Covered Bonds follow-up Rating

ING Bank N.V.

Mortgage Covered Bond (Hard & Soft Bullet) Program

Creditreform Rating

Rating Object	Rating Information	
ING Bank N.V., Mortgage Covered Bond (Hard & Soft Bullet) Program	Rating / Outlook : **AAA / Stable**	Type: Rating Update (unsolicited)
Type of Issuance : Mortgage Covered Bond under Dutch law Issuer : ING Bank N.V.	Rating Date :	07.12.2021
	Rating Renewal until :	Withdrawal of the rating
LT Issuer Rating : A (ING Bank) ST Issuer Rating : L2 Outlook Issuer : Stable	Maximum validity:	01.01.2050
	Rating Methodology :	CRA „Covered Bond Ratings"

Program Overview

Nominal value	EUR 14.635 m.	WAL maturity covered bonds	4,82 Years
Cover pool value	EUR 19.399 m.	WAL maturity cover pool	13,89 Years
Cover pool asset class	Mortgages	Overcollateralization (nominal/committed)	32,55%/ 2,50%
Repayment method	Soft and Hard Bullet	Min. overcollateralization	5.00%
Legal framework	Dutch covered bonds legislation	Covered bonds coupon type	Fix (89,75%), Floating (10,25%)

Cut-off date Cover Pool information: 30.09.2021

Content

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Rating Action

This follow-up report covers our analysis of the mortgages covered bond program issued under Dutch law by ING Bank N.V. („ING Bank"). The total covered bond issuance at the cut-off date (30.09.2021) had a nominal value of EUR 14.634,56 m, backed by a cover pool with a current value of EUR 19.398,62 m. This corresponds to a nominal overcollateralization of 32,55%. The cover assets include Dutch mortgages obligations in Netherlands.

Taking into consideration the issuer rating, our analysis of the regulatory framework, liquidity- and refinancing risks, as well as our cover pool assessment and results of the cash flow analysis, Creditreform Rating AG ("Creditreform Rating" or "CRA") affirms the covered bond program with a AAA rating. The AAA rating represents the highest level of credit quality and the lowest investment risk.

Key Rating Findings

+ Covered Bonds are subject to strict legal framework, and full recourse of the covered bond holders to the issuer
+ Current high overcollateralization (OC) of 32,55% as of 30.09.2021
+ Covered bonds are backed by the appropriate cover asset class
+ Resilient profitability of the issuer during the Corona Pandemic
- High interest income dependency in a low-interest rate environment, which puts pressure on the issuer's profitability

Table1: Overview results

Risk Factor	Result
Issuer rating	A (rating as of 23.09.2021)
+ Legal and regulatory framework	+4 Notches
+ Liquidity and refinancing risk	+1 Notch
= Rating after 1st uplift	AAA
Cover pool & cash flow analysis	A+
+ 2nd rating uplift	+/-0 Notch
= Rating covered bond program	**AAA**

Issuer Risk

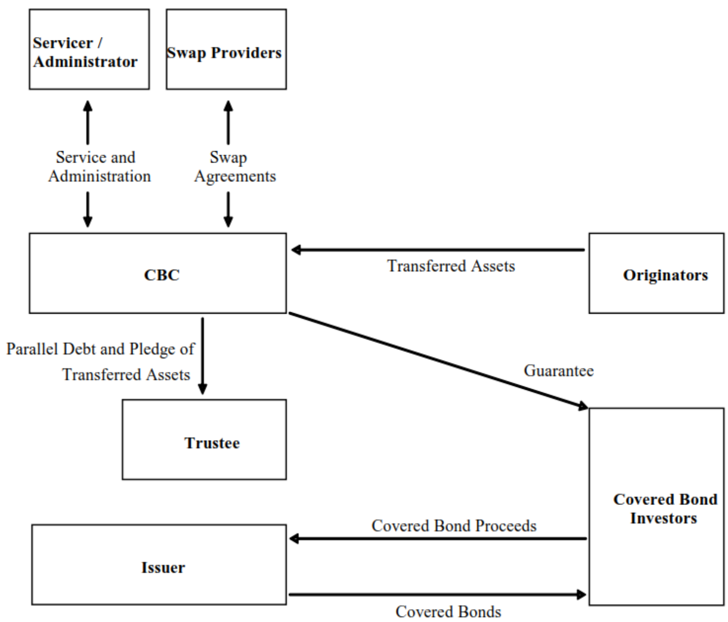
Issuer

Our rating of ING Bank N.V. covered bond program is reflected by our issuer rating opinion of ING Groep N.V. due to its group structure. CRA has affirmed the Long-term rating of ING Bank at A with stable outlook in a Rating Update dated 23.09.2021. Responsible for this affirmation were sound level of profitability in 2021, diversified business model, sound asset quality and minor impact of the Corona crisis. However, ING shows only average capital figures and increasing potential problem loans. For a more detailed overview of the issuer rating, please refer to the issuer rating report dated 23.09.2021 published on the webpage of Creditreform Rating AG.

Structural Risk

Transaction structure

Figure1: Overview of Covered Bond emission | Source: ING Bank Hard & Soft bullet Mortgage covered bond Prospectus



Legal and Regulatory Framework

In the Netherlands, the covered bond legislation was passed on 7/1/2008, which was last amended in 2014 and implemented into national law. Under this legislation, any universal bank based in the Netherlands with a special license can issue Dutch covered bonds.

The European Commission on November 2019 adopted the legislative package to provide for enhanced harmonisation of the EU covered bond market. The Directive requirements include asset eligibility criteria, liquidity buffer, maturity extensions as well as the role of the cover pool monitor. Each of the Member States should implement the Covered Bond Directive by 8 July 2021 and the national measures shall be applied at the latest from 8 July 2022. However, the transposition of EU Directive into national law is not yet completed in Netherlands[1]. It is yet so see if the directive have a potential impact on the legal and regulatory framework currently in force for the issuance of covered bonds once the transposition is completed.

A comprehensive overview of the Dutch covered bond legislation can be found in our initial and follow-up rating reports of ING Bank NV Covered Bonds. The following major provisions describe the status of the Dutch covered bond legislation currently in force.

The issuer has to guarantee that the cover assets will be transferred and sold to a separate, non-affiliated, independent legal entity - the Covered Bond Company (CBC). In case of issuer default, the CBC ensures the payment of both interest and principal to the covered bond holders (covered bond guarantee).

Covered bond holders have both an ordinary, unsecured claim against the issuer, which is guaranteed by the CBC, and a claim against the CBC secured by the right of pledge on the cover assets. Eligible cover assets are residential mortgage loans, commercial mortgage loans, ship loans or claims owed or guaranteed by the public sector, central banks, multilateral development banks or international organisations confined to EEA countries and to jurisdictions, where the regulatory arrangements and provisions are leastwise comparable to those in the EU.

The issuer has to ascertain that all requirements are achieved and has to report it to the Dutch Central Bank on a quarterly basis. Furthermore, the issuer has to guarantee and report once a year that it disposes consistent and efficient measures and strategies, so that unencumbered cover assets suffice under various stress scenarios. Furthermore, in case of issuer default, the Security Trustee and the CBC guarantee the ongoing management of the cover pool.

In general, we consider the structural framework for covered bonds in the Netherlands as positive as it defines clear rules to mitigate risks, in particular, regarding insolvency remoteness, asset segregation, investor's special claim vis-à-vis other creditors, the roll and appointment of a special administrator, among other provisions. Due to those reasons, we set a rating uplift of four (+4) notches for the regulatory and structural framework for covered bond programs in the Netherlands.

Liquidity- and Refinancing Risk

The Dutch legal framework stipulates that the minimum mandatory overcollateralization (OC) ratio has to be always 5% of the registered covered bonds outstanding on a nominal value basis.

[1] https://ec.europa.eu/info/publications/covered-bonds-supervision-directive-transposition-status_de

In addition, the statutory liquidity coverage requirement for 180 days is a safeguard mechanism to ensure the servicing of pending principal and interest payments.

Asset coverage tests have to be conducted on a monthly basis to control whether the amount of cover assets exceeds the amount of outstanding covered bonds by the adequate magnitude. Furthermore, Dutch issuing credit institutions guarantee to mitigate liquidity risks by means of contractual requirements. While the Dutch law does not explicitly demand for risk mitigating instruments regarding market risks, it is obligatory to do stress tests to maintain the healthy ratio and to anticipate credit risk, interest rate risk, currency risk and liquidity risk, while derivative instruments have to be included to hedge these risks.

In general, the Dutch covered bonds legislation and the stipulated risk management processes for liquidity risks, constitute a comparatively strict framework by which they can be effectively reduced. Refinancing risks, however, cannot be structurally reduced under the hard bullet repayment structure, which can only be cushioned by sufficiently high OC or other liquid funds. Nevertheless, we assess the overall legal provisions on liquidity management for the Dutch covered bond programs and set a rating uplift of one (+1) notch.

ESG Criteria

CRA generally takes ESG-relevant factors (environmental, social and governance) into account when assessing Covered Bond ratings. Overall, ESG factors have a significant impact on the current rating of this Covered Bond program. CRA identifies governance factors, in particular, to have a highly significant impact on Covered Bond ratings. Since Covered Bonds are subject to strict legal requirements, regulatory risk plays an important role in assessing the credit rating.

The Dutch covered bond legislation defines clear rules to mitigate risks in particular regarding: insolvency remoteness, asset segregation, investor's special claim vis-à-vis other creditors, the roll and appointment of a special administrator, among other provisions. Additionally, Risk management and internal controls as well as the macroeconomic factors such as hedging strategies, interest rates and yield curve are considered to have a highly significant impact on the assessment of the credit rating. Other individual factors with a potential key rating influence were not identified, and therefore did not affect the final rating.

Credit and Portfolio Risk

Cover pool analysis

The analysis of the cover pool is based on public information which has been made available by the Issuer, in particular the Harmonised Transparency Template („HTT“) as per regulatory requirements. This information was sufficient according to CRA´s rating methodology “Covered Bond Ratings”.

At the cut-off-date 30.09.2021, the pool of cover assets consisted of 118.545 debt receivables, of which 100% are domiciled in Netherlands. The total cover pool volume amounted to EUR 19.398,62 m in residential (100,00%), commercial (0,00%) and others (0,00%) loans.

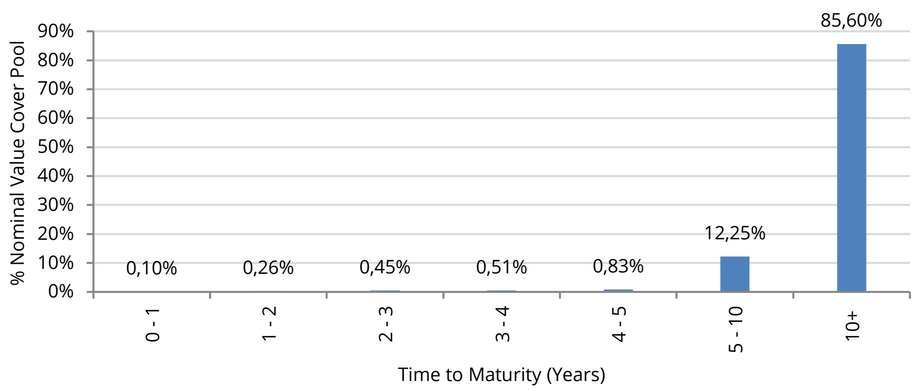
The residential cover pool consists of 118.545 mortgage loans having an Unindexed weighted average LTV of 53,6%. The cover pool does not have any non-residential loans. The ten largest debtors of the portfolio total to 0,05%. Table 2 displays additional characteristics of the cover pool:

Table 2: Cover pool characteristics | Source: ING Bank

Characteristics	Value
Cover assets	EUR 19.399 m.
Covered bonds outstanding	EUR 14.635 m.
Substitute assets	EUR 11,80 m.
Cover pool composition	
Mortgages	99,94%
Substitute assets	0,06%
Other / Derivative	0,00%
Number of debtors	Not relevant
Mortgages Composition	
Residential	100,00%
Commercial	0,00%
Other	0,00%
Average asset value (Residential)	EUR 163,54 k.
Average asset value (Commercial)	EUR 0,00 k.
Non-performing loans	0,0%
10 biggest debtors	0,05%
WA seasoning	176,16 Months
WA maturity cover pool (WAL)	13,89 Years
WA maturity covered bonds (WAL)	4,82 Years

We have listed an extended view of the composition of the cover pool in the appendix section "Cover pool details". The following chart displays the maturity profile of the cover assets at the cut-off date 30.09.2021 (see figure 2):

Figure 2: Distribution by remaining time to maturity I Source: ING Bank



Maturity profile

The following charts present the cash flow profile of the Issuer (see figure 3 and figure 4):

Figure 3: Cover asset congruence | Source: ING Bank

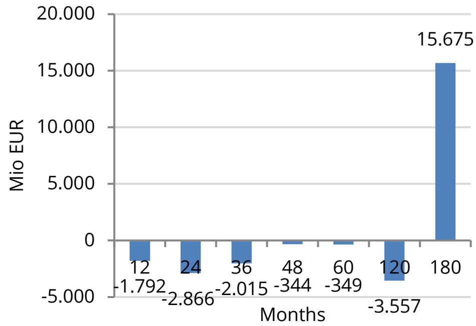
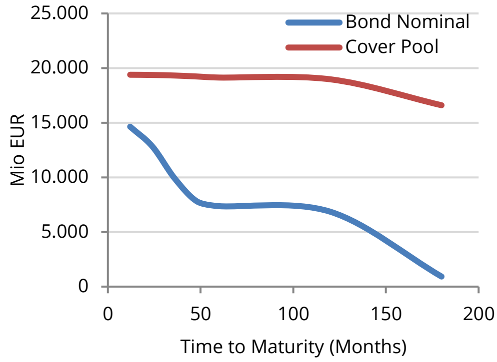


Figure 4: Amortization profile | Source: ING Bank



During its cash flow modelling, CRA has taken into consideration the maturity structure of cover assets and liabilities. This structure was an integral part of the cash flow analysis.

Interest rate and currency risk

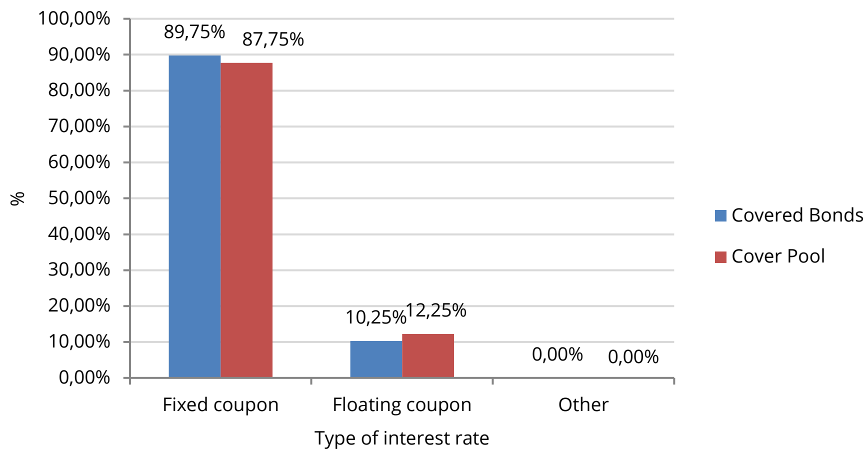
The Dutch legal framework allows issuing banks to use derivative instruments in the cover pool to hedge interest rate- and currency risk. Furthermore, the Dutch legal framework provides for weekly stress tests to be conducted on interest rate- and currency risks. Currency risk, regardless that is limited for this program as the cover pool assets and cover bonds are denominated in euros. In our cash flow analysis we assume that the interest rate mismatches are fully hedged in the form of swap agreements; therefore, CRA did not apply any interest rate stress during the cash flow analysis.

Table 3: Program distribution by currency | Source: ING Bank

Currency	Volume	Share (%)
Cover Pool		
EUR	19.399 m.	100,00%
Covered Bond		
EUR	14.635 m.	100,00%

Figure 5 shows the types of interest rate used in this program

Figure 5: Type of interest rate | Source: ING Bank



Credit Risk

The credit risk assessment for Mortgage Covered Bond have been determined in accordance with CRA rating methodology for Covered Bonds by means of historical data and particular parameters from the Covered Bonds.

Due to the high granularity of mortgage pools we have characterized these portfolios as big enough and with a homogeneous composition i.e. (“Large Homogeneous Portfolio”, LHP). Furthermore, under that premise we have assumed that it is possible to derive a loss distribution. CRA has used the issuer’s historical NPL ratios to derivate a conservative default rate proxy for the approximation through the LHP distribution. For the ING Bank it has been assumed an expected default rate of 2,004% for the LHP. Furthermore, CRA has considered a 15,00% correlation to define the LHP distribution. Table 4 disclosed the expected default rate for each relevant rating level.

In order to derive recovery and loss-severity base case assumption, CRA has used historical data from mortgage price indexes. To determine loan-level recovery assumptions the resulting stressed recoveries assumptions were compared with the portfolio's existing loan-to-value ratios (LTVs).

Based on the default rates and taking into account the recovery assumptions, the following loss assumptions were determined for the current cover pool (see Table 4)

Table 4: Cover Pool Base case assumptions | Source: CRA

Rating	Default Rate (%)	Recoveries (%)	Expected Loss (%)
AA+	42,97%	82,28%	7,61%
AA	37,99%	85,81%	5,39%
AA-	33,71%	89,13%	3,67%
A+	**31,98%**	**90,60%**	**3,01%**
A	31,94%	90,63%	2,99%
A-	30,78%	91,58%	2,59%
BBB+	29,42%	92,34%	2,25%

Cash-Flow Analysis

Model Assumptions

Based on public information and using the base case loss assumptions, we implement a scenario-based cash flow model. This model aims to test the ability of the structure to service all covered bonds according to their payment profile in diverse stress scenarios. The CRA cash flow analysis assumes that the Issuer has defaulted, i.e. all obligations will be met using cash flows from the cover pool assets only. We also assume that no additional assets will be added to the cover pool during the wind-down phase.

This program issues covered bonds with soft- and hard bullet maturity structure. Due to insufficient information on the extended maturities, CRA did not consider any maturity extensions of the soft bullet covered bonds during its cash-flow analysis.

The cash-flow analysis considers, among other factors, asset value haircuts ("asset-sale discount"), and the possible positive yield spread between covered assets and covered bonds ("yield spreads"). To derive the asset-sale discount, CRA assumes, based on secondary market data, a rating level haircut on the asset value. Furthermore, CRA, using available public information (i.e. issuer's annual accounts), has derived estimations for yield spreads (see table 5):

Table 5: Cash-Flow Model assumptions | Source: CRA

Rating level	Asset-Sale Discount	Yield Spread
AA+	66,09%	1,46%
AA	62,48%	1,47%
AA-	59,03%	1,48%
A+	**56,38%**	**1,49%**
A	54,21%	1,50%
A-	51,37%	1,51%
BBB+	48,36%	1,52%

Rating Scenarios

In our cash flow model rating scenarios have been tested considering several central input parameters, such as:

- Portfolio composition (diversification, concentration, granularity)
- Probability of default of cover assets
- Correlations of cover assets and systematic risk factors
- Recoveries
- Maturity profile of covered bonds and cover assets (ALM)

Within a A+ rating scenario, the cash flow model showed that obligations can be paid fully and in a timely manner. Overall, the cash flow analysis revealed that the portfolio, given all used information as of 30.09.2021, may ensure the repayment of bonds' nominal capital notwithstanding the occurrence of the presented stressed scenarios.

Overcollateralization Break-Even Analysis

CRA also performed a break-even OC analysis taking into considerations the following drivers: ALM, Loss level, Interest rate spreads, foreign currency mismatches and Recoveries. Performing the break-even OC analysis, we took rating-level specific stressed outcomes into account. Based on these analyses, the maximum OC required for each relevant rating level during the whole period has been presented in table 6.

Table 6: Breakeven Analysis | Source: CRA

Rating Level	Break-Even OC
A+	**31,18%**
A	29,90%
A-	27,80%
BBB+	25,67%
BBB	23,82%
BBB-	21,36%
BB+	18,83%

Sensitivity Analysis

CRA also evaluates the sensitivity of the structure and program with respect to important input parameters. In particular, the following factors have been varied:

- Credit quality of cover assets
- Recoveries

The following table presents the rating impact of a decline in recoveries and an increase in the credit risk of single debtors. Starting from the best-case, which is represented by our base case assumptions, the analysis reveals the sensitivity of the rating with respect to recovery rates and credit risk. The worst-case scenario, in which we reduce recoveries by 50% and increase credit risk by 50%, the impact can be seen by a reduction in the base case rating by 8 notches to BB- (see Table 7):

Table 7: Covered Bond Program Sensitivity: Credit Quality und Recovery Rates | Source: CRA

Recovery / Defaults	Base Case	-25%	-50%
Base Case	**A+**	BBB	BB+
+25%	A+	BBB-	BB
+50%	A	BB+	BB-

In general, based on the presented cash flow analysis results, the rating of the cover pool within our covered bond program rating has been set at A+. Consequently, the secondary rating uplift was set at zero (0) notch.

However, it is worth mentioning that, the ongoing Covid-19 crisis could have a potential impact on the cover pool. It remains to be seen how serious the effects of the lockdown, among other things, will be. Should there be any changes to the cover pool and the issuer rating in the future, we will include them during our monitoring process.

Counterparty Risk

Derivatives

This covered bond program uses intra group derivatives in the form of interest rate swaps and total return swaps.

Commingling

Incoming cash flows generated from the cover pool will normally be transferred to the Issuer and will be forwarded to the covered bond holders according to the payment terms and conditions. Should the issuer become bankrupt, there is a risk ("commingling risk") that funds may not be returned and commingled with the insolvency estate of the issuer. In order to avoid such risk, the Dutch covered bonds legislation stipulates that the cover assets should be isolated from the general bankruptcy estate (insolvency-free assets) and the ongoing management of the cover pool will be guaranteed by the Security Trustee and the CBC. Under that mandate, the CBC will have the first priority on the up-coming cash flows from the cover pool assets. These cash flows in turn should be used to cover interest and principal payments of the covered bond holders in the event of the Issuer's insolvency.

Appendix

Rating History

Event	Rating Date	Publication Date	Result
Initial Rating	18.02.2019	25.02.2019	AAA/ Stable
Rating update	13.02.2020	19.02.2020	AAA/ Stable
Rating Update	24.03.2020	28.03.2020	AAA/ Watch Negative
Rating Update	08.12.2020	14.12.2020	AAA/ Negative
Rating Update	05.07.2021	06.07.2021	AAA/ Watch
Rating Update	07.12.2021	13.12.2021	AAA/ Stable

Details Cover Pool

Table 8: Characteristics of Cover Pool | Source: ING Bank

Characteristics	Value
Cover Pool Volume	EUR 19.399 m
Covered Bonds Outstanding	EUR 14.635 m
Substitute Assets	EUR 12 m
Share Derivatives	0,00%
Share Other	100,00%
Substitute Assets breakdown by asset type	
Cash	100,00%
Guaranteed by Supranational/Sovereign agency	0,00%
Central bank	0,00%
Credit institutions	0,00%
Other	0,00%
Substitute Assets breakdown by country	
Issuer country	100,00%
Eurozone	0,00%
Rest European Union	0,00%
European Economic Area	0,00%
Switzerland	0,00%
Australia	0,00%
Brazil	0,00%
Canada	0,00%
Japan	0,00%
Korea	0,00%
New Zealand	0,00%
Singapore	0,00%

US	0,00%
Other	0,00%
Cover Pool Composition	
Mortgages	99,94%
Total Substitute Assets	0,06%
Other / Derivatives	0,00%
Number of Debtors	0,00%
Distribution by property use	
Residential	100,00%
Commercial	0,00%
Other	0,00%
Distribution by Residential type	
Occupied (main home)	100,00%
Second home	0,00%
Non-owner occupied	0,00%
Agricultural	0,00%
Multi family	0,00%
Other	0,00%
Distribution by Commercial type	
Retail	0,00%
Office	0,00%
Hotel	0,00%
Shopping center	0,00%
Industry	0,00%
Land	0,00%
Other	100,00%
Average asset value (Residential)	EUR 164 k
Average asset value (Commercial)	EUR 0 k
Share Non-Performing Loans	0,00%
Share of 10 biggest debtors	0,05%
WA Maturity (months)	182,16
WAL (months)	166,65
Distribution by Country (%)	
Netherlands	100
Distribution by Region (%)	
Groningen	2,51
Friesland	2,70
Drenthe	2,71

Overijssel	6,14
Gelderland	12,38
Noord-Holland	20,43
Zuid-Holland	22,53
Zeeland	1,43
Brabant	12,68
Utrecht	9,52
Limburg	3,40
Flevoland	3,55

Table 9: Participant counterparties | Source: ING Bank

Role	Name	Legal Entity Identifier
Issuer	ING Bank N.V.	3TK20IVIUJ8J3ZU0QE75
Servicer	ING Bank N.V.	3TK20IVIUJ8J3ZU0QE75
Account Bank	ING Bank N.V.	3TK20IVIUJ8J3ZU0QE75

Table 10: Interest rate and Swap counterparties | Source: ING Bank

Name	Legal Entity Identifier	Agreement Type
ING Bank N.V.	3TK20IVIUJ8J3ZU0QE75	FX
ING Bank N.V.	3TK20IVIUJ8J3ZU0QE75	IRS
ING Bank N.V.	3TK20IVIUJ8J3ZU0QE75	TRS

Figure 6: Arrears Distribution | Source: ING Bank

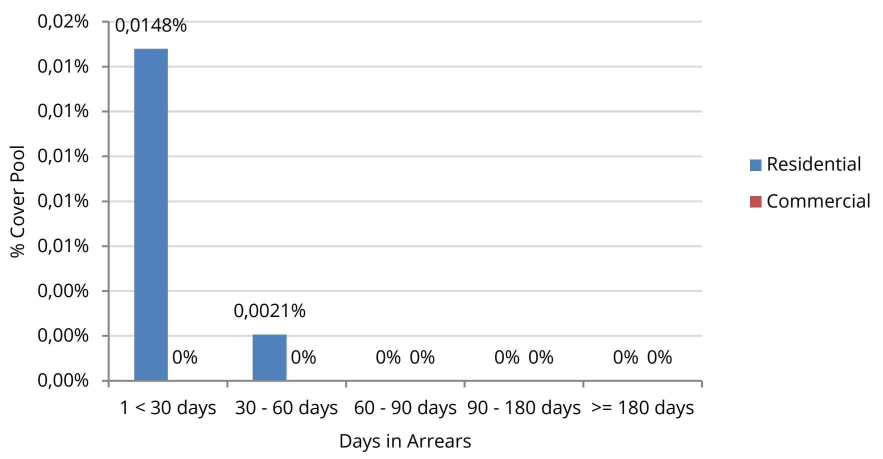


Figure 7: Program currency mismatches | Source: ING Bank

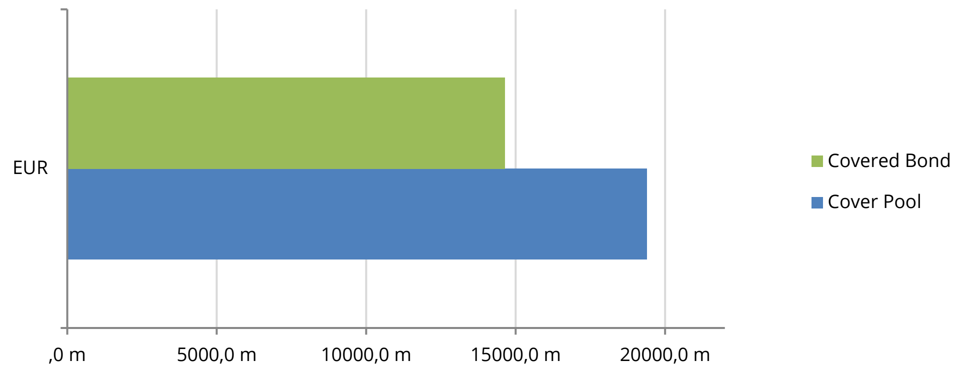
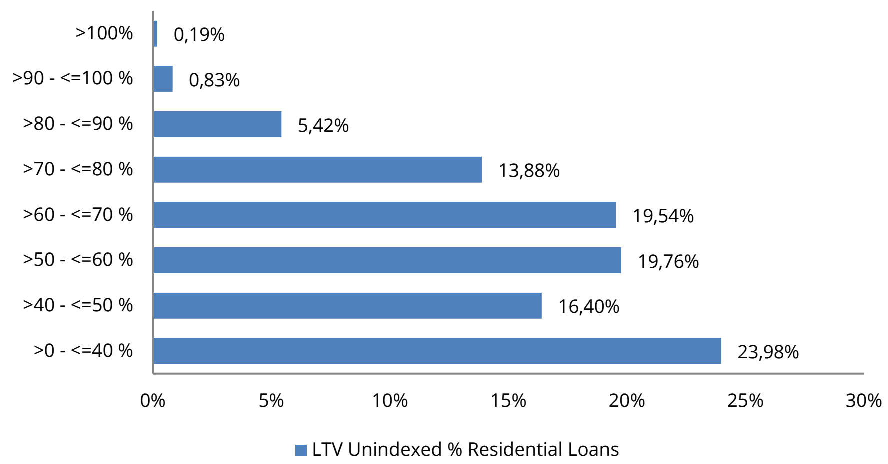


Figure 8: Unindexed LTV breakdown - residential pool | Source: ING Bank



Key Source of Information

Documents (Date: 30.09.2021)
Issuer ▪ Audited consolidated annual reports of ING Bank (Group) 2017-2020 ▪ Issuer rating update report dated 23.09.2021 ▪ Miscellaneous Investor Relations Information and Press releases ▪ Peergroup-Data and other data from eValueRate/CRA databank
Covered Bond and Cover Pool ▪ HTT Reporting from ING Bank as of 30.09.2021 ▪ Base prospectus of Mortgage Covered Bond Program dated 06.05.2019 ▪ Market data Mortgage Covered Bond Program

Regulatory and Legal Disclosures

Creditreform Rating AG was neither commissioned by the rating object nor by any other third parties for the rating. The analysis took place on a voluntary basis by Creditreform Rating AG and is to be described in the regulatory sense as an unsolicited rating. The rating was conducted on the basis of Creditreform Rating´s "Covered Bond Ratings" methodology (v1.0, July 2017) and "Technical Documentation Portfolio Loss Distributions" (v.1.0, July 2018) in conjunction with Creditreform`s basic document "Rating Criteria and Definitions" (v1.3, January 2018). On the subject of ESG (environment, social and governance), Creditreform Rating AG has published the basic document "The Impact of ESG Factors on Credit Ratings" (March 2020).

Unsolicited Credit Rating	
With Rated Entity or Related Third Party Participation	NO
With Access to Internal Documents	NO
With Access to Management	NO

The rating is based on publicly available information and internal evaluation methods for the rated bank and program. The issuer's quantitative analysis is based mainly on the latest annual accounts, interim reports, other information of the bank pertaining to investor relations, and key figures from the CRA/eValueRate database. The cover pool's quantitative analysis for the rated Covered Bond Program was based on the "Harmonised Transparency Template" (HTT) published by the ING Bank.

Information on the meaning of a rating category, definition of default and sensitivity analysis of relevant key rating assumptions can be found at "Creditreform Rating AG, Rating Criteria and Definitions":

https://www.creditreform-rating.de/en/about-us/regulatory-requirements.html

This rating was carried out by analysts AFM Kamruzzaman (Analyst) and Qinghang Lin (Analyst) both based in Neuss/Germany. On 07.12.2021, the rating was presented to the rating committee by the analysts and adopted in a resolution. The function of Person Approving Credit Ratings (PAC) was performed by Christian Konieczny (Senior Analyst).

On 07 December 2021, the rating result was communicated to ING Bank, and the preliminary rating report was made available. The Issuer and all relevant parties examined the rating report prior to publication and were given at least one full working day to appeal the rating committee decision and provide additional information. The rating decision was not amended following this examination.

The rating is subject to one-year monitoring from the creation date (see cover sheet). Within this period, the rating can be updated. After one year at the latest, a follow-up is required to maintain the validity of the rating.

In 2011 Creditreform Rating AG was registered within the European Union according to EU Regulation 1060/2009 (CRA-Regulation). Based on the registration Creditreform Rating AG (CRA) is permitted to issue credit ratings within the EU and is bound to comply with the provisions of the CRA-Regulation.

Endorsement

Creditreform Rating did not endorse the rating according Article 4 (3), CRA-Regulation.

Conflict of Interests

No conflicts of interest were identified during the rating process that might influence the analyses and judgements of the rating analysts involved or any other natural person whose services are placed at the disposal or under the control of Creditreform Rating AG and who are directly involved in credit rating activities or approving credit ratings and rating outlooks.

In the event of provision of ancillary services to the rated entity, CRA will disclose all ancillary services in the credit rating report.

Rules on the Presentation of Credit Ratings and Rating Outlooks

The approval of credit ratings and rating outlooks follows our internal policies and procedures. In line with our policy "Rating Committee," all credit ratings and rating outlooks are approved by a rating committee based on the principle of unanimity.

To prepare this credit rating, CRA has used following substantially material sources:

1. Transaction structure and participants

2. Transaction documents

3. Issuing documents

4. Other rating relevant documentation

There are no other attributes and limitations of the credit rating or rating outlook other than displayed on the CRA website. Furthermore, CRA considers satisfactory the quality and extent of information available on the rated entity. In regard to the rated entity, Creditreform Rating AG regarded available historical data as sufficient.

Between the disclosure of the credit rating to the rated entity and the public disclosure no amendments were made to the credit rating.

The rating report and/or Press release indicate the principal methodology or version of methodology that was used in determining the rating, with a reference to its comprehensive description.

In cases where the credit rating is based on more than one methodology, or where reference only to the principal methodology might cause investors to overlook other important aspects of the credit rating, including any significant adjustments and deviations, Creditreform Rating AG explains this fact in the credit rating and indicates how the different methodologies and other aspects are taken into account in the credit rating. This information is integrated in the credit rating report.

The meaning of each rating category, the definition of default or recovery, and any appropriate risk warning, including a sensitivity analysis of the relevant key rating assumptions, such as mathematical or correlation assumptions, accompanied by worst-case scenario credit ratings as well as best-case scenario credit ratings, are explained.

The date at which the credit rating was released for distribution for the first time and when it was last updated including any rating outlooks, is indicated clearly and prominently in the rating report and/or Press Release as a "Rating action"; first release is indicated as "initial rating", other updates are indicated as an "update", "upgrade or downgrade", "not rated", "confirmed", "selective default" or "default".

In the case of a rating outlook, the time horizon is provided during which a change in the credit rating is expected. This information is available within the rating report and/or Press Release.

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