this difference. However, in our view, it should not be forgotten, that both products are secured debt instruments, which are backed by a stream of cash flows with a quite similar risk profile. Thus, investors may increasingly regard the two products as substitutes. Bank capital requirements, which still discriminate against senior MBS notes versus Covered Bonds, may play an important role in this process. As explained above, in 2010, when the transition period for the implementation of Basel II/CRD will end, the risk weighting of senior AAA notes will decrease significantly.

> FIGURE 13: THE RISK WEIGHTING OF SECURITISED NOTES



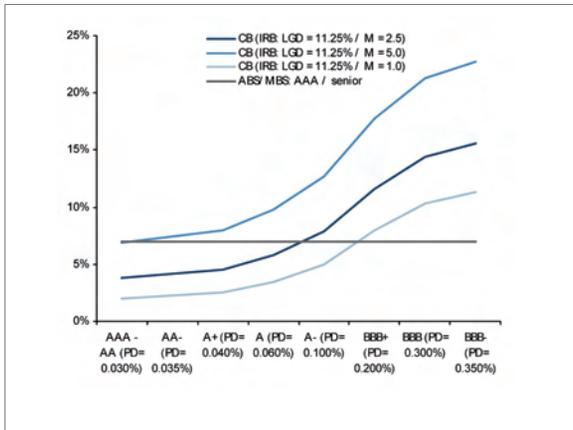
Source: Basel Committee on Banking Supervision – June 2004 Framework, Barclays Capital.

The critical barrier for the senior unsecured rating of covered bond issuers stands at A+

Given, that a 7% risk weighting is applied for triple-A rated senior ABS/MBS notes irrespective of the weighted average life of the respective transaction, makes ABS/MBS rather attractive compared to Covered Bonds from a bank investors point of view. In Figure 13 we compare the risk weighting of Covered Bonds across different M-values and PD levels, with the stable 7% risk weighting, which can be applied for triple-A rated senior MBS notes under the IRB approach. The chart signals, that the incentive for banks to invest in Covered Bonds vs. AAA-rated senior ABS/MBS notes lowers substantially if the covered bond issuer’s senior unsecured rating level is below A+. Figure 14 shows the M-value frontier at given risk weighting levels of 7% and 8%³. The chart shows, what M-values are allowed across different PD levels in order to achieve a 7% or 8% risk weighting for the respective covered bond. Given that the average life of Covered Bonds included in the iBoxx Euro Covered index currently stands at 5.9 years and in most cases no cap at 2.5 years for the effective maturity is applicable, Figure 14 underlines that again Covered Bonds issued by banks with a rating below A+ will struggle to remain competitive versus ABS/MBS notes.

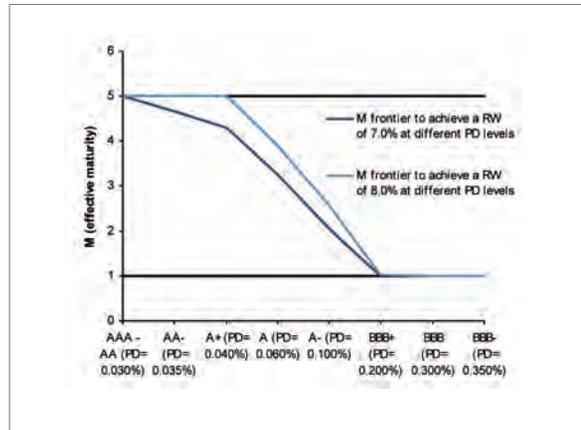
3 Although the benchmark level vs. highly granular MBS is 7%, we would regards a 1percentage point difference in risk weight as negligible and thus also include the calculation for a given risk weighting of 8%.

> FIGURE 14:
RISK WEIGHTING ACROSS M-VALUES AND COMPARISON WITH ABS/MBS



Source: Barclays Capital.

> FIGURE 15:
M-VALUE FRONTIER AT GIVEN RISK WEIGHTING



Further convergence of both asset classes likely

The above calculations indicate that many Covered Bonds will become a less interesting investment compared with triple-A rated senior ABS/MBS notes from a bank investors point of view, once Basel 2 / CRD will become fully effective in 2010. Consequently, ceteris paribus this should reflect in a spread tightening of products in both asset classes which are backed by comparable asset portfolios. In addition, covered issuers may react to this situation, by broadening their distribution towards non-bank investors. Finally, it may also be feasible to structure a product which may be regarded as a triple-A rated senior ABS/MBS from a regulatory perspective, but from a marketing perspective has the look & feel (i.e. fixed coupon, bullet maturity) of a covered bond. Under such circumstances, it seems rather likely that there will be a further convergence of both asset classes.