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Dutch covered bonds

Coping with mortgage market challenges

With the scope of safer bond investment alternatives shrinking, Dutch covered bonds have seen investor interest increase in the past years. In this report we aim to give an insight into a broad range of aspects on Dutch covered bonds, varying from regulation to collateral, to ratings and to performance aspects.

Having been among the **stronger performing and more resilient covered bond jurisdictions** in the past two years, Dutch covered bonds have underperformed versus other "safe-haven" European peers in the past two months. Reasons include negative economic growth and housing price developments and the uncertain political environment after the fall of the Dutch government in April. All make it difficult to see this trend reverse, with Moody's recent rating actions on the Dutch banks confirming the negative impact of the current environment on the Dutch banking sector.

However, even ahead of their recent underperformance, Dutch covered bonds already traded **persistently wider than** covered bonds from **other "safe-haven country" peers**, reflecting among others the **principle based regulatory framework** in the Netherlands. The lack of regulatory backing in terms of minimum collateral requirements, LTV restrictions or overcollateralization keeps investors exposed to issuer discretion, despite the solid programme documentation or discipline from potential reputational damage.

The relatively **high LTV ratios** on Dutch mortgage loans, against a background of declining house prices and uncertainties regarding the favourable tax treatment on mortgage interest payments, are a further explanation. April's Kunduz agreement already gave a bit of a preview of the future fate of the tax-break for mortgage interest payments.

House prices in the Netherlands are currently 12.5% lower than they were around their peak in 2008. Our economists expect that prices will continue to decline by another c. 5% YoY this year and next, which indicates that LTV ratios will remain under upward pressure. That said, Dutch cover pools consist for **100%** out of **owner occupied loans**, which is **a positive** in terms of a borrower's willingness to pay. In addition, albeit rising, the unemployment rate in the Netherlands remains well below the Eurozone average. As such, arrears and losses have up until now only shown a modest rise. Furthermore, due to the implicit covered bond issuance limit, Dutch covered bonds holders have a better position than in countries where more assets are pledged for covered bond issuance.

Spread differences between Dutch covered bond issuers can almost fully be traced back to differences in the underlying issuer's credit rating. The refinancing risks for Dutch covered bond programmes are perceived as relatively high, which means that the issuer's credit strength becomes more important, while collateral pool differences matter less. However, in our opinion, Dutch covered bond **trading levels give insufficient credit to differences in programme and cover pool characteristics**.

Outside factors such as the issuer's credit ratings or systemic importance, we would be **selective towards** the **more seasoned cover pools,** with **lower LTV characteristics** and better geographical diversification to stronger regions. In addition, considering the higher risks of residual debt at the end of the loan term attached to interest only loans, we favour pools with a lower exposure to these loans and with a larger amortizing part. Furthermore, more credit could be given to factors such as CRD compliance, conservatism in terms of LTV's, maximum size and indexation of the mortgage loans.

Maureen Schuller, CFA
Senior Credit Strategist
Amsterdam +31 20 5638941
maureen.schuller@ingbank.com

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Introduction

During presentations to investors on the topic of Dutch covered bonds we have had discussions and questions on a very broad range of topics related to the Dutch covered bond market. These discussions were often not restricted to our general view on Dutch covered bond performance, the key takeaways from the regulatory framework or the mortgage market developments in the Netherlands. Sometimes questions were more detailed, touching upon our view on technicalities such as asset segregation, priority of payments, the types of mortgage loans in Dutch collateral pools or the treatment of savings or investments for the purposes of LTV calculations. What are the differences between the programmes? How do these relate to the view of the rating agencies on Dutch covered bonds? What are the key strengths, and what are the weaknesses of the Dutch covered bond market? Is it indeed true that from a regulatory perspective issuers are free to include any assets in their cover pool and if so what are the mitigants against this risk? How strong is the home country investor base for Dutch covered bonds?

These are just a handful of questions and all, also the ones not mentioned here, have been the basis for writing this report on Dutch covered bonds. The report aims to give insight in a wide range of aspects related to the Dutch covered bond market, hopefully saving investors some time in going through all the details of the programme documentations and rating agency reports in finding their answers. Despite the size of the report we have no illusion that it will give an answer to all questions. As an example, we have left a comparison with other regulatory frameworks outside the scope of the report.

Dutch covered bonds spreads confirm the dominance of the sovereign debt theme…

From previous research reports we have written on covered bonds, we have become aware that sovereign risks are and will remain the single most important driving factor for covered bond spreads, followed (and only occasionally surpassed) by the credit strength of the issuer, the perceived strength of the regulatory framework or to a lesser extent the collateral quality perception of a covered bond market. Our analysis of the Dutch covered bond market does not conflict with this conclusion at all. Dutch covered bonds have benefited from the relative strength of the Dutch government, but also have persistently traded wider than covered bonds from other "safe-haven country" peers, reflecting the principle based regulatory framework in the Netherlands and relatively high LTV ratios on Dutch mortgage loans, against a background of declining house prices and uncertainties regarding the favourable tax treatment on mortgage interest payments. Add the political uncertainty after April's collapse of the Dutch government to this picture, and we have an explanation for their recent underperformance. Nothing surprising.

…but insufficiently reflect differences in programme or collateral pool characteristics

However, what does surprise us is the absolute absence of any significant spread diversification between Dutch covered bonds based upon differences in programme or collateral pool characteristics. The trading levels of Dutch covered bonds can be traced back to one factor, and one factor only, and that is the credit strength of the underlying issuer. Differences in terms of CRD compliance, overcollateralization, collateral pool quality, hard bullet versus soft bullet structures; none of these factors seem to be of major significance. True, because of the maturity mismatch between the covered bonds issued and the Dutch mortgage assets covering them, refinancing risks for Dutch covered bond programmes are relatively high. We know that the issuer's credit strength in that case becomes more important, while collateral pool differences matter less. Nevertheless, in our opinion, this may never marginalize time spent on a collateral pool analysis. Dutch covered bond spreads should give more recognition to existing cover pool and programme difference, whether or not we make a comparison between ABN AMRO Bank and ING Bank or between SNS Bank versus for example NIBC Bank.

Dutch Regulatory Framework

The Dutch covered bond regulation was structured in line with existing contractual arrangements…

On 1 July 2008 the Dutch regulatory framework for the issuance of covered bonds came into effect. Dutch covered bond issuance was since regulated via the 3 June 2008 Dutch Covered Bonds Decree (*Besluit gedekte obligaties*) and the 19 June 2008 Ministerial Legislation (*Regeling tot aanpasssing van de Uitvoeringsregeling Wft*). The principal aim of the legal framework was to set up a level playing field for Dutch banks issuing covered bonds to comply with article 52(4) of the UCITS Directive or other relevant EU Directives to make sure that the bonds held by bank investors would qualify for a preferential risk-weighting, while insurer investors would benefit from lower exposure limits. The Dutch legal framework was structured in such a way that all contractual covered bonds that had been issued to that date would fit into the legal framework.

…and employs a principle-based approach…

The Dutch Covered Bond Decree employs a **principle-based legal approach**, aiming to give more flexibility to issuers than a detailed rules-based legal framework while at the same time keeping options open for future financial innovations within the covered bond environment. However, this flexibility was not necessarily achieved at the expense of risk. The key features protecting covered bondholders in case of bankruptcy of the issuing bank as well as giving them preferential rights over other bondholders regarding the cover assets have been addressed in the law. New innovative requirements were also introduced at that time (e.g. with respect to required documentation or ratings).

…providing no specific asset requirements or LTV-limits

Unlike other covered bond regulations in Europe, the Dutch Covered Bond Decree does not provide for specific asset requirements, nor does it set loan-to-value (LTV) limits for mortgage loans included in the cover pool. The Dutch mortgage market is in general characterised by high loan-to-value ratios due to the tax deductibility of interest payments on mortgage loans. By not including loan-to-value limits, the Dutch legislation offered broader opportunities for banks to issue covered bonds protected by a legal framework. In addition, the Dutch Covered Bond Decree does not limit the eligible assets that can be included in the cover pool to mortgage loans, public sector loans, shipping loans or mortgage backed securities. For these reasons, the Dutch regulatory framework does not necessarily imply that Dutch covered bonds fulfil all the requirements needed to benefit from a preferential risk weight under the EU Capital Requirements Directive (CRD).

Fig 1 Three types of Dutch covered bond

Type	Issuer
Structured Covered Bonds	Achmea Hypotheekbank
UCITS 52(4) compliant Covered Bonds	
CRD-compliant Covered Bonds	ABN AMRO Bank, ING Bank, SNS Bank, NIBC Bank

Source: ING

Not all Dutch covered bonds are EU CRD compliant

Therefore there are three types of covered bonds that can be distinguished under the Dutch regime, among which two are covered by the legal framework and as such are defined as registered covered bonds under the Covered Bonds Decree:

- Structured Covered Bonds – based upon contractual arrangements outside the regulatory framework.
- UCITS 52(4)-compliant Covered Bonds – fulfilling the Dutch regulatory requirements and as such are registered by the Dutch Central Bank and the European Commission, but do not fulfil the cover assets eligibility criteria under the EU CRD.

- CRD-compliant Covered Bonds – are registered by the Dutch Central Bank and European Commission and fulfil all other requirements for a preferential risk weight under the EU CRD.

Dutch issuers have committed themselves to strict collateral requirements

Dutch covered bonds can only be issued by licensed banks that are located in the Netherlands. However, underlying assets in the cover pool may have been issued by an entity other than the issuing bank, thus broadening the potential size of the Dutch covered bond market. This is even more relevant given that any asset (mortgages, consumer loans, public sector loans, etc.) located in the US, Canada, Japan, Korea, Hong Kong, Singapore, Australia, New Zealand or Switzerland can also be used as collateral. Importantly, this has up until today not led to a more heterogeneous, riskier or complex covered bond market compared to other European markets. Dutch issuers have committed themselves to strict (CRD compliant) cover pool requirements, which from a funding cost, structural or reputational risk perspective will not lightly be weakened.

The Dutch covered bond law does not specify a minimum overcollateralization level

The cover assets need at all times be sufficient to pay interest and principal obligations on the covered bond as well as administrative costs and management fees under the covered bond programme. The cover pool is dynamic and can include derivative contracts used to hedge interest rate and currency risks under the programme. Importantly, substitute assets are allowed although there is no specific amount or time limits. Similarly, overcollateralization is required but no regulatory minimum is specified. Overall, risk restrictions (including regarding cash-flow mismatching) are broadly addressed but the language of the requirements by the Dutch Central Bank suggests a conservative approach (see below).

Fig 2 Priority of payments under Dutch covered bond programmes

	Issuer event of default		CBC event of default
	Post Issuer Acceleration Notice & Notice to Pay		*Post CBC Acceleration Notice*
1	Trustee	1	Trustee
2	Tax authority	2	Agents or Registrar
3	Agents or Registrar	3	Servicer
4	Servicer		Administrator
	Administrator		Account Bank
	Account Bank		Managing Director and Trustee's Director
	Managing Director and Trustee's Director	4	Total Return Swap provider
	Asset Monitor	5	Interest Rate Swap Provider
5	Total Return Swap provider	6	Structured Swap Provider
6	Interest Rate Swap Provider		**Interest and principal due on covered bonds**
	Structured Swap Provider (non principal related)	7	(Remaining) Swap termination amounts
	Interest due on covered bonds	8	Issuer (if subject to insolvency proceedings)
7	Structured Swap Provider (principal related)		Originator (not subject to insolvency proceedings)
	Principal due on covered bonds		
8	Reservation (of 1-7) for next payment date		
9	(Remaining) Swap termination amounts		
10	Indemnity amounts to Originators		
	Costs and indemnity amounts Asset Monitor		
11	Issuer (if subject to insolvency proceedings)		
	Originator (not subj. to insolvency proceedings)		

Source: Programme documentation

One of the key strengths of the Dutch legal framework is its strong emphasis on the segregation of covered bonds and cover assets vis-à-vis the issuing bank. In order to secure the preferential claim of the covered bondholders on the cover assets, the assets need to be transferred to a separate legal entity, i.e. the covered bond company (CBC), which has the sole purpose of issuing covered bonds. In addition, a right of lien over the assets is given to another separate legal entity (trustee) in favour of the bondholders to assure that the cover assets will also solely serve to fulfil the covered bond obligations in case of bankruptcy of the issuing bank. To assure the independence of the legal entities, the issuing bank is not allowed to hold shares in or have control over the policy of these

Dutch covered bond holders have no “super” privilege

legal entities. That said covered bondholders have no “super” privilege. The preferential claim of covered bondholders on the cover assets can be subordinated to payments related to management, administration and derivative contracts (Figure 2 on the previous page).

Under the Dutch covered bond rules, the issuing entity has to apply for registration with the Dutch Central Bank, by proving that the bonds issued are indeed qualified as covered bonds under the Dutch legal framework. As such the issuing entity has to provide the supervisor with a) a legal opinion assuring that the cover assets are secured in favour of the bondholders via the transfer to a separate legal entity, b) a written statement by the board of directors that the bonds fulfil the definition of covered bonds and that the issuing bank maintains an administration regarding the bonds and the assets covering them, c) all relevant documentation (prospectus, transaction documentation, rating agencies reports) regarding the covered bond programme, including the documentation underlying the aforementioned legal opinion. This documentation needs to prove that:

Dutch covered bonds have to be at least AA- rated

- The covered bond programme is at least AA- equivalent rated. If the programme loses its AA- rating, the issuer is no longer allowed to issue new covered bonds under the programme. The Dutch regulator has avoided full dependency upon the rating agencies assessment by making the Dutch Central Bank responsible for the final judgement on the adequacy of the assumptions underlying the rating regarding the cover assets and the issuing bank.

The issuer has to prove that it employs solid risk management procedures

- The assets are at all times sufficient to fulfil principal and interest payments due on the covered bonds as well as other administrative costs. For that purpose, the issuing bank has to show that it employs solid and effective risk management procedures and strategies to assure that the obligations regarding the covered bonds can at all times be fulfilled considering a.o. the credit risk, market risk, counterparty risk, concentration risk and currency risk the programme is exposed to. It also has to prove that it can transfer to the CBC sufficient assets over the life of the covered bonds.

Subordination risk of other creditors is tackled via an implicit limit on issuance

- A sound relation between the nominal value of the covered bonds outstanding and the consolidated balance sheet total and free assets of the issuing bank is kept at all times by maintaining a sound Covered Bond/Balance Sheet Ratio (CB/Balance Sheet Ratio). The financial position and risk profile of the issuing bank, the risk profile of the assets and the position of other creditors than the covered bondholders are all taken into consideration in that respect. By doing so, the Dutch legal framework introduces an implicit limit in the amount of covered bonds which can be issued. The CB/Balance Sheet Ratio is determined by the Dutch Central Bank in consultation with the issuing bank.

Any incapacity to meet the above criteria would prevent the issuance of new covered bonds and could also lead to deregistration of outstanding covered bonds. As a matter of fact, if the covered bond programme or a category of bonds under the issuing programme no longer meet the requirements for registration and if no repair has been made within the time agreed upon with the central bank, the covered bond programme is removed from the Dutch register and subsequently also from the register at the European Commission. The latter means that the covered bonds will no longer be UCITS 52(4) compliant and thus qualify for preferential risk-weighting or other specific investment criteria.

This is, in our opinion, a key caveat of the Dutch legal framework given that it would put investors in an unfavourable situation. For example, the Dutch covered bond regulation allows collective securities investment enterprises (CSIEs) and life- and non-life insurers to increase their exposure to one issuing bank to 25% and 40% respectively, compared

Deregistration risk is an unfavourable feature but does not trigger acceleration

to 10% for normal bonds. If the covered bonds are deregistered, these investors no longer benefit from these higher exposure limits. That said de-registration can be expected to happen only in exceptional circumstances, with the sole aim to protect the interests of the issuing bank and covered bond holders if a significant deficiency were to be identified. Also, de-registration does not trigger acceleration.

Apart from this, we view supervision by the Dutch Central Bank as strong. Under the Dutch covered bond framework, the issuing bank needs to demonstrate on a regular basis that it still fulfils the requirements for registration of the covered bond programme. As such the issuer has to provide the supervisory authority with information regarding the amount and quality of the cover assets versus the covered bonds outstanding on a quarterly basis as well as upon request. Apart from that, the issuer has to assure the supervisor on an annual basis that a proper risk management system is in place to assure that the assets transferred under the covered bond programme are at all times sufficient to fulfil the obligations under the programme. The issuer must also provide the supervisory authority with the annual accounts and annual reports of the legal entity to which the cover assets are transferred. In addition, the issuer is required to give information on material changes in the covered bond programme and on any circumstances (for example a downgrade of the covered bonds programme below AA-) that cause the bonds to no longer fulfil the requirements for registration.

Programme characteristics

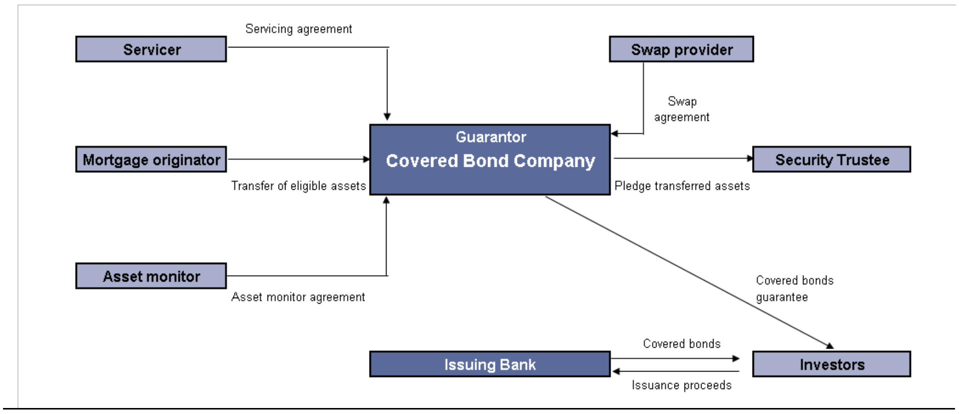
Asset segregation

Asset segregation takes place via an asset transfer to the Covered Bond Company

Under all Dutch covered bond programmes the eligible assets for covered bond issuance are transferred to a separate **Covered Bond Company (CBC)** by means of a *Guarantee Support Agreement*. Under this agreement, the mortgage originator passes on eligible receivables to the Covered Bond Company via a *silent assignment*. The legal ownership of the mortgage loans is in that case transferred to the Covered Bond Company via a deed of assignment with the tax authorities, without notifying the debtors of the receivables. Debtors will only by notified of a transfer if a *Notification Event* occurs. Notification takes place if, among others, the credit rating of the issuing bank falls below Baa1 at Moody's or BBB+ at S&P and/or Fitch, if a *Notice to Pay* is served on the issuer or the Covered Bond Company or if the latter defaults. Following a notification, the borrower no longer makes payments on his mortgage loans directly to the originator. He will instead make these payments to a separate GIC or AIC Account maintained by the Covered Bond Company with an eligible Account Bank[1]. Being aware that his mortgage loan has been transferred to the CBC, a mortgage borrower will, after notification, no longer be able to attempt to set-off deposits made with the issuing bank against his mortgage balance. Notification therefore also serves to reduce deposit set-off risks.

Debtors are not notified of such a transfer unless a notification event occurs

Fig 3 Structural overview



Source: Programme prospectus

The Covered Bond Company guarantees to make interest and principal payments

The Covered Bond Company guarantees in return to pay interest and principal on the covered bonds to the investors if the issuer defaults (*asset-backed guarantee*). The obligations of the Covered Bond Company are secured through a parallel debt, by a pledge by the Covered Bond Company of the transferred assets to the **Trustee**. If the issuer defaults on his obligations, the Trustee will serve an *Issuer Acceleration Notice* to the issuer and a *Notice to Pay* to the Covered Bond Company in line with the guarantee. As such the covered bonds do not accelerate in the case of a default event of the issuing bank, while the bondholders have full recourse to the assets of the Covered Bond Company. Any proceeds received by the Trustee from the issuer following a default will be paid to the Covered Bond Company, which will hold these amounts on a GIC/AIC account for the purpose of making payments on behalf of the covered bondholders. The covered bonds do accelerate if the CBC defaults. The Trustee in that case delivers a *CBC Acceleration Notice* to the Covered Bond Company (with a copy to the issuer) whereupon the covered bonds immediately become due.

Covered bonds do not accelerate if the issuer defaults,…

…they do accelerate if the CBC defaults

[1] The Account Bank needs to be rated at least P-1 (Moody's), P-1 (S&P) and F1 (short-term)/A (long-term) (Fitch). Otherwise a GIC/AIC Account Agreement needs to be opened with a financial institution that fulfils these rating requirements or the existing Account Bank needs to obtain a guarantee from a financial institution that fulfils them.

Collateral

Cover assets primarily consist of Dutch residential mortgage loans

The majority of Dutch covered bonds are solely covered by Dutch first ranking residential mortgages. Other eligible € mortgage loans can be included in the cover pools as well upon approval by the rating agencies and Trustee. Up until now, NIBC Bank is the only issuer that has expanded the geographical scope of its pool to German mortgage loans.

Interest only loans form the vast majority of Dutch collateral pools

Types of mortgage loans in Dutch collateral pools

Interest only loans form the vast majority in Dutch covered bond collateral pools. These loans are not amortized until their due date. Until that date only interest is paid on the loans. Due to their non amortizing character, monthly payments on the loans are relatively low, although the interest burden on these loans remains high. The loans benefit from maximum interest rate tax deductibility. However, since there are no savings accrued against these loans, the risk of residual debt if property prices fall is relatively high. Borrowers are not prohibited however from making loan repayments during the term of the loan. In general, these repayments can be made free of charge up to a maximum of 10% to 20% per annum.

A **bank savings loan** is an interest only loan combined with a blocked bank savings account with the bank that is connected to the bank savings loan. The borrower can either opt for a loan where the interest rate received on the savings account is not linked to the interest rate payable on the loan, or for an alternative where the two are linked. In the first case, the borrower makes fixed monthly payments. In the latter case, the monthly payments will be adjusted to make sure that the amount on the Bank Savings Account (monthly payments plus accrued interest) is equal to the principal amount due by the borrower at maturity. A bank savings loan does not have an investment part and is not connected to a mixed insurance policy. If the amount on the bank savings account is insufficient to repay the mortgage loan the borrower has the make up the shortfall.

A **savings loan** is an interest only loan linked to a savings insurance policy that combines a risk and a savings element (mixed insurance policy). The savings insurance policy due by the insurer matches the principal amount due by the borrower at the end of the loan term. If the proceeds are insufficient, the borrower makes up the shortfall. In the absence of an investment part, and due to the savings insurance policy component, the risk of residual debt is limited, also at disease of the borrower.

Life loans or life insurance loans are interest only loans linked to a life insurance policy. Under the life insurance policy a borrower pays a premium consisting of a risk and capital component (mixed insurance policy). The borrower can opt for a ***traditional*** life insurance policy under which the amount to be paid out depends upon the performance of investments chosen by the *insurance company* with a guaranteed minimum yield. Alternatively, the borrower can opt for a ***unit-linked*** life insurance policy under which the *borrower* chooses the investment funds out of a selection provided by the originator. The insurance proceeds will be paid out at the death of the borrower or at the maturity of the life insurance policy. If the proceeds are insufficient, the borrower has to make up for the difference. Hence the risk of residual debt is also not fully removed with this type of loan.

Amortizing loans are either linear amortizing or annuity loans. A ***linear loan*** consists of a constant principal repayment component during the term of the loan.

The interest component is based upon the remaining loan balance and as such declines after each successive principal repayment. ***Annuity loans*** pay a fixed period amount consisting of an interest and principal component. During the course of time, the interest component falls (due to the loan amortization), while the principal repayment component rises.

Investment loans are interest only loans that are linked to an investment account. The mortgage loans are not repaid until their due date and as such benefit from maximum interest rate tax deductibility. However, borrowers pay either upfront or an a regular basis a certain amount to a securities account with an investment firm or bank that is invested in various investment funds of that institution (not connected to a mixed insurance policy). The borrower has the option to combine his investment account with a savings account and is, in that case, allowed to switch between investments and savings. If the investment/savings proceeds are insufficient to fully repay the mortgage loan at the end of the loan term, the borrower has the make up the shortfall. Hence there is risk of residual debt if property prices fall.

A **hybrid loan** is a combination of a Life Loan and a Savings Loan. The loan combines an interest only loan with an insurance policy consisting of a risk and an investment part (mixed insurance policy). The borrower has the right to invest the life insurance premiums in investment funds as with life insurance loans or in a savings part as with a savings insurance policy or to switch between the two alternatives. The insurance proceeds are due at the maturity of the loan or at the death of the borrower. The borrower makes up any shortfall.

Credit mortgages are revolving consumer loans with property as collateral. Amortization of the loans occurs at the borrower's discretion. The interest rate deductibility on these loans was limited in 2001.

Dutch issuers cap the *LTFV* ratio for (non guaranteed) mortgage loans at 125%

Dutch covered bond issuers apply in general a 125% *loan-to-foreclosure value* (LTFV) limit on mortgage loans that do not benefit from a national mortgage guarantee (Nationale Hypotheekgarantie or NHG)[2]. Mortgage loans with a LTFV between 125% and 130%, can be included however under most programmes up to a maximum of 5% of the cover pool. Since the introduction of the new Code of Conduct by the Dutch banking industry per 1 August 2011, new mortgage loans granted are capped at a *loan-to-market-value* (LTMV) equal to 104% plus the transfer tax. The transfer tax was temporarily reduced from 6% to 2% per 15 June 2011 until 1 July 2012 to stimulate the Dutch housing market, but this measure will be made permanent[3].

The *LTMV* ratio for new mortgage loans is limited at 106% since August 2011

The foreclosure value is 85% to 90% of the market value of the property under Dutch covered bond programmes (see Figure 4). Hence the LTMV limit of 106% currently applied by the Dutch banking industry (or 110% at a transfer tax of 6%), is not that much stricter than the LTFV limits previously adhered to. A foreclosure value of 85% to 90% of the market value translates into LTMVs of 106.25% to 112.5% for a LTFV of 125%.

Indexed LTV ratios are marked-to-market via the Land Registry (Kadaster) housing price index. A decrease in the house price index fully translates into a lower property value

[2] The national mortgage guarantee (Nationale Hypotheekgarantie or NHG) is a guarantee issued by the Stichting Waarborgfonds Eigen Woningen (WEW). It covers principal, accrued interest and any disposal costs related to the mortgage loan. The WEW in principle funds itself. Borrowers under the scheme pay a one-time 55bp charge against their mortgage loan balance. If the WEW is not able to meet its obligations under the guarantee, the Dutch government and municipalities will provide the WEW with subordinated interest rate free loans to make up for the difference. The maximum amount that can be borrowed under the NHG was increased to €350.000 on 1 July 2009.

[3] The agreement reached between Liberals (VVD) and Christian Democrats (CDA), with the Democrats 66, Christian Union and Green Left parties on 27 April 2012 foresees in a permanent reduction to 2%.

Conservatism in terms of recognizing house price rises differs per programme

under all covered bond programmes, while conservatism in terms of acknowledging rising house prices differs. Three programmes recognize house price rises for only 85% in the calculation of the indexed market value of a loan, while one recognizes them for the full 100% (see Figure 4). Most programmes compare the indexed market value of the loan with the original market value of the loan. Only ING Bank compares the indexed market value with the actual market value of the loan based upon automated valuation models.

Fig 4 Dutch covered bond programmes

	ABN AMRO Bank	ING Bank	SNS Bank	NIBC Bank	Achmea Hypotheekbank
Type	Dutch CRD compliant	Dutch CRD compliant	Dutch CRD compliant	Dutch CRD compliant	Structured
Programme size	€25bn	€30bn	€15bn	€7bn	€10bn
Amt issued	€21.6bn	€24.9bn	€3.4bn	€0.5bn	€2.9bn
Covered bond rating					
Moody's	Aaa	Aaa	Aa1 RFD	A1	Aa2
S&P	AAA	AAA			
Fitch	AAA	AAA	AAA	AAA	AAA
Issuer rating					
Moody's	A2	A2 Neg	Baa2	Baa3	
S&P	A+ Neg	A+	BBB+	BBB-	A
Fitch	A+	A+	BBB+	BBB	A-
Short-term issuer rating					
Moody's	P-1	P-1	P-2	P-3	
S&P	A-1	A-1	A-2	A-3	A-1
Fitch	F1+	F1+	F2	F3	F2
Guarantor	ABN AMRO Covered Bond Company	ING Covered Bond Company	SNS Covered Bond Company	NIBC Covered Bond Company	Achmea Covered Bond Company
Collateral	Dutch residential mortgage loans	Dutch residential mortgage loans	Dutch residential mortgage loans	Dutch and German residential mortgages	Dutch residential mortgage loans
Maximum loan amount	€1.500.000	€1.000.000	€1.500.000	€1.000.000 GE	€1.500.000
Asset percentage	Max 92.5%, Committed 78.6%	Max 97%, Committed 80.2%	Committed 79%	Committed 78.2%	Max 90.5% Committed 78.3%
Max LTFV	125% (max 5% 125%-130%)	125% (100% interest only)	125% (max 5% 125%-130%)	125% 130% if 5% insurance 110% GE (LTMV)	125%
FV versus MV	85%	90%	87.5%	90%	85%
LTMV cut-off	80% non NHG, 100% NHG	80%	80% non NHG, 100% NHG	80% GE & non NHG, 100% NHG	125% non NHG, notified if NHG
Market value	Original market value	Based on Automated Valuation Model	Original market value	Original market value	Original market value
Indexed value	Land Registry house price index	Land Registry house price index	Land Registry house price index	Land Registry house price index	Land Registry house price index
Indexation	85% increase, 100% decrease	90% increase, 100% decrease	100% increase, 100% decrease	85% increase, 100% decrease	85% increase, 100% decrease
Matching requirements	Nominal, interest rate, currency	Nominal, interest rate, currency	Nominal, interest rate, currency	Nominal, interest rate, currency	Nominal, interest rate, currency
Substitute collateral	Yes, non gov max 10%	Yes, non gov max 10%	Yes	Yes	Yes, non gov max 10%
Maturity	*HB (SB possible)*	*HB (SB possible)*	*SB (HB possible)*	*SB (HB possible)*	*SB (HB possible)*
Hard Bullet	Pre-maturity test (12 months)	Pre-maturity test (12 months)			
Soft Bullet			Extendible maturity 12 months	Extendible maturity 18 months	Extendible maturity 12 months
Risk weight					
CRD II Option 1	10%	10%	10%	10%	50%
CRD II Option 2	20%	20%	20%	20%	50%
CRD IV	10%	10%	10%	20%	20%

Source: Programme documentations

CRD compliant covered bond programmes apply a 80% LTV cut-off under the ACT

Dutch covered bond programmes that are EU Capital Requirement Directive (CRD) compliant, apply an 80% LTMV cut-off percentage for the purpose of the asset coverage test. The mortgage loans can still be transferred to the Covered Bond Company (CBC) in full, but will only be eligible as collateral up to 80% of the property value under the Asset Cover Test. To be CRD compliant, this 80% cut-off percentage also applies to loans that benefit from a mortgage guarantee (NHG), although most programmes allow for a 100% cut-off for NHG loans. Achmea Hypotheekbank is the only issuer not registered under the

Dutch covered bond legislation and that consequently is not CRD compliant. This issuer only adheres to the aforementioned 125% LTFV restriction.

Substitution assets that fit the collateral requirements in the EU Capital Requirement Directive and the minimum rating agency requirements can be included in the cover pool under all programmes up to 20% of the covered bonds outstanding. (See page 15).

Asset Cover Test

The Asset Cover Test makes sure that the cover asset availability is sufficient

Under the Asset Monitor Agreement between the Issuer, the Administrator, the Covered Bond Company and the Trustee, and under the Guarantee Support Agreement (see page 8), the assets pledged under Dutch covered bond programmes must at all times fulfil the **Asset Cover Test (ACT)**. This test makes sure that the amount of cover assets in relation to the covered bonds outstanding is at a sufficient level, as long as no Notice to Pay, Issuer Acceleration Notice or CBC Acceleration Notice has been served. The **Administrator** monitors compliance with the asset cover test, while the **Asset Monitor** in turn verifies that the asset cover test is performed correctly.

Fig 5 Asset cover test Dutch covered bond programmes

€	ABN AMRO Bank	ING Bank	SNS Bank	NIBC Bank	Achmea Hypotheekbank
Aggregate outstanding mortgages	30,701,268,465	37,564,270,507	6,506,868,716	722,837,688	3,940,152,796
A = sum of current balances	24,150,074,242	29,883,578,826	5,186,830,157	559,094,487	2,955,335,752
B = principal receipts					
C = cash collateral account		1,422,233,768			
D = substitution assets[4]					
E = cash in pre-maturity ledger	2,000,000,000				
X = supplemental liquidity reserve ledger	1,535,063,423	1,878,213,525			
Y = amount to cover for deposit set-off	1,341,405,352	2,340,723,000	92,405,824		
Z = amount to cover for negative carry					
Total: A+B+C+D+E-X-Y-Z	23,273,605,466	27,086,876,068	5,094,424,333	559,094,487	2,955,335,752
Outstanding bonds	21,632,164,307	24,853,002,507	3,364,500,000	520,000,000	2,907,081,611
Pass/fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
Amount of credit support	*107.6%*	*109.0%*	*151.4%*	*107.5%*	*101.7%*
Nominal overcollateralization	141.9%	151.1%	193.4%	129.2%	135.5%

Source: Investor reports, ING

Understanding the Asset Cover Test

A = the **Sum of Current Balances**

Mortgage loans are recognized up to 80% of their LTV under the ACT…

Under the Asset Cover Test, (A) represents the lower of the sum of all Adjusted Current Balances of the transferred mortgage loans (A(a)), recognizing the mortgage loan only up to 80% of its indexed market value adjusted for certain set-off risks[5], or the Asset Percentage times the sum of the (set-off risk adjusted) Current Balance of the mortgage loans (A(b)).

A = min [A(a) ; A(b)], in which

$$A(a) = \Sigma \min [CB - \alpha ; 0.8 * IMV - \beta]$$

$$A(b) = \text{asset percentage} * \Sigma (CB - \alpha), \text{ with}$$

[4] Under NIBC Bank's covered bond programme *substitution assets other than eligible investments* are part of A under the Asset Cover Test (in addition to the mortgage receivables). Only eligible investments are part of D. Eligible investments are defined as substitution assets excluding RMBS and CMBS that are rated by Moody's and Fitch and mature ahead of the next interest payment date.

[5] Achmea Hypotheekbank does not apply an 80% LTV cut-off percentage for the purpose of the Asset Cover Test but will generally apply a 125% cut-off and otherwise will notify the rating agencies with the cut-off percentage applied to loans that benefit from an NHG Guarantee or a credit risk insurance. (See also Figure 4).

CB = current balance, IMV = indexed market value, α = Gross set-off and β = Net set off.

…adjusted for certain set-off risks

The **gross set-off α** adjusts the current mortgage loan balance of the loans in the cover pool for the adjustments stated in the following box.

Set-off risk adjustments under A[6]

Products that have **no deduction risk** include:

- Products with **no savings**, **no investment part** and **no mixed insurance policy** (*Category 1*), such as interest only loans and amortizing loans.

Amortizing and investment mortgage loans have no deduction risk

- Products with **an investment part but no mixed insurance policy** (*Category 2*), such as investment mortgages. These mortgages are not subject to set-off risks as the investment accounts linked to the loans are usually held with bankruptcy-remote special purpose vehicles.
- Products with **a mixed insurance policy where the borrower selects the insurer** (*Category 3*). These products are not expected to be subject to set-off risks as the borrower selects the insurer himself and as such should be aware that he has entered into two separate relationships.

Products that have **deduction or set-off risk** include:

Saving, life insurance and hybrid mortgage loans are exposed to set-off risk

- Products with **a mixed insurance policy** and **no switch element** where **the originator pre-selects the insurer** (Category 4), such as *saving loans* and *life loans*. With a saving or life insurance mortgage the borrower can try to set-off the savings accrued against the mortgage loan if the bank or insurer becomes insolvent. Set-off risk rises if there is a link between the two products. This can be the case if the mortgage loan and saving or life insurance product were sold as a single product or if the mortgage and savings provider or life insurer are part of the same group.
  If a *master sub-participation agreement* is in place, no set-off adjustments need to be made under the Asset Cover Test for *saving loans*[7]. Under a master sub-participation agreement, the savings deposit provider transfers all savings receivables to the Covered Bond Company in return for a participation in the loan. The participation is reduced by the set-off amount if a borrower were to set-off.
- Products with **a mixed insurance policy** and **switch element** between the savings and investment part where **the originator pre-selects the insurer** (Category 5) such as *hybrid loans*. Set-off risks for hybrid loans will be accounted for in the Asset Cover Test unless the insurer has transferred the insurance agreements and underlying savings and investments to a bankruptcy remote special purpose entity that reinsures the risk element of the insurance with the insurer. Deduction risks can also be covered by a transfer of the savings and investments to a special purpose entity that accepts liability for the obligations to the borrower.

*Set-off risks for **life loans**, **saving loans** or **hybrid loans** in the Asset Cover Test are calculated on the basis of a methodology proposed by the rating agencies.*

Furthermore:

- ***Defaulted loans*** are not recognized under the Asset Coverage Test (0% weight). A loan is in default if it is overdue for more than 180 days or declared irrecoverable

[6] ING Bank also makes a deduction for *revolving credit loans* (maximum amount that can be drawn from time to time), while NIBC Bank makes deductions for *current account mortgages* (8% x 3 x the aggregate amount of the undrawn balance).

[7] For life loans set-off risks may be recognized in full under the ACT. With category 4 life loans the originator must in general confirm that the life insurance and mixed insurance policy were not sold as one product and that the guaranteed yield on the capital component is not linked to the interest base applicable to the mortgage loan.

Loans in arrears for more than three months are recognized for only 30%

by the originator, or if the borrower is bankrupt, has been granted a suspension of payments or has entered into a debt rescheduling arrangement.

- ***Loans in arrears for more than 3 months*** are only recognized for 30%
- ***Construction deposits*** are not recognized as assets
- ***Loans in breach of mortgage receivable warranties*** are also not recognized

The **net set-off β** is calculated as β = min [0.8*IMV ; α – L], in which

- L = 0 if CB – 0.8*IMV < 0
- L = α if CB – 0.8*IMV > α
- L = CB – 0.8*IMV otherwise

From the three scenarios worked out in the box below it follows that, if there are no set-off risks to consider (α=0), a loan will always be included as 80% of the indexed loan-to-market value under **A(a)** as long as the loan-to-market value (CB/IMV) exceeds 80%.

Three scenarios for L

In order to find how a single loan i is included in ***A(a)****, we work out three scenarios for L with different boundary conditions:*

Scenario 1:

Condition 1a: 0.8*IMV > CB

Condition 1b: 0.8*IMV > α

Condition 1c: 0.8*IMV < α

From condition 1a we get that L = 0, leaving β = min [0.8*IMV ; α], which is reduced by condition 1b to β = α. Substituting this into the formula for A(a) and using condition 1a we get **$A(a)_i$ = CB – α.** Condition 1a combined with condition 1c, for obvious reasons, results in the loan being disregarded ($A(a)_i$ = 0).

Scenario 2:

Condition 2a: CB > 0.8*IMV or CB – 0.8*IMV > 0

Condition 2b: CB – 0.8*IMV < α

From the two conditions we get L = CB – 0.8*IMV, so the net set-off β = min [0.8*IMV ; α – CB + 0.8*IMV]. Substituting the net set-off in the formula for A(a) we get **$A(a)_i$** = min [CB – α, max[0, CB – α]] **= CB – α.**

Scenario 3:

Condition 3a: CB > 0.8*IMV

Condition 3b: CB – 0.8*IMV > α

From condition 3b we get L = α, so the net set-off β = min [0.8*IMV ; 0] = 0. Using this result and condition 3a it follows that **$A(a)_i$ = 0.8*IMV.**

However, with approximately 55% of the mortgage loan receivables in Dutch collateral pools having an LTV of less than 80%, and with the asset cover percentage in most cases below 80%, **A(b)** (i.e. the sum of the current balance times the asset percentage) tends to determine the balance *A* that is incorporated for asset cover purposes.

The asset percentages applied foresee in the by the rating agencies required minimum credit enhancement

The **asset percentages** applied for the purpose of the Asset Cover Test are in line with rating agency requirements to maintain sufficient credit enhancement for current rating levels. These committed percentages do vary from time to time and currently range from 78.2% to 80.2%. Although, SNS Bank and NIBC Bank no longer make reference to a *maximum* asset percentage in their programme documentation, ING Bank, ABN AMRO Bank and Achmea Hypotheekbank cap their asset percentages at a maximum of 97%, 92.5% and 90.5%[8]. SNS Bank does specifically state however that the asset percentage

[8] SNS Bank and NIBC Bank used to have a maximum asset percentage of 94% and 90.5%.

applied is sufficient to obtain an Aaa rating at Moody's on an expected loss basis, irrespective of the fact that its covered bonds are rated Aa1. The asset percentage can also not be increased to an extent that it will have negative rating implications at Fitch.

B = **Principle receipts** on transferred mortgage receivables up to the end of the immediately preceding calculation period

C = **Transferred cash collateral**

Substitution assets can be included if they fulfill EU CRD and rating agency requirements

D = Mark-to-market value of eligible €-denominated **Substitution Assets** in line with the EU Capital Requirements Directive and rating agencies requirements.

CRD eligible substitution assets

- 0% risk weighted exposures to central governments, central banks or international organisations
- 0% risk weighted exposures guaranteed by public sector entities, regional governments or local authorities
- 10% risk weighted institutions
- 20% risk weighted institutions up to maximum 10% of the covered bonds outstanding
- liquid AAA equivalent rated RMBS (or CMBS in the case of NIBC Bank) up to 10% of the covered bonds outstanding

The EU CRD caps exposures to AA- or better rated (i.e. 20% risk weighted) institutions at 15% of the covered bonds outstanding.

Rating agency requirements

Moody's minimum short-term/long term rating requirements

- exposures maturing within 30 days: P-1/A2
- exposures maturing within 1-3 months: P-1/A1
- exposures maturing within 3-6 months: P-1/Aa3
- exposures maturing over 6 months: P-1/Aaa

Substitution assets may not exceed 20% of the covered bonds outstanding

S&P minimum short-term/long term rating requirements

- exposures maturing within 30 days: A-1/A
- exposures maturing within 1-12 months: A-1+/AA-
- exposures maturing over 1 year: AAA

A-1 rated substitution assets may not exceed 20% of the covered bonds

Fitch minimum short-term/long term rating requirements

- exposures maturing within 30 days: F1
- exposures maturing within 1-12 months: F1+
- exposures maturing over 1 year: AAA

Substitution assets are capped at 20% of the covered bonds outstanding

In line with these requirements, Dutch covered bond programmes allow for the inclusion of substitution assets up to 20% of the outstanding covered bonds. Furthermore, the covered bond programmes of ABN AMRO Bank, ING Bank and Achmea Hypotheekbank restrict exposures other than to 0% risk weighted central governments, central banks or international organisations, to 10% of the total cover assets.

The pre-maturity ledger covers for a breach of the pre-maturity test for hard bullet covered bonds

E = **Pre-maturity liquidity ledger** plus **Supplemental liquidity reserve ledger**
In order to mitigate liquidity risks for hard bullet covered bonds the issuer has to conduct a **Pre-maturity test** six or twelve months (depending on the rating agency) ahead of the

final maturity date of a hard bullet covered bond if the issuer's short-term credit rating falls below a by the rating agencies specified minimum (*Supplemental Liquidity Event*).

- S&P < A-1+ (short-term): bonds maturing in 6 months
- Moody's < P-1 (short-term): bonds maturing in 12 months
- Fitch < F1+ (short-term): bonds maturing in 12 months

If the pre-maturity test is failed the issuer must make sufficient liquidity available via the pre-maturity ledger to repay the bonds maturing. This can be done by selling or refinancing selected receivables, the transfer of eligible collateral to the Covered Bond Company, a guarantee for the issuer's obligations satisfactory to the rating agencies or via a covered bond takeout credit facility agreement (CBTF Agreement). If the rating of the CBTF provider falls below the aforementioned minimum, the Covered Bond Company will draw the full amount available under the CBT Facility and credit this to the Pre-maturity ledger. A *failure* of the pre-maturity test has to be fixed within 10 business days after notification of the failure. Otherwise it will form a *breach* of the pre-maturity test. The Trustee will then serve a Notice to Pay under the guarantee. Only a failure by the issuer to repay the amount due at maturity of a covered bond will result in an issuer event of default.

ABN AMRO Bank and ING Bank are the only two issuers that have up until now issued Dutch covered bonds in hard bullet format. The short term-rating of both issuers is weaker than the required A-1+ short-term rating at S&P, meaning that both have to set aside sufficient liquidity to cover redemption payments in the coming six months. ABN AMRO Bank already credited €2bn to its pre-maturity ledger in June 2010. This amount is sufficient to repay the €2bn ABNANV3.25 1/13 that matures in January 2013.

X = Supplemental Liquidity Reserve Amount (SLRA)

The SLRA serves as liquidity risk mitigant and equates to 5% of the cover assets

To reduce liquidity risks related to the mismatch between the maturity of the assets in the cover pool and the maturity of the covered bonds, Dutch covered bond issuers, such as ING Bank, ABN AMRO Bank and SNS Bank, have introduced a **Supplemental Liquidity Reserve Amount (SLRA)**.

Following a notice to pay, the SLRA is reduced by assets sold to fund the SLRL

Prior to a service of a Notice to Pay the SLRA is calculated on the basis of a method proposed by the rating agencies in connection with the funding of the **Supplemental Liquidity Reserve Ledger (SLRL)**. This currently equates to *5% of the aggregate outstanding notional balance of the cover assets*. Following a service of a Notice to Pay, the SLRA is reduced by the amount of assets sold or refinanced to fund or replenish the Supplemental Liquidity Reserve Ledger.

Furthermore, it moderates the pro-rata allocation impact of SARA clauses

The SLRA serves to moderate the impact of **Selected Assets Required Amount (SARA)** clauses. To reduce the risk of time subordination of longer maturity covered bondholders, Dutch covered bond programmes put limitations on the amount of assets that can be sold to repair a failure of the Pre-maturity test or to repay maturing covered bonds after a default of the issuer. The aggregate current balance of the selected assets that the Covered Bond Company is allowed to sell cannot exceed the so called required current balance amount. The latter roughly restricts the amount of assets that can be sold to the redemption amount of the covered bond maturing as percentage of all covered bonds outstanding times the total assets in the cover pool. SARA clauses thus essentially allocate the assets available on a pro-rata basis to the covered bonds outstanding[9].

[9] The **Required Current Balance Amount** is the **Adjusted Current Balance Amount x A/B**, in which **A** is the current balance of all receivables and other transferred assets minus the Supplemental Liquidity Available Amount. The *Supplemental Liquidity Available Amount* is a) prior to a Notice to Pay, the SLRA minus assets sold or refinanced to fund the Supplemental Liquidity Reserve Ledger, or b) following a Notice to Pay, the SLRA.

B is the Required Redemption Amount of all covered bonds outstanding minus the Required Redemption Amount provided for in cash. The *Required Redemption Amount* is the amount outstanding for each covered bond x (1+(0.005 x (days to the final maturity date (for hard bullet covered bonds) or extended maturity date (for soft bullet covered bonds)/365). Hence to further mitigate time subordination longer maturity covered bonds have more weight than shorter maturity covered bonds in the calculation of the Selected Assets Required Amount.

Rating agencies tend to require more overcollateralization for covered bond programmes with SARA clauses than for covered bond programmes without these clauses.

Deposit-taking issuers account for deposit set-off risks on breach rating triggers

Y = Coverage for **deposit set-off**

Covered bond issuers that are also deposit taking institutions can be subject to set-off risk. Upon bankruptcy of the issuer, mortgage borrowers may be able to subtract (set-off) deposits from their mortgage loan. This **deposit set-off risk** is accounted for under Y in the Asset Cover Test. If an issuer no longer fulfils the minimum required ratings, additional assets need to be pledged to make sure that sufficient assets are available in the pool to fulfil the claim of covered bondholders plus potential set-off amounts of the mortgage borrowers. The minimum rating requirements are as follows:

- S&P: A-1+ (short-term)
- Moody's: P-1 (short-term)
- Fitch:
  - ING Bank: F1 (short-term) and A (long-term)
  - ABN AMRO Bank: F1 (short-term) and A (long-term)
  - SNS Bank: F1 (short-term, not on RWN) and A- (long-term, not on RWN)

The Deposit Amount is always at least zero, and is reduced by A(b)-A(a) if A(b) exceeds A(a), or by the excess credit enhancement if A(b) is lower than A(a)[10].

Achmea Hypotheekbank is the only Dutch covered bond issuer that is not a deposit-taking institution and, as such, does not make a reservation for deposit set-off risks. NIBC Bank makes no reservation for deposit set-off risks either. NIBC Bank started attracting deposits via NIBC Direct in the Netherlands in September 2008 and in Germany in February 2009. However, there is no set-off right related to these deposits due to the fact that NIBC Direct is a separate legal entity from NIBC Bank's mortgage originating entities.

Furthermore, **new set-off risks** are mitigated via the **notification** to the borrower of the sale of mortgage loans to the covered bond guarantor (i.e. the Covered Bond Company) if the credit rating of the issuing bank falls below Baa1 at Moody's or BBB+ at S&P and/or Fitch, or if a notice to pay is served on the issuer or the Covered Bond Company.

Dutch covered bonds do not need to cover for negative carry due to presence of TRS

Z = Coverage for **negative carry**

The Asset Cover Test also covers for the **negative carry** that may rise between the **GIC or AIC rate** and the **coupon on the covered bonds** after a default of the issuer. The coverage for negative carry is *zero* if a total return swap, or standby total return swap, is in place, as is the case with all Dutch covered bond programmes.

If there is no total return swap in place, but a Portfolio Test is performed or an alternative hedging methodology is in place, the coverage for negative carry equates to the Weighted Average Maturity (WAM) of the covered bonds outstanding multiplied by the principal amount of the covered bonds multiplied by a percentage P. P represents the **negative carry factor** and is defined as the weighted average margin of the outstanding covered bonds minus the GIC or AIC account margin, defined in the GIC or AIC Account Agreement[11]. The negative carry factor is typically 0.5% for covered bond programmes that do not have a total return swap in place.

The **Adjusted Current Balance Amount** is a) in the case of a breach of the Pre-Maturity Test, the Required Redemption Amount for a hard bullet covered bond minus the amount on the Pre-Maturity Liquidity Ledger, or b) following a Notice to Pay and Issuer Acceleration Notice, the Required Redemption Amount for the earliest maturing covered bonds less the amounts on the GIC or AIC account, Authorised Investments and Substitution Assets.

[10] The excess credit enhancement is the difference between A(b) based upon the Asset Percentage notified to the rating agencies and the actual outcome of A(b).

[11] The GIC or AIC Account Agreement requires the Covered Bond Company to hold an GIC AIC Account with an eligible Account Bank in which the amounts it receives on its cover assets will be paid. The Account Bank pays interest on the amount of money standing on the AIC Account agreed upon in the AIC Account Agreement. The AIC rate is 1m Euribor minus the AIC margin. The minimum rating criteria applied for the Account Bank are P-1

Amortization Test

The Amortization Test replaces the Asset Cover Test if the issuer defaults

Following the service of a Notice to Pay but prior to a service of a CBC Acceleration Notice, an **Amortization Test** is performed to make sure that the amount of cover assets in relation to the covered bonds is at a sufficient level. The Covered Bond Company has to notify the Trustee if the Amortization Test is breached, which in turn is then entitled to serve a CBC Acceleration Notice. Under the Amortization Test, the Amortisation Test Aggregate Amount, A+B+C-X-Z, needs be at least equal to the amount of covered bonds outstanding.

A = the Amortization Test Current Balance = Σ min [CB – α ; 0.8*IMV – β], with

CB = current balance, IMV = indexed market value, α = Gross set-off and β = Net set off.

Furthermore,

B = cash on the GIC or AIC account and the principal amount of authorized investments

C = the mark-to-market value of substitution assets

X = the Supplemental Liquidity Reserve Amount

Z= the coverage for negative carry, which is zero if a total return swap is in place.

Matching

Interest rate risks and currency risks are hedged

Under the covered bond programmes, interest rate risks that arise due to the mismatches between the mortgage payments received and the covered bond payments due are mitigated via various swap contracts. Via a **total return swap** (TRS) the covered bond corporation swaps the mortgage payments received for a 1m floating rate. If applicable, the basis risk between the floating rate payments received under the TRS and the fixed rate payments due on the covered bonds is hedged via **interest rate swaps**. The covered bond company will also enter into a **structured swap** if a covered bond is issued in another currency than the Euro, which covers interest rate and currency mismatches. Counterparty risks to the swap contracts are mitigated via minimum rating requirements for the swap provider (or alternatively a guarantor)[12] or otherwise additional collateral postings. In addition, to reduce the risks inherent to intra-group swap counterparties, some Dutch covered bond programmes (i.e. Achmea Hypotheekbank, SNS Bank, NIBC Bank) have backup swap facilities in place.

Dutch covered bond programmes have total return swaps in place…

…but have the alternative of performing a Portfolio Test

As an alternative to a total return swap the issuer can opt to perform a **Portfolio Test** which will be carried out by the Administrator. Under the Portfolio Test the net present value (NPV) of future cash flows on the transferred receivables and other balances related to the covered bond programme (i.e. cash balances, substitution assets or the mark-to-market value of structured and interest rate swaps) need to exceed the NPV of the covered bonds by a certain amount subject to rating agency requirements. In addition, the difference in basis point duration between the cover assets and covered bonds may also not exceed a specified percentage. The issuer cannot issue further covered bonds if the Portfolio Test is breached. A breach of the Portfolio Test needs to be restored by the following calculation date, otherwise the Trustee will serve a notice to pay to the Covered Bond Company under the guarantee.

(short-term) at Moody's, A-1 (short-term) at S&P and F1/A (short-term/long-term), or alternatively F1+ RWN / A+ RWN, at Fitch.

[12] The minimum short-term rating criteria applied are P-1 (Moody's), A-1 (S&P) and F1 (Fitch) (or F1+ if the rating is on rating watch negative). The minimum long-term rating at Fitch is A (or A+ if the institution is on rating watch negative). The minimum long-term rating at Moody's is A2 or A1 if there is no short-term rating available. The minimum long-term rating at S&P is A+ if there is no short-term rating available.

Refinancing risk mitigants

Covered bonds can be issued via either a hard bullet or a soft bullet structure. A soft bullet structure allows the issuer to extend the maturity of the covered bond by 12 months (SNS Bank and Achmea Hypotheekbank) or 18 months (NIBC Bank) if necessary in order to ensure the liquid means required to repay the bond.

Soft-bullet maturities and pre-maturity tests mitigate refinancing risks

For hard bullet covered bonds liquidity risks are mitigated via the implementation of a pre-maturity test. If there is a downgrade in the issuer's short term rating to below the minimum ratings required by the rating agencies, the issuer has ten days to ensure sufficient liquidity is made available to pay the interest and principal due, either via the sale of loans in the cover pool, the transfer of eligible collateral to the CBC or by obtaining a guarantee from a suitable rated guarantor. (See page 15/16).

Furthermore, note that the Covered Bond Company is a special purpose entity that has no banking license. As such it cannot attract central bank funding for the purpose of refinancing covered bonds that mature after the issuer has defaulted.

Monitoring

The Administrator monitors compliance with the ACT…

...while the Asset Monitor verifies the accuracy of the Administrator's calculations

A **Servicer** is appointed to service the transferred mortgage receivables[13]. The Servicer will among others things prepare the monthly investor reports for the Covered Bond Company and assist the Administrator in the preparation of the monthly asset cover report. The **Administrator** is appointed to monitor compliance with the Asset Cover Test, Amortization Test, Pre-maturity Test (in the case of hard-bullet covered bonds) and Portfolio Test (if implemented as alternative to a total return swap), and offers administration services to the Covered Bond Company. The **Asset Monitor** monitors in turn on a yearly basis the calculations of the Administrator in respect of the Asset Cover Test and the Amortisation Test. The findings of the Asset Monitor on the accuracy of the Administrator's calculations will be sent to the Administrator, the Covered Bond Company, the Issuer, the Trustee and the Rating Agencies.

[13] The Servicer is subject to minimum long-term rating requirements: Baa3 (Moody's), BBB+ (S&P) and BBB- (Fitch)

Cover pool resilience

Dutch mortgage market developments

The favourable tax treatment of mortgage interest payments has been a hot topic in the public debate

With the Dutch government searching for alternatives to reduce its budget deficit, and banks across Europe experiencing the (funding) consequences from the sovereign debt crisis, attention in the Netherlands has increasingly focused on the tax deductibility of interest payments on Dutch mortgage loans. Last year, the Dutch Upper House of Parliament urged the government to investigate alternatives to limit the tax deductibility of mortgage interest payments. At the same time the Dutch Central Bank (DNB) warned in its semi-annual financial stability report that the high Dutch mortgage debt levels (128% of GDP) and high loan-to-value ratios as a consequence of the fiscal treatment of mortgage interest rate payments are making households and banks vulnerable, in particular when house prices are declining.

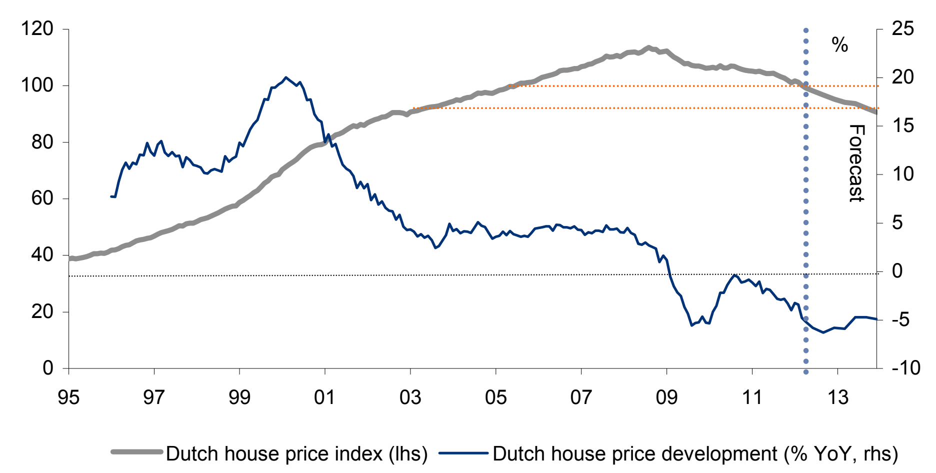
As of 2013 only new principal amortizing loans can still benefit from the tax advantage

After the austerity negotiations between the Dutch government coalition of Liberals (VVD) and Christian Democrats (CDA) with the supporting Freedom party (PPV) failed in April, the occasional austerity agreement (Kunduz Akkoord) subsequently reached between the now caretaking VVD/CDA coalition with the Democrats (D66), Christian Union (ChristenUnie) and Green Party (GroenLinks) already gave a preview of the future fate of the tax-break for mortgage interest payments. The five parties agreed that as of 2013 only *new* mortgage loans that will be repaid in full within 30 years (at least in annuity form) will qualify for tax deductibility. Hence new interest only loans will no longer benefit from the tax advantage. The proposal will be submitted to Parliament after the September elections. Furthermore, the temporary reduction of the transfer tax from 6% to 2% (per 15 June 2011 to 1 July 2012) to support the Dutch housing market will be made permanent.

Last year Dutch banks already decided to limit the interest only part of new loans at 50%

The above measures add to the revised code of conduct (Gedragscode Hypotecaire Financieringen (GHF)) of the Dutch Banking Association that came into force on 1 August 2011, in which banks agreed to limit the loan-to-market-value ratio of mortgage loans to 106% (104% plus the transfer tax of 2%). In addition, the interest only part of new Dutch mortgages was limited to 50% of the original amount.

Fig 6 Dutch house prices are back at beginning of 2005 levels



Source: Moody's

The September elections will provide further insight in the future of the tax deductibility

We have to wait for the elections outcome on 12 September to gain further insight in the "if, when and in what form" the tax advantage on mortgage interest payments will be tackled in the Netherlands. In any case, trimming down the favourable tax treatment for mortgages creates the risk of exerting further pressure on the already declining Dutch

Dutch house prices will remain under pressure

house prices (see Figure 6), by reducing the affordability of new homes to households, even if it is implemented gradually. House prices in the Netherlands are now 12.5% lower than they were around their 3Q 2008 peak. Our economists expect that prices will continue to decline by another c. 5% YoY this year and in 2013.

Collateral pool developments

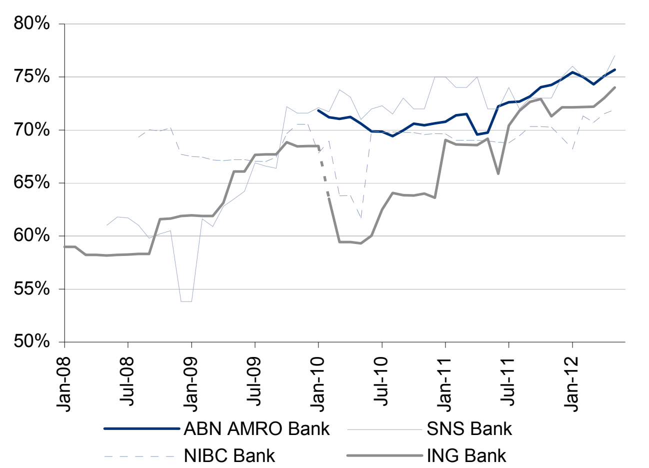
We estimate a 4%-point lower LTV for Dutch mortgages if savings are considered

Despite the relatively higher LTV characteristics of Dutch mortgage loans in comparison to other covered bond jurisdictions, the indexed loan-to-market value of the mortgage loans in Dutch collateral pools is on average below 80%. These LTV ratios do not reflect the savings or investment balances that have been accrued against the mortgage loans. We estimate that recognition of accrued savings and investments could reduce the LTV-ratios of Dutch collateral pools by approximately four percentage points versus current levels. These calculations are a rough estimate, based upon the current seasoning of the cover pools and assuming a “linear” accrual of savings and investments (without any recognition of the actual current value of these investments) over a period of 30 years against the non-interest only and non-amortizing mortgage parts in Dutch collateral pools.

Dutch LTV ratios have risen by more than 10%-point in the past three years

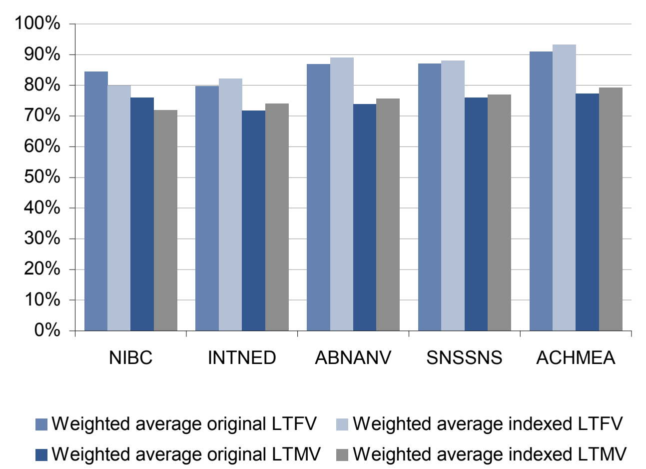
However, a further look at the collateral pools of Dutch covered bond programs does confirm the negative impact of the house price declines on Dutch indexed loan-to-value ratios, which have on average deteriorated in the past three years by more than 10%-points (Figure 7)[14]. Up to the beginning of 2010 the rise in the indexed loan-to-value ratio coincided with a rise in original loan-to-value ratios as well, but since then original loan-to-value ratios have remained relatively stable or, if any, have even improved. Hence unsurprisingly, Figure 8 shows that indexed loan-to-value ratios are now higher than the original loan-to-value ratios of the mortgages in almost all Dutch collateral pools. NIBC Bank is the only exception. In the case of NIBC Bank the loan-to-market value has risen only modestly as, for this particular issuer, the rise in LTV ratios on the Dutch part of its pool were partly offset by the improvement in LTV ratios on the German loans in the pool[15].

Fig 7 Dutch indexed LTMV developments



Source: Available investor reports, rating agencies data, ING

Fig 8 Indexed LTV now higher than original LTV



Source: Investor reports, rating agencies data, ING

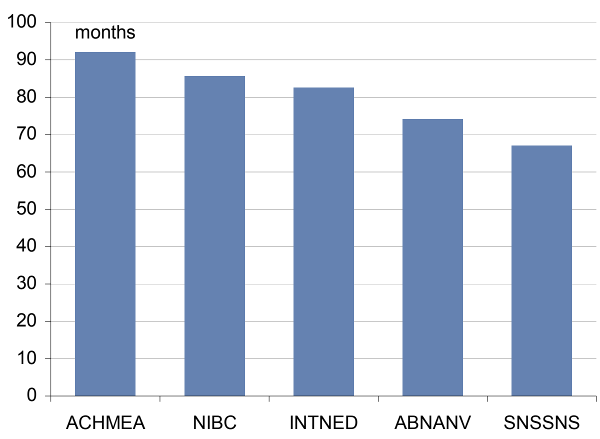
Another explanation for the lower indexed compared original loan-to-value ratios for NIBC Bank is the relatively higher seasoning of the issuer’s pool (86 months), in comparison to other Dutch issuers such as ABN AMRO Bank (74 months) or SNS Bank (67 months).

[14] The break in the LTV development for ING Bank around January 2010 can be explained by the fact that, beginning of 2010, this issuer started reporting loan-to-market values rather than loan-to-foreclosure values.

[15] Note that not all issuers report all four loan-to-value numbers referred to in Figure 8. Where the information was not available we have estimated the not-published LTFV (loan-to-foreclosure value) or LTMV (loan-to-market value) ratios based upon the FV versus MV ratios applied by the issuers (see Figure 4).

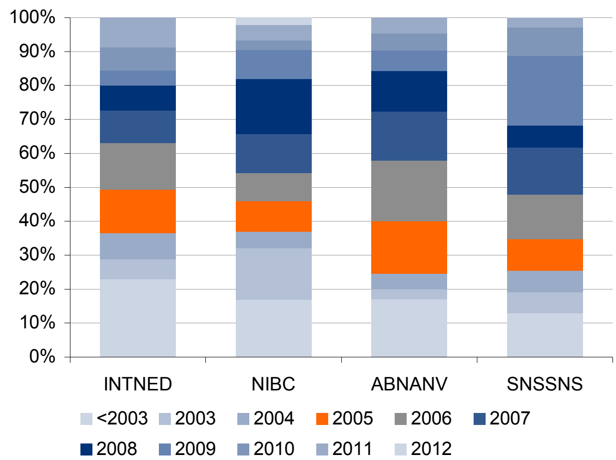
Again the higher seasoning is mainly attributable to the German loans in NIBC Bank's pool, which have a seasoning of 111 months compared to 77 months for the Dutch loans.

Fig 9 Weighted average seasoning



Source: Investor reports, Fitch, ING

Fig 10 Cover pool by origination year*



Source: Investor reports, Fitch, ING, *For NIBC only Dutch portfolio

More seasoned cover pools have lower LTV ratios

The more seasoned Dutch cover pools in general have lower LTV ratios. The only exception is Achmea Hypotheekbank, which has in fact the most seasoned cover pool (see Figure 9) but on the other hand also the highest LTV ratios. This can be explained by the fact that Achmea Hypotheekbank does not have an EU CRD compliant covered bond programme and as such does not adhere to the CRD's 80% LTV restrictions.

Figure 10 gives further insight in the Dutch collateral pool composition from a year of origination perspective. Dutch house prices have been subject to price declines since the 3rd quarter of 2008. Hence, loans originated in 2008 have been exposed to the strongest house price declines. NIBC Bank and ABN AMRO Bank have the largest percentage of loans originated in 2008 in their pool. However, for NIBC Bank, this percentage is based upon the Dutch loans in its pool only and would have been lower if we had considered the German loans as well for the purpose of this graph.

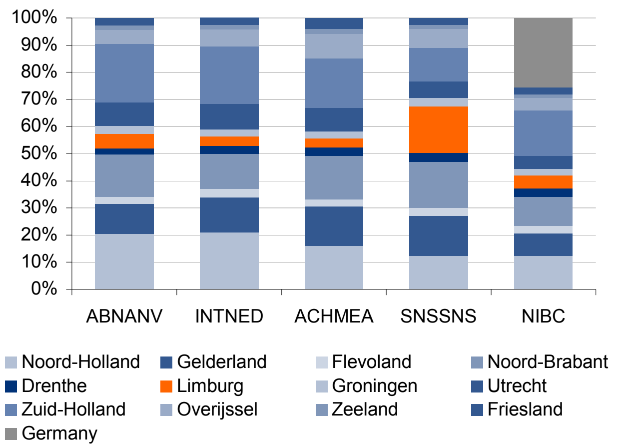
More than 60% of the Dutch mortgage collateral has been affected by house price decline

House prices in the Netherlands are currently back at the levels seen in the first quarter of 2005, while our economists expect that by the end of 2013 prices will be back at their beginning of 2003 levels. This means that by the end of next year, only 13% of the mortgages underlying the SNS Bank covered bond programme would have indexed LTVs that are higher than the original LTVs. For ING Bank's collateral pool this percentage is higher at 23%, but still below 25%. Unfortunately there are no year-of-origination statistics available for Achmea Hypotheekbank. If house price declines indeed persist in line with our economists' expectations, average indexed-loan-to-market values for Dutch covered bonds can be expected to rise above 80% with current collateral pool compositions. At the current asset percentages already committed by Dutch covered bond issuers, this is unlikely to trigger a need for additional collateral for the purpose of the asset cover test.

Regional distribution stats favour NIBC Bank's cover pool over SNS Bank's pool

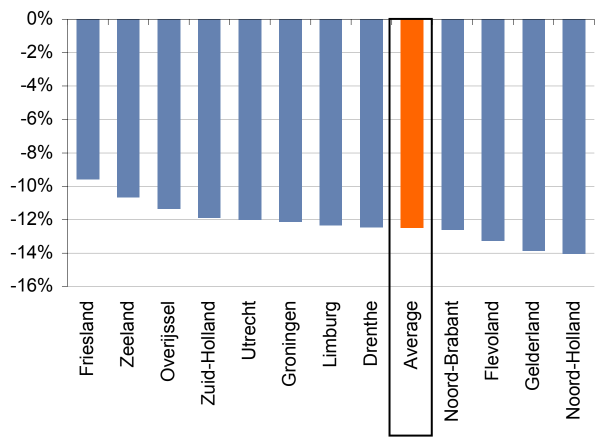
Figure 11 gives an overview of the regional exposure of the Dutch collateral pools, while Figure 12 plots the housing price decline per region from the 2008 peak. Varying from -9.6% to -14%, house price declines per region have not been far off the 12.5% average. The province of Noord-Holland has seen the strongest house price decline with -14%, followed by Gelderland with -13.9% and Flevoland with -13.3%. ING Bank, ABN AMRO Bank and Achmea Hypotheekbank have the largest exposure to these regions. On the other hand, these issuers also have the highest exposure to Zuid-Holland, which is among the four provinces where house prices have declined the least. SNS Bank's exposure to these four "stronger" regions is lower. This issuer has a relatively large exposure to Limburg. NIBC Bank has, due to the 25.6% German mortgage loans in its cover pool, least exposure to the below average performing Dutch regions.

Fig 11 Regional collateral pool distribution



Source: Kadaster

Fig 12 Regional Dutch house price declines from peak



Source: Investor reports, rating agencies, ING

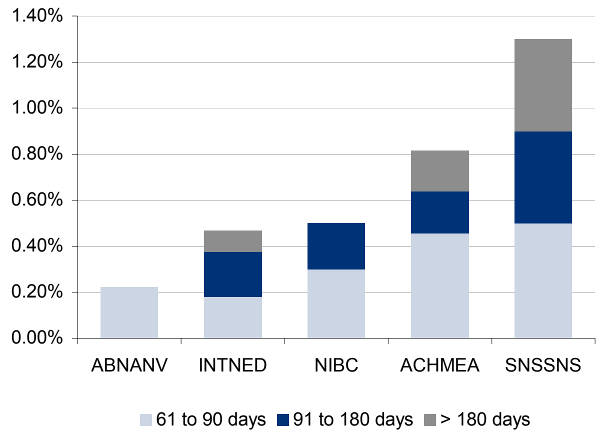
Positives are the owner occupied and fixed rate characters of the mortgages

Notwithstanding the pressure of house price declines on Dutch LTV ratios, it is a positive that mortgages in Dutch collateral pools are 100% owner occupied, which assures an optimal incentive for the mortgage holder to fulfil its mortgage obligations. In addition, the percentage of fixed rate mortgages in Dutch collateral pools is high at around 87%. Fixed rate mortgage loans may give the issuers less opportunity to adjust their lending rates to higher funding costs, on the other hand they make mortgage takers less vulnerable to interest rate volatility. Furthermore, although Dutch unemployment rates are rising (6.2% in April), they are still well below the Eurozone average 10.9%.

Loans in arrears have remained low…

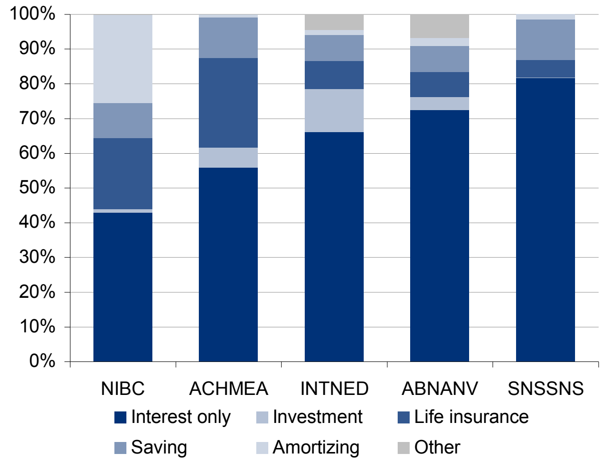
As such, loan in arrears in Dutch collateral pools have remained relatively low varying from 2.2% in total for ING Bank, to an (estimated) 3.4% for SNS Bank. Not all Dutch issuers report arrears in their monthly investor reports. Hence the data in Figure 13 is based upon the information made available either via investor reports or otherwise via the rating agencies. Unfortunately this does not include arrears information for loans up to 60 days for all issuers. However, covered bond issuers that do make these data available have on average 2.1% of the loans in arrears up to two months. SNS Bank has the largest percentage of loans in arrears for more than 2 months (1.3%) and ABN AMRO Bank the lowest percentage (0.2%).

Fig 13 Arrears for more than 2 months Dutch pools



Source: Investor reports, rating agencies, ING

Fig 14 Large percentage of interest only loans



Source: Investor reports, rating agencies, ING

…but the large percentage of interest only loans is a vulnerability

As a final remark, Figure 14 confirms the relatively large share of interest only loans in Dutch collateral pools. The performance of these loans is more vulnerable to housing price declines than amortizing loans. In particular SNS Bank has the largest share of interest only loans as collateral (82%), while in the case of NIBC Bank, with its 25.6% exposure to German mortgages, the percentage of interest only loans is limited at 43%.

As a concluding remark, we are of the opinion that SNS Bank has from various perspectives the weakest collateral pool characteristics within Dutch covered bonds, while the diversification to German mortgages works to the advantage of NIBC Bank. In the next chapter we look at the opinion of the rating agencies on Dutch covered bonds and how they weigh the programme differences.

Rating agencies

Moody's

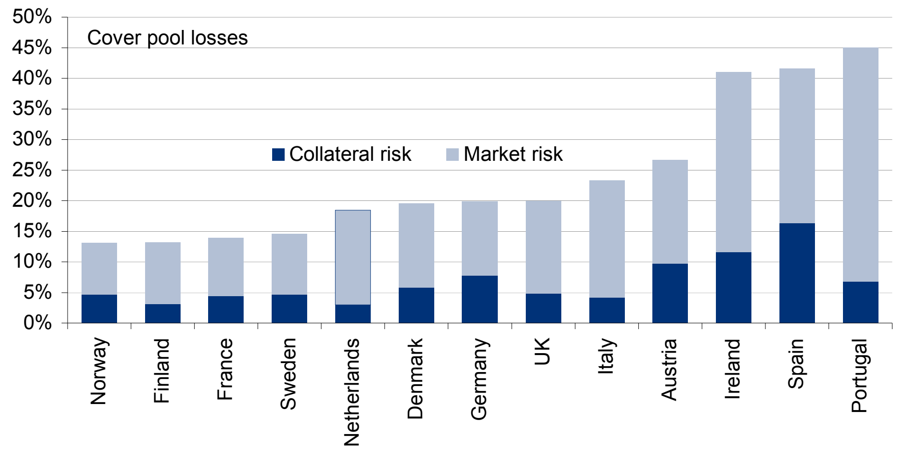
Dutch covered bonds have a TPI of Probable at Moody's

Dutch covered bond programmes have a Timely Payment Indicator (TPI) of Probable at Moody's. The Timely Payment Indicator for Achmea Hypotheekbank is not published, because Moody's does not (publicly) rate the issuer. The combination of the issuers' current credit rating and TPI restricts the covered bond ratings of NIBC Bank, Achmea Hypotheekbank and SNS Bank at A1, Aa2 and Aa2 irrespective of the quality of the cover pool or overcollateralization provided for by these programmes. The covered bonds of ABN AMRO Bank and ING Bank are Aaa rated at Moody's, with a TPI Leeway of one notch.

Moody's strong collateral scores for Dutch pools in our opinion insufficiently reflects the high Dutch LTVs

The average collateral score of 4.8% for Dutch covered bonds is among the lowest (i.e. best) scores of all mortgage covered bond programmes rated by Moody's per jurisdiction[16]. We have verified with Moody's that this strong collateral score is based upon the rating agency's view that loan-to-value ratios of Dutch cover pools are relatively low considering that most programmes report loan-to-foreclosure values and not the more commonly reported loan-to-market values seen in other covered bond jurisdictions. However, in our view Dutch loan-to-value ratios cannot be the argument to assign a better collateral score to Dutch covered bonds. Even when translated into loan-to-market values, Dutch LTV ratios are unquestionably high compared to the loan-to-value ratios in other jurisdictions, which are often below 60%. The collateral score translates in a collateral risk of 3.2%, which combines the collateral score post haircut for eligible and ineligible assets in the cover pool. This risk indicator only incorporates the credit deterioration of the cover pool.

Fig 15 Dutch mortgage covered bonds rank fifth in terms of cover pool losses



Source: Moody's

Market risk is high due to the maturity mismatch between the assets and the bonds

Despite the low collateral risk, Dutch covered bonds have a relatively high market risk of 15.4%. Seven covered bond jurisdictions score better than the Netherlands in terms of market risk. The market risk reflects Moody's estimated cover pool losses post issuer default as result of refinancing risks, currency and interest rate mismatches and certain collateral related legal risks such as deposit set-off risks. The high market risk score is the consequence of the high maturity mismatch between the assets in the cover pool and covered bonds outstanding due to the large percentage interest only loans in Dutch cover

[16] The Collateral Score reflects the amount of risk-free enhancement needed to protect a Aaa rating from otherwise unsupported assets. The collateral score only reflects the credit risk of the cover assets and does not incorporate refinancing and market risks or certain legal risks such as set-off risks.

pools. In addition, potential interest rate risks are high post issuer default according to Moody's due to the relatively long-fix period of the assets in the cover pool. Hence the overall expected cover pool losses are higher for Dutch covered bonds than for Norwegian, Finnish, French and Swedish covered bonds.

ING Bank covered bonds have the best collateral score at Moody's, reflecting the programme's lower loan-to-foreclosure value compared to other Dutch covered bond programmes. As said, loan-to-foreclosure values are the key driver of Moody's collateral scores. In addition, ING Bank has the lowest average loan amount and largest amount of borrowers in the cover pool, which Moody's considers a positive in terms of borrower credit risk diversification. SNS Bank also has a better collateral score than other Dutch covered bond programmes based upon the lower unindexed loan-to-foreclosure value of the loans in its cover pool. SNS Bank receives less credits for seasoning as it has the least seasoned loan portfolio. Achmea Hypotheekbank has the weakest collateral score, followed by ABN AMRO Bank based upon their higher loan-to-foreclosure values.

SNS Bank, Achmea Hypotheekbank and NIBC Bank have a weaker market risk score at Moody's than ABN AMRO Bank and ING Bank, despite the soft bullet maturity of their covered bonds and novation agreement of these issuers with a backup total return swap provider. However, in Moody's expected loss assessment, covered bonds are considered to be less exposed to refinancing risks if the credit of the issuer is stronger. SNS Bank runs most market risk in Moody's opinion. The issuer has a relatively high duration mismatch between its assets (WAL of 24 years according to Moody's most recent investor report) and liabilities (WAL of 8 years). In addition, Moody's does not model deposit set-off risks in the case of Achmea Hypotheekbank and NIBC Bank. Next to the 18 months instead of 12 months extendible maturity of its covered bonds, NIBC Bank also has a relatively limited percentage of loans in its cover pool with a fixed reset date beyond 5yr (35.5%), which also contributes to the lower market risk score for this issuer compared to SNS Bank, despite its two notch weaker issuer rating.

Fig 16 Rating agencies assessment Dutch covered bonds

	ABN AMRO Bank	*ING Bank*	*SNS Bank*	*NIBC Bank*	*Achmea Hypotheekbank*
Moody's	**Aaa**	**Aaa**	**Aa2**	**A1**	**Aa2**
Timely Payment Indicator (TPI)	Probable	Probable	Probable	Probable	Unpublished *
* Cover pool losses	16.8%	13.7%	23.6%	19.0%	19.9%
Market risk	13.7%	11.2%	20.1%	15.4%	16.6%
Collateral risk	3.1%	2.5%	3.4%	3.6%	3.3%
Collateral score	4.7%	3.7%	5.1%	5.4%	4.9%
TPI Leeway	1 notch	1 notch	0 notches	0 notches	Unpublished *
Required Overcollateralization	6%	5%	19.5%	4%	13%
Fitch	**AAA**	**AAA**	**AAA**	**AAA**	**AAA**
D-factor	20.2%	19.7%	15.9%	13.6%	17.6%
Supporting asset percentage	80.7%	82.1%	79.0%	78.2%	78.3%
Supporting Overcollateralization	23.9%	21.8%	26.6%	27.9%	27.7%
Rating sensitivity	3 notches	3 notches	0 notches	0 notches	1 notch
S&P	**AAA**	**AAA**			
Programme categorization	2	2			
ALMM classification	Low=0%	Low=1.64%			
Maximum potential uplift	6 notches	6 notches			
Unused uplift	2 notches	2 notches			
Asset default risk	13.69%	12.60%			
Target enhancement	39.18%	45.44%			

Source: Moody's, Fitch, S&P, *Achmea Hypotheekbank is not rated by Moody's

Fitch

Under Fitch's Continuity Analysis, Dutch covered bonds are assigned a Default (D)-Factor ranging from 13.6% for NIBC Bank to 20.2% for ABN AMRO Bank. This D-factor reflects the likelihood of the covered bond defaulting after the issuer defaults on a scale from 0% (zero likelihood that the covered bond defaults) to 100% (100% likelihood that the covered bond defaults). It is based upon four weighted components: asset segregation (45%), liquidity gaps (35%), alternative management (15%) and covered bond oversight (5%). Fitch added a counterparty risk adjustment to these four components last year.

Fitch penalizes ABN AMRO Bank and ING Bank for their hard bullet maturities…

The higher D-Factor for ABN AMRO Bank and ING Bank mainly reflects the hard bullet maturity of the covered bonds issued by these two issuers, which translates into a weaker *liquidity gap* score. Achmea Hypotheekbank, SNS Bank and NIBC Bank on the other hand all three have issued covered bonds with a soft-bullet structure. In the case of Achmea Hypotheekbank and SNS Bank, the bonds have a 12 month extendible maturity, whereas NIBC Bank covered bonds have an 18 month extendible maturity to mitigate liquidity risks rising from the mismatch between the longer maturity assets and shorter maturity of the covered bonds issued. Achmea Hypotheekbank covered bonds on the other hand do not receive any *oversight* credit under Fitch's D-Factor analysis because it is not a registered programme under the Dutch covered bond legislation. ABN AMRO Bank covered bonds also do not receive full credit in Fitch's *asset segregation* analysis due to potential future claims that may rise from the legal demerger of the former ABN AMRO Bank into RBS in 2010. Fitch believes there could be a possibility that the Covered Bond Company may have to share foreclosure proceeds on bank mortgage loans with RBS, should RBS grant a loan to an existing borrower of ABN AMRO Bank, secured on the same property as an existing mortgage originated by the former ABN AMRO Bank. This risk is low as RBS is currently not a retail bank in the Netherlands.

…and lack of standby total return swap agreement

Fitch's additional counterparty risk adjustment led to a 1.5%-point increase in the D-Factors of ABN AMRO Bank and ING Bank, and a 0.5%-point increase in the D-Factor SNS Bank, NIBC Bank and Achmea Hypotheekbank last year, reflecting the potential difficulties in replacing a derivative counterparty where the derivative counterparty is within the same group as the issuer. Fitch believes that in particular total return swaps on the cover pools are difficult to replace due to the tailored nature of these swaps. NIBC Bank, SNS Bank and Achmea Hypotheek have mitigated this replacement risk by entering into a standby total return swap agreement with RBS (NIBC Bank and Achmea Hypotheekbank) or with both RBS and Rabobank (SNS Bank), which explains the smaller upward adjustment in the D-Factor for these issuers. However, Fitch has not too long ago increased NIBC's D-Factor further from 13.2% to 13.6% as the rating agency is of the opinion that the limited size of the arrears management team for the German mortgages in NIBC Bank's cover pool could negatively affect the performance of the loans.

Fitch has also recently increased the asset percentage supporting the AAA rating from 72.5% for SNS Bank to 79%, due to the revised default model assumptions and due to the shorter weighted average life modelled for the assets in SNS Bank's cover pool.

SNS Bank and NIBC Bank covered bonds may lose their AAA rating at Fitch

However, in May Fitch announced it is considering amending its criteria for analysing covered bonds. The rating agency wants to replace the Discontinuity (D-)Factor with Discontinuity (D-)Caps representing a maximum uplift versus the Long-term Issuer Default Rating (IDR) of 0 to 8 notches on a probability of default basis, and reflecting the likelihood of a covered bonds payment interruption after an issuer default. The D-Cap will be driven by the highest risk component, while the liquidity gap D-Cap component will be determined by the sovereign rating and other systemic risk components. Furthermore, Fitch believes that for non-pass through mortgage covered bonds, a D-Cap of 4 notches will best represent the difficulties perceived in mortgage liquidations post an issuer default. This will reduce the minimum IDR to support a AAA covered bond rating from BBB+, currently applicable for most programmes, to A-. Fitch is of the opinion that a BBB category IDR can be too volatile to support a AAA rating. Hence programme types most likely to be affected by the criteria changes are, according to Fitch, non pass-through mortgage covered bond programmes of issuers rated BBB+ or below. This includes the covered bond programmes of SNS Bank and NIBC Bank.

S&P

S&P no longer rates the covered bonds of SNS Bank, NIBC Bank & Achmea Hypotheekbank

Since the implementation of its new covered bond rating criteria in December 2009[17], three Dutch covered bond issuers have asked S&P to withdraw the ratings on their respective covered bond programmes.

- The first issuer was *NIBC Bank*, which had its rating withdrawn in January 2010 after S&P downgraded the issuer's covered bonds to AA, in line with the maximum of 6 notches uplift achievable from the issuer's credit rating (BBB at that time) under S&P's new covered bond rating methodology.
- *SNS Bank* followed in February 2010 after S&P affirmed the issuer's AAA covered bond rating, removing it from CreditWatch Negative but assigning a negative outlook. SNS Bank was at that time rated A- with a stable outlook at S&P. However, S&P did nevertheless assign a negative outlook to the issuer's covered bond programme due to the fact that the asset percentage committed by the issuer was higher than commensurate with a AAA rating.
- In July 2010 also *Achmea Hypotheekbank* requested S&P to withdraw the ratings on its covered bond programme after S&P downgraded the covered bonds to AA+ while the issuer was still rated A-. The downgrade reflected uncertainties regarding the ongoing levels of cash that Achmea Hypotheekbank was willing to maintain in the programme. Without the available cash amount in the pool at that time, the ALMM category would have been High instead of Low and the available credit enhancement would have been lower. S&P at that time believed that the issuer would have been able and willing to manage its ALMM and available credit enhancement to a level in line with a AA+ covered bonds rating.

S&P now only rates the covered bond programmes of ABN AMRO Bank and ING Bank.

Dutch covered bonds are classified in Category 2 with Low ALMM risk

Under S&P's five step covered bond rating process, Dutch covered bonds are classified in *programme Category* 2. The *asset-liability mismatch (ALMM)* is considered to be Low, which means that the maximum number of uplifts from the issuer's rating is six notches. The target credit enhancement required for Dutch covered bonds at S&P to achieve the maximum potential ratings uplift is nevertheless among the highest of all covered bond programmes rated by the rating agency. This reflects the high mismatch between the weighted average maturity of the assets in the cover pool and the weighted average maturity of the bonds issued as a consequence of the low mortgage repayment rate in the Netherlands. Dutch covered bond programmes also have selected asset required amount (SARA) clauses that allocate the programme's credit enhancement to each covered bond issued on a pro-rata basis. Covered bond programmes with a SARA clause tend to have a higher credit enhancement target than programmes without this clause.

Within S&P's rating methodology, the ALMM percentage is a measure of the riskiness of a covered bond programme's asset-liability mismatch. It reflects the maximum stressed liquidity need on a rolling quarterly basis on the outstanding assets. Covered bond programmes with an ALMM percentage between 0% and 15%, such as the Dutch, receive an ALMM classification of Low. For the purpose of the ALMM calculation, S&P

[17] S&P, *Revised Methodology and Assumptions for Assessing Asset-Liability Mismatch Risk in Covered Bonds*, 16 December 2009

stresses cash flows to tackle asset credit risks, such as asset default risks, operational risks and derivative counterparty risks. S&P assigns its first notch uplift above the issuer's individual credit rating if the available credit enhancement covers this *asset default risk*.

ABN AMRO Bank has a higher asset default risk…

S&P considers the asset default risk to be lower for ING Bank (12.6%) than for ABN AMRO Bank (13.69%)[18]. The potential loss associated with the pool, which is measured by the product of the weighted average foreclosure frequency (WAFF) and the weighted average loss severity (WALS), is lower for ING Bank. Both the WAFF as well as the WALS is less for ING Bank, reflecting the issuer's lower LTV ratios compared to ABN AMRO Bank. Whole loan-to-value ratios that consider prior-ranking loans on the same property are an important component to S&P's WAFF calculations. The link between whole LTV ratios and WAFF assumptions differs per country. In the case of Dutch covered bonds, the link is weaker than for other jurisdictions as the LTV ratios for Dutch covered bond programmes do not recognize offsetting savings against the, for interest rate tax-deductibility purposes, high Dutch mortgage loan balances[19]. The LTV ratio is also the most important factor for determining the potential loss severity if a borrower defaults under S&P's covered bond rating methodology.

…but nevertheless runs less ALMM risk than ING Bank…

Despite the lower asset default risk, plus the marginally lower mismatch between the weighted average maturity of the assets versus the weighted average maturity of the liabilities for ING Bank (15.4 years compared to 16 years for ABN AMRO Bank), S&P considers the ALMM risk to be higher for the covered bond issued by ING Bank (ALMM percentage of 1.64%) than for ABN AMRO Bank (0%). This can be explained by the €2bn liquidity ABN AMRO Bank has made available since June 2010 under the pre-maturity ledger in the Asset Coverage Test. This amount is also sufficient to repay the €2bn ABNANV3.25 1/13 that matures in January 2013. As a consequence the target credit enhancement required to obtain the maximum notches of uplift versus the issuer's credit rating is higher for ING Bank at 45.44% compared to 39.18% for ABN AMRO Bank. Both covered bond programmes have sufficient actual credit enhancement to obtain a AAA rating at S&P.

[18] S&P, *Global Covered Bond Characteristics and Rating Summary Q1 2012*, 29 March 2012

[19] S&P, *Never Underestimate Credit Risk in Mortgage Covered Bonds*, 12 September 2011

Euro benchmark issuance

Supply

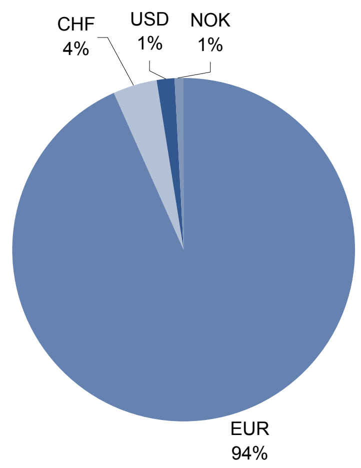
The majority of Dutch covered bonds are issued in € benchmark format

Since the "old" ABN AMRO Bank issued the first Dutch covered bond in 2005, the Dutch €-benchmark covered bond market has grown to become the fifth largest market in Europe with €40.6bn in benchmark debt outstanding. Only Spain, France, Germany and the UK have more €-benchmark bonds outstanding.

The Dutch covered bond market nowadays has €53.3bn outstanding. The majority of the bonds outstanding are €-denominated, but some issuers have also issued small amounts in CHF, USD or NOK (Figure 17). ING Bank is the largest issuer with a 47% market share, followed by ABN AMRO Bank with a 41% share (Figure 18).

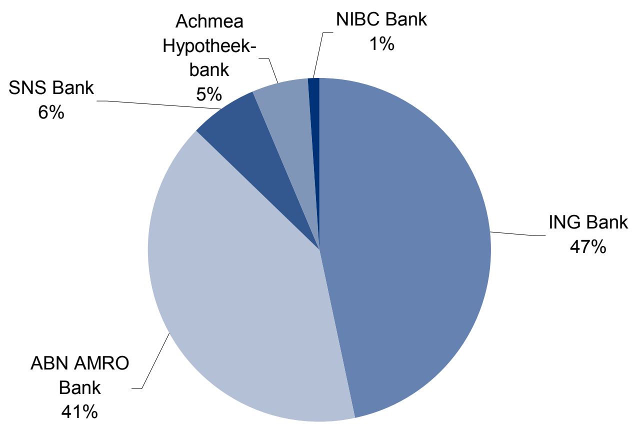
The first Dutch covered bonds issued were all structured. However, structured supply was fully replaced by regulatory issuance after the Dutch legal framework for covered bonds came into effect in July 2008. Achmea Hypotheekbank is the only Dutch issuer not registered under the Dutch legal framework. This issuer launched its first and last €-benchmark covered bond in 2007 (two benchmark issues in total).

Fig 17 Dutch covered bonds by currency type



Source: Issuer investor reports

Fig 18 Market share Dutch covered bond issuers



Source: Issuer investor reports

In the past three years, Dutch € benchmark covered bond supply has on average summed to €9bn per annum. This average may well not be reached this year. YTD issuance in Dutch €-benchmark covered bonds is €2.75bn. This is significantly less than the €8.2bn in €-benchmark debt issued in the first five months of last year. Furthermore, the two largest Dutch issuers have around €8bn issuance space left under their covered bond programme sizes (see Figure 4). We have also already seen quite a bit of senior unsecured funding by Dutch issuers that did not participate in the ECB's LTRO. SNS Bank, the only active Dutch covered bond issuer known to have participated in the ECB's LTRO, has earlier this year decided not to proceed with its planned covered bond deal.

In terms of covered bond repayments, redemptions on Dutch covered bonds sum to €2.75bn this year, with one more payment due in August (€1.25bn).

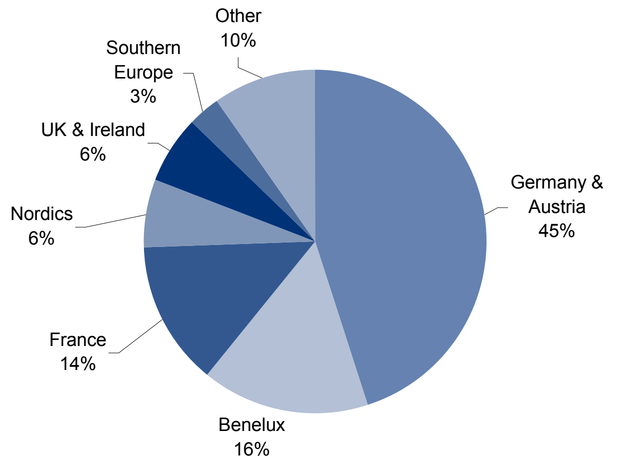
Demand

German/bank investors are the largest participants in Dutch covered bond deals

Ever since the first € benchmark covered bond was issued, Dutch covered bonds have in general seen good interest from the European investor base. Placement statistics show that German & Austrian investors are the largest participants to Dutch covered bond transactions with a share of 45%. The search for alternatives for the shrinking German

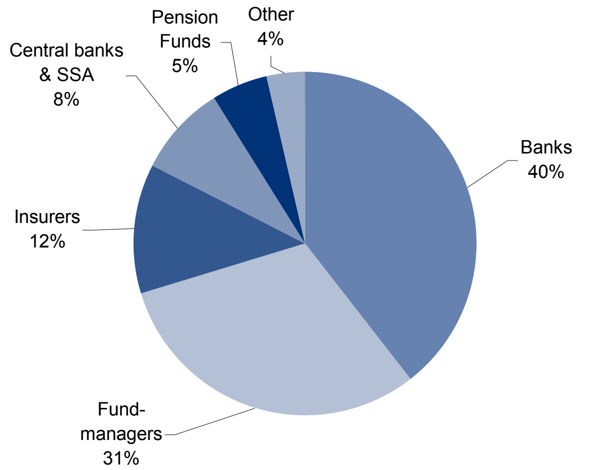
Pfandbriefe issuance forms an important explanation. Benelux investors participate for 16% in Dutch covered bond transactions, indicating a decent home country demand (in part due to the once so important Dutch RMBS market losing in significance). French investors participate in 14% in Dutch covered bonds. (Figure 19).

Fig 19 Dutch covered bond distribution by geography



Source: Issuer investor reports

Fig 20 Dutch covered bond distribution by investor type



Source: Issuer investor reports

Figure 20 shows that banks are the largest group of investors in Dutch covered bonds with a share of 40%, followed by fund managers with 31% and insurers with 12%. The participation of insurers and pension funds increases for longer maturities. Insurer participation in 10yr Dutch covered bond transactions is on average 18%, while the participation of pension funds to these longer maturity deals increases to 9%.

Secondary performance

Performance considerations

Dutch covered bonds have been under widening pressure due to…

Having been among the stronger performing and more resilient covered bond jurisdictions in the past two years, Dutch covered bonds have in the past two months underperformed versus other "safe-haven" European countries. Reasons for this underperformance are various, and all make it difficult to see this trend revert:

…weak economic growth…

- The weak economic performance of the Netherlands in comparison to safer haven peers. The Dutch economy contracted by 1.1% YoY in the first quarter of this year, while the German, Swedish, Finnish and Swiss economies grew by 1.2% YoY to 2% YoY respectively. In terms of economic growth performance the Netherlands ranks between Italy and Spain, while even Ireland managed to grow by 1% YoY in 1Q12.

…poor housing market performance…

- The Dutch housing market is underperforming all other core European housing markets. In April, Dutch house prices fell by 5.2% YoY. The last available readings of German and French house price developments show a 6.8% and 1.3% house price rise, while in Austria for example house prices are even rising by 10.9%.

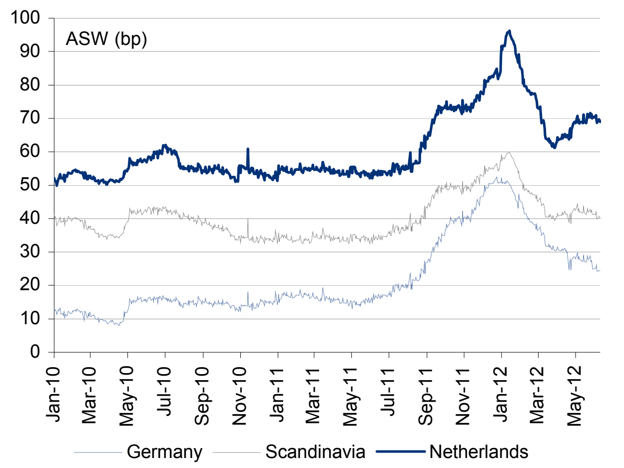
…political uncertainties…

- The collapse of the Dutch government in April after the far right Freedom Party walked away from the budget negotiations has added to the political uncertainty for the Netherlands. Irrespective of the subsequent Kunduz Agreement reached between the caretaking coalition of the Liberals and Christian Democrats, with the Democrats 66, the Green Left party and Christian Union, it has created uncertainty regarding the progress the Netherlands can make in terms of bringing the deficit back below 3% against a background of negative economic growth.

…mortgage payment tax deductibility discussions

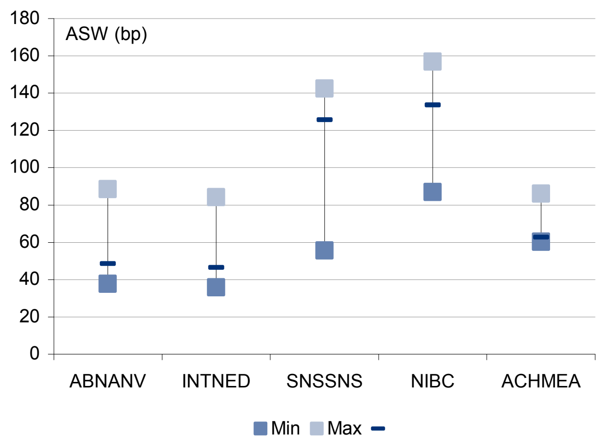
- Furthermore, the Kunduz Agreement has confirmed that restrictions to the tax deductibility of interest payments on Dutch mortgage loans is no longer a non-discussable topic, not even for the Liberals and Christian Democrats. This risks putting further pressure on Dutch house prices. Restrictions to the favourable tax treatment will only over a longer period of time serve to improve the quality of Dutch collateral pools, as borrowers will become more inclined to repay their mortgages.

Fig 21 Performance Dutch covered vs. other countries



Source: Markit iBoxx

Fig 22 Performance Dutch covered by issuer



Source: SFD

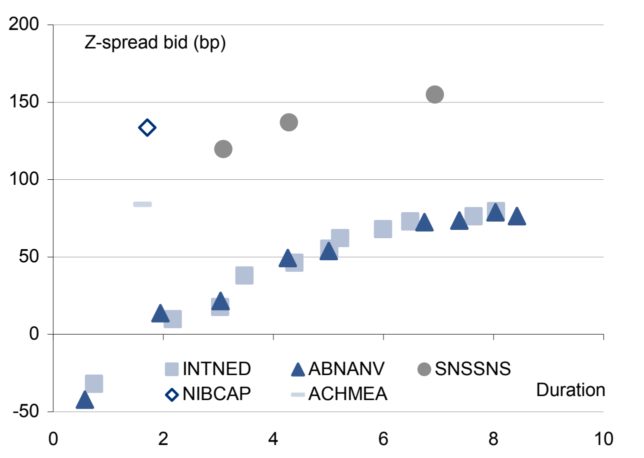
Figure 22 plots the current trading levels of Dutch covered bond within their past twelve months trading range. The figure confirms that SNS Bank and NIBC Bank covered bonds have shown the poorest performance of all Dutch covered bonds. The more negative

The underperformance of SNS Bank and NIBC Bank reflect issuer rating pressure

issuer rating trend for both covered bond issuers compared to the largest Dutch covered bond issuers, in combination with the increasing significance of a financial institution's systemic importance, have more than their cover pool characteristics, played a role here.

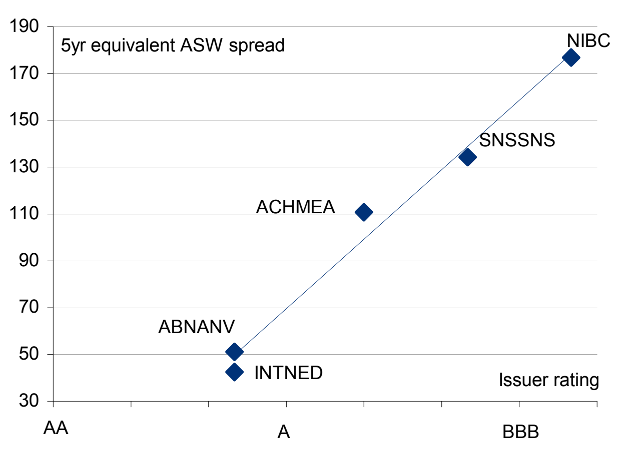
- Moody's recent rating action on the Dutch banking sector has, on a senior unsecured level, narrowed the rating difference between the two largest Dutch covered bond issuers and their lower rated peers at Moody's. The rating agency downgraded ABN AMRO Bank and ING Bank by two notches to A2, keeping the ratings of the latter on a negative outlook. Moody's cited the adverse operating conditions in the Netherlands (recession, declining house prices) and the banking sector's reliance on wholesale funds and large mortgages books as reasons for the downgrade. SNS Bank was downgraded by one notch to Baa2. However, with zero notches TPI Leeway, SNS Bank's covered bond rating was immediately affected and lowered to Aa2. The ratings of NIBC Bank were unaffected. This issuer's franchises and credit profiles are, in Moody's opinion, less susceptible to the adverse European operating environment.
- SNS Bank was also downgraded by S&P from A- to BBB+ in March this year, as the rating agency lowered the number of notches uplift for group support from two to one notch versus the bank's stand alone credit profile (SACP) of bbb.
- NIBC Bank was downgraded from BBB to BBB- at S&P in December following the rating agency's revised bank criteria. The SACP for NIBC Bank is bbb-, three notches below the a- anchor for commercial banks operating in The Netherlands. This reflects NIBC Bank's weak business position (-2 notches) and below average funding and liquidity (-1 notch) according to S&P. Due to NIBC Bank's low systemic importance, the bank's issuer credit rating does not receive any uplifts versus its bbb- SACP.
- ABN AMRO Bank on the other hand was upgraded by one notch to A+ at S&P in December. In June last year, ABN AMRO Bank's stand alone credit profile was already upgraded from bbb+ to a- (i.e. in line with the current a- anchor). At that time this did not positively affect the bank's senior unsecured rating as S&P reduced the notches uplift for sovereign support from two to one at the same time. In December however, ABN AMRO Bank again received two notches uplift from its SACP, reflecting the bank's high systemic importance in The Netherlands. The Credit Watch Negative on the upgraded A+ rating was changed into a negative outlook in January after S&P removed its Credit Watch Negative for the State of The Netherlands.

Fig 23 Dutch covered bond trading levels



Source: Markit iBoxx

Fig 24 5yr equivalent covered spread vs. issuer rating



Source: Markit iBoxx

Trading levels almost solely reflect issuer credit strength and give insufficiently credit to cover pool differences

Figure 23 gives an overview of all Dutch covered bonds outstanding. ABN AMRO Bank and ING Bank covered bonds trade significantly tighter than covered bond comparables from SNS Bank, Achmea Hypotheekbank or NIBC Bank. The difference with the SNS Bank covered bond curve is approximately 80bp. Figure 24 confirms however, these spread differences can be almost fully traced back to differences in the underlying issuer's credit rating. Because of the maturity mismatch between the covered bonds issued and the Dutch mortgage assets covering them, refinancing risks for Dutch covered bond programmes are perceived as relatively high. We know that the issuer's credit strength in that case becomes more important, while collateral pool differences matter less. The relatively steep pickup for a one notch weaker issuer rating in the Netherlands (c.30bp per notch, in line with Italian covered bonds, but high compared to the c. 10bp average for safe haven peer countries) confirms this. However, in our opinion, this gives insufficient credit to the differences in programme and cover pool characteristics discussed in the previous sections of this report.

Curve considerations

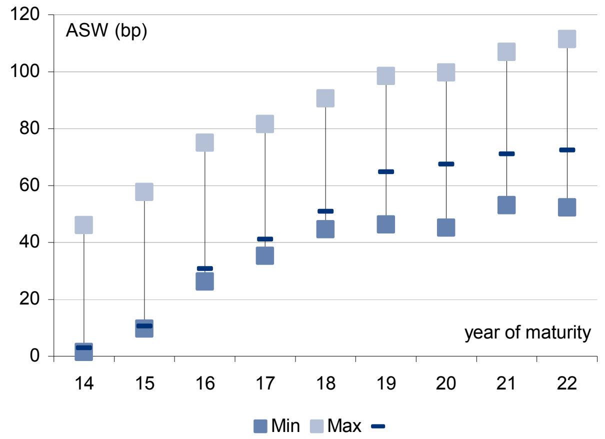
Covered bonds have massively outperformed at the front end of the curve this year. The Dutch covered bond market is no exception here. Figure 25 illustrates that the 2yr and 3yr covered bonds of the two largest Dutch covered bond issuers currently trade at the tightest level in a year. Further out the curve, in the 7-10yr area, covered bonds trade just below the middle of their past year's range.

Dutch covered bond curves trade steep following the massive outperformance of the front end earlier this year

Figure 26 confirms that a 25bp steepening of the 2-10yr curve since mid January is responsible for this picture. Initially the steepening started with an underperformance of the back end of the curve on the back of new 10yr issuance, while the front end remained relatively stable. However, around the end of January the front end started to show a tremendous strong performance, tightening by almost 30bp. It was not until mid February, before the back end started to catch up a bit, contributing modest re-flattening of the 2-10yr curve. The following factors have played a role here:

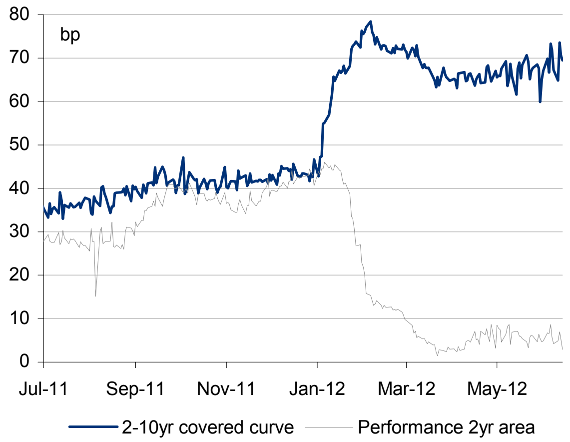
- The ECB's 3yr LTRO has shifted the supply focus of financial issuers further out the curve. YTD 50% of the issuance in senior financials has targeted the 1-4yr area. Last year 65% of senior unsecured financials issuance was in the 1-4yr area. The shift in maturity focus has been stronger in senior unsecured than in covered bonds as issuers already use covered bonds more frequently for longer maturity funding, due to the longer maturity of the underlying mortgage loans.
- The 3yr LTRO has also enhanced demand for shorter maturity paper, either from a carry trade or collateral purpose perspective for participants, or otherwise by supporting demand from other investors on an expected front-end performance.
- Redemptions in Financials have been abundant, in particular in the first quarter of this year, with €173bn in non-covered bonds redeeming in 1Q12 and €52bn in covered bonds. Redemptions are in general more supportive for the front end of the curve.
- In addition, covered bonds have, for quite some time, traded attractively versus sovereign alternatives at the front end of the curve. This is no longer the case following this year's outperformance of shorter maturity covered bonds. Covered bonds of the better rated Dutch issuers now pickup around 60bp versus Dutch sovereign comparables in the 2/3yr area, the same as in the 9/10yr area of the curve.

Fig 25 Performance Dutch covered by maturity*



Source: Markit iBoxx, *includes only ING Bank & ABN AMRO Bank

Fig 26 Curve steepens on performance front end*



Source: Markit iBoxx, *includes only ING Bank & ABN AMRO Bank

Recent bail-in proposals are not supportive of a further re-flattening…

Since mid February covered bond curves have only modestly re-flattened. The second 3yr LTRO have kept curves relatively steep, while the further details on the European Commission's bail-in proposals recently published hardly support a further re-flattening, with senior unsecured bail-in risks affecting senior bonds that mature in 2018 or later. As such, the bail-in proposals support longer-dated covered bond supply, while senior unsecured issuance will have a shorter-maturity focus.

…but we consider the 7yr area of the curve attractive

That said, the 7yr area, remains in our opinion the most interesting part on the curve from a carry and roll perspective considering the flatness of Dutch covered bond curves beyond this area. The YTD supply pressure in this area has also been relatively subdued although, 7yr covered bond supply has recently picked up. Searching a spot on the curve for a collateral pool quality driven trade, we would also look at the back end of the curve as the give-up out of SNS Bank into better rated Dutch peers is tighter here.

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SALES CONTACTS

Amsterdam
Tel: 31 20 563 8955
Brussels
Tel: 32 2 547 2111
Milan
Tel: 39 02 89629 3610
London
Tel: 44 20 7767 8448
Madrid
Tel: 34 91 789 8994
Paris
Tel: 33 1 55 68 46 50
Singapore
Tel: 65 6438 0088
Hong Kong
Tel: 852 2913 8185
Seoul
Tel: 82 2 217 1827

RATES STRATEGY

Amsterdam
Tel: 31 20 563 8955

CREDIT STRATEGY

Amsterdam
Tel 31 20 563 8959

CREDIT RESEARCH

Amsterdam
Tel: 31 20 563 8964

Research offices: legal entity/address/*primary securities regulator*

Amsterdam	ING Bank N.V., Foppingadreef 7, Amsterdam, Netherlands, 1102BD. *Netherlands Authority for the Financial Markets*
Bratislava	ING Bank N.V., pobocka zahranicnej banky, Jesenskeho 4/C, 811 02 Bratislava, Slovak Republic. *National Bank of Slovakia*
Brussels	ING Belgium S.A./N.V., Avenue Marnix 24, Brussels, Belgium, B-1000. *Financial Services and Market Authority (FSMA)*
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London	ING Bank N.V. London Branch, 60 London Wall, London EC2M 5TQ, United Kingdom. *Authorised by the Dutch Central Bank*
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