

# Denmark – Two Covered Bond Products in Coexistence



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## Setting up of a level playing field

Following the amendment of the mortgage banking regulations, Denmark's banks now have the same opportunities as their European peers to fund loans through the issue of bonds that comply with the covered bond definition under the Capital Requirements Directive. Therefore, the regulator has levelled the playing field for Danish banks with regard to each other and their European peers.

## Current and future players in the market

Only mortgage banks can issue Danish mortgage bonds and covered mortgage bonds. Under the new regulations, only a few commercial banks are likely to set up their own Danish covered bond programmes. We expect others to participate in joint funding models although some legal uncertainties remain in the amended regulations as regards such models. At the end of 1H07, Danish mortgage bonds stood at nearly €260bn (+7% compared to 1H06) and the total volume of housing-related lending to households by commercial banks was roughly €30bn (+18% compared to 1H06).

## Balance between conformity and uniqueness

The changes to the eligibility criteria do not deviate materially from the definitions previously in place for the Danish mortgage bonds nor do they differ immensely from what can be seen in other European covered bond markets. Some specifics can be found in the Danish regulation: Substitute cover assets can be funded via the issue of senior debt. In a bank insolvency scenario the lenders of senior debt have a 'secondary' preferential treatment with regard to the cover assets. Thus, market participants refer to senior debt as 'junior covered bonds'.

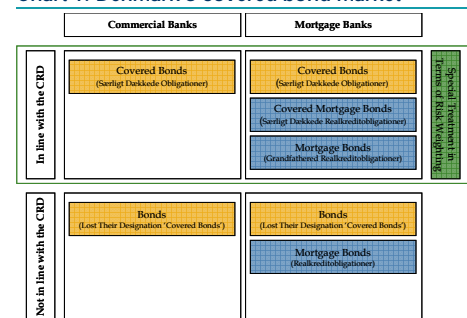
## Bankruptcy procedures not equal

If the funds from the cover assets prove to be insufficient to satisfy their claims, covered bond investors would have the same status as unsecured creditors of a commercial bank. In contrast, creditors of covered bonds issued by a mortgage bank have a preferential position ahead of all other creditors. The unlike capital structure of the commercial and mortgage banks may explain this disparity in the status of covered bond investors.

## Two covered bond products in coexistence

Denmark's regulator had to strike a balance when changing the regulations on the issuance of covered bonds and try to avoid a serious erosion of the existing and highly-recognised Danish mortgage bond market. Only the future will reveal if the regulator has been successful. For the time being, two products should coexist in Denmark: Danish mortgage bonds and covered mortgage bonds as the 'Danish Classics' and Danish covered bonds as the 'Danish Jumbos'.

Chart 1: Denmark's covered bond market



Source: Realkredit Danmark, Merrill Lynch

## The setting up of a level playing field

Mortgage banking in Denmark is regulated by the Financial Business Act and the Mortgage-Credit Loans and Mortgage-Credit Bonds etc. Act, and by a number of executive orders issued by the *Finanstsynet*.<sup>1</sup> In December 2006, the Minister for Economic and Business Affairs submitted to parliament for consultation a bill with amendments to the above-mentioned regulations. The proposed changes became effective on 1 July 2007. The rationale for the changes was mainly to satisfy the following:

- Arguments from the commercial banks for a domestic level playing field in respect of the funding of mortgage loans. Under the special banking principle mortgage banks had an exclusive right to issue *realkreditobligationer* or mortgage bonds.
- There was a risk that existing *realkreditobligationer* might not meet the criteria of the Capital Requirement Directive (CRD), and in turn the danger that future risk weightings would be above those of European peers.

With the amended rules Danish banks should now have the same opportunities as their competitors elsewhere in Europe. In other words, to refund loans via the issuance of bonds that fall within the covered bond definition under the CRD now that:

- The changes to the Danish mortgage banking legislation are based on the CRD and include an option to adapt a loan portfolio to the requirements of the CRD. Under the Basel II regime bonds compliant with the covered bond definition as set by the CRD benefit from special treatment in terms of risk weighting.
- Since 1 July 2007, commercial banks and mortgage banks, which have been granted a licence by the *Finanstsynet*, and ship financing institutions, which are licensed according to the *lov om et skibsfinansieringsinstitut*<sup>2</sup>, can issue *særligt dækkede obligationer* (SDO) or Danish covered bonds.
- Mortgage banks retain an exclusive right to issue *realkreditobligationer*. In addition, as from July only mortgage banks are allowed procure funding by issuing *særligt dækkede realkreditobligationer* (SDRO) or covered mortgage bonds. The latter satisfy the requirements applying to traditional *realkreditobligationer* under the Mortgage-Credit Loans and Mortgage-Credit Bonds etc. Act, but also the requirements that apply to covered bonds under the CRD.
- Since traditional *realkreditobligationer* do not meet the covered bond definition under the CRD, it is expected that mortgage banks will cease to issue these bonds by the end of 2007. *Realkreditobligationer* that are in line with Article 22 (4) of the UCITS Directive and issued prior to 1 January 2008 will be grandfathered and keep their covered bond status.

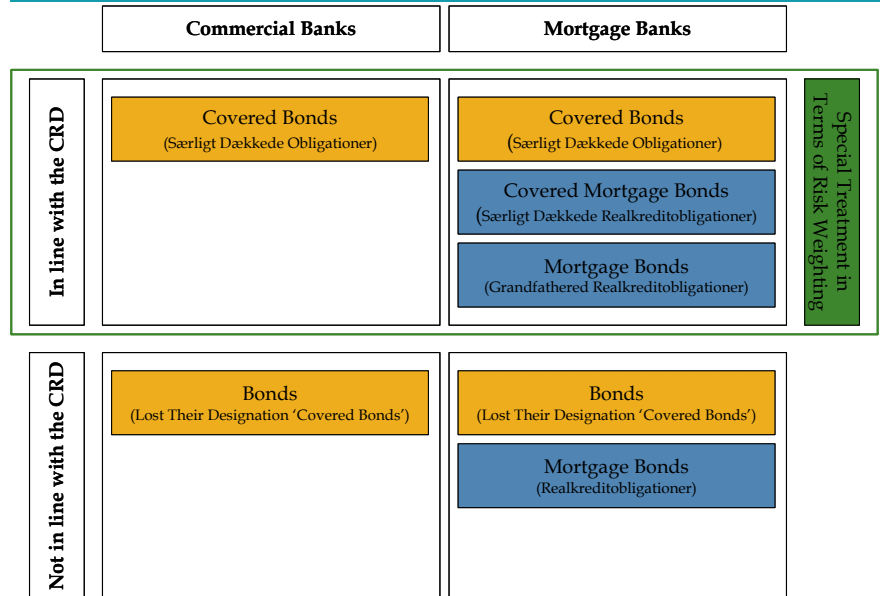
The changes to the mortgage banking regulations have put commercial banks on

<sup>1</sup> The *Finanstsynet* is the Danish Financial Supervisory Authority and the Mortgage-Credit Loans and Mortgage-Credit Bonds etc. Act is called *lov om realkreditlån og realkreditobligationer m.v.* The Danish Mortgage-Credit Loans and Mortgage-Credit Bonds etc. Act is the Act No. 454 of June 10, 2003 as amended by Act No. 577 of June 6, 2007. The Danish Financial Business Act refers to the Consolidation Act No. 381 of April 19, 2007.

<sup>2</sup> The *Lov om et skibsfinansieringsinstitut* is the Danish Act on a Ship Financing Institution.

an equal footing with mortgage banks considering covered bond issuance, which should promote more competition between financial institutions in Denmark. The modifications have the potential to significantly change the way in which Danish banks fund their mortgage portfolios and to grant mortgage loans. It is likely that the changes lower some of the barriers that have kept covered bonds out of Denmark beneath the radar of traditional covered bond investors despite it being Europe's second-largest covered bond market. However, with three different covered bond types this market has become quite complex (see Chart 2).<sup>3</sup>

Chart 2: Denmark's complex covered bond market



Source: Realkredit Danmark, Merrill Lynch

To facilitate an understanding of the complex market we answer below some key questions. Among others, who can issue *realkreditobligationer*, *særligt dækkede realkreditobligationer* and *særligt dækkede obligationer*<sup>4</sup>, which assets are eligible as collateral, what is meant precisely by the balance principle, what the status of investors is if a mortgage or commercial bank becomes bankrupt. To sum up, we expect two products to coexist in Denmark. Since July, finally all Nordic countries have a legal framework for the issue of CRD-compliant covered bonds in place. Since these regulations differ overviews can be found in the Appendix.

<sup>3</sup> Some of the general provisions on covered bonds are applicable to the covered bonds collateralised by ship mortgage loans. However, given the differences between ship covered bonds and mortgage or public covered bonds, ship covered bonds will be regulated under a special law (*lov om et skibsfinansieringsinstitut*) to be enforced in January 2008. Therefore, within this report we focus on mortgage and public covered bonds.

<sup>4</sup> Throughout this report the expression covered bonds means bonds, such as *særligt dækkede obligationer* or *særligt dækkede realkreditobligationer* that are in line with the covered bond definition under the CRD. Danish covered bonds prescribe only *særligt dækkede obligationer*.

**Table 1: Denmark's mortgage bond market**

	Total volume outstanding (DKKbn)	Market share (%)
Nykredit/Totalkredit	951.22	51.32%
Realkredit Danmark	538.45	29.05%
Nordea Kredit Realkredit	158.19	8.53%
BRFkredit	139.37	7.52%
DLR Kredit	59.61	3.22%
LR Realkredit	5.96	0.32%
FIH Realkredit	0.72	0.04%
	1,853.51	100.00%

Source: OMX Nordic Exchange, Merrill Lynch (as at 26 July 2007)

## Current and future players in the market

### Who can issue særligt dækkede realkreditobligationer?

Only mortgage banks can issue conventional *realkreditobligationer* and, since July this year, *særligt dækkede realkreditobligationer*. Mortgage banks operate under a special banking principle confining their business to mortgage lending funded by the issuance of traditional *realkreditobligationer*, *SDRO*, and *SDO*. The special banking principle precludes mortgage banks from taking deposits and activities not directly related to their main business. Hence hybrid core capital and subordinate loan capital can be issued but the funds raised may not be invested in mortgage loans. Since the legal amendments allow for grandfathering of the *realkreditobligationer* that accord with Article 22 (4) of the UCITS Directive and are issued before 1 January 2008, such bonds are not required to be converted into *SDRO*.<sup>5</sup> There are eight mortgage banks in Denmark. These are BRFkredit, DLR Kredit, FIH Realkredit, LR Realkredit, Nordea Kredit Realkredit, Nykredit Realkredit, Realkredit Danmark, Totalkredit. FIH Realkredit ceased new lending and issuance in 2004.

Concentration in the mortgage bond market is high, with Nykredit/Totalkredit and Realkredit Danmark accounting for about 80% of outstanding mortgage bonds (see Table 1). By the end of 2006, the mortgage bond segment accounted for the greater part of the Danish fixed income market with a market value of €288bn and 1,628 listed bonds. At the same time, the market value of Danish government bonds and other bonds including, inter alia, structured products, corporate bonds, and asset backed securities, was €83bn and €38bn, respectively.

### Who can issue særligt dækkede obligationer?

*SDO* can be issued by commercial banks and mortgage banks. A bank requires a licence to engage in *SDO* business from the *Finanstilsynet*. Commercial banks, unlike mortgage banks, can take deposits and activities are regulated by the Financial Business Act. Thus the structure of the balance sheet of different *SDO* issuers may differ depending on whether the issuer is a mortgage bank or a commercial bank. Both types of bank must meet certain liquidity requirements. 'Liquidity' is detailed as operating cash, deposits with credit institutions and insurance companies, safe and liquid securities<sup>6</sup> and debt instruments. Liquidity must not be less than 10% of a bank's given undrawn credit lines on call loans granted on overdraft terms that have not been funded by a bond issue. If a bank does not meet this requirement and does not remedy it within eight days from failure, it must inform the *Finanstilsynet* promptly. The latter will stipulate a new deadline for meeting the requirement. Should this not be met the *Finanstilsynet* has the right to revoke the bank's banking licence.

The *Finanstilsynet* may also revoke a bank's licence to engage in *SDO* business if the bank has launched no *SDO* within 12 months from granting of the licence. The *Finanstilsynet* can also withdraw a licence if a bank seriously or repeatedly violates legal requirements. For instance, a licence can be revoked if a bank no longer meets the qualifying requirements or when the conditions on bonds to obtain and retain the designation 'covered bonds' or 'covered mortgage bonds' are no longer fulfilled. For mortgage banks, the withdrawal of a licence to engage in *SDO* business would imply that the bank can no longer issue *SDO* and *SDRO*.

<sup>5</sup> Sweden has applied a different approach as issuers were asked to convert their *bostadsobligationer* (Swedish mortgage bonds) into *säkerställda obligationer* (Swedish covered bonds).

<sup>6</sup> Safe and liquid securities are detailed as bank debt, claims on central banks and governments in OECD countries, and claims on multinational development banks.

Only a few commercial banks are likely to set up their own Danish covered bond program. We expect others to participate in joint funding models. In terms of total assets on balance sheet the major commercial banks are Danske Bank, Nordea Bank, Jyske Bank, Sydbank, Spar Nord Bank, Forstaedernes Bank, and Roskilde Bank. There is no precise data on the outstanding mortgage loans of commercial banks. But, an estimate suggests that the total volume of housing-related lending to households by commercial banks was circa €30bn (+18% compared to 1H06) at the end of 1H07.

### Is there the opportunity for joint funding?

With the enactment of the amended regulations, commercial banks and mortgage banks can now fund loans by the issuance of covered bonds by another bank (the issuing institution). This is called a joint funding model and allows lenders lacking the necessary volume and capital to issue covered bonds and access this market via another institution. The *Finanstilsynet* has to approve joint funding models and assesses if the model offers adequate security for covered bond investors and debtors. The model's compliance with the mortgage banking regulations and the law on the protection of consumers is also taken into account.

The lender has to assign eligible collateral to an issuing institution. Loans can only be used as collateral for third party funding if the lender has revealed the funding arrangements on the loan agreements; and if the latter provides for an exchange of information on the debtor between the lender and the issuing institution. Information must only be exchanged in the context of protecting legitimate interests in the context of risk management and management of the cover pool.<sup>7</sup>

The lender is likely to carry on some administrative tasks, such as the monitoring of the value of the mortgaged property and the collection of mortgage payments. A debtor can discharge his liabilities by payment to the lender, unless the issuing institution explicitly notifies him otherwise. The lender has to settle such payments with the issuing institution according to a preset plan, keep payments separate from its other funds, and verify the separation of funds on a regular basis. The separation of funds related to cover assets is particularly important if the lender becomes bankrupt.

If bankruptcy proceedings are opened, the lender's assets assigned to the issuing institution cannot be included in the insolvent estate. Thus far, protection of the assignee has been governed under the Instrument of Debt Act. However, once the Registration of Property Act becomes effective, the assignment needs to be registered if protection against bona fide assignees is to be obtained.

Even if the amended regulations allow for a joint funding model, it remains open as to how institutions put a joint funding agreement together. It remains uncertain as to whether the final credit risk falls on the issuing institution or the lender. In addition, there is no regulation about whether the issuing institution can ask a lender for additional collateral or if such an assignment would fall under the Instrument of Debt Act.

<sup>7</sup> The exchange of confidential personal data is governed by the Processing of Personal Data Act and the Data Protection Directive.

## A balance between conformity and uniqueness

### Which assets are eligible as collateral?

The changes to the eligibility criteria do not deviate materially from the definitions previously in place for the *realkreditobligationer*, nor do they differ immensely from what is seen in other European covered bond markets. The amendments to the existing eligibility criteria were primarily made to ensure that *SDRO* and *SDO* comply with the covered bond definition under the CRD. The following assets are eligible as collateral for *SDRO* and *SDO*:

- Residential, commercial, agricultural, and ship<sup>8</sup> mortgage loans secured by a registered mortgage or, in the case of ships, by a registered lien. The mortgage has to state that it serves as security for a loan funded by the issuance of covered bonds.<sup>9</sup> The *Finanstsynet* can grant exemptions from this provision for loans secured by real estate located outside Denmark.
- Bonds or instruments of debt issued or guaranteed by central governments, central banks, a public, regional or local authority in a country within the EU (European Union).
- Bonds or instruments of debt issued or guaranteed by central governments, central banks, a public, regional or local authority in a country outside the EU, multilateral development banks or international organisations provided their risk-weighting is 0%.
- Bonds or instruments of debt issued by financial institutions that qualify for up to 20% risk-weightings and bonds and debt instruments with an original term of 100 days or less issued by EU-domiciled financial institutions that qualify for up to 50% risk-weightings.

The *Finanstsynet* can authorise other assets as eligible as collateral so long as they qualify as collateral for covered bonds under the CRD, like specific mortgage-backed securities. Exposure to debtors outside the EU with a risk-weighting not higher than 20% must not exceed 20% of the nominal value of the outstanding covered bonds related to a specific register, series with a series reserve fund or capital centre. Exposure to banks, not including receivables arising from payments on or repayments of loans secured by mortgages on real estate, must not exceed 15% of the nominal value of the outstanding covered bonds related to a specific register, series with a series reserve fund or capital centre.

The revised regulations do not foresee changes to the conditions stipulated under the Mortgage-Credit Loans and Mortgage-Credit Bonds etc. Act for the repayment profile, term and loan-to-value (LTV) limit of loans. Thus, the maximum term for mortgage loans granted on the basis of a pledge of public subsidies or support under the Danish Non-Profit Rental Housing and Subsidised Private Cooperative Housing etc. Act is 35 years and the maximum term of other mortgage loans is 30 years. Private residential and second home mortgage loans need to be redeemed within at least a 30-year period with an option for interest-only periods of up to 10 years. The term and repayment conditions can be avoided for residential mortgage loans if the specific LTV ratio at the time the loan becomes collateral for covered bonds does not exceed 70% (as from 1 July 2009: 75%).

<sup>8</sup> Mortgage banks must not issue covered bonds secured by ship mortgage loans.

<sup>9</sup> The Ministry of Justice has drafted a new mortgage form to be used for registering mortgages securing loans funded through covered bonds. Loans secured by mortgages registered before the coming into force of the amendments on 1 July 2007 may also serve as security for loans funded by the issuance of covered bonds.



**Table 2: Maximum loan-to-value ratios by type of the underlying mortgaged property**

	Maximum loan-to-value ratio*
Residential mortgage loans	80%
Agricultural mortgage loans**	70%
Ship mortgage loans	70%
Commercial mortgage loans***	60%
Other mortgage loans	40%

Source: Denmark's regulations on mortgage banking

\*Mortgage loans with a higher LTV ratio may be granted, if they are guaranteed by a public authority for that part of the loan, which exceeds the LTV limit. \*\*The 70% LTV limit can be used only if additional collateral of at least 10% is provided for the part of the loan that exceeds 60% of the value of the property. \*\*\*The 60 % LTV limit may be raised to 70% if additional collateral of at least 10% is provided for the part of the loan that exceeds 60% of the value of the property.

For mortgage loans the new provisions require that LTV limits must be observed and met on an ongoing basis. This is contrary to the previous regulations for *realkreditobligationer*, whereby the LTV limit was applied when the loan was granted and no specific provision required an assessment of the value of the mortgaged property and monitoring of the LTV at a later stage. To be eligible as collateral, each mortgage loan has to meet the respective LTV limit. The LTV limit depends on the type of the underlying property (see Table 2). Mortgage loans with an LTV above the maximum ratio can not be funded through covered bonds. Consequently, an LTV haircut system as applied in some European covered bond markets is not applicable.

### What about the valuation of the mortgaged properties?

Issuers of *realkreditobligationer*, *SDO*, and *SDRO* have to assess the value of the mortgaged properties. The value referred to in this case shall be the amount an experienced buyer with knowledge about price and market conditions for the relevant type of property would be deemed to be willing to pay. Conditions that occasion a particularly high price must not be taken into account, but any risk of changes in market conditions or structural conditions does need to be recognised. Statistical methods can be used to assess the value of a mortgaged property.

The CRD cites loans secured by real estate to be eligible as collateral for covered bonds, but not what the valuation of the real estate might include. The Danish interpretation of 'real estate' goes beyond a traditional interpretation as fixtures and fittings can be included in the valuation of a property.<sup>10</sup> For example, the livestock belonging to an agricultural property, and the fittings installed in a commercial property for the purpose of its operation can, to certain extent, be included in the valuation.

The value of commercial property and residential property has to be reassessed each year and every third year, respectively. Should market conditions change significantly, monitoring must be carried out more frequently and an expert has to review the valuation. The qualified expert needs to be independent of the credit granting process of the bank. For loans secured by properties with a value of more than €3mn or 5% of the equity of the bank, the property valuation has to be reviewed by the valuation expert at least every three years.

### What about substitute cover assets?

Banks can add substitute cover assets to the cover pool to meet the asset liability matching requirements. Eligible substitute cover assets have to be safe and liquid securities, including government bonds and deposits with central banks or banks. Eligible are only these assets that are generated in member states of the OECD. The share of substitute cover assets is limited to a maximum of 15% of the cover pool.

Substitute cover assets are funded through the issuance of *senior debt*, excess funds from an issue of covered bonds or via the bank's capital base (at least 8% of the bank's risk-weighted assets and off-balance sheet items). Lenders of *senior debt* rank below covered bond investors and counterparties of derivatives entered to hedge mismatches between the cover assets and the outstanding covered bonds. *Senior debt* can be applied if maximum LTV ratios are breached. *Senior debt* must not be used as an alternative funding instrument for covered bonds. The *senior debt* agreement must state the register, series with a series reserve

<sup>10</sup> Fixtures and fittings encompassed by section 38 of the Danish Registration of Property Act (*tinglysningsloven*) may be included in a valuation of the property.

fund or capital centre for the funds that are to be applied as substitute collateral. These funds must be kept in a separate account, a separate custody account or be marked otherwise from the time the debt is raised; but the funds are not yet used to acquire substitute cover assets. The reason for the requirement is to earmark such assets and funds as collateral for the relevant covered bonds.

### What about derivatives as collateral?

Derivatives used to hedge risks arising from mismatches between the covered bonds outstanding and the cover assets can be included in a register, series with a series reserve fund and capital centre provided it is ensured that the bank's claims under the derivatives cannot be impaired in the event of its bankruptcy. In this context, derivative contracts can be concluded with suitable counterparties qualifying for a 20% risk weighting under the Revised Standardised Approach. The requirement with reference to the counterparty's risk weighting needs to be satisfied on an ongoing basis. There are special provisions for derivatives that have been entered into with companies affiliated to the issuer. If the rating of a derivative counterparty affiliated to the issuer falls below an A, the *Finanstilsynet* may ask for additional substitute cover assets to be provided or for all contracts with that counterparty to be transferred and set up with another counterparty.

Should insolvency proceedings be opened in respect of a bank, counterparties of derivatives entered to hedge mismatches between the covered bonds and their cover assets rank equal to the covered bond investors. In other words, claims of derivative counterparties rank *pari passu* with those of covered bond investors.

### What about the registration and assignment of collateral?

Commercial banks are required to maintain a separate cover pool and to keep a specific register for the collateral of the outstanding *SDO*. Commercial banks that intend to issue a large number of covered bonds may have an interest in setting up more than one register pursuant to the provision that all issued bonds related to one register lose the designation 'covered bonds' if the bank fails to provide the legally required coverage. Further, a register must not include both loans secured by mortgages on real estate and by liens on ships. If an insolvency proceeding is opened with regard to the *SDO* issuer's assets, the assets recorded in the cover registers are not included in the insolvent estate. If an issuer has more than one register, the assets recorded in one register must not be used to meet the claims secured by assets recorded in another register.

Mortgage banks do not have to keep a specific register, but are required to assign assets eligible as collateral for *realkreditobligationer*, *SDO* or *SDRO* to a series with a series reserve fund or capital centre. Assigned assets in a specific series with a series reserve fund or capital centre constitute a separate cover pool if an issuer becomes bankrupt. Investors in conventional *realkreditobligationer*, *SDO*, or *SDRO* can submit their claim against the relevant series with a series reserve fund or capital centre with joint and several liabilities. As indicated, a bank needs to establish a series reserve fund. The balance of the series reserve fund must remain separate from the mortgage bank's other assets. If the mortgage bank becomes bankrupt, funds must not be transferred between series with a series reserve fund and / or capital centres.

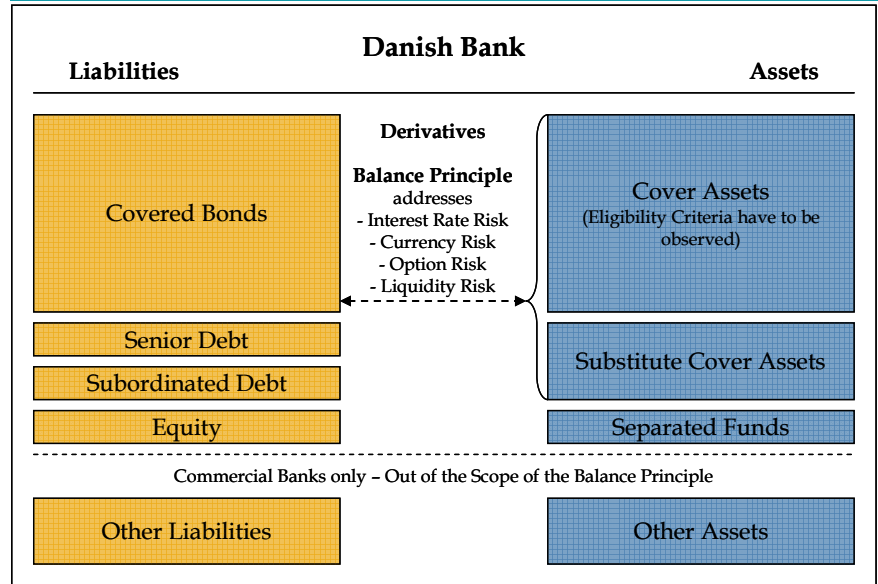
### What about the asset liability matching requirements?

At all times, the total value of the cover assets is required to be at least equal to the value of the outstanding covered bonds and every mortgage loan used as collateral has to meet the specific LTV limit. Should the total value of the cover



assets be below the value of the outstanding covered bonds, or the mortgage loans exceed the statutory LTV limits, a bank must promptly provide substitute cover assets or replace non-conforming loans with eligible cover assets to re-establish the required total value of cover assets.

Chart 3: Simplified balance sheet of a covered bond issuer in Denmark



Source: Realkredit Danmark, Merrill Lynch

In the event that the total value of the cover assets is less than the value of the covered bonds outstanding, a bank must notify the *Finanstsynet* whether it can provide the necessary coverage. Should a bank fail to provide sufficient collateral, all outstanding covered bonds related to the respective register, series with a series reserve fund or capital centre, lose their designation 'covered bonds' or 'covered mortgage bonds'. Bonds that have lost 'covered mortgage bond' designation can be designated 'mortgage bonds' provided the necessary legal requirements are fulfilled. Failure to provide sufficient coverage constitutes a severe breach of the statutory requirements. In this event, the *Finanstsynet* may revoke the licence to engage in covered bond business. Once the requirements are re-met, bonds can be re-designated. Loss of designation does not affect the bondholders' and the derivative counterparties' preferential status in a bank insolvency scenario.

Banks must provide a certain level of over-collateralisation (OC). That said, there is no legal provision to define a mandatory minimum level of OC for commercial banks. At all times, the total capital base of a mortgage bank has to account for at least 8% of its risk-weighted assets and off-balance sheet items and not less than €5mn. Every series with a series reserve fund or capital centre has to comply with the 8% capital requirement. This capital is in effect a minimum level of mandatory OC. Further, the bank's management is legally required to determine a minimum level of voluntary OC considering the extent of expected fluctuations in the value of the cover assets and the covered bond prices.

Executive Order no. 718 on the Issue of Bonds, the Balance Principle and Risk Management introduces two balance principles. Banks have the choice to follow

either the general balance principle or the specific balance principle. Both balance principles address, inter alia, interest rate, currency, and liquidity risks related to mismatches between future cash flows on the covered bonds and that from the respective cover assets. When calculating the cash flows the derivatives entered into to hedge risks need to be taken into account. The application of the general balance principle or the specific balance principle shall ensure that interest rate risk and currency risk are not assumed by a register, series with a series reserve fund or capital centre (see Chart 3). Banks have to calculate the risks by using adequate internal models, which have to meet certain requirements that are set by the *Finanstilsynet*.

**Table 3: Most common Danish mortgage bonds**

	Fixed-rate callable annuity <i>realkreditobligationer</i>	Fixed-rate bullet <i>realkreditobligationer</i>	Floating-rate annuity <i>realkreditobligationer</i>
Maturity	10 to 30 years	1 to 11 years	5 to 30 years
Issuance	Daily tap issuance; Open for taps for 3 years; Initial term thus 3 years longer	Daily tap and auctions in March, September, and December	Daily tap issuance and auctions mainly in December
Collateral	Fixed-rate callable annuity mortgage loans with or without interest-only periods (maximal 10 years)	Adjustable-rate mortgage loans	Capped and non-capped floating-rate mortgage loans with or without interest-only periods (maximal 10 years)
Denomination	DKK (mainly) and EUR	DKK (mainly) and EUR	DKK (mainly) and EUR

Source: Nykredit

Banks have to choose which balance principle to apply to each register, series with a series reserve fund and capital centre. The decision must be made clear in the respective base prospectus or prospectus supplement for bonds issued after the 1 July 2007. Until the legal changes came into force in July 2007, a mortgage bank had to follow the global balance principle. Under this principle, banks were allowed only to accept market and liquidity risks to a very limited extent in relation to the *realkreditobligationer* outstanding and their cover assets. Mortgage banks had to almost fully match the terms and conditions of the loans granted with those of the *realkreditobligationer* issued to fund the loans. A pooling mechanism and a pass-through between the cover assets and the *realkreditobligationer* is applied. Only a limited range of mortgage loans is offered in Denmark. However, the pass-through system has led to a quite fragmented *realkreditobligationer* market. But, three types of *realkreditobligationer* (see Table 3) are most common.

This type of matched funding is still possible under the revised regulations and confirmation of the global balance principle. However, in contrast to the previous regulations, banks can now use derivatives to hedge risks related to mismatches between outstanding covered bonds and their specific cover assets. The funding of loans has therefore become more flexible as banks can break up the previous tight linkage between the loans and the bonds issued to fund the loans.

The general balance principle requires the following:

- The interest rate risk is calculated as the highest cut in the present value of differences in cash flow for six different developments of the yield structure. The interest rate risk is the sum of interest rate risks in different currencies. Interest rate risks in different currencies must in general not offset each other. The cash flow mismatches due to a parallel shift in the yield structure by one percentage point must not be higher than 10% of the voluntary OC of a commercial bank. For mortgage banks it must not exceed 1% of the mandatory OC plus 2% of the voluntary OC.

Nykredit and Totalkredit opted to apply the general balance principle to all their capital centres

Cash flow mismatches based on a parallel shift in the yield structure by 2.5 percentage points or other specific changes in the yield structure (ie, twists) are limited to 100% of the voluntary OC of commercial banks. For mortgage banks it must not be higher than 5% of the mandatory OC plus 10% of the voluntary OC.

- Currency risk, as in cash flow mismatches arising from a 10% rise or a fall of exchange rates in currencies within a member state of the EU, the EEA or Switzerland and 50% for all other currencies, must not be higher than 10% of the voluntary OC of a commercial bank. For mortgage banks it must not be more than 10% of the mandatory OC plus 10% of the voluntary OC for the euro, and 1% of the mandatory OC plus 1% of the voluntary OC on other currencies.
- The option risk is measured as the amount an option price changes due to a one percentage point change in the volatility of an underlying. The option risk is calculated as the highest cut in the present value of cash flow differences. The option risk is the sum of option risks in different currencies. Option risks in different currencies must not in general offset each other. The option risk must not be more than 5% of the voluntary OC of commercial banks. For the mortgage banks it should not exceed 0.5% of the mandatory OC plus 1% of the voluntary OC.
- Over a 12-month period the interest income from the respective cover assets must exceed the interest payments on the outstanding covered bonds. Banks almost fully matching the terms and conditions of the granted mortgage loans with those of the covered bonds issued to fund the loans do not have to meet this requirement.
- There is also a present value matching requirement for future cash flows on the outstanding covered bonds and those from the respective cover assets.

Under the general balance principle, mortgage banks have also to meet the following requirements: The interest rate risk related to a parallel shift in the yield structure by one percentage point and the currency risk as prescribed above with regard to a bank's assets, liabilities and off-balance sheet items, must not exceed 8% and 10%, respectively, of the mortgage bank's total capital base.

Realkredit Danmarks decided to apply the specific balance principle for the new capital centre related to the issue of SDRO

The requirements under the specific balance principle are similar to those under the traditional global balance principle with the exception of the option to use derivatives to hedge risks related to mismatches between the covered bonds in circulation and their cover assets. The requirements under the specific balance principle are tighter as under the general balance principle and are as follows:

- Index-linked loans must not be financed by the issuance of nominal covered bonds or via covered bonds linked to another index. The refinancing of index-linked loans with nominal covered bonds would only be allowed if derivatives are entered into to fully hedge risks that arise from cash flow differences. Callable loans are not allowed to be financed by the issuance of non-callable bonds.
- The magnitude of a future liquidity deficit defined as any gap between the future payments on covered bonds and the future receivables from the cover assets is limited. The legally allowed magnitude of a future liquidity deficit depends on when the deficit occurs. The future liquidity deficit must not be

above 25%, 50%, and 100% of a bank's capital base in the first three years, in years four to 10, and in the following years, respectively.

- Interest rate risk is again calculated in respect of six different developments of the yield structure including parallel shifts of up to three percentage points and twists. The interest rate risk is limited to a maximum of 1% of a bank's capital base. The interest rate risk related to one register, series with a series reserve fund or capital centre may count for a maximum DKK20mn.
- The interest rate risk related to a parallel shift in the yield structure by one percentage point and the currency risk in view of a bank's assets, liabilities and off-balance sheet items is limited to 8% and 0.1%, respectively, of the bank's total capital base.

According to the revised global balance principle, banks can only accept risks to a limited extent in connection with the assets securing outstanding covered bonds. Compared to the previous global balance principle, the general and the specific balance principle continue to govern the same types of risk including interest rate, currency, and liquidity risks. Though the limits that are applied to the individual risks have been extended, the requirements remain of the tightest compared to other European covered bond markets. The new balance principles are likely to provide a similar level of certainty that the claims due to covered bond investors can be satisfied in full in time.

### What about the supervision of covered bond issuers?

Commercial banks and mortgage banks are supervised by the *Finanstlsynet*. The latter intends to set up a national register to record all covered bond issues. The register will also include bonds that have lost their 'covered bonds' or 'covered mortgage bonds' designation. The public will have access to the register. Banks need to declare in connection with their financial statements that all the provisions of the Executive Order no. 718 on the Issue of Bonds, the Balance Principle and Risk Management have been met. To verify whether the requirements related to the interest rate, option, currency, and liquidity risks are met, banks are required to report the *Finanstlsynet* information no later than 20 working days after the end of the first, second and third quarters and no later than 30 working days after the end of the year. Such reports must be approved by the bank's executive board. Banks have to report to the *Finanstlsynet* promptly if coverage of the covered bonds is insufficient. Fines can be imposed or the licence to engage in covered bond business can be revoked by the *Finanstlsynet* should a bank seriously or repeatedly violate legal requirements. Since the *Finanstlsynet* strictly supervises banks the regulations do not foresee any necessity for a cover pool monitor.

## Bankruptcy procedures not equal

Covered bond investors have preferential status in a bank insolvency scenario. The collateral recorded in a register, series with a series reserve fund or capital centre must first serve to satisfy the covered bond investors and counterparties with which derivatives have been entered. The covered bond investors' claims also include claims for interest accrued on the covered bonds from the time the bank has been declared bankrupt. Claims of covered bond investors rank *pari passu* with the claims of the counterparties of recorded derivatives. Lenders of senior debt have secondary preferential treatment as regards the cover assets, ranking junior to covered bond investors and derivative counterparties but senior to lenders of subordinated debt or hybrid core capital. Due to its specific status market participants name it 'junior covered bonds'.

The opening of bankruptcy proceedings against a bank must not cause the acceleration of outstanding covered bonds and the determination of derivative contracts entered into to hedge mismatches between the outstanding covered bonds and their cover assets. Any remaining funds after the settlement of any claims related to a register, series with a series reserve fund or capital centre must be surrendered to the insolvent estate. Such funds must not be transferred to other registers, series with a series reserve fund or capital centres.

- Upon a commercial bank's bankruptcy, the *Finanstsynet* has to decide if the repayment from the bank to the covered bond holders shall be subject to administration. Should this be the case, the *Finanstsynet* appoints an administration estate represented by an administrator to conduct the payments. This needs to be registered with or otherwise made public by the Danish Commerce and Companies Agency. The liquidator of the insolvent estate must transfer the cover assets promptly to the administration estate. The administration estate is supervised by the *Finanstsynet* and cannot be closed until all outstanding covered bonds are redeemed and the derivatives are matured. The insolvent estate cannot be closed until the administration estate has been closed.

One or more co-administrators can be appointed by an administrator. The expenses related to the administration must be paid before other parties' claims are met. An administrator manages incoming and outgoing payments related to the cover pool, can solicit information from the insolvent estate to perform its tasks, may dispose of cover assets to meet the payments due on covered bonds, and acts on behalf of the covered bond investors, derivative counterparties and senior debt lenders. The administrator has to notify the mortgage debtors to pay interest and redemption direct to the administration estate. Mortgagors can not make any set-offs to satisfy their claim owing to the commercial bank and relating to loans that have been funded by the issuance of covered bonds.

Should the funds arising from the cover assets prove to be insufficient to satisfy the claims of covered bond investors, derivative counterparties, and senior debt lenders, the administrator can assert their unsatisfied claims in the insolvency proceedings with respect to the commercial bank's remaining assets. But these claims would rank *pari passu* with those of unsecured creditors of the commercial bank.

- When the *Finanstsynet* submits a petition for bankruptcy when a mortgage bank becomes insolvent, the bankruptcy court is obliged, after negotiations with the *Finanstsynet*, to appoint one or more liquidators at least one of whom must be a lawyer. The liquidators need to supervise and administer the bankruptcy procedures of the mortgage bank. The liquidators are instructed to continue or resume payments due on outstanding covered bonds on time irrespective of any suspension of payments of the bank. To meet these payments, the liquidators may dispose of substitute cover assets and raise funds. The security for such funds can only be assets other than mortgages belonging to the series with a series reserve fund or capital centre for which the payment takes place. There shall be no acceleration of payments on mortgage loans and mortgagors have to make their payments as scheduled. The mortgagors are not permitted to make any set-offs to satisfy their loans used as collateral for covered bonds. The liquidators must not fulfil claims of other creditors until all claims of the covered bondholders, counterparties of derivatives, and senior debt lenders have been met in full. In the event that the claims of covered bond holders are not met in full and on time, they may ask for acceleration under the general rules of the Danish law.

Note that the remaining claims of the covered bond holders rank pari passu with those of unsecured creditors of a commercial bank. However, holders of covered bonds issued by a mortgage bank keep a preferential position ahead of the other creditors of a mortgage bank. A reason for the different status can be seen in the different capital structure that applies to commercial banks and mortgage banks.

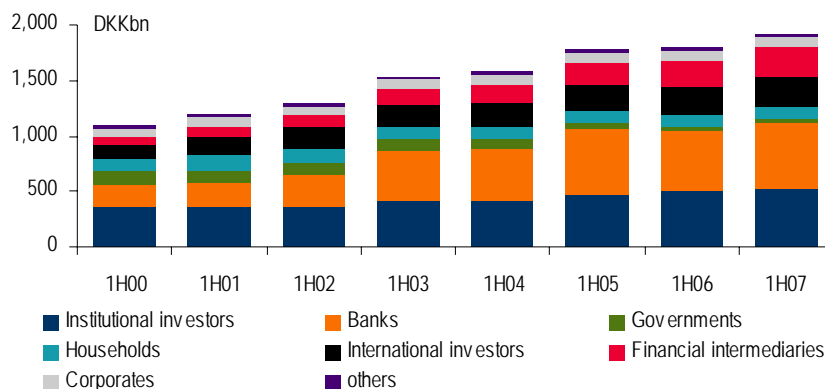


## Two products in coexistence

The Danish regulator had to strike a balance when changing the regulations on the issuance of covered bonds. Under the revised legal framework Danish banks should now have the same opportunities as their European peers to refinance mortgage loans through the issuance of bonds that fall within the covered bond definition under the CRD. Denmark's regulator has attempted to avoid a serious erosion of the *realkreditobligationer* market. Only the future will reveal if the regulator has been successful. For now, we make the following assumptions:

- *Realkreditobligationer* issued prior to 1 January 2008 will be grandfathered, which should trigger the issuance of *realkreditobligationer* in open series to be halted by the end of 2007 and closure of open issues, which might spur remortgaging activity. Cessation of *realkreditobligationer* issuance in open series should have a negative impact on the future liquidity of these bonds. Even so, we do not expect daily tap issuances and auctions to disappear.<sup>11</sup>
- Domestically, there is a level playing field regarding the funding of mortgage loans by the issuance of *SDO* as both commercial and mortgage banks can issue these bonds. In this regard there is no special banking principle. But mortgage banks continue to have an exclusive right to procure funding via the issue of *realkreditobligationer* and *SDRO*. We do not expect specialist mortgage banks to disappear. There is the potential for higher competition between Danish banks. A response to fierce competition might be that new market participants in the Danish covered bond market (commercial banks) and old ones (mortgage banks) will focus on product innovation to generate volume in a market with shrinking margins.

Chart 4: Outstanding volume (market value) of *realkreditobligationer* by type of investor



Source: Danmarks Nationalbank

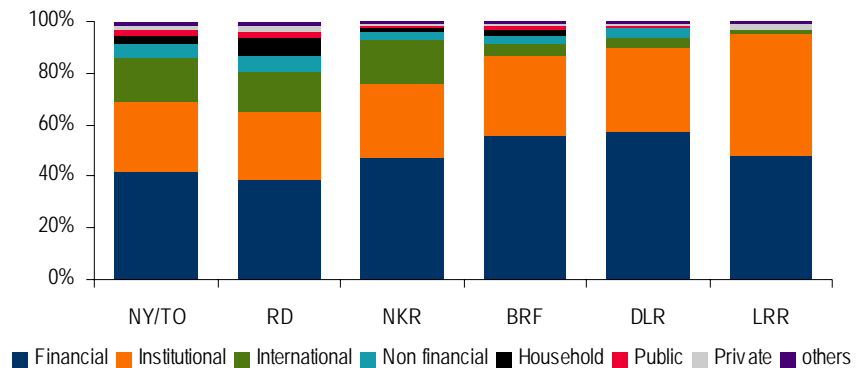
- Product innovation may also flourish since the funding of mortgage loans has become more flexible particularly with reference to the use of derivatives that have become eligible as collateral. The latter may also trigger the issuance of €-denominated covered bonds. However, the market seen from a borrower's

<sup>11</sup> There exists a market-making agreement for Jumbo fixed-rate callable annuity *realkreditobligationer* and for liquid other fixed-rate callable annuity and fixed-rate bullet *realkreditobligationer*. A market maker quotes prices for lots of typically DKK50mn or more depending on liquidity. The market-making for *realkreditobligationer* and the unique head-to-head market making for Jumbo covered bonds is different.

perspective may become more opaque and pricing less clear when removing the direct link between the mortgage loans granted and the bonds issued to fund the loans.

- With the legal changes the regulator aimed to moderate some of the barriers that have kept covered bonds out of Denmark beneath the radar of traditional covered bond investors. The legal amendments have the potential not only to change the way Danish banks fund their mortgage portfolios but also to start targeting traditional covered bond investors and thus to extend their current investor base (see Chart 5).

Chart 5: Ownership of Danish mortgage bonds



Source: Nykredit (as of 30 July 2007)

Nykredit/Totalkredit (NY/TO), Realkredit Danmark (RD), Nordea Kredit Realkredit (NKR), BRFkredit (BRF), DLR Kredit (DLR), LR Realkredit (LRR)

- The terms of Danish mortgage loans are likely to be challenged as a result of the revised mortgage banking regulations. Until now, mortgagors could repay their loan by buying *realkreditobligationer* related to their loan on the market and delivering these bonds to the mortgage bank. As regards loans funded by the issue of Danish covered bonds there is no doubt that borrowers lose such option to repay their loan. The success of Danish covered bonds should therefore finally depend on the mortgagors' behaviour and their willingness to enter into loans without such a redemption facility but with other features that might attract their interest like a cashing in of equity.

So far, Realkredit Danmark has announced that it will start issuing *SDRO* under a new capital centre and follow the specific balance principle. Nykredit has opted to issue *SDO* out of a new capital centre to fund not only its loans but also that of its subsidiary Totalkredit. The bank decided to apply the general balance principle. It is expected that only a few commercial banks will set up their own programmes to issue *SDO*, others should join joint funding models. For the time being, we expect the two products to coexist in Denmark: *Realkreditobligationer* and *SDRO* as the 'Danish Classics' and Danish covered bonds as 'Danish Jumbos'.

Denmark: <i>Særligt Dækkede Obligationer (SDO)</i> , <i>Særligt Dækkede Realkreditobligationer (SDRO)</i>	
Legal background	Financial Business Act, Mortgage-Credit Loans and Mortgage-Credit Bonds etc. Act, and executive orders issued by the <i>Finanstilsynet</i>
Special banking principle	<ul style="list-style-type: none"> <li>For <i>SDO</i>: No special banking principle; But banks need a licence to engage in <i>SDO</i> business from the <i>Finanstilsynet</i></li> <li>For <i>SDRO</i>: Yes, there is a special banking principle; Only mortgage banks can issue <i>SDRO</i></li> </ul>
Supervision	<i>Finanstilsynet</i> (Danish Financial Supervisory Authority)
Ordinary cover assets	<ul style="list-style-type: none"> <li>Residential, commercial, agricultural, and ship mortgage loans; The mortgage has to state that it serves as security for a loan funded by the issuance of <i>SDO</i> or <i>SDRO</i>; The <i>Finanstilsynet</i> can grant exemptions from this provision for loans secured by real estate located outside Denmark</li> <li>Bonds or debt instruments issued or guaranteed by central governments, central banks, a public, regional or local authority in a country within the European Union (EU)</li> <li>Bonds or debt instruments issued or guaranteed by central governments, central banks, a public, regional or local authority in a country outside the EU, multilateral development banks or international organisations provided their risk-weighting is 0%; Exposure to debtors outside the EU with a risk-weighting not higher than 20% must not exceed 20% of the nominal value of the outstanding covered bonds</li> <li>Bonds or debt instruments issued by banks that qualify for up to 20% risk-weightings and bonds and debt instruments with an original term of 100 days or less issued by EU-domiciled banks that qualify for up to 50% risk-weightings; Exposure to banks must not exceed 15% of the nominal value of the outstanding covered bonds</li> </ul>
Loan-to-value (LTV) limits	80% for residential mortgage loans; 70% for agricultural mortgage loans; 70% for ship mortgage loans; 60% for commercial mortgage loans; 40% for other mortgage loans; LTV is referred to the amount an experienced buyer with knowledge about price and market conditions for the relevant type of property would be deemed to be willing to pay
Substitute cover assets	Bank debt, claims on central banks and governments in OECD countries, and claims on multinational development banks; The share of substitute cover assets is limited to a maximum of 15% of the cover pool; Substitute cover assets can be funded through the issuance of <i>senior debt</i> , excess funds from the issuance of covered bonds or via the bank's capital base
Derivatives as collateral	Derivatives used to hedge risks arising from mismatches between the covered bonds outstanding and their cover assets are eligible as collateral provided it is ensured that the bank's claims under the derivatives cannot be impaired if the bank becomes bankrupt; Claims of derivative counterparties rank <i>pari passu</i> with those of covered bond investors
Registration and assignment	<ul style="list-style-type: none"> <li>Commercial banks are required to maintain a separate cover pool and to keep a specific register for the collateral of the outstanding <i>SDO</i>; Should insolvency proceeding be opened with regard to the <i>SDO</i> issuer's assets, the assets recorded in the cover registers would not be included in the insolvent estate</li> <li>Mortgage banks do not have to keep a specific register, but are required to assign assets eligible as collateral for <i>realkreditobligationer</i>, <i>SDO</i> or <i>SDRO</i> to a series with a series reserve fund or capital centre; Assigned assets in a specific series with a series reserve fund or capital centre constitute a separate cover pool if an issuer becomes bankrupt</li> </ul>
Asset liability matching requirements	At all times, the total value of the cover assets needs to be at least equal to the value of the outstanding covered bonds and each mortgage loan used as collateral has to meet the specific LTV limit; There is no legal provision to define a mandatory minimum level of over-collateralisation (OC) for commercial banks; At all times, the total capital base of mortgage banks has to be at least 8% of its risk-weighted assets and off-balance sheet items and not less than €5mn; Every series with a series reserve fund or capital centre has to comply with the 8% capital requirement; This capital is in effect a minimum level of mandatory OC; A bank's management is legally required to determine a minimum level of voluntary OC considering the extent of expected fluctuations in the value of the cover assets and the covered bond prices; Banks have the choice to follow either the general balance principle or the specific balance principle; Their decision must be made clear in the respective base prospectus or prospectus supplement for bonds issued after the 1 July 2007; Both balance principles address market and liquidity risks, such as interest rate and currency risks
Bankruptcy remoteness Preferential claim	Covered bond investors have preferential status in a bank insolvency scenario; The collateral recorded in a register, series with a series reserve fund or capital centre must first serve to satisfy the covered bond investors and counterparties of recorded derivatives; Senior debt lenders have secondary preferential treatment with regard to the cover assets, ranking junior to covered bond investors and derivative counterparties but senior to lenders of subordinated debt or hybrid core capital; The opening of bankruptcy proceedings against a bank must not cause the acceleration of outstanding covered bonds and the determination of recorded derivative contracts; Any remaining funds after the settlement of claims related to a register, series with a series reserve fund or capital centre must be surrendered to the insolvent estate
Upon a commercial bank's bankruptcy	The <i>Finanstilsynet</i> has to decide if the repayment from the bank to the covered bond investors shall be subject to administration; Should this be the case, the <i>Finanstilsynet</i> appoints an administration estate represented by an administrator to conduct the payments; The liquidator of the insolvent estate must transfer the cover assets promptly to the administration estate; Administration expenses have to be paid before other parties' claims are satisfied; The administrator manages incoming and outgoing payments related to the cover pool, may dispose of cover assets to meet payments due on the covered bonds, and acts on behalf of the covered bond investors, derivative counterparties and senior debt lenders; The administrator has to notify the mortgagors to pay interest and redemption direct to the administration estate and has to arrange that calculations in view of the asset liability matching are performed; Should the funds arising from the cover assets prove to be insufficient to satisfy the claims of covered bond investors, derivative counterparties, and senior debt lenders, the administrator can assert their unsatisfied claims in the insolvency proceedings with respect to the commercial bank's remaining assets; These claims would rank <i>pari passu</i> with those of unsecured creditors of the commercial bank
Upon a mortgage bank's bankruptcy	The bankruptcy court is obliged, after negotiations with the <i>Finanstilsynet</i> , to appoint one or more liquidators; The liquidators need to supervise and administer the bankruptcy procedures of the mortgage bank; The liquidators are instructed to continue or resume payments due on outstanding covered bonds on time irrespective of any suspension of payments of the bank; To meet these payments, the liquidators may dispose of substitute cover assets and raise funds; There shall be no acceleration of payments on mortgage loans; The liquidators must not fulfil the claims of other creditors until all claims of the covered bond investors, counterparties of derivatives, and senior debt lenders have been met in full; In the event that the claims of covered bond holders are not met in full and on time, they may ask for acceleration under the general rules of the Danish law
Eligible for refinancing with ECB	Euro-denominated: Yes; DKK-denominated: No, but with the Danish National Bank
Source: Financial Business Act, Mortgage-Credit Loans and Mortgage-Credit Bonds etc. Act, and executive orders issued by the <i>Finanstilsynet</i> , Merrill Lynch	

Finland: Mortgage Credit Backed Bonds ( <i>MFCB</i> ), Public Sector Credit Backed Bonds ( <i>PFCB</i> )	
Legal background	Act on Mortgage Credit Banks ( <i>kiinnitysluottopankkilaki</i> 1240/1999, as amended from time to time)
Special banking principle	Yes there is a special banking principle: Only mortgage credit banks ( <i>banksiinnitysluottopankin</i> ) can issue Finnish covered bonds ( <i>FCB</i> )
Supervision	<i>Rahoitustarkastus</i> (Finnish Financial Supervisory Authority)
Ordinary cover assets	<ul style="list-style-type: none"> <li>For <i>MFCB</i>: Mortgage credits generated in member states of the European Economic Area (EEA)</li> <li>For <i>PFCB</i>: Public sector credits granted to public sector organisations or secured by a guarantee or claim of an organisation governed by public law</li> </ul>
Substitute cover assets	Bonds or other debt obligations issued by the Republic of Finland or its municipalities or other public sector organisations in countries that have a comparable credit risk to that of the Republic of Finland; Bonds or other debt obligations issued by Finnish government enterprises, the Social Insurance Institution, joint municipal organisations, the Municipal Guarantee Board, the Province of Åland or municipalities of EEA member states comparable to Finnish municipalities; Debt obligations issued by credit institutions which are outside the mortgage credit bank's consolidation group; The share of substitute cover assets is limited to a maximum of 20% of the cover pool (temporarily)
Derivatives as collateral	Derivative contracts entered into for hedging risks related to the Finnish covered bonds ( <i>MFCB</i> or <i>PFCB</i> ) and their respective cover assets must be recorded in the cover register; Despite a mortgage credit bank's liquidation or bankruptcy, claims arising from registered derivative contracts must be fulfilled pursuant to their respective contract terms unless otherwise provided by the terms and conditions of the specific contract; In a bank insolvency scenario, the status of the derivative counterparties is not the same for all different Finnish covered bond programmes: <ul style="list-style-type: none"> <li>AKTIA: Claims of the registered derivative counterparties rank <i>pari passu</i> with claims of the covered bond investors</li> <li>OPMB: Claims of the registered derivative counterparties rank <i>pari passu</i> with claims of unsecured creditors</li> <li>SHAMPO: Claims of the registered derivative counterparties rank <i>pari passu</i> with claims of unsecured creditors</li> </ul>
Registration and assignment	Cover assets remain on an issuer's balance sheet; Requirement to run a separate cover pool and to maintain a specific cover register for the respective type of <i>FCB</i>
Asset liability matching requirements	At all times, the total nominal value of cover assets have to be higher than the nominal value of the outstanding <i>FCB</i> and the average term to maturity of the outstanding <i>FCB</i> must be shorter than that of the cover assets; There is no legal provision to define a mandatory minimum level of over-collateralisation; In any given 12-month period, interest received from cover assets must at all times exceed the interest payable on the outstanding <i>FCB</i> taking into account a stress scenario in terms of a parallel shift in the yield structure by one percentage point; The net present value of the outstanding <i>FCB</i> must be smaller than the net present value of the cover assets; Currency mismatches between cover assets and <i>FCB</i> need to be hedged; Refinancing risks mortgage credit banks are exposed to must not jeopardise their liquidity
Bankruptcy remoteness Preferential claim	Upon and after a mortgage credit bank has been placed in liquidation or declared bankrupt, payments under the <i>FCB</i> are foreseen to be affected as scheduled as long as the cover pool is solvent; The <i>FCB</i> and the registered derivative contracts do not accelerate; <i>FCB</i> investors have the right to receive payment, before all other creditors, notwithstanding the placing in liquidation or bankruptcy of the mortgage credit bank (preferential claim on the proceeds out of registered cover assets)
Upon a mortgage bank's bankruptcy	The <i>Rahoitustarkastus</i> has to appoint an attorney; The attorney has to supervise the interests of and represent <i>FCB</i> investors; The attorney would control the management and the liquidation of the cover assets and payments to the <i>FCB</i> investors; On demand of the attorney or with his consent a bankruptcy trustee of the insolent estate can enter into derivatives to hedge risks arising from mismatches between the <i>FCB</i> and their cover assets and dispose cover assets to meet due payments on <i>FCB</i> ; With the consent of the attorney and upon approval of the <i>Rahoitustarkastus</i> , the bankruptcy trustee can transfer <i>FCB</i> and the aligned cover assets to another Finnish mortgage credit bank or a foreign mortgage bank; If the funds arising from the cover assets prove to be insufficient to satisfy the claims of <i>FCB</i> investors, the attorney can assert their unsatisfied claims in the insolvency proceedings with respect to the mortgage credit bank's remaining assets; These claims would rank <i>pari passu</i> with those of unsecured creditors of the mortgage credit bank
Soft bullet redemption regime	OPMB and SHAMPO: If the claims of <i>FCB</i> investors cannot be met in full at their maturity, the maturity of the remaining, outstanding part can be extended by a maximum of 12 month
Eligible for refinancing with ECB	Yes

Source: Act on Mortgage Credit Banks and covered bond programs of the respective mortgage credit banks, Merrill Lynch  
 AKTIA (Aktia Real Estate Mortgage Bank), OPMB (OP Mortgage Bank), SHAMPO (Sampo Housing Loan Bank)

Sweden: Säkerställda Obligationer (SCB)	
Legal background	<i>Lag [2003:1223] om utgivning av säkerställda obligationer</i> or Covered Bond (Issuance) Act (2003:1223)
Special banking principle	No special banking principle: But banks need a licence to engage in <i>SCB</i> business from the <i>Finansinspektionen</i> , which approves six documents: <ul style="list-style-type: none"> <li>• Decision of the board of directors to apply for a license to engage in covered bond business</li> <li>• Business plan indicating the bank's handling of covered bonds and cover pools</li> <li>• Conversion plan of the <i>bostadsobligationer</i> (Swedish mortgage bonds)</li> <li>• Financial plan for the next three financial years showing that other creditors' claims will not be jeopardised if the bank issues covered bonds</li> <li>• Description of the manner in which the covered bond business shall be organised</li> <li>• Information on the suitability of the IT system at disposal</li> </ul>
Supervision	<i>Finansinspektionen</i> (Swedish Financial Supervisory Authority); <i>Sveriges Riksbank</i>
Cover pool monitor	<i>Oberoende granskare</i> (independent inspector)
Ordinary cover assets	<ul style="list-style-type: none"> <li>• Loans secured in the form of a mortgage on real property, site-leasehold rights, or tenant-ownership rights; The mortgaged property has to be a fire insured residential, agricultural, and commercial property in the European Economic Area (EEA); The share of loans secured by a mortgage on real property, site-leasehold rights, tenancy-ownership rights on commercial properties within the cover pool must not exceed 10%; Loans in arrears for more than 60 days do not qualify as collateral and must be substituted by qualifying assets</li> <li>• Loans granted to or bonds issued by, or guaranteed by, the Swedish government, Swedish municipalities and comparable Swedish institutions; Loans granted to or bonds issued by, or guaranteed by similar, 0% risk-weighted debtors based in the EU, EEA or in a full member state of the OECD</li> </ul>
LTV residential mortgage loans	75% of the market value
LTV agricultural mortgage loans	70% of the market value
LTV commercial mortgage loans	60% of the market value
Substitute cover assets	0% risk-weighted assets, 20% risk-weighted assets, and covered bonds issued under the Covered Bond (Issuance) Act (2003:1223) or other comparable legislation; The <i>Finansinspektionen</i> has to permit 20% risk-weighted assets; The share of substitute cover assets is limited to a maximum of 20% of the total of all cover assets; The <i>Finansinspektionen</i> can temporarily approve a 30% maximum of substitute cover assets
Derivatives as collateral	Derivatives can be registered as collateral if the contract has been entered in order to obtain a balance between the financial conditions of the cover assets and the outstanding <i>SCB</i> ; Derivative contracts registered as collateral must not allow for automatic termination should the bank become bankrupt; Claims of registered derivative counterparties rank <i>pari passu</i> with that of <i>SCB</i> investors
Registration and assignment	Cover assets remain on an issuer's balance sheet; Eligible collateral has to be entered into a special cover register; Funds derived from the cover pool have to be kept on an account separated from the bank's other assets; There is no legal provision to define the cover pool to consist of only one asset type; Thus, mixed cover pools can be used and maintained
Asset liability matching requirements	Nominal, net present value, risk-adjusted net present value and cash flow matching requirement between the cover assets and the aggregate value of the claims related to outstanding <i>SCB</i> ; There is an over-collateralisation requirement on a nominal and NPV basis but no legal provision to define a mandatory minimum level of over-collateralisation; Currency, interest rate, and fixed interest period mismatches between outstanding <i>SCB</i> and their cover assets have to be matched; Even if currency risks are not fully hedged, the net present value of the cover assets has to be higher than that of the outstanding <i>SCB</i> if the respective exchange rate changes by 10% on a sustained basis
Bankruptcy remoteness Preferential claim	Registered cover assets, registered derivatives, funds in the separate account, and the aligned <i>SCB</i> would be kept separate from other assets and liabilities of the insolvent estate; The separated cover assets, derivatives, funds in the separate account and the aligned <i>SCB</i> would not form a separate legal entity; The opening of bankruptcy proceedings against the bank must not cause the acceleration of outstanding <i>SCB</i> and determination of the registered derivative contracts; <i>SCB</i> holders and registered derivative counterparts would hold rights of priority to the assets in the cover pool; The costs for the management of the cover pool have to be paid first before other creditors' claims are satisfied
Post-bankruptcy procedures	The court has to appoint a bankruptcy receiver; A special representative ( <i>allmänt ombud</i> ) would be appointed by the <i>Finansinspektionen</i> ; Both parties jointly act as bankruptcy receivers; Both parties would run the bankruptcy proceedings against the bank and manage the separated cover assets, derivatives, funds in the separate account and the aligned <i>SCB</i> ; As a result, a conflict of interest regarding the reconstruction of the bank and the <i>SCB</i> investors' interest could materialise although the cover assets, derivatives, funds in the separate account and the aligned <i>SCB</i> are run separately from the bankruptcy proceedings against the bank; Duty to continually meet asset liability matching requirements; For accumulating the necessary liquidity, the funds out of the cover assets have to be registered as collateral; The receivers can sell (parts of) the cover assets but cannot enter bridge funding facilities; If the cover pool proves to be insufficient to satisfy the claims of the <i>SCB</i> investors or the asset liability matching deviates substantially from the statutory requirements, the cover pool faces insolvency; The outstanding <i>SCB</i> would accelerate and be pre-paid out of the funds from the immediate liquidation of the cover assets; The receivers can assert any unsatisfied claims in the insolvency proceedings with respect to the bank's remaining assets; These claims would rank <i>pari passu</i> with those of unsecured creditors of the bank
Eligible for refinancing with ECB	Euro-denominated: Yes; SEK-denominated: No, but with <i>Sveriges Riksbank</i>
Source: Covered Bond (Issuance) Act (2003:1223), Merrill Lynch	

Norway: Norwegian Covered Bonds ( <i>NCB</i> )	
Legal background	Chapter 2, Subchapter IV of the Act on Financing Activity and Financial Institutions (Financial Institutions Act, No. 40 of 10 June 1988): Regulations laid down by the Ministry of Finance on mortgage credit institutions which issue bonds conferring a preferential claim over a cover pool consisting of public sector loans and loans secured on residential property or other real property (25 May 2007)
Special banking principle	Yes there is a special banking principle; Only mortgage credit institutions can issue Norwegian covered bonds ( <i>NCB</i> ); The <i>Kredittilsynet</i> has to be notified at least 30 days prior a mortgage credit institution's first covered bond issue; A mortgage credit institution does not need approval from the <i>Kredittilsynet</i> before it issues; The <i>Kredittilsynet</i> may instruct a mortgage credit institution not to issue covered bonds based on its view of the bank's financial strength
Supervision	<i>Kredittilsynet</i> (Norwegian Financial Supervisory Authority)
Cover pool monitor	Independent inspector proposed by the mortgage credit institution and appointed by the <i>Kredittilsynet</i>
Ordinary cover assets	<ul style="list-style-type: none"> <li>Residential mortgage loans, commercial mortgage loans, loan secured on other registered assets such as ships or aircrafts; The mortgaged properties must be in the European Economic Area (EEA) or in a member state of the Organisation for Economic Co-operation and Development (OECD)</li> <li>Loans granted to or guaranteed by central governments, central banks, a public, regional or local authority in a country within the EEA or OECD</li> <li>Loans granted to or guaranteed by central governments, central banks, a public, regional or local authority, and multilateral development banks and international organisations in a country within the OECD but outside the EEA with a risk weighting of 0%; Exposure to debtors outside the EEA but within the OECD with a risk-weighting not higher than 20% must not exceed 20% of the cover pool</li> <li>Bank debt that qualifies for up to 20% risk-weightings and bonds and debt instruments with a maturity of up to 100 days issued by EEA-domiciled banks that qualify for up to 50% risk-weightings; Exposure to banks must not exceed 15% of the cover pool</li> </ul>
LTV residential mortgage loans	75% of the prudent market value (the prudent market value must not exceed the market value resulting from a cautious assessment)
LTV commercial mortgage loans	60% of the prudent market value (the prudent market value must not exceed the market value resulting from a cautious assessment)
Substitute cover assets	Particularly liquid and secure assets including cash; Covered bonds issued by a credit institution domiciled in a member state of the EEA; Senior units issued by securitisation entities governed by the laws of an EEA member state if at least 90% of the securitised assets are residential or commercial mortgages with a maximum loan-to-value of 75% and 60%, respectively; The share of substitute cover assets is limited to a maximum of 20% of the cover pool; However, the <i>Kredittilsynet</i> can temporarily approve a 30% maximum of substitute cover assets
Derivatives as collateral	Derivatives used to hedge risks (such as, interest rate and currency risks) arising from mismatches between the outstanding covered bonds and their cover assets and entered into with qualifying counterparties can be registered as collateral for <i>NCB</i> ; Such derivatives must not allow for automatic termination if the mortgage credit institution becomes bankrupt; The preferential claim granted to the <i>NCB</i> investors over the cover pool extends to counterparties of registered derivatives; Claims of registered derivative counterparties rank <i>pari passu</i> with that of <i>NCB</i> investors
Registration and assignment	Cover assets remain on a mortgage credit institution's balance sheet; A mortgage credit institution has to maintain a register of the covered bonds it issues, and of the cover assets assigned thereto, including derivative contracts entered into to hedge risks related to mismatches between the outstanding covered bonds and their cover assets; Funds derived from the assets included in the cover pool have to be registered as collateral; The mortgage credit institution's articles of association need to state the types of loan the institution intends to grant or acquire; There is no legal provision to define the cover pool to consist of only one asset type; Consequently, mixed cover pools can be used and maintained
Asset liability matching requirements	At all times, the market value of the cover pool has to be higher than the market value of the covered bonds outstanding; Loans to the same mortgagor or secured by the same mortgaged property must not exceed 5% of the total cover pool; Non-performing loans must not be taken into account when the total coverage is calculated; Mortgage loans with a loan-to-value (LTV) above the maximum ratio can be used as collateral; However, only the portion of the loan that represents the maximum LTV ratio can be regarded as registered cover asset and may be funded through covered bonds; There is a cash flow matching requirement as regards the payments received from the collateral and the payments to covered bond investors and counterparties of registered derivatives; Interest receivables with regard to the cover pool have to exceed the interest expenses on the outstanding covered bonds; A mortgage credit institution has to determine a limit in relation to cash flow mismatches due to a parallel shift in the yield structure by one percentage point and based on an inversion of the yield structure; The interest rate risk limit needs to be fixed with reference to the mortgage credit institution's own funds; A prudent market and liquidity risk management is required; But, there is no legal provision to define precise limits on interest rate, exchange rate, and liquidity risks
Bankruptcy remoteness Preferential claim	In the event of bankruptcy, negotiation of debt under the Bankruptcy Act, winding up of the mortgage credit institution or public administration, covered bond investors and counterparties of registered derivatives have an exclusive, equal and proportional preferential claim on the cover pool ahead of other creditors apart from the expenses on operation, management, recovery and realisation of the cover pool; The opening of bankruptcy proceedings against the mortgage credit institution must not trigger that the outstanding <i>NCB</i> become immediately due and payable
Post-bankruptcy procedures	The bankruptcy administrator appointed by the local court takes over the management of the mortgage credit institution; The cover pool would be run by the same bankruptcy administrator as part of the issuer's bankruptcy estate; Consequently, a conflict of interest regarding the reconstruction of the bank and the <i>NCB</i> investors' interest could materialise; Creditors need to submit their claims to the bankruptcy administrator within at least three and at the maximum six weeks from the date of announcement of the bankruptcy; The bankruptcy administrator can appoint a third party to manage the cover pool and has to ensure that the provisions on the composition of the cover pool and the asset liability matching requirements are met on an ongoing basis; If this is not the case, the <i>Kredittilsynet</i> has to be informed; To satisfy due claims on covered bonds, the bankruptcy administrator and creditors' committee can dispose of (parts of) the cover assets, raise funds or enter into derivatives conferring a preferential claim provided the asset liability matching requirements are further met; Should it not be possible to make the payments due on <i>NCB</i> using funds derived from the cover pool, and an imminent change in the liquidity situation is unlikely, the bankruptcy administrator and creditors' committee can introduce a halt to payments; The bankruptcy estate has to inform the covered bond investors and the registered derivative counterparties of the halt to payments at the earliest opportunity; If this is the case, the further administration of the bankruptcy estate has to proceed pursuant to the general rules of the bankruptcy regulation and the bankruptcy administrator and creditors' committee has to inform the <i>NCB</i> investors about the further handling of the cover assets
Eligible for refinancing with ECB	Euro-denominated: Yes

Source: Financial Institutions Act, No. 40 of 10 June 1988, Regulations laid down by the Ministry of Finance, Merrill Lynch



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