

## SPECIAL REPORT

# EMEA Covered Bonds: 2011 Outlook & 2010 Review

Sovereign and issuer weaknesses set to drive 2011 EMEA covered bond performance

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- » **Sovereign and issuer rating actions** will remain the prime drivers of covered bond rating actions in 2011. The year started with an unprecedented 20%<sup>1</sup> of covered bond ratings on review for possible downgrade. The vast majority of these reviews can be traced back to sovereign rating downgrades.
- » The impact of **sovereign rating downgrades** is particularly significant, as they affect covered bond ratings both indirectly, by leading to downgrades of issuers supporting covered bond programmes, and directly, through their potential impact on Timely Payment Indicators (TPIs).<sup>2</sup> 31% of EMEA covered bond ratings are in countries where sovereign ratings are currently on review for possible downgrade, or have a negative outlook. The equivalent figure at the start of 2010 was 13%. In countries with stable sovereign ratings in 2011 just 3% of programmes (five in total) were downgraded, and only one of these was downgraded from Aaa.
- » The outlook for many issuer ratings remains negative and many covered bond ratings are sensitive to any **issuer rating downgrades**. At the start of 2011, 50%<sup>3</sup> of banks backing covered bond programmes are either on review for possible downgrade or have a negative outlook while the percentage of programmes with a TPI leeway<sup>4</sup> of zero is 23%. Furthermore, the scope, and impact on issuers, of possible regulatory developments concerning burden sharing by a bank's senior creditors is not yet clear<sup>5</sup>.
- » For programmes with stable issuer ratings, developments in **refinancing margins and asset performance** continue to have limited impact on covered bond ratings thanks to strong issuer support. In 2010 no review for downgrade of any covered bond was instigated where the issuer rating was stable throughout 2010. Moody's expects issuers' willingness to add collateral to support their programmes to remain high in 2011.
- » **Regulatory and legislative developments** aimed directly at covered bonds should remain credit positive. This will improve the environment for new programmes and the likelihood of new issuance from existing programmes, and may increase market confidence in covered bonds as a product.
- » In 2010, Moody's began publishing **Moody's EMEA Covered Bond Monitoring Overview**, highlighting key credit indicators for EMEA covered bond programmes.<sup>6</sup> This quarterly report takes the most important credit data from Moody's most recent issuer-specific Performance Overviews and compares programmes to highlight the main credit differences within and across jurisdictions.
- » **Moody's Rating Approach to Covered Bonds** was consolidated and re-published in March 2010. There were no fundamental changes to the methodology, which has remained robust to date.

### Summary: 2011 Outlook/2010 Review

European covered bond issuers will continue to be caught in the crosswinds generated by **sovereign risk** and we expect this to be a dominant theme throughout 2011. It may impact on a number of fronts, giving rise directly or indirectly to bank downgrades, weaker TPIs, increased refinancing risk and worsening collateral performance.

**Issuer rating downgrades** (including those resulting from sovereign credit weakness) leading to **timely payment indicator (TPI) constraints** (see grey boxes on page 5) will continue to be the most significant source of rating actions on covered bonds. Furthermore, where issuer downgrades occur in countries with elevated sovereign credit risk there is additional risk to TPI levels as the strength of both sovereign and financial systems as a whole is challenged.

**TPI effect.** An important reason why TPIs may be lowered in countries facing sovereign rating downgrades is because of the existence of **refinancing risk**. Where the sovereign and banking sector is under stress there may be a reduced likelihood that funds can be raised against the cover pool, following issuer default, to make timely payments to covered bond holders. State support is normally an important source of liquidity for timely payments, either directly, through repo facilities, provision of emergency finance or “bail-outs”, or indirectly, through support for solvent banks in the jurisdiction, which are then enabled to take over the cover pools or programmes of insolvent banks. Furthermore, the strength of the banking system in general may be negatively impacted as the sovereign weakens, for example where issues of market confidence arise.

Covered bond and issuer ratings currently on review for downgrade are concentrated in jurisdictions with weakening sovereign credit risk profiles, as the charts below illustrate.

CHART A  
Covered bond programmes on review by jurisdiction

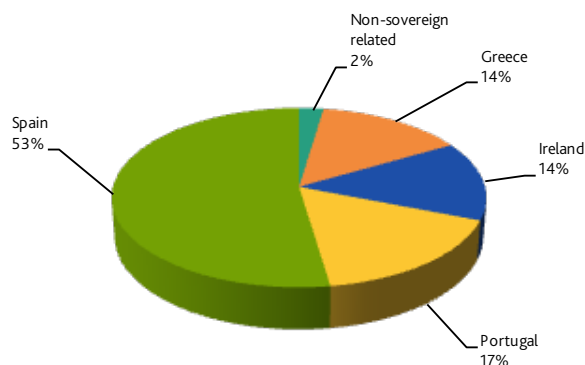
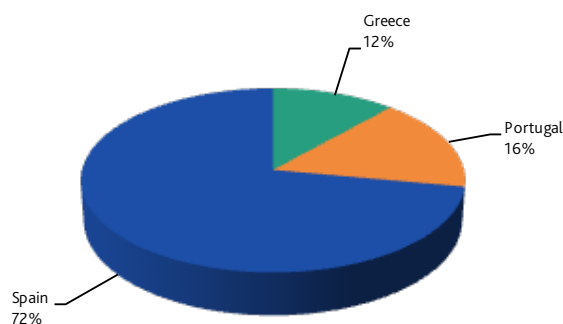
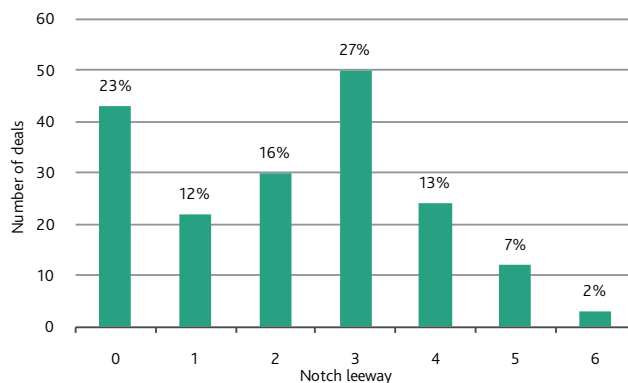


CHART B  
Issuer senior unsecured ratings on review for downgrade, by jurisdiction<sup>7</sup>



In addition, the TPI Leeway<sup>8</sup> is low for a significant number of programmes. The TPI Leeway expresses the number of notches an issuer rating may fall before the covered bonds are downgraded on the basis of the current TPI (see also grey boxes on page 5). As at end-2010, 23% of covered bond programmes would suffer a downgrade under the TPI framework if the respective issuer rating was to fall by one notch, and a further 12% if the issuer rating fell by two notches.

CHART C  
TPI Leeway end 2010



Sovereign-related trends driving issuer ratings and TPIs may also have a negative impact on **refinancing margins** and **collateral quality** in 2011. However, these factors may have a less direct impact on ratings, as they may be compensated for with increased collateral. Nevertheless, the additional pressure they exert on programmes already constrained by TPIs may, in some cases, reduce the cost/benefit balance for issuers to maintain over-collateralisation (or other features) consistent with a higher rating level. Experience suggests this is more likely to occur if ratings cannot be maintained at key thresholds for access to the primary issuance market or to repo funding, or to other refinancing options.

**Moody's rating methodology** for covered bonds continues to remain fundamentally unchanged since 2005. The methodology, [Moody's Rating Approach to Covered Bonds](#) was republished in 2010, essentially to combine the existing two methodology papers into a single paper<sup>9</sup> and to further improve transparency over Moody's rating methodology. By combining the two reports into a single report, the new paper shows more clearly how rating linkage to issuers through "Timely Payment Indicators" fits together with "Moody's EL Model" (or expected loss analysis) to constrain ratings.

**New monitoring report.** In 2010, Moody's introduced a quarterly publication [Moody's EMEA Covered Bonds Monitoring Overview](#),<sup>10</sup> which highlights the key credit indicators for EMEA covered bond programmes. This report takes the most important credit data from Moody's quarterly issuer-specific Performance Overviews and compares different programmes to highlight the main credit differences within and across jurisdictions.

**Overview 2010.** Looking back briefly over the past year (for more details see "2010 Review" on page 8), the covered bonds of 28 programmes were downgraded (compared with 22 in 2009), which account for 13% of all the programmes that include Moody's-rated covered bonds (2009: 11%). More than half (17) of these downgrades were of covered bonds that were rated Aaa at the start of 2010, but apart from one Austrian programme all were located in Greece, Ireland, Portugal or Spain. Ireland and Portugal saw five and six programmes respectively transitioning to below Aaa as the sovereign rating of each moved below the strong Aa category.

In 2010, Moody's upgraded the covered bonds of one programme and assigned new ratings to the covered bonds of 26 programmes (2009: 26).

Although this report focuses on EMEA, there is also a summary of developments in Asia/Pacific on page 10.

## 2011 Outlook

In 2011, Moody's expects negative rating actions on covered bonds to again substantially outnumber any positive actions, primarily due to sovereign and banking sector weaknesses. Below we expand on this and other key themes affecting covered bonds.

### 1) Sovereign credit weaknesses

All covered bonds on review for downgrade at the end of 2010 (with minor exceptions)<sup>11</sup> are issued out of jurisdictions where the sovereign rating was downgraded during the course of the year.

Moody's currently rates covered bonds in 19 different EMEA sovereign jurisdictions. At this time the sovereign ratings for three of these countries (Spain, Greece and Portugal) are on review. In addition the sovereign rating outlook for a further two countries is negative (Ireland and Hungary). For the remaining 14 countries the sovereign outlook is stable.

At the start of 2011, 20% of covered bond programme ratings are on review for downgrade, the highest proportion since the credit crisis began in 2007. The vast majority of these reviews were prompted by downgrades or negative reviews of sovereign ratings in the Eurozone area. With 24% of covered bond programmes based in countries on review for downgrade and a further 4% based in countries with negative outlooks 2011 may be a challenging year for covered bond ratings.

TABLE 1

Country	Rating, start 2011	Proportion of total covered bond programmes
Spain	Aa1, on review for possible downgrade	12%
Portugal	A1, on review for possible downgrade	7%
Greece	Ba1, on review for possible downgrade	5%
Ireland	Baa1, negative outlook	6%
Hungary	Baa3, negative outlook	1%
<b>Total</b>		<b>31%</b>

To contrast these numbers with the situation as of the beginning of 2010, at that stage five sovereign ratings in covered bond jurisdictions had a negative outlook, but none were on review for downgrade. The affected countries were Greece, Hungary, Ireland, Latvia and Portugal, in total representing 13% of EMEA rated programmes. The major difference from 2010 to 2011 is the number of Spanish programmes potentially affected by a sovereign downgrade,

so the development of Spain's sovereign rating will be a key factor this year.

The challenge expected in 2011 is highlighted when considering the extent of the downgrades of some sovereign ratings in 2010, with Ireland, for example, having experienced a downgrade of six notches in a single year. The table below illustrates the changes from beginning to end of the year.

TABLE 2

Government debt	Rating, beginning 2010	Rating, end 2010
Greece	A2	Ba1 on review for possible downgrade
Portugal	Aa2	A1 on review for possible downgrade
Ireland	Aa1	Baa1
Spain	Aaa	Aa1 on review for possible downgrade

A sovereign rating impacts, either directly or indirectly, the credit analysis of nearly all aspects of a covered bond rating. These include: the issuer rating, the TPI, refinancing margins and asset quality risk. We consider each of these in turn below.

#### Impact of Sovereign Rating Pressure on Covered Bonds

When evaluating the impact of sovereign downgrades on covered bond ratings, Moody's considers the following key factors:

1. Consequent downgrades of an issuer's senior unsecured ratings.
2. Pressures on TPI.
3. Increased refinancing margins.
4. Risks to asset quality.
5. The extent to which the covered bond rating exceeds the sovereign debt rating.

Bank ratings and TPI may be strongly impacted when sovereign credit deteriorates dramatically. Both typically rely on a certain level of support being present from the government and/or, in the case of TPI, sources such as other financial market participants, which are likely to be negatively impacted by increased sovereign credit risk. Refinancing margins and asset quality may also be impacted, but only to the extent that stressed assumptions used in the rating process are exceeded. Furthermore, the impact of refinancing margin increases and collateral quality deterioration may be offset by issuers adding further collateral. Finally, where covered bond ratings exceed sovereign debt ratings by a certain threshold Moody's may add further stresses to its modeling.

**Issuer credit strength.** The senior unsecured ratings of covered bond issuers often incorporate a certain rating uplift over their stand-alone bank financial strength ratings. One reason for this is the expectation of government support for the country's banks. As the government's credit profile weakens, the level of support it may be expected to provide reduces. In Greece, for example, on the two occasions the Greek government's debt was downgraded in 2010, this prompted downgrades of the senior unsecured debt of most Greek covered bond issuers. In turn, these issuer downgrades affected the covered bonds.

Looking forward to 2011, with the government debt ratings of Spain, Portugal and Greece currently on review for downgrade, a total of 35 issuer ratings of covered bond issuers in these countries are also on review, largely as a result of the government rating actions. We can expect these to be resolved in 2011, with a likely negative impact on a number of covered bond ratings.

**Timely payment indicators (TPIs).** Timely payment indicators reflect the legal, structural and systemic support for covered bonds in a jurisdiction.

The key "TPI challenge" for a covered bond with bullet repayment (whether hard or soft) is refinancing risk. Following issuer default, Moody's TPI analysis looks at the likelihood of raising sufficient funds against the cover pool to make bullet principal repayments when due to investors. The strength of the government and/or financial system is important when determining whether there will be support provided to covered bond programmes to mitigate refinancing risk following issuer default. Following an issuer default in a country, if the government or the financial system is suffering from a severe credit and/or liquidity squeeze, the government and financial institutions may be unable or unwilling to extend the funding required to make timely payments to covered bond holders.

During 2010, as sovereign ratings fell, TPIs were lowered for covered bonds in Greece, Ireland, Portugal and Hungary. The majority of programmes in these countries now have "Improbable" or "Very Improbable" TPIs. Moody's view is that the possibility for support from the government and/or financial institutions in these countries for the covered bond markets was weakened following the weakening of the sovereign credit profile and the respective financial systems. We expect to see a similar pattern in 2011 for TPIs of covered bonds in jurisdictions where sovereign ratings are under pressure.

## The Role of the TPI in Moody's Covered Bond Methodology

Moody's rating for any covered bond is determined after applying a two-step process:

1. We arrive at a rating for the bond using our expected loss method, employing a largely quantitative calculation of expected loss under the Moody's Expected Loss Covered Bond Rating Model ("Moody's EL Model").
2. We may then cap the rating arrived at using Moody's expected loss method by applying our Timely Payment Indicator ("TPI") framework.

The majority of ratings are at present determined solely by Moody's EL Model. This is because for most programmes, the rating on the covered bonds is currently not restricted by the TPI. However, the relevance of Moody's TPI framework increases as issuer ratings decline, and during the credit crisis increasing numbers of ratings have been capped under this framework.

TABLE 2

### Rating Constraints

Timely Payment Indicators

	Very Improbable	Improbable	Probable	Probable- High	High	Very High
A1	Aaa	Aaa	Aaa	Aaa	Aaa	Aaa
A2	Aa1	Aa1	Aaa	Aaa	Aaa	Aaa
A3	Aa2	Aa2	Aaa	Aaa	Aaa	Aaa
Baa1	Aa3	Aa3	Aa1	Aa1	Aaa	Aaa
Baa2	A1	A1	Aa2	Aa2	Aa1	Aaa
Baa3	A3	A2	A1	Aa3	Aa2	Aa1
Ba1	Baa3	Baa2	Baa1	A3	A2	A1
Ba2	Baa3	Baa2	Baa1	A3	A2	A1
Ba3	Baa3	Baa2	Baa1	A3	A2	A1
B1	Ba3	Ba2	Ba1	Baa3	Baa2	Baa1
B2	Ba3	Ba2	Ba1	Baa3	Baa2	Baa1
B3	Ba3	Ba2	Ba1	Baa3	Baa2	Baa1

To show how this works: if an issuer's senior unsecured rating (far left column) is A2 and the issuer's covered bonds have a TPI of "Probable" then the maximum rating achievable under the TPI framework is Aaa. If the same issuer was downgraded to Baa1, then with TPI of "Probable" the maximum rating achievable would be Aa1.

## Why is the TPI applied in Moody's Methodology?

Most covered bonds are exposed to material levels of refinancing risk. It is largely because of the uncertainty surrounding refinancing risk that Moody's does not believe that there is a very high probability that a covered bond with material amounts of refinancing risk would receive full and timely payment following a default of the issuer. This is the primary reason why if the issuer falls below a certain rating level, Moody's rating of the covered bonds will usually start migrating downwards. Under Moody's methodology, these rating constraints are called the "Timely Payment Indicators" or "TPIs".

Refinancing risk arises following an issuer default, when the covered bond must be repaid from the cover pool assets. For "bullet bonds", the natural amortisation of the assets cannot be relied on to repay the bonds. This means that funds need to be raised, possibly through a fire-sale of the cover pool assets. Refinancing risk is measured by the discount on the price achieved to complete that sale in the potentially stressed environment following the issuer default.

**Refinancing margins.** Refinancing margins are one of three key components that make up refinancing risk under Moody's EL Model. Refinancing margins observed in the covered bond market typically increase in line with sovereign debt pricing. Any weakness in sovereign credit therefore translates into higher refinancing margins for covered bonds. While this does not necessarily mean the refinancing margins used in our methodology need to be updated (as these have certain in-built stresses), if there is a pronounced widening of sovereign debt margins over a sustained period of time this is likely to lead to a revision of the refinancing margins used in our rating analysis.

In 2011 refinancing margins can be expected to increase for countries that face sovereign rating downgrades and where the spread on government debt experiences sharp and/or prolonged increases over and above current levels. This may mean some ratings can be maintained only with higher levels of over-collateralisation. We have observed that issuers frequently elect to increase over-collateralisation levels to support their programmes, so the actual rating impact of increased refinancing margins may be limited.

**Asset quality risk.** In 2011 we expect asset quality to continue to decline in countries that are attempting to cope with aggressive deficit reduction, high unemployment and/or material declines in property values. However the direct impact on covered bond ratings is likely to be muted.

In Ireland we have observed all of the above factors – a property bubble that has burst, major fiscal retrenchment and a continuing increase in unemployment. In Greece and Portugal we expect to see a similar combination of fiscal austerity and increasing unemployment (or loss of benefits), though without an obviously over-valued property market. In Spain unemployment is a major concern; it may be close to its peak but there could be a worse impact to come from the imminent loss of benefits for many people. House prices are also expected to continue falling in Spain; Moody's expects an eventual peak-to-trough drop of at least 20%.<sup>12</sup>

As with refinancing margins, any deterioration in asset quality related to sovereign downgrades may be offset by issuers adding further collateral to their programmes.

**Covered bonds rated higher than sovereign.** Moody's has applied, and will continue to apply, additional stresses where the covered bond rating exceeds the sovereign rating by more than a certain threshold. In some cases, these stresses may lead to additional enhancement being necessary to maintain the covered bond rating at this elevated level. This is to take into account the potentially extreme impact on borrowers and asset values if the government has defaulted.

## 2) Issuer ratings the primary driver elsewhere

In 2011, issuer rating movements will be the primary driver of covered bond ratings in jurisdictions that are not (directly) affected by sovereign weaknesses.

**Issuer credit strength.** At the end of 2010, 50% of publicly rated covered bond issuers had a rating on review for downgrade or a rating outlook that was negative. Even in Aaa-rated European countries, the banking sector outlook remains predominantly negative. This includes Germany, the UK, the Netherlands and the Nordics. The current status of outlooks suggests that further issuer rating downgrades cannot be ruled out and that the environment for Europe's banks still contains threats to credit stability. Recent proposals from the EC to broaden and clarify the role of bank creditors in 'burden sharing' may also change the role of states in supporting banking systems<sup>13</sup>.

Issuer rating downgrades directly affect covered bonds by incorporation of the probability of default of the issuer in Moody's EL Model. Usually of more significance, however, is the impact of an issuer rating downgrade under the TPI framework, because this may constrain the covered bond rating. This is explained in more detail in the grey boxes on page 5.

**Refinancing risk.** Refinancing margins were stable in 2010 for Aaa jurisdictions and in those where sovereign ratings were stable. We do not currently plan to revisit our

assumptions for these jurisdictions; however, we will do so for jurisdictions where sovereign ratings come under pressure or if market conditions materially change.

**Asset quality.** Moody's outlook for residential mortgage-backed transactions is now stable in a number of European jurisdictions, including France, Germany, the Netherlands, and the UK (prime RMBS).<sup>14</sup> This reflects a number of factors, including (i) a fall in unemployment and the expectation that even if it increases again it will ultimately be contained at manageable levels; (ii) the expectation that house prices will be broadly flat; (iii) the low interest rate environment; and (iv) proactive management of arrears and forbearance on enforcement. Downside risks do, however, continue to be significant, such as (i) the impact of future increases in interest rates; (ii) continued credit constraints limiting refinancing options; and (iii) the possibility that government initiatives and bank forbearance may not prevent future defaults and may mask true performance.

Moody's outlook for commercial mortgage-backed transactions remains negative in all European jurisdictions. The lack of financing availability for commercial real estate is expected to continue throughout 2011. Capital values should increasingly stabilise for prime properties but remain under pressure for secondary properties and be hindered by the weight of loans falling due in 2012/2013. Rental markets are expected to remain under pressure in the short term with a only slow recovery in the medium term. Lending volumes are not expected to increase materially over the next two years and any lending will remain subject to strict underwriting criteria and heavily dependent on the underlying property quality. This will lead to continued "tiering" of loans maturing over the next few years in terms of refinancing prospects. Moody's has high loss expectations for complex and highly leveraged loans, while loss expectations for performing, lowly leveraged loans are stabilising.

The impact of asset performance on covered bond ratings is nevertheless expected to continue to be of secondary importance. There have been no negative rating actions on covered bonds due to deterioration in the credit quality of the cover pool.

## 3) Strengthening of legal and regulatory frameworks

We expect covered bonds to continue to provide a valuable source of finance to the European markets for mortgage and public sector lending. Against this backdrop we expect a further strengthening of the legal and regulatory frameworks across much of Europe.

**Changes to Covered Bond Laws.** In 2011, the trend for countries to extend or improve covered bond laws should continue. Most reforms of covered bond laws focus on mitigating legal, operational and liquidity risks. Recently, core covered bond jurisdictions such as Germany, Sweden and France have implemented legislative changes with a strong focus on improving liquidity following issuer default. For instance, in Germany under the updated *Pfandbriefe Act* liquid assets must be held in the cover pool to cover the following 180 days; in Sweden the raising of liquidity loans post issuer default is now permitted; and in France, legislation has tightened liquidity requirements and allows issuers of *Obligations Foncières* or *Obligations à l'Habitat* to repo their own covered bonds, up to a 10% limit. In the UK, there is also a review underway that may result in some strengthening of the covered bond legislation. Moody's normally concludes that developments such as those mentioned above are credit positive (or at least neutral), particularly where they may mitigate refinancing risk. On the other hand, material changes sufficient to raise (or lower) TPIs are not very frequent. This may be because legislative policy tends to prefer incremental rather than fundamental change.

We note that it is significant in itself that legislators and regulators choose to make changes to improve the functioning of covered bond laws and regulations. It can be seen as a signal of the importance of covered bonds as a product. If authorities lead the way in this respect, other market participants react to these signals and the liquidity and confidence of the market may develop accordingly. This trend could be more important from a credit perspective than the actual substance of the legal or regulatory changes.

**Central Banks, Regulation, Basel III.** In 2011 the future of covered bonds will continue to be shaped at least in part by changes in the regulatory and central bank funding environment. There is currently discussion of new legal or regulatory regimes to include provision for 'burden sharing' among senior unsecured creditors, however it seems that so far this is unlikely to impact directly on covered bonds<sup>15</sup>. The new German bank restructuring act, for instance, is designed so that any reorganisation procedure should not affect the cover pool.

In the UK, the Bank of England's recent publication of guidelines for discount-window funding centred on increased transparency through more detailed reporting requirements and the ECB may follow with similar requirements. As long as compliance requirements are manageable, repo financing looks set to remain an important source of bank funding in 2011. There is also potential for repo finance to be opened up further in covered bond jurisdictions as a source of refinancing

available to the administrators or cover pool supervisors of solvent cover pools following issuer default. Depending on circumstances, this can be a significant mitigant to refinancing risk. In our analysis we consider the degree to which this step would improve the existing refinancing environment and whether there is sufficient certainty that repo finance would be available when required. In general, we see the continued availability of central bank funding as credit positive for both primary issuance and refinancing.

Changes coming in future years under Basel III will start to be anticipated in 2011. Two aspects relevant to covered bonds are the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio.

The LCR permits covered bonds to be held as part of short term liquidity subject to certain quality requirements that must be met. Compliance with these requirements may incentivise issuers to support the credit quality of their covered bonds where possible; and may give further impetus to government, regulatory and industry initiatives to support stronger legal frameworks and liquidity for covered bonds<sup>16</sup>. We note that, as the proposed rules will apply to all covered bonds, banks are unlikely to benefit much from jurisdiction-specific covered bond strengths. As Level 2 assets, covered bonds are limited to 40% of the overall stock and will be subject to a 15% haircut irrespective of the remaining term of the bond, the coupon or any legal provision designed to reduce potential for market-risk volatility. Covered bonds issued by the bank itself or a subsidiary will be excluded from the LCR. Nonetheless banks should be able to continue to rely on their own covered bonds to boost their counterbalancing capacity.

The Net Stable Funding Ratio will incentivise banks to fund long term assets with long-term liabilities. This may lead - market conditions permitting - to the issuance of longer-dated covered bonds, which could be expected to mitigate refinancing risk in cover pools. However, also in this case, the proposed rules do not seem give much value to any jurisdiction-specific provision designed to mitigate refinancing risk.

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#### 4) Number of covered bond programmes and issuance levels

In 2011 covered bonds will continue to be perceived as an integral funding product in core markets and an increasingly attractive one in many non-core markets.

European banks face heavy refinancing requirements in 2011-12. Adding to the funding challenge for banks, demand for unsecured bank debt remains constrained. This is likely to be because market uncertainty has been increased

by the possibility of losses on unsecured debt holders in future sovereign, and possibly also bank, rescues. As a result, banks seek alternatives, such as covered bonds. Although not immune from market pressure, covered bonds may offer pricing advantages, given that spreads for certain long-term, unsecured bank bonds remain elevated.

Furthermore, the more diversified funding options enjoyed by banks with covered bond programmes over the last few years means that a number of issuers are expected to keep programmes in place even if their covered bonds do not benefit from any clear-cut pricing benefit over other forms of financing.

Beyond the established markets there are new movers. 2010 saw the first rated issuance of covered bonds out of the Czech Republic and a new law paving the way for issuance from Cyprus. Outside Europe, covered bonds were issued for the first time out of New Zealand and there has been a recent announcement that Australian banks will soon be permitted to issue them. 2011 may see the first rated issuance out of Turkey, which has already implemented a covered bond law. In addition, New Zealand, Canada and the US are all considering implementing new legislative frameworks for covered bonds. For more information on issuance in Asia/Pacific see the grey box on page 10. Many of these developments have some way to go, but all illustrate an increasingly global view on the merits of covered bonds. The new markets that have the greatest potential for long term stability will be those that combine strong credit fundamentals with a highly supportive environment for covered bonds as a product, in particular with respect to legal and refinancing risk.

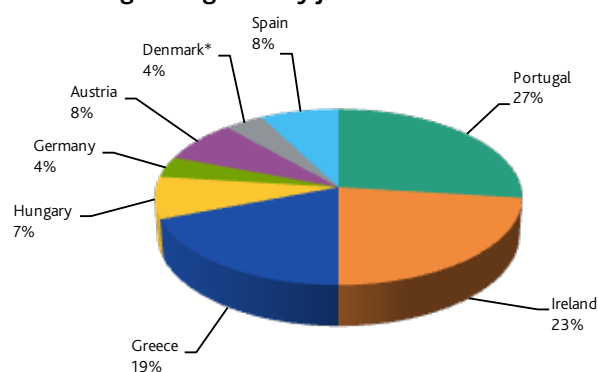
## 2010 Review

2010 was dominated by two main themes (i) the weakening credit strength of some European sovereigns, leading to sovereign rating downgrades with knock-on effects on banks and covered bond programmes; and (ii) relative stability in markets with stronger sovereigns. So while Greece, Portugal, Ireland and Spain dominated sovereign credit concerns, at the same time France, Germany, the Nordic countries and several other countries maintained (or increased) issuance levels, even after the end of the ECB purchase programme in June.

In 2010, the covered bonds of 28 programmes were downgraded. These included five Greek programmes, six Irish programmes, seven Portuguese programmes and two Hungarian programmes. The bonds of 20 Spanish programmes were placed on review for downgrade. These downgrades and reviews were prompted by the downgrade of the sovereign rating in each of these countries.

CHART D

### 2010 rating downgrades by jurisdiction



\* the downgrades of two capital centres of a single bank have been aggregated

In Greece, Ireland, Portugal and Hungary the sovereign rating downgrades resulted in both (i) the downgrade of the issuer ratings backing the covered bond programmes; and (ii) the lowering of the TPIs, as the finances of both the government and financial institutions were stretched and the refinancing environment deteriorated as a result. The combination of these two factors under Moody's TPI framework lowered the covered bond ratings. As of end-2010, most TPIs in these countries stand at "Improbable" or "Very Improbable" levels, limiting the uplift of the covered bond ratings over issuer ratings to a maximum of four notches.

At the start of 2010, 36 programmes had covered bonds rated below Aaa (19% of rated programmes). By the end of 2010 this had increased to 60 (29%, including nine new ratings at sub-Aaa level). For the 17 programmes that transitioned below Aaa this was concentrated in jurisdictions with sovereign credit weakness, with all but one of the transitions occurring in Greece, Portugal, Ireland and Spain<sup>17</sup>.

As of the end of 2010, the covered bonds of 42 of the 210 programmes that Moody's rates were on review for possible downgrade or with direction uncertain (2009: 19 of 189). Around half of these comprise Spanish programmes placed on review following the recent announcement of the review of Spain's Aa1 rating.

Outside of the countries with sovereign debt problems, downgrades were relatively infrequent, with just five in total, including two relating to the capital centres of the same Danish parent. Most downgrades were driven by issuer rating downgrades leading to TPI constraints with the exception of one downgrade of ship covered bonds based on a revision of Moody's shipping methodology. In general issuers continued to show a strong willingness to add collateral to support their programmes wherever possible.



In 2010 Italy and Norway stood out as jurisdictions that contributed strongly to numbers of new ratings and materially increased the size of their local covered bond markets. Moody's rated five new programmes in Italy and four in Norway.

## Developments in Asia/Pacific

Although still at an early stage, there are positive developments for covered bonds in the Asia Pacific region, in particular for South Korea, Australia and New Zealand. Developments include new issuance and potential new covered bond laws.

The Korean covered bond market started with the first issuance sponsored by Kookmin Bank (KB) in September 2009 which was followed by Korea Housing Finance Corporation (KHFC) in July 2010. New Zealand had its first covered bond issuance from Bank of New Zealand (BNZ) in June 2010. All these transactions have satisfactory performance since closing and performance in 2011 is expected to remain stable. This is reflected by the stable outlook on Korea's and New Zealand's sovereign ratings, issuers' ratings and RMBS sectors.

At closing, KB's cover pool comprised mortgage loans and credit card receivables. The deal had a unique cash flow matching mechanism which allows a "Probable" TPI and a three-notch rating uplift from KB's senior unsecured rating. KHFC's and BNZ's cover pools comprise mortgage-loan portfolios and the structures are closer to traditional covered bond transactions. KHFC's covered bonds have been assigned a TPI of "Improbable" and the rating of the covered bonds is Aa3, one notch higher than the KHFC's senior unsecured rating. BNZ covered bonds have a TPI of "Probable" and are rated Aaa.

Issuance of covered bonds in 2011 is expected for both South Korea and New Zealand. Regulatory developments are also expected. In South Korea, the publication of regulatory guidelines on covered bond issuance and ultimately the enactment of a covered bond law should provide a clearer framework for transactions. New Zealand is also proposing a formal regulatory framework to support covered bond issuance.

Australian banks are currently prohibited from issuing covered bonds due to the depositor-preference provisions of the Banking Act. However, the Australian government recently proposed to amend the law to allow a certain amount of covered bond issuance by Australian banks. As a result we may witness a first issuance of covered bonds by Australian banks in 2011.

## Appendix 1: Covered Bond Rating Statistics

2010 saw the number of covered bond programmes rated by Moody's in EMEA increase to 210 from 189. There were 26<sup>18</sup> new programmes (2009: 26), while five programmes were wound up or had ratings withdrawn. Of the 26 new programmes 16 were new issuers and 10 were repeat issuers.

New issuers were spread across a number of jurisdictions. Italy led the way with five new programmes and Spain and Norway with four. In Finland, two new programmes were established following the enactment of a new covered bond law. 2010 also saw the first covered bond ratings assigned to a programme in the Czech Republic. In Greece, a number of new ratings were assigned as issuers sought to use covered bonds for repurchase facilities with the central bank.

Table 1 shows the number of new ratings assigned by Moody's in the past three years (by country). By the end of 2010, Moody's had published covered bond ratings for 210 covered bond programmes in 19 different countries in the EMEA region.

Chart 1 below shows the distribution of ratings by jurisdiction. Germany, Spain, UK, Denmark and France continue to dominate in terms of overall number of programmes in proportions not much changed since last year. Chart 2 below further illustrates this.

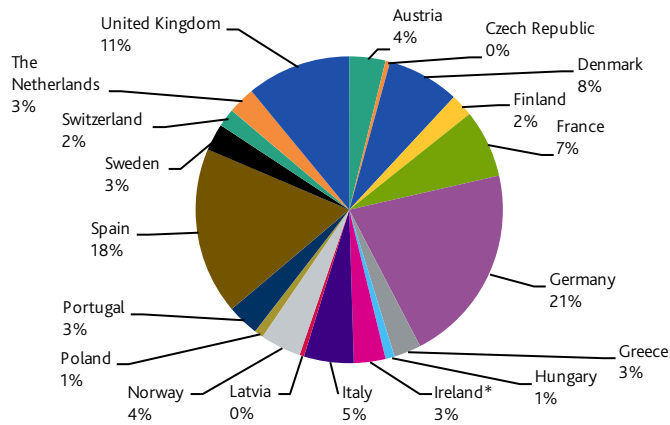
TABLE 1  
New ratings assigned to covered bond programmes

	2008	2009	2010
Austria	0	3	0
Czech Republic	0	0	1
Denmark	1	0	0
Finland	0	0	2
France	4	3	1
Germany	2	4	2
Greece	3	0	4
Hungary	0	1	0
Iceland	1	0	0
Ireland	1	1	0
Italy	4	1	5
Norway	2	0	4
Poland	0	0	0
Portugal	2	2	0
Spain	11	4	4
Sweden	1	0	0
Switzerland	0	1	1
The Netherlands	2	1	1
United Kingdom	10	5	1
Total number of new ratings*	44	26	26
Total number of published ratings (at the end of the year)*	166	189	210

Please note the sum of outstanding ratings at the end of the prior year plus new ratings assigned in any year does not add up to the number of outstanding ratings in a year, due to rating withdrawals.

\* EMEA region only

CHART 1  
**Rated Covered Bond Programmes by Country at the end of 2010**



\*including Anglo Irish Bank's covered bond programme under UK law.

CHART 2  
**Development of Rated Covered Bond Programmes by Country**

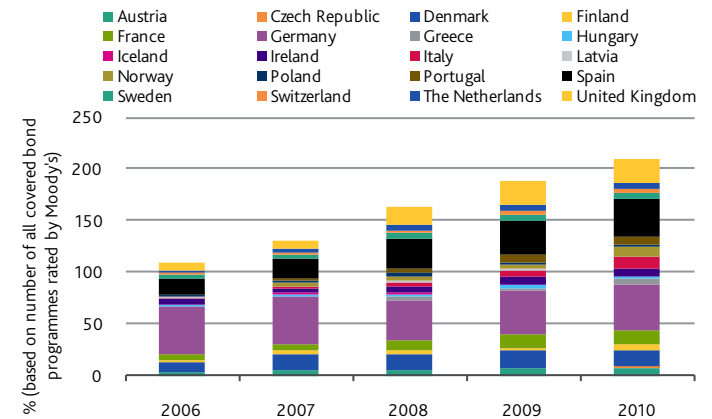
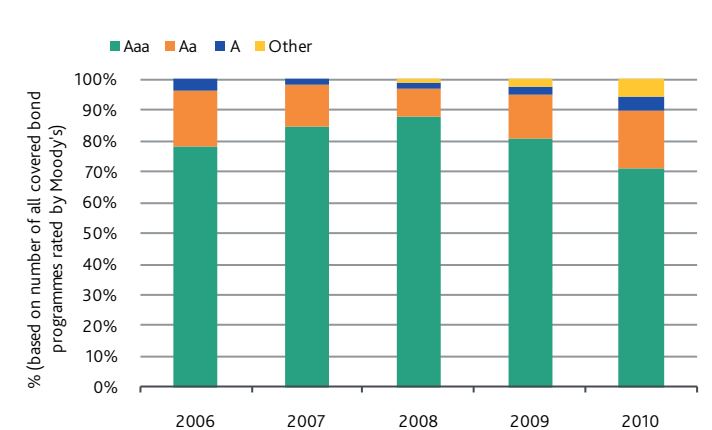


CHART 3  
**Rated Covered Bond Programmes by Asset Class**



CHART 4  
**Number of Covered Bond Programmes per Rating Category**



The proportion of both public-sector and mortgage covered bond programmes rated by Moody's in 2010 was not much different from 2009 (Chart 3), with just a slight proportionate increase in public-sector programmes.

*65% of the new ratings assigned in 2010 were Aaa*

At the end of 2010, around 71% of all covered bond programmes rated by Moody's were rated Aaa (Chart 4). The proportion of Aaa-rated covered bond programmes declined over 2010 (the equivalent number at the end of 2009 had been 81%). This development is due to both existing Aaa ratings being downgraded in 2010 and new programmes being established with covered bonds rated below Aaa. Around a third of covered bonds from newly rated programmes were below Aaa.

*Overall rating trend remained negative*

The overall rating trend for EMEA covered bond ratings remained negative over 2010 (Charts 5 and 6). The ratio between upgrades and downgrades decreased from 0.05 in 2009 (i.e., one upgrade to 22 downgrades) to 0.04 in 2010 (one upgrade to 28 downgrades).<sup>19</sup> (We note that there is a negative bias to these figures as most covered bonds are issued with Aaa ratings, so there is greater scope for ratings to go down than up.)

CHART 5

## Comparison Upgrades / Downgrades

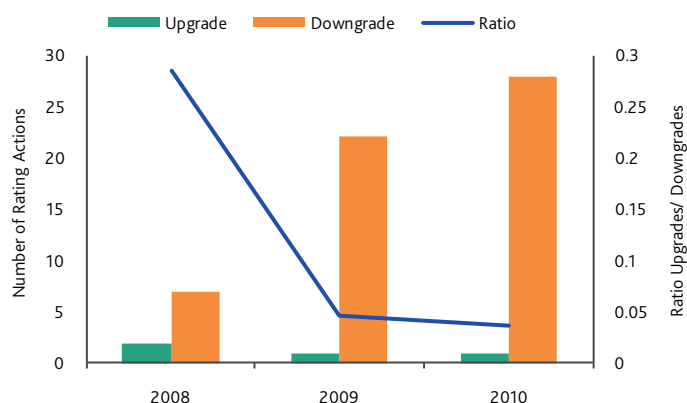
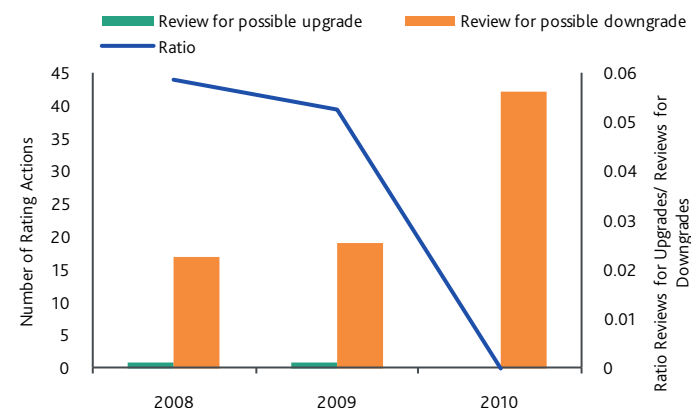


CHART 6

## Comparison Review for Upgrade / Downgrade at Year End



TPIs are generally on a downward trajectory (Charts 7 and 8). Mostly this is due to the impact of sovereign credit weakness as discussed in the main part of this report. In some cases in the UK it results from restructuring of programmes originally set up as “pass-through” transactions which are now being restructured as more standard “bullet” type transactions.

CHART 7

## Development of Published Timely Payment Indicators (TPI)

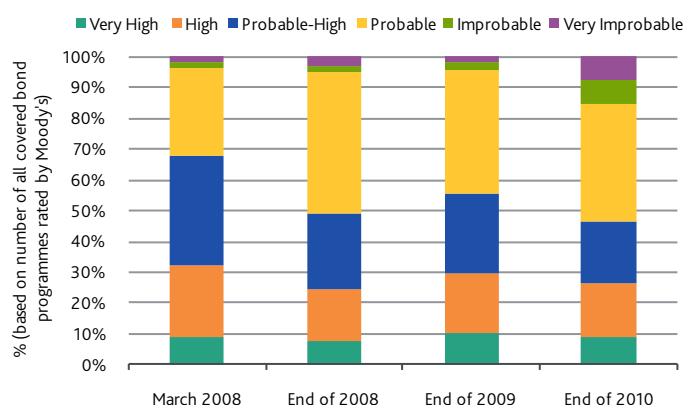


CHART 8

## Published Timely Payment Indicators

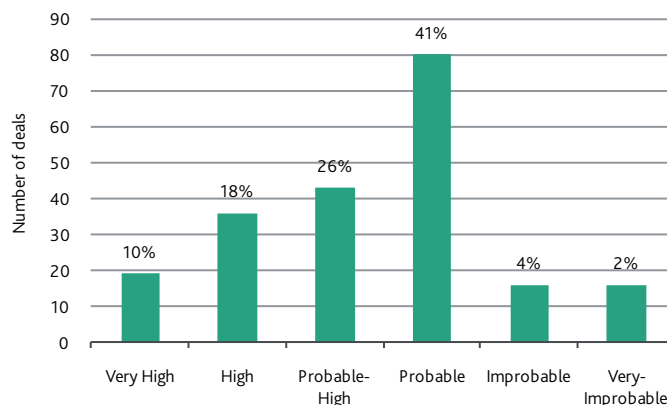


TABLE 2

## Summary of 2010 Covered Bond Rating Actions

Rating actions 2010

Issuer	Asset Class	Rating Action	Date
<b>Austria</b>			
Kommunkredit AG	Public Sector	Downgrade to Aa1 on review for possible downgrade; previously Aaa ratings were placed on review for possible downgrade	30/07/2010
Hypo Alpe Adria Bank International AG - Public Sector Covered Bonds	Public Sector	Downgrade to Aa2 from Aa1 on review for possible downgrade Hypo Alpe Adria's unguaranteed covered bonds	03/08/2010
<b>Denmark</b>			
BRFkredit A/S Capital Centre B	Mortgage	Downgrade to Aa3 from Aa1 on review for possible downgrade	25/03/2010
BRFkredit A/S Capital Centre E	Mortgage	Aa1 rating confirmed after being placed on review for downgrade	25/03/2010
BRFkredit A/S General Capital Centre	Mortgage	Downgrade to Aa3 from Aa2 on review for possible downgrade	25/03/2010
<b>Germany</b>			
HSH Nordbank AG - Ship Covered Bonds	Shipping	Downgrade to A1 on review for possible downgrade from Aa3 on review for possible downgrade	26/04/2010
		Downgraded to A2; previously downgraded to A1 on review for possible downgrade.	05/05/2010
HSH Nordbank Hypo AG - HSH Nordbank AG - Public Sector Covered Bonds	Public Sector	Aaa confirmed; previously placed on review for possible downgrade.	18/05/2010
SEB AG Mortgage Covered Bonds	Mortgage	Aa1 rating confirmed after being placed on review for downgrade	11/03/2010
SEB AG Public Sector Covered Bonds	Public Sector	Aa1 rating confirmed after being placed on review for downgrade	11/03/2010
<b>Greece</b>			
Alpha Bank Covered Bond plc	Mortgage	Aaa rating placed on review for possible downgrade	19/02/2010

TABLE 2

**Summary of 2010 Covered Bond Rating Actions**

Rating actions 2010

Issuer	Asset Class	Rating Action	Date
		Downgrade to Aa2 from Aaa on review for possible downgrade	31/03/2010
		Aa2 rating placed on review for possible downgrade	26/04/2010
		Downgrade to A1 on review for possible downgrade from Aa2 on review for possible downgrade	29/04/2010
		Downgrade to A2 on review for possible downgrade from A1 on review for possible downgrade	30/04/2010
		Downgraded to Baa2; previously downgraded to A2 on review for possible downgrade	15/06/2010
Alpha Bank Direct Issuance Global Covered Bond Programme	Mortgage	Baa3, placed on review for possible downgrade	17/12/2010
EFG Eurobank Ergasias S.A. Mortgage Covered Bonds	Mortgage	Downgrade to Aa2 from Aa2 on review for possible downgrade	31/03/2010
		Aa2 rating placed on review for possible downgrade	26/04/2010
		Downgrade to A1 on review for possible downgrade from Aa2 on review for possible downgrade	29/04/2010
		Downgrade to A3 on review for possible downgrade from A1 on review for possible downgrade	30/04/2010
		Downgraded to Baa3; previously downgraded to A3 on review for possible downgrade	15/06/2010
		Baa3, placed on review for possible downgrade	17/12/2010
EFG Eurobank Ergasias S.A. Mortgage Covered Bonds II	Mortgage	Downgrade to A2 on review for possible downgrade from A1 on review for possible downgrade	29/04/2010
		Downgrade to A3 on review for possible downgrade from A2 on review for possible downgrade	30/04/2010
		Downgraded to Baa3; previously downgraded to A3 on review for possible downgrade	15/06/2010
		Baa3, placed on review for possible downgrade	17/12/2010
Marfin Egnatia Bank S.A. Mortgage Covered Bond Programme	Mortgage	Downgrade to A1 on review for possible downgrade from Aa2 on review for possible downgrade	29/04/2010
		Downgraded to A3; previously downgraded to A1 and placed on review for possible downgrade	16/07/2010
		A3, placed on review for possible downgrade	17/12/2010
National Bank of Greece S.A. Global Covered Bond Programme	Mortgage	Downgrade to Aa1 from Aaa on review for possible downgrade	31/03/2010
		Downgrade to Aa2 on review for possible downgrade from Aa1 on review for possible downgrade	26/04/2010
		Downgrade to A1 on review for possible downgrade from Aa2 on review for possible downgrade	29/04/2010
		Downgraded to Baa3; previously downgraded to A1 on review for possible downgrade	15/06/2010
		Baa3, placed on review for possible downgrade	17/12/2010
		Baa3, placed on review for possible downgrade	17/12/2010
<b>Hungary</b>			
FHB Mortgage Bank Co. Plc. - Covered Bonds	Mortgage	A3 placed on review for possible downgrade, previously confirmed A3 rating	27/07/2010
		Downgraded to Baa1 from A3; previously on review for possible downgrade	10/12/2010
OTP Jelzalogbank Zrt. (OTP Mtge Bk) - Covered Bonds	Mortgage	A2 placed on review for possible downgrade, previously downgraded from Aa2 to A2	27/07/2010
		Downgraded to Baa1 from A2; previously on review for possible downgrade	10/12/2010
<b>Ireland</b>			
AlB Mortgage Bank	Mortgage	Aaa placed on review for possible downgrade.	07/10/2010
		Downgraded to A2 on review for possible downgrade, previously Aaa placed on review for possible downgrade	20/12/2010
Anglo Irish Covered Bond Programme	Mortgage	Downgraded to Aa2 on review for possible downgrade, previously Aaa placed on review for possible downgrade.	17/09/2010
		Downgraded to A2 on review for possible downgrade from Aa2 on review for possible downgrade	27/09/2010
		Downgraded to Baa3 on review for possible downgrade, previously downgraded to A2 on review for possible downgrade from Aaa on review for possible downgrade	20/12/2010
Anglo Irish Mortgage Bank ACS Programme	Mortgage	Downgraded to Aa2 on review for possible downgrade, previously Aaa placed on review for possible downgrade.	17/09/2010
		Downgrade to A2 on review for possible downgrade from Aa2 on review for possible downgrade	27/09/2010
		Downgraded to Baa3 on review for possible downgrade, previously downgraded to A2 on review for possible downgrade from Aaa on review for possible downgrade	20/12/2010

TABLE 2

**Summary of 2010 Covered Bond Rating Actions**

Rating actions 2010

Issuer	Asset Class	Rating Action	Date
Bank of Ireland Mortgage Bank Covered Bond Programme	Mortgage	Aaa placed on review for possible downgrade	07/10/2010
		Downgraded to A1 on review for possible downgrade, previously Aaa placed on review for possible downgrade	20/12/2010
Depfa ACS Bank - Asset Covered Securities	Mortgage	Downgraded to Aa3; previously downgraded to Aa2 on review for possible downgrade	23/07/2010
		Aa3 placed on review for possible downgrade	07/10/2010
EBS Mortgage Finance Covered Bond Programme	Mortgage	Aaa placed on review for possible downgrade	07/10/2010
		Downgraded to A2 on review for possible downgrade, previously Aaa placed on review for possible downgrade	20/12/2010
<b>Italy</b>			
Credito Emiliano SPA - Covered Bonds	Mortgage	Assigned definitive long-term rating of Aaa under the Italian covered bond law	22/12/2010
<b>Netherlands</b>			
ABN Bouwfonds Nederlandse Gemeenten N.V. Secured Debt Issuance Programme	Mortgage	Aa3 rating confirmed after being placed on review for downgrade	10/02/2010
Achmea Hypotheekbank N.V. Mortgage Covered Bonds	Mortgage	Aa2 confirmed; previously downgraded to Aa2 from Aaa on review for downgrade and kept on review for further downgrade	08/06/2010
<b>Portugal</b>			
Banco BPI SA, Mortgage Covered Bonds	Mortgage	Aaa rating placed on review for possible downgrade	05/05/2010
		downgraded to Aa1 on review for possible downgrade, previously Aaa placed on review for possible downgrade	20/07/2010
		Confirmed at Aa1, previously downgraded to Aa1 on review for possible downgrade	28/07/2010
Banco Comercial Portuguese SA Mortgage Covered Bonds	Mortgage	Aa1 rating placed on review for possible downgrade	10/12/2010
		Aaa rating placed on review for possible downgrade	05/05/2010
		downgraded to Aa2, previously Aaa placed on review for possible downgrade	20/07/2010
Banco Espirito Santo SA - Covered Bonds	Mortgage	Aa2 rating placed on review for possible downgrade	10/12/2010
		Aaa rating placed on review for possible downgrade	05/05/2010
		downgraded to Aa1 on review for possible downgrade, previously Aaa placed on review for possible downgrade	20/07/2010
Banco Santander Totta - Covered Bonds	Mortgage	Downgraded to Aa2, previously downgraded to Aa1 on review for possible downgrade	28/07/2010
		Aa2 rating placed on review for possible downgrade	10/12/2010
		Aaa rating placed on review for possible downgrade	05/05/2010
Caixa Economica Montepio Geral Mortgage Covered Bonds	Mortgage	Downgraded to Aa1, previously Aaa placed on review for possible downgrade	28/07/2010
		Aa1 rating placed on review for possible downgrade	10/12/2010
		Aaa rating placed on review for possible downgrade	05/05/2010
Caixa Geral de Depositos Mortgage Covered Bonds	Mortgage	downgraded to A2, previously Aa1 placed on review for possible downgrade	20/07/2010
		A2, on review for possible downgrade	21/12/2010
		Aaa rating placed on review for possible downgrade	
Caixa Geral de Depositos Public Sector Covered Bonds	Public Sector	Downgraded to Aa1, previously Aaa placed on review for possible downgrade	28/07/2010
		Aa1 rating placed on review for possible downgrade	10/12/2010
		Aaa rating placed on review for possible downgrade	
Caixa Geral de Depositos Public Sector Covered Bonds	Public Sector	Downgraded to Aa2, previously Aaa placed on review for possible downgrade	28/07/2010
		Aa2 rating placed on review for possible downgrade	10/12/2010
		Aaa rating placed on review for possible downgrade	
<b>Spain</b>			
Banca March, S.A.	Mortgage	Aaa placed on review for possible downgrade	21/12/2010
Bancaja	Mortgage	Aaa placed on review for possible downgrade	21/12/2010
Banco de Castilla-la Mancha S.A.	Public Sector	Aa3 placed on review for possible downgrade	21/12/2010
Banco Pastor S.A.	Mortgage	Aaa placed on review for possible downgrade	21/12/2010
Banco Sabadell	Mortgage	Aaa placed on review for possible downgrade	21/12/2010
Bilbao Bizkaia Kutxa	Mortgage	Aaa placed on review for possible downgrade	21/12/2010
CatalunyaCaixa	Mortgage	Aaa placed on review for possible downgrade	21/12/2010
CatalunyaCaixa	Public Sector	Aaa placed on review for possible downgrade	21/12/2010
Caja de Ahorros de Galicia, Vigo, Ourense y Pontevedra Cedulas Hipotecarias	Mortgage	following merger:Aa1, new rating, and old downgraded to Aa1 and subsequently withdrawn; previously Aaa	01/12/2010
		Aa1 placed on review for possible downgrade	21/12/2010
Caja de Ahorros de Galicia, Vigo, Ourense y Pontevedra Cedulas Territoriales	Public Sector	following merger:Aa1, new rating, and old downgraded to Aa1 and subsequently withdrawn; previously Aaa	01/12/2010

TABLE 2

**Summary of 2010 Covered Bond Rating Actions**

Rating actions 2010

Issuer	Asset Class	Rating Action	Date
		Aa1 placed on review for possible downgrade	21/12/2010
Caja de Ahorros del Mediterraneo (CAM)	Mortgage	Aaa placed on review for possible downgrade	21/12/2010
Caja de Ahorros del Mediterraneo (CAM)	Public Sector	Aaa placed on review for possible downgrade	21/12/2010
Caja Espana De Inversiones, Salamanca y Soria	Mortgage	following merger:Aa1, new rating, and old downgraded to Aa1 and subsequently withdrawn; previously Aaa	12/10/2010
Caja Insular de Ahorros de Canarias	Mortgage	Aa1 placed on review for possible downgrade	21/12/2010
Caja Madrid	Mortgage	Aaa placed on review for possible downgrade	21/12/2010
Caja Madrid	Public Sector	Aaa placed on review for possible downgrade	21/12/2010
Cajamar	Mortgage	Aaa placed on review for possible downgrade	21/12/2010
CajaSur	Mortgage	A1 placed on review for possible downgrade	21/12/2010
Ibercaja	Mortgage	Aaa placed on review for possible downgrade	21/12/2010
Santander Consumer Finance	Mortgage	Aaa placed on review for possible downgrade	21/12/2010
<b>UK</b>			
Bradford & Bingley Covered Bond Programme	Mortgage	upgraded to Aa1; previously upgraded to Aa2 on review for possible upgrade	01/10/2010
Northern Rock Plc, UK Covered Bond Programme	Mortgage	confirmed at Aaa; previously Aaa, placed on review for possible downgrade	18/11/2010



## Appendix 2: Ratings Overview

Programme Name	Main Asset Type in Cover Pool	Covered Bonds Rating	Issuer Rating <sup>1</sup>	Rating Outlook of Issuer / Sponsor Bank	Covered Bond Law	TPI	TPI Leeway <sup>2</sup>	Cover Pool Losses <sup>3</sup>	Collateral Score <sup>4</sup>
<b>Austria</b>									
BAWAG P.S.K. Public Sector Covered Bonds	Public Sector	Aaa	Baa1	Stable	Yes	High	0	9.9%	4.1%
Erste Group Bank Mortgage Covered Bond	Mortgage	Aaa	Aa3	Negative Outlook	Yes	Probable	3	25.2%	13.8%
Erste Group Bank Public Sector Covered Bond	Public Sector	Aaa	Aa3	Negative Outlook	Yes	High	4	16.7%	5.9%
Hypo Alpe Adria Bank International AG - Public Sector Covered Bonds	Public Sector	Aaa	Baa3	Negative Outlook	Yes	High	0	30.2%	8.0%
HYPO NOE Gruppe Bank AG – Public-Sector Covered Bonds	Public Sector	Aaa	Unpublished	n/d	Yes	High	Unpublished	20.9%	6.6%
Kommunalkredit Austria Public Sector Covered Bonds	Public Sector	Aa1 (dng)	Baa1	Stable	Yes	High	1	n/d	5.7%
UniCredit Bank Austria Public-Sector Covered Bonds	Public Sector	Aaa	A1	Negative Outlook	Yes	High	3	19.0%	8.8%
Vorarlberger Landes- und Hypothekenbank AG Public-Sector Covered Bonds	Public Sector	Aaa	A1	Stable	Yes	High	3	31.6%	6.5%
<b>Czech Republic</b>									
Raiffeisenbank a.s. - Mortgage Covered Bonds	Mortgage	A3	Unpublished	n/d	Yes	Very Improbable	Unpublished	no data	17.5%
<b>Denmark</b>									
BRFKredit A/S, Capital Centre B	Mortgage	Aa3	Baa1	Negative Outlook	Yes	Very High	3	16.2%	14.9%
BRFKredit A/S, Capital Centre E	Mortgage	Aa1	Baa1	Negative Outlook	Yes	Very High	2	15.4%	17.9%
BRFKredit A/S, General Capital Centre	Mortgage	Aa3	Baa1	Negative Outlook	Yes	Very High	3	16.3%	11.7%
Danske Bank A/S Register D	Mortgage	Aaa	Aa3	Stable	Yes	Probable	3	17.4%	10.6%
Danske Bank A/S Register I	Mortgage	Aaa	Aa3	Stable	Yes	Probable	3	17.1%	7.7%
DLR Kredit A/S, Capital Centre B	Mortgage	Aa1	A3	Negative Outlook	Yes	Very High	3	14.6%	17.2%
DLR Kredit A/S, General Capital Centre	Mortgage	Aa1	A3	Negative Outlook	Yes	Very High	3	11.9%	12.4%
Nordea Kredit Realkreditaktieselskab, Capital Centre 1	Mortgage	Aaa	Aa2	Stable	Yes	Very High	6	12.0%	13.2%
Nordea Kredit Realkreditaktieselskab, Capital Centre 2	Mortgage	Aaa	Aa2	Stable	Yes	Very High	6	17.8%	21.8%
Nykredit Realkredit A/S, Capital Centre C	Mortgage	Aa1	A1	Stable	Yes	Very High	5	13.6%	9.5%
Nykredit Realkredit A/S, Capital Centre D	Mortgage	Aaa	A1	Stable	Yes	Very High	4	12.3%	13.5%
Nykredit Realkredit A/S, General Capital Centre	Mortgage	Aa1	A1	Stable	Yes	Very High	5	17.0%	15.7%
Nykredit Realkredit A/S, Capital Centre E	Mortgage	Aaa	A1	Stable	Yes	Very High	4	11.8%	12.5%
Realkredit Danmark A/S, General Capital Centre	Mortgage	Aaa	Aa3	Stable	Yes	Very High	3	12.2%	14.1%
Realkredit Danmark A/S, Capital Centre S	Mortgage	Aaa	Aa3	Stable	Yes	Very High	5	15.1%	18.3%
Totalkredit A/S, Capital Centre C	Mortgage	Aaa	A1	Stable	Yes	Very High	4	5.9%	5.2%
<b>Finland</b>									
Aktia Real Estate Mortgage Bank PLC - Covered Bonds	Mortgage	Aa1	A1	Stable	Yes	Probable	0	12.3%	4.3%
Aktia Real Estate Mortgage Bank PLC - Euro Medium Term Covered Note Programme	Mortgage	Aa1	A1	Stable	Yes	Unpublished	Unpublished	15.8%	6.9%
Nordea Bank Finland PLC - Covered Bonds	Mortgage	Aaa	Aa2	Stable	Yes	Probable	4	16.4%	5.4%
OP Mortgage Bank mortgage covered bonds	Mortgage	Aaa	Aa2	Negative Outlook	Yes	Probable	4	14.7%	2.9%
Sampo Housing Loan Bank PLC - Euro Medium Term Covered Note Programme	Mortgage	Aaa	A1	Stable	Yes	Probable-High	2	15.4%	2.6%
<b>France</b>									
Banques Populaires Covered Bonds	Mortgage	Aaa	Aa3	Stable	No	Probable	3	16.4%	6.4%
BNP Paribas Home Loan Covered Bonds	Mortgage	Aaa	Aa2	Stable	No	Probable	4	15.9%	7.1%
BNP Paribas Public Sector SCF, Obligations Foncières	Public Sector	Aaa	Aa2	Stable	Yes	Probable-High	4	17.2%	8.1%
CIF Euromortgage, Obligations Foncières	Mortgage	Aaa	A1	Negative Outlook	Yes	Probable-High	2	7.2%	0.0%
CM-CIC Covered Bonds	Mortgage	Aaa	Aa3	Stable	No	Probable	3	15.7%	5.6%
CM-CIC Home Loans FCT Covered Bonds	Mortgage	Aaa	Aa3	Stable	No	Probable-High	3	25.2%	29.8%
Compagnie de Financement Foncier, Obligations Foncières	Mortgage	Aaa	Aa3	Stable	Yes	Probable-High	3	13.4%	7.6%

Programme Name	Main Asset Type in Cover Pool	Covered Bonds Rating	Issuer Rating <sup>1</sup>	Rating Outlook of Issuer / Sponsor Bank	Covered Bond Law	TPI	TPI Leeway <sup>2</sup>	Cover Pool Losses <sup>3</sup>	Collateral Score <sup>4</sup>
Credit Agricole Covered Bonds	Mortgage	Aaa	Aa1	Stable	No	Probable	5	15.9%	5.5%
Dexia Municipal Agency - Obligations Foncières	Public Sector	Aaa	A1	Stable	Yes	Probable-High	2	11.5%	3.6%
FCT Red & Black Guaranteed Home Loan Covered Bonds	Mortgage	Aaa	Aa2	Negative Outlook	No	Probable	4	16.9%	8.0%
GCE Covered Bonds	Mortgage	Aaa	Aa3	Stable	No	Probable	3	16.2%	6.0%
GE SCF Obligations Foncières	Mortgage	Aaa	Aa2	Stable	Yes	Probable	4	13.8%	8.8%
HSBC Covered Bonds (France)	Mortgage	Aaa	Aa3	Stable	No	Probable	3		
Societe Generale SCF, Obligations Foncières	Public Sector	Aaa	Aa2	Negative Outlook	Yes	Probable-High	4	11.7%	4.2%
Vauban Mobilisations Garanties (VMG)	Mortgage	Aaa	Aa3	Stable	No	Probable-High	3	3.3%	0.0%
<b>Germany</b>									
Bayerische Landesbank - Mortgage Pfandbriefe	Mortgage	Aaa	A1	Stable	Yes	Probable-High	2	20.9%	12.5%
Bayerische Landesbank - Public Sector Pfandbriefe	Public Sector	Aaa	A1	Stable	Yes	High	3	10.0%	7.4%
Berlin-Hannoversche Hypothekenbank AG Public-Sector Covered Bonds	Public Sector	Aaa	Unpublished	n/a	Yes	High	Unpublished	9.7%	5.1%
Berlin-Hannoversche Hypothekenbank Mortgage Covered Bonds	Mortgage	Aa1	Unpublished	n/a	Yes	Probable-High	Unpublished	18.9%	14.7%
Bremer Landesbank Kreditanstalt Oldenburg GZ - Mortgage Pfandbriefe (grandfathered)	Mortgage	Aaa	Aa2	Negative Outlook	Yes	Unpublished	Unpublished	17.7%	8.1%
Bremer Landesbank Kreditanstalt Oldenburg GZ - Public Sector Pfandbriefe (grandfathered)	Public Sector	Aaa	Aa2	Negative Outlook	Yes	Unpublished	Unpublished	20.2%	11.3%
Daheim	Mortgage	Aaa	A1	Stable	No	Probable-High	2	n/a	n/a
DekaBank Deutsche Girozentrale - Public Sector Covered Bonds	Public Sector	Aaa	Aa2	Stable	Yes	High	5	8.4%	2.4%
Deutsche Bank AG - Mortgage Covered Bond Programme	Mortgage	Aaa	Aa3	Stable	Yes	Probable	3	30.9%	13.0%
Deutsche Hypothekenbank AG - Mortgage Covered Bonds	Mortgage	Aaa	A1	Negative Outlook	Yes	Probable-High	2	20.4%	13.0%
Deutsche Hypothekenbank AG - Public-Sector Covered Bonds	Public Sector	Aaa	A1	Negative Outlook	Yes	High	3	10.0%	3.0%
Deutsche Kreditbank Mortgage Covered Bonds	Mortgage	Aaa	Unpublished	n/a	Yes	Probable-High	Unpublished	21.4%	13.5%
Deutsche Kreditbank Public-Sector Covered Bonds	Public Sector	Aaa	Unpublished	n/a	Yes	High	Unpublished	10.1%	4.1%
Deutsche Pfandbriefbank AG Mortgage Covered Bonds	Mortgage	Aa3	A3	Stable	Yes	Probable-High	3	19.5%	13.3%
Deutsche Pfandbriefbank AG Public-Sector Covered Bonds	Public Sector	Aaa	A3	Stable	Yes	High	1	8.4%	4.2%
Deutsche Postbank AG Mortgage Covered Bonds	Mortgage	Aaa	A1	Negative Outlook	Yes	Probable-High	2	10.0%	3.9%
Deutsche Postbank Public-Sector Covered Bonds	Public Sector	Aaa	A1	Negative Outlook	Yes	High	3	13.7%	2.9%
Deutsche Siedlungs- und Landesrentenbank - Deutsche Postbank - Public-Sector Covered Bonds (guaranteed)	Public Sector	Aaa	A1	Negative Outlook	Yes	Unpublished	Unpublished	n/d	n/d
DVB Ship Covered Bonds	Ship Mortgage	Aa3	A1	Negative Outlook	Yes	Improbable	3	72.6%	100.0%
Eurohypo AG - Mortgage Covered Bonds	Mortgage	Aaa	A1	Negative Outlook	Yes	Probable-High	2	17.9%	11.4%
Eurohypo AG - Public-Sector Covered Bonds	Public Sector	Aaa	A1	Negative Outlook	Yes	High	3	8.6%	2.0%
Hamburger Sparkasse Mortgage Pfandbriefe	Mortgage	Aaa	Unpublished	n/a	Yes	Probable-High	Unpublished	18.8%	8.6%
HSH Nordbank AG - Mortgage Pfandbriefe	Mortgage	Aaa	A3	Negative Outlook	Yes	Probable-High	0	21.5%	16.1%
HSH Nordbank AG - Public Sector Covered Bonds	Public Sector	Aaa	A3	Negative Outlook	Yes	High	1	12.4%	8.8%
HSH Nordbank AG - Ship Covered Bonds	Ship Mortgage	A2	A3	Negative Outlook	Yes	Improbable	3	72.6%	100.0%
Kreissparkasse Koeln - Mortgage Covered Bonds	Mortgage	Aaa	Aa2	Stable	Yes	Probable-High	4	15.6%	5.3%
Landesbank Baden-Wuerttemberg - Mortgage Pfandbriefe	Mortgage	Aaa	Aa2	Negative Outlook	Yes	Probable-High	4	18.2%	8.6%
Landesbank Baden-Wuerttemberg - Public Sector Pfandbriefe	Public Sector	Aaa	Aa2	Negative Outlook	Yes	High	5	10.3%	5.0%
Landesbank Berlin AG - Mortgage Pfandbriefe	Mortgage	Aaa	A1	Stable	Yes	Probable-High	2	10.4%	4.6%
Landesbank Berlin AG - Public Sector Pfandbriefe	Public Sector	Aaa	A1	Stable	Yes	High	3	21.2%	11.9%
Landesbank Hessen-Thüringen Public-Sector Covered Bonds	Public Sector	Aaa	Aa2	Stable	Yes	High	5	10.5%	5.0%
Muenchener Hypothekenbank eG - Mortgage Covered Bonds	Mortgage	Aaa	A1	Negative Outlook	Yes	Probable-High	2	20.3%	7.1%
Muenchener Hypothekenbank eG - Public Sector Covered Bonds	Public Sector	Aaa	A1	Negative Outlook	Yes	High	3	8.8%	5.0%
Norddeutsche Landesbank GZ - Mortgage Covered Bonds	Mortgage	Aaa	Aa2	Negative Outlook	Yes	Probable-High	4	22.5%	16.2%

Programme Name	Main Asset Type in Cover Pool	Covered Bonds Rating	Issuer Rating <sup>1</sup>	Rating Outlook of Issuer / Sponsor Bank	Covered Bond Law	TPI	TPI Leeway <sup>2</sup>	Cover Pool Losses <sup>3</sup>	Collateral Score <sup>4</sup>
Norddeutsche Landesbank GZ - Mortgage Covered Bonds (Grandfathered)	Mortgage	Aaa	Aa2	Negative Outlook	Yes	Probable-High	4	no data	no data
Norddeutsche Landesbank GZ - Public Sector Covered Bonds	Public Sector	Aaa	Aa2	Negative Outlook	Yes	High	5	10.0%	3.1%
Norddeutsche Landesbank GZ - Public Sector Covered Bonds (Grandfathered)	Public Sector	Aaa	Aa2	Negative Outlook	Yes	High	5	no data	no data
SEB AG Mortgage Covered Bonds	Mortgage	Aa1	Baa1	Stable	Yes	Probable-High	0	21.3%	12.6%
SEB AG Public-Sector Covered Bonds	Public Sector	Aa1	Baa1	Stable	Yes	High	1	7.6%	5.5%
Sparkasse KoelnBonn Mortgage Covered Bonds	Mortgage	Aaa	A1	Stable	Yes	Probable-High	2	20.4%	13.2%
Sparkasse KoelnBonn Public-Sector Covered Bonds	Public Sector	Aaa	A1	Stable	Yes	High	3	13.7%	4.0%
UniCredit Bank AG Mortgage Covered Bonds	Mortgage	Aa1	A1	Stable	Yes	Probable-High	3	18.5%	12.0%
UniCredit Bank AG Public-Sector Covered Bonds	Public Sector	Aaa	A1	Stable	Yes	High	3	10.9%	7.0%
WestLB AG - Public Sector Pfandbriefe	Public Sector	Aaa	A3	Negative Outlook	Yes	High	1	7.7%	5.4%
<b>Greece</b>									
Alpha Bank Direct Issuance Global Covered Bond Programme	Mortgage	Baa3 (dng)	Ba1	On review for Downgrade	Yes	Very Improbable	1	no data	11.0%
EFG Eurobank Ergasias S.A. Mortgage Covered Bonds	Mortgage	Baa3 (dng)	Ba1	On review for Downgrade	Yes	Very Improbable	2	no data	15.0%
EFG Eurobank Ergasias S.A. Mortgage Covered Bonds II	Mortgage	Baa3 (dng)	Ba1	On review for Downgrade	Yes	Very Improbable	2	no data	20.0%
Marfin Egnatia Bank S.A. Mortgage Covered Bond Programme	Mortgage	A3 (dng)	Baa3	Positive Outlook	Yes	Very Improbable	1	39.7%	9.1%
National Bank of Greece S. A. Covered Bond Programme II	Mortgage	Baa3 (dng)	Ba1	On review for Downgrade	Yes	Very Improbable	2	41.6%	12.7%
National Bank of Greece S.A. Global Covered Bond Programme	Mortgage	Baa3 (dng)	Ba1	On review for Downgrade	Yes	Very Improbable	2	35.0%	14.8%
<b>Hungary</b>									
FHB Land Credit and Mortgage Bank	Mortgage	Baa1	Baa3	Negative Outlook	Yes	Very Improbable	0	40.4%	13.0%
OTP Mortgage Bank	Mortgage	Baa1	Baa2	Negative Outlook	Yes	Very Improbable	1	50.4%	23.1%
<b>Ireland</b>									
AIB Mortgage Bank	Mortgage	A2 (dng)	Baa3	Negative Outlook	Yes	Improbable	0	n/d	7.0%
Anglo Irish Covered Bond Programme	Mortgage	Baa3 (dng)	Baa3	Negative Outlook	No	Very Improbable	0	n/d	46.4%
Anglo Irish Mortgage Bank ACS Programme	Mortgage	Baa3 (dng)	Baa3	Negative Outlook	Yes	Very Improbable	0	n/d	35.5%
Bank of Ireland Mortgage Bank Covered Bond Programme	Mortgage	A1 (dng)	Baa2	Negative Outlook	Yes	Improbable	0	n/d	6.8%
Depfa ACS Bank - Asset Covered Securities	Public Sector	Aa3 (dng)	Baa3	Stable	Yes	Probable-High	0	24.8%	6.0%
EAA Covered Bond Bank PLC - Public Sector Covered Bonds	Mortgage	Aaa	Aa1	Stable	Yes	Probable-High	5	11.0%	6.3%
EBS Mortgage Finance Covered Bond Programme	Public Sector	A2 (dng)	A3	Negative Outlook	Yes	Improbable	0	n/d	10.7%
<b>Italy</b>									
Banca Carige S.p.A. Covered Bonds Programme	Mortgage	Aaa	A2	Negative Outlook	Yes	Probable	1	22.4%	7.7%
Banca Delle Marche S.p.A. Mortgage Covered Bonds	Mortgage	Aaa	A3	Stable	Yes	Probable	0	no data	8.7%
Banca Monte dei Paschi di Siena S.p.A. Covered Bonds (MPS Covered Bond SRL)	Mortgage	Aaa	A2	Stable	Yes	Probable	2	24.2%	7.1%
Banca Popolare di Milano S.c.a.r.l. Covered Bond Programme	Mortgage	Aaa	A1	Stable	Yes	Probable	2	20.8%	6.8%
Banco Popolare - Italian Covered Bonds Programme	Mortgage	Aaa	A2	Negative Outlook	Yes	Probable	1	21.5%	7.9%
Cassa depositi e prestiti s.p.a. Covered Bond Programme	Public Sector	Aaa	Aa2	Stable	Yes	Probable-High	4	39.3%	12.4%
Intesa Sanpaolo - Mortgage Covered Bonds	Mortgage	Aaa	Aa2	Stable	Yes	Improbable	2	21.9%	0.0%
Intesa Sanpaolo Covered Bond Issuance Programme	Public Sector	Aaa	Aa2	Stable	Yes	Probable	4	23.4%	13.2%
UBI Banca S.c.p.a Covered Bond Programme	Mortgage	Aaa	A1	Stable	Yes	Probable	2	20.7%	7.5%
UniCredit S.p.A. Obbligazioni Garantite Programme	Mortgage	Aaa	Aa3	Stable	Yes	Probable	3	19.9%	5.9%
Credito Emiliano SPA - Covered Bonds	Mortgage	Aaa	A2	Stable	Yes	Probable	1	7.4%	5.0%
<b>Latvia</b>									
Mortgage and Land Bank of Latvia	Mortgage	Baa2	Baa3	Stable	Yes	Very Improbable	0	57.3%	24.2%
<b>Netherlands</b>									

Programme Name	Main Asset Type in Cover Pool	Covered Bonds Rating	Issuer Rating <sup>1</sup>	Rating Outlook of Issuer / Sponsor Bank	Covered Bond Law	TPI	TPI Leeway <sup>2</sup>	Cover Pool Losses <sup>3</sup>	Collateral Score <sup>4</sup>
ABN AMRO Bank N.V. Covered Bond Programme	Mortgage	Aaa	Aa3	Stable	Yes	Probable	3	16.4%	4.9%
ABN Amro Bouwfonds Nederlandse Gemeenten N.V. Secured Debt Issuance Programme	Mortgage	Aa3	Aa3	Stable	No	Unpublished	Unpublished	n/d	n/d
Achmea Hypotheekbank N.V. Mortgage Covered Bonds	Mortgage	Aa2	Unpublished	n/d	No	Unpublished	Unpublished	19.2%	6.2%
ING Bank Covered Bond Programme	Mortgage	Aaa	Aa3	Stable	Yes	Probable	3	12.2%	3.5%
NIBC Bank N.V. Covered Bonds	Mortgage	Aa2	Baa2	Negative Outlook	Yes	Probable	Unpublished	18.4%	4.8%
SNS Bank N.V. – Covered Bonds	Mortgage	Aaa	A3	Negative Outlook	Yes	Probable	0	18.2%	4.1%
<b>Norway</b>									
DnB NOR Boligkreditt Mortgage Covered Bonds	Mortgage	Aaa	Aa3	Stable	Yes	Probable	Unpublished	12.9%	6.8%
KLP Kommunekreditt Public-Sector Covered Bonds	Public Sector	Aaa	Unpublished	Unpublished	Yes	High	Unpublished	9.9%	1.7%
More Boligkreditt AS Mortgage Covered Bonds	Mortgage	Aaa	A2	Negative Outlook	Yes	High	2	9.7%	5.3%
Nordea Eiendoms-kreditt AS Mortgage Covered Bonds	Mortgage	Aaa	Aa2	Stable	Yes	Probable	4	13.9%	4.7%
SpareBank 1 Boligkreditt AS Mortgage Covered Bond Programme	Mortgage	Aaa	Unpublished	n/a	Yes	Probable-High	Unpublished	9.0%	3.6%
SpareBank 1 Naeringskreditt Mortgage Covered Bonds	Mortgage	Aa3	Unpublished	n/a	Yes	Improbable	Unpublished	29.4%	15.0%
Sparebanken Vest Boligkreditt AS Covered Bond Programme	Mortgage	Aaa	A2	Stable	Yes	High	2	11.0%	7.0%
Storebrand Boligkreditt Mortgage Covered Bonds	Mortgage	Aaa	A3	Negative Outlook	Yes	High	1	8.7%	4.1%
Terra Boligkreditt Mortgage Covered Bond Programme	Mortgage	Aa2	Unpublished	n/a	Yes	High	0	8.5%	2.5%
<b>Poland</b>									
Bre Bank Hipoteczny - Mortgage Covered Bonds	Public Sector	Baa2	Baa3	Stable	Yes	Very Improbable	0	72.7%	60.1%
Bre Bank Hipoteczny Public-Sector Covered Bond	Mortgage	Baa1	Baa3	Stable	Yes	Very Improbable	0	33.9%	18.2%
<b>Portugal</b>									
Banco BPI S.A., Mortgage Covered Bonds	Mortgage	Aa1 (dng)	A2	On review for Downgrade	Yes	Improbable	0	26.2%	6.6%
Banco Comercial Portugues S.A. Mortgage Covered Bonds	Mortgage	Aa2 (dng)	A3	On review for Downgrade	Yes	Improbable	0	29.0%	5.8%
Banco Espirito Santo, S.A. - Covered Bonds	Mortgage	Aa2 (dng)	A2	On review for Downgrade	Yes	Improbable	1	27.0%	7.4%
Banco Santander Totta - Covered Bonds	Mortgage	Aa1 (dng)	A1	On review for Downgrade	Yes	Improbable	1	28.2%	4.8%
Caixa Economica Montepio Geral Mortgage Covered Bonds	Mortgage	A2 (dng)	Baa3	On review for Downgrade	Yes	Improbable	0	28.3%	9.0%
Caixa Geral de Depósitos - Obrigações Hipotecárias	Mortgage	Aa1 (dng)	A1	On review for Downgrade	Yes	Improbable	1	26.1%	7.1%
Caixa Geral de Depósitos - Obrigações sobre o sector público	Public Sector	Aa2 (dng)	A1	On review for Downgrade	Yes	Improbable	2	32.0%	6.3%
<b>Spain</b>									
Banca March S.A. - Cedulas Hipotecarias	Mortgage	Aaa (dng)	A2	On review for Downgrade	Yes	Probable	1	49.2%	33.7%
BANCAJA, Mortgage Covered Bonds	Mortgage	Aaa (dng)	A3	On review for Downgrade	Yes	Probable	0	46.4%	33.7%
Banco Bilbao Vizcaya Argentaria, S.A. - Cedulas Hipotecarias	Mortgage	Aaa	Aa2	On review for Downgrade	Yes	Probable	4	33.3%	19.9%
Banco Bilbao Vizcaya Argentaria, S.A. Public Sector Covered Bonds	Public Sector	Aaa	Aa2	On review for Downgrade	Yes	Probable-High	4	19.5%	6.8%
Banco de Castilla-la Mancha S.A. Public Sector Covered Bonds	Public Sector	Aa3 (dng)	Unpublished	n/d	Yes	Unpublished	Unpublished	24.9%	12.0%
Banco Espanol de Credito, S.A. (Banesto) - Cedulas Hipotecarias	Mortgage	Aaa	Aa3	On review for Downgrade	Yes	Probable	3	28.8%	16.2%
Banco Espanol de Credito, S.A. (Banesto) - Cedulas Territoriales	Public Sector	Aaa	Aa3	On review for Downgrade	Yes	Probable-High	3	26.1%	13.3%
Banco Pastor, S.A - Cedulas Hipotecarias	Mortgage	Aaa (dng)	A3	On review for Downgrade	Yes	Probable	0	41.4%	26.9%
Banco Popular Español, S.A. - Cedulas Hipotecarias	Mortgage	Aaa	Aa3	On review for Downgrade	Yes	Probable	3	41.7%	25.2%
Banco Sabadell - Public Sector - Covered Bonds	Public Sector	(P)Aaa	A2	On review for Downgrade	Yes	Probable-High	1	41.8%	26.3%
Banco Sabadell, S.A - Cedulas Hipotecarias	Mortgage	Aaa (dng)	A2	On review for Downgrade	Yes	Probable	1	41.8%	26.3%
Banco Santander S.A. (Spain) - Cedulas Hipotecarias	Mortgage	Aaa	Aa2	On review for Downgrade	Yes	Probable	4	36.5%	23.0%
Banco Santander S.A. (Spain) - Cedulas Territoriales	Public Sector	Aaa	Aa2	On review for Downgrade	Yes	Probable-High	4	18.3%	5.2%
BANKINTER, S.A. Mortgage Covered Bonds	Mortgage	Aaa	A1	On review for Downgrade	Yes	Probable	2	45.3%	24.0%

Programme Name	Main Asset Type in Cover Pool	Covered Bonds Rating	Issuer Rating <sup>1</sup>	Rating Outlook of Issuer / Sponsor Bank	Covered Bond Law	TPI	TPI Leeway <sup>2</sup>	Cover Pool Losses <sup>3</sup>	Collateral Score <sup>4</sup>
Bankoa S. A. - Cédulas Hipotecarias	Mortgage	(P)Aaa	A1	Negative Outlook	Yes	Probable	2	32.6%	23.2%
Bilbao Bizkaia Kutxa mortgage covered bonds	Mortgage	Aaa (dng)	Baa1	On review for Downgrade	Yes	Probable	2	32.5%	17.9%
Caja de Ahorros de Galicia, Vigo, Ourense y Pontevedra - Mortgage Covered Bonds	Mortgage	Aa1 (dng)	Baa1	On review for Downgrade	Yes	Probable	0	36.0%	23.4%
Caja de Ahorros de Galicia, Vigo, Ourense y Pontevedra - Public Sector Covered Bonds	Public Sector	Aa1 (dng)	Baa1	On review for Downgrade	Yes	Probable-High	0	21.2%	10.4%
Caja de Ahorros del Mediterráneo - Cédulas Hipotecarias	Mortgage	Aaa (dng)	A3	On review for Downgrade	Yes	Probable	0	45.4%	34.9%
Caja de Ahorros del Mediterráneo - Cédulas Territoriales	Public Sector	Aaa (dng)	A3	On review for Downgrade	Yes	Probable-High	0	21.2%	10.5%
Caja de Ahorros Municipal de Burgos, mortgage Covered Bonds	Mortgage	Aa1 (dng)	Baa1	On review for Downgrade	Yes	Probable	0	41.7%	30.3%
Caja de Ahorros y Monte de Piedad de Cordoba (CajaSur) - Cédulas Hipotecarias	Mortgage	A1 (dng)	Unpublished	n/d	Yes	Probable	Unpublished	35.5%	26.5%
Caja de Ahorros y Monte de Piedad de Madrid - Cédulas Hipotecarias	Mortgage	Aaa (dng)	A1	On review for Downgrade	Yes	Probable	2	35.3%	22.6%
Caja de Ahorros y Monte de Piedad de Madrid - Cédulas Territoriales	Public Sector	Aaa (dng)	A1	On review for Downgrade	Yes	Probable-High	2	23.9%	8.5%
Caja de Ahorros y Monte de Piedad de Zaragoza, Aragón y Rioja (Ibercaja) Mortgage Covered Bonds	Mortgage	Aaa (dng)	A2	On review for Downgrade	Yes	Probable	1	36.1%	22.4%
Caja de Ahorros y Pensiones de Barcelona (la Caixa) - Cédulas Hipotecarias	Mortgage	Aaa	Aa2	On review for Downgrade	Yes	Probable	4	33.2%	19.6%
Caja de Ahorros y Pensiones de Barcelona (la Caixa) - Cédulas Territoriales	Public Sector	Aaa	Aa2	On review for Downgrade	Yes	Probable-High	4	27.4%	16.2%
Caja Espana de Inversiones - Covered Bonds	Mortgage	Aa1 (dng)	Baa1	On review for Downgrade	Yes	Probable	0	35.8%	23.4%
Caja General de Ahorros de Canarias Public Sector Covered Bonds	Public Sector	Aaa (dng)	Unpublished	n/d	Yes	Unpublished	Unpublished	28.5%	16.7%
Caja Insular de Ahorros de Canarias - Cédulas Hipotecarias	Mortgage	Aa1 (dng)	Baa1	On review for Downgrade	Yes	Probable	0	31.6%	19.4%
Caja Vital Kutxa Mortgage Covered Bond Programme	Mortgage	Aaa	A2	Negative Outlook	Yes	Probable	1	39.2%	27.1%
Cajamar Mortgage Covered Bonds	Mortgage	Aaa (dng)	A3	On review for Downgrade	Yes	Probable	0	39.8%	25.5%
CatalunyaCaixa - Cédulas Hipotecarias	Mortgage	Aaa (dng)	A3	On review for Downgrade	Yes	Probable	0	49.3%	38.7%
CatalunyaCaixa Cédulas Territoriales	Public Sector	Aaa (dng)	A3	On review for Downgrade	Yes	Probable-High	0	23.8%	16.7%
Dexia Sabadell, S.A. - Cédulas Territoriales	Public Sector	Aa2	Baa2	Negative Outlook	Yes	Probable	0	23.9%	8.9%
Santander Consumer Finance, Cédulas Hipotecarias	Mortgage	Aaa (dng)	A2	On review for Downgrade	Yes	Probable	1	27.1%	13.2%
Unicaja, mortgage Covered Bonds	Mortgage	Aaa	Aa3	On review for Downgrade	Yes	Probable	3	33.2%	20.4%
<b>Sweden</b>									
Lansforsakringar Hypotek Covered Bonds	Mortgage	Aaa	A2	Stable	Yes	Probable	1	13.1%	4.7%
Nordea Hypotek AB	Mortgage	Aaa	Aa2	Stable	Yes	Probable	4	13.7%	5.1%
SEB AB - Covered Bonds	Mortgage	Aaa	A1	Stable	Yes	Probable	2	18.2%	8.4%
Stadshypotek Covered Bonds	Mortgage	Aaa	Aa2	Stable	Yes	Probable	4	15.1%	8.9%
Swedbank Mortgage AB Covered Bond Programme	Mortgage	Aaa	A2	On review for Upgrade	Yes	Probable	1	19.4%	6.8%
The Swedish Covered Bond Corporation (SBAB)	Mortgage	Aaa	A1	Negative Outlook	Yes	Probable	2	19.1%	9.6%
<b>Switzerland</b>									
Credit Suisse - Covered Bonds	Mortgage	Aaa	Aa1	Negative Outlook	No	Probable	5	17.8%	6.0%
Pfandbriefbank Schweizerischer Hypothekarinstitute - Pfandbrief	Mortgage	Aaa	Unpublished	Stable	Yes	Very Improbable	Unpublished	23.7%	8.1%
Pfandbriefzentrale der Schweiz Kantonalbanken - Pfandbrief	Mortgage	Aaa	Unpublished	Stable	Yes	Very Improbable	Unpublished	26.3%	11.9%
UBS AG, London Branch - Covered Bonds	Mortgage	Aaa	Aa3	Negative Outlook	No	Probable	3	9.5%	4.0%
<b>UK</b>									
Abbey National	Mortgage	Aaa	Aa3	Negative Outlook	Yes	Probable	3	18.3%	7.6%
Barclays	Mortgage	Aaa	Aa3	Stable	Yes	Probable	3	19.2%	4.6%
Barclays Local Authority CB	Mortgage	Aaa	Aa3	Stable	No	Probable	3	9.9%	4.3%
Bradford & Bingley	Mortgage	Aa1	Aa3	Stable	No	Improbable	3	27.7%	15.7%
Britannia Building Society	Mortgage	Aaa	A2	n/d	No	Very High	3	9.9%	6.1%
Chelsea BS	Mortgage	A1	Baa1	Negative Outlook	No	Probable	2	25.6%	8.4%

Programme Name	Main Asset Type in Cover Pool	Covered Bonds Rating	Issuer Rating <sup>1</sup>	Rating Outlook of Issuer / Sponsor Bank	Covered Bond Law	TPI	TPI Leeway <sup>2</sup>	Cover Pool Losses <sup>3</sup>	Collateral Score <sup>4</sup>
Clydesdale Covered Bond Programme	Mortgage	Aaa	A1	Negative Outlook	No	High	3	11.7%	8.9%
Coventry Building Society	Mortgage	Aaa	A3	Stable	No	Probable-High	0	11.7%	10.4%
Bank of Scotland plc, UK Covered Bond Programme	Mortgage	Aaa	Aa3	Stable	Yes	Probable	3	19.0%	8.3%
Bank of Scotland plc, Social Housing Covered Bond Programme	Mortgage	Aaa	Aa3	Stable	No	Probable-High	3	19.9%	7.4%
HSBC	Mortgage	Aaa	Aa2	Negative Outlook	Yes	Probable	4	15.3%	6.7%
Leeds Building Society	Mortgage	Aaa	A2	Stable	Yes	Probable	1	19.8%	7.3%
Lloyds TSB - Covered Bond Programme	Mortgage	Aaa	Aa3	Stable	Yes	Probable	3	14.9%	5.3%
Lloyds TSB BTL - Covered Bond Programme	Mortgage	Aaa	Aa3	Stable	No	Unpublished	Unpublished	no data	no data
Nationwide	Mortgage	Aaa	Aa3	Stable	Yes	Probable	3	16.5%	5.0%
Newcastle Building Society	Mortgage	Aaa	Baa2	Negative Outlook	No	Very High	0	6.8%	2.4%
NorthernRock	Mortgage	Aaa	Aa3	Stable	No	Improbable	1	27.4%	14.7%
Norwich & Peterborough	Mortgage	Aaa	Baa2	Negative Outlook	No	Very High	0	6.1%	3.8%
Principality Building Society Covered Bond Programme	Mortgage	Aaa	Baa2	Stable	No	Very High	0	13.0%	6.6%
Royal Bank of Scotland	Mortgage	Aaa	Aa3	Stable	Yes	Probable	3	17.0%	7.1%
Skipton	Mortgage	Aaa	Baa1	Negative Outlook	No	High	0	14.8%	2.7%
The Co-operative Bank plc	Mortgage	Aaa	A2	Stable	No	High	2	17.1%	4.9%
Yorkshire Building Society	Mortgage	Aa1	Baa1	Negative Outlook	Yes	Probable	0	12.0%	5.8%
Societe Generale SCF, Obligations Foncieres	Public Sector	Aaa	Aa2	Negative Outlook	Yes	Probable-High	4	11.7%	4.2%

[1] This is the rating that is used to determine both: (i) the probability of default of the issuer in Moody's EL Model; and (ii) the issuer rating used in Moody's TPI framework. This may not necessarily refer to the rating of the issuer of the covered bonds. It may instead refer to the rating of entities which have guaranteed, or otherwise directly supported, payment on the covered bonds. Such an entity would typically also be part of the issuer group.

[2] See endnote 2 and grey boxes on page 5.

[3] This is the level of losses that Moody's EL Model assumes will impact covered bondholders following Issuer Default. This percentage level of losses will impact the entire cover pool (including any over-collateralisation being modeled). For more detail on how the cover pool losses are calculated please see "Moody's EMEA Covered Bonds Monitoring Overview: Q2 2010" report. Numbers here are taken from the "[Moody's EMEA Covered Bonds Monitoring Overview: Q2 2010](#)" report.

[4] This determines the level of losses that Moody's EL Model assumes will impact covered bondholders following issuer default solely based on the credit quality of the cover pool. The collateral score is Moody's opinion of how much credit enhancement is needed to protect against the credit deterioration of assets in a cover pool in order to reach a theoretical Aaa expected loss, assuming those assets are otherwise unsupported. The higher the credit quality of the cover pool, the lower the collateral score. The collateral score does not capture refinancing risk and risks associated with interest rate mismatches and cross-currency exposures. In addition, it excludes certain related legal risks, such as set-off, and stresses related to sovereign risk (where applicable). Numbers here are taken from the "[Moody's EMEA Covered Bonds Monitoring Overview: Q2 2010](#)" report.

## Related Research

Moody's publishes asset-type-specific year-end review/outlook reports for all major structured finance markets in the EMEA region. Asset classes covered in the series of 2010 Review & 2011 Outlook reports include Asset-Backed Commercial Paper ("ABCP"), Asset-Backed Securities ("ABS"), Collateralised Debt Obligations ("CDOs"), Commercial Mortgage-Backed Securities ("CMBS"), Residential Mortgage-Backed Securities ("RMBS"), and Covered Bonds. Moody's will also publish a year-end review report on the emerging markets of the EMEA region, covering Russia and the CIS, Central and Eastern Europe and the Middle East.

For a more detailed explanation of Moody's approach to this type of transaction as well as similar transactions please refer to the following reports:

### Rating Methodologies:

- » [Moody's Rating Approach to Covered Bonds, March 2010 \(SF214625\)](#)
- » [Assessing Swaps as Hedges in the Covered Bond Market, September 2009 \(SF142765\)](#)
- » [European Covered Bond Legal Frameworks: Moody's Legal Checklist, December 2005 \(SF66418\)](#)

### Special Report:

- » [Moody's EMEA Covered Bonds Monitoring Overview: Q2 2010, December 2010 \(SF229472\)](#)

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

Moody's publishes a weekly summary of structured finance credit, ratings and methodologies, available to all registered users of our website, at [www.moodys.com/SFQuickCheck](http://www.moodys.com/SFQuickCheck).

- <sup>1</sup> All figures in this report are based on published covered bond ratings in the Europe, Middle East and Africa (EMEA) region at the end of 2010. Multi-Cedulas and Mortgage-backed Promissory Notes are not included. On this basis, the overall number of publicly rated covered bond programmes by 31 December 2010 was 210. This number excludes all ratings for (i) multi-cédulas deals, i.e. structured notes backed by cédulas typically issued by Spanish savings banks and (ii) Irish Mortgage-backed Promissory Notes (for more details on MBPN please refer to our special report "Framework Agreement in Respect of the Issue of Mortgage-backed Promissory Notes" published in December 2010). The total number of multi-cédulas rated by Moody's at the end of 2010 was 68 series under four issuance platforms and there are two MBPN programmes rated. For a full list of the issuers and covered bond programmes rated by Moody's and covered in this report see Appendix 2 of this report.
- <sup>2</sup> The TPI assesses the likelihood that timely payment will be made to covered bondholders following an issuer default and limits the covered bond rating to a certain number of notches above the issuer rating. For further details, please see grey boxes on page 5: "The Role of the TPI in Moody's Covered Bond Methodology".
- <sup>3</sup> Refers only to banks with published ratings.
- <sup>4</sup> "TPI leeway" is the number of rating notches by which an issuer rating can be downgraded before the covered bonds would face a downgrade based on the current TPI of the covered bonds. It is possible that, following a downgrade of the issuer rating, the issuer may seek to strengthen the structure of the covered bond programme and thus improve the TPI. Where this can be achieved, the covered bond programme may maintain its rating even if the issuer rating is downgraded by more than the TPI leeway. For more on the TPI see grey boxes on page 5.
- <sup>5</sup> The European Commission recently proposed a framework to deal with bank failures in the European Union (EU) (see Moody's Weekly Credit Outlook "[European Commission's 'Bail-In' Proposals Indicate Lower Support in Future for Senior Bank Debt](#)", dated 10 January 2011). A key aim is to provide EU authorities with more tools to protect taxpayers from the consequences of a bank failure. The framework would include 'bail-in' mechanisms allowing 'going concern' losses to be imposed on senior creditors by writing down the value of senior bank debt, either as part of or separate from a resolution. Regulators would have significant discretion to determine the likely extent of losses, the haircut required, and the creditors on whom to impose losses. Covered bonds and deposits would be excluded, as would debt issued prior to the framework's introduction. This may encourage issuers to issue covered bonds instead of "bail-in" unsecured debt to obtain cheaper funding costs.
- <sup>6</sup> These reports are updated quarterly. The original publication was "[Moody's EMEA Covered Bond Monitoring Overview: Q3 2009](#)", April 2010. The latest report is "[Moody's EMEA Covered Bonds Monitoring Overview: Q2 2010](#)", December 2010.
- <sup>7</sup> See note 3 above.
- <sup>8</sup> See note 2 above.
- <sup>9</sup> Thus incorporating the 2008 paper "[Timely Payment in Covered Bonds following Sponsor Bank Default](#)" within the main methodology paper.
- <sup>10</sup> See note 6 above.
- <sup>11</sup> Exceptions are an Austrian programme where the review commenced in 2009 and a ship covered bond programme.
- <sup>12</sup> For more details on these trends see "[EMEA ABS & RMBS: 2010 Review & 2011 Outlook](#)", December 2010
- <sup>13</sup> See note 5 above.
- <sup>14</sup> Please see "[EMEA ABS & RMBS: 2010 Review & 2011 Outlook](#)", December 2010. Note that Moody's does not maintain RMBS outlooks in a number of covered bond markets, in particular the Nordic markets. RMBS outlooks are negative in other covered bond markets, namely Greece, Ireland, Italy, Portugal and Spain.
- <sup>15</sup> See note 5 above.
- <sup>16</sup> One exception – in Denmark where the covered bond market is larger than the sovereign debt market the limits placed by Basel III on covered bonds may undermine the market. It remains to be seen whether European legislators will consider this in implementing the new regulations.
- <sup>17</sup> Two Spanish programmes had a "downgraded" rating of Aa1 assigned following a merger of two Cajas whose individual programmes were previously each rated Aaa.
- <sup>18</sup> This does not include the new ratings assigned following the mergers of Spanish issuers.
- <sup>19</sup> Regarding the figures for upgrades and downgrades of covered bond or issuer ratings, these have been aggregated by covered bond programme. In other words, if a rating has been changed several times during the course of the year, this has been counted once. The number of ratings on review is based on the open review processes at the end of the year. A full list of all rating actions for covered bond ratings in 2010 is shown in table 2 of Appendix 1.



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