

Creditreform Covered Bond Rating

ING Bank N.V.

Mortgage Covered Bond Program



Rating Object

Country Issuer	The Netherlands	Repayment method	Soft Bullet
Cover pool asset class	Mortgage	Overcollateralization	Min (5,00%)
Legal framework	Dutch Covered Bond Legislation		Current (27,29%)
Nominal value	EUR 9.500,00 m.		Committed (5,58%)
Cover pool value	EUR 12.092,85 m.		Fix (41,32%)
WAL maturity covered bonds	5,96 (Years)	Covered bonds coupon type	Floating (58,68%)
WAL maturity cover pool	17,12 (Years)		Other (0,00%)
Cut-off date Covered Pool Information:		30.06.2019	

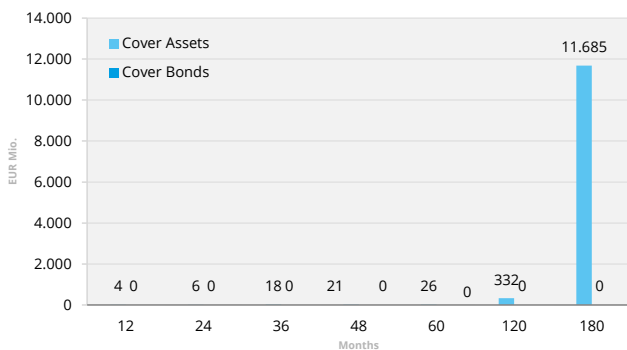
Rating Overview

Rating Summary		Credit Risk Metrics	
Issuer	ING Bank N.V.	Metrics date	20.02.2019
LT Issuer Rating	A	Rating Case Default Rate	8,96%
ST Issuer Rating	L2	Rating Case Recovery Rate	76,06%
+Legal and regulatory framework analysis	+4 Notches	Expected Loss	2,15%
+Liquidity and refinancing risk	+1 Notch	Rating Case Breakeven OC	24,45%
= Rating after 1st uplift	AAA	<i>Program Key Counterparties</i>	
Cover Pool & cash flow analysis	BB+	Servicer	ING Bank N.V.
+ 2nd rating uplift	+/-0	Account Bank	ING Bank N.V.
Rating covered bond program / Outlook	AAA / Stable	Sponsor	NA

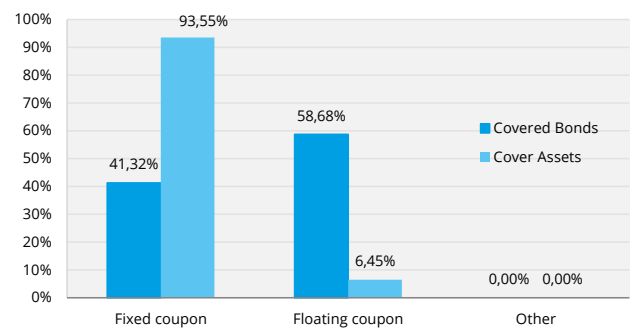
Cover Assets Composition

General Information		Property Type	
Cover Pool Balance	EUR 12.092,85 m.	Residential	EUR 12.092,85 m.
Average Seasoning	111,84 Months	Commercial	EUR 0,00 m.
Total number of exposures	65.053	Other	EUR 0,00 m.
Distribution by type of asset		Distribution by Loan size	
Mortgages	EUR 12.092,85 m.	Number of Commercial Loans	NA
Public Sector	EUR 0,00 m.	Number of Residential Loans	65.053
Shipping	EUR 0,00 m.	Average Size Commercial Loans (000s)	NA
Substitute Assets	EUR 0,00 m.	Average Size Residential Loans (000s)	96
Other	EUR 0,00 m.		

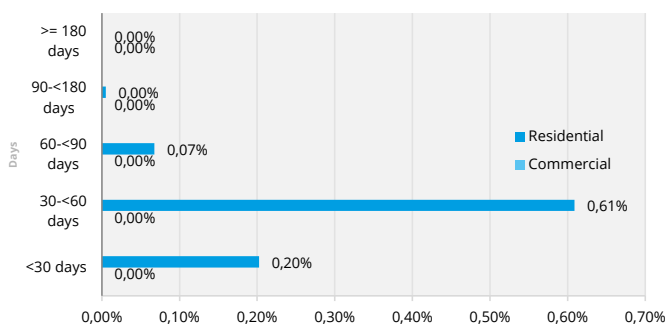
Asset-liability Profile



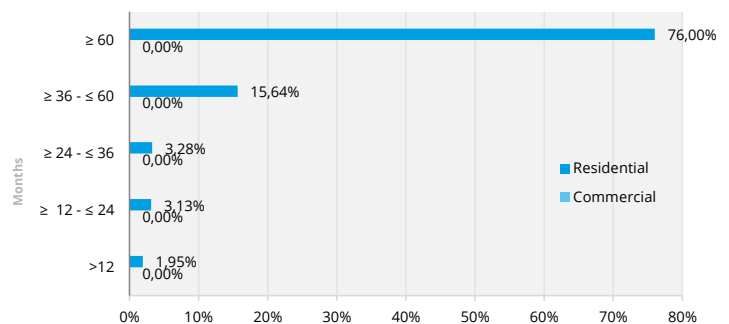
Interest Rate



Arrears Distribution



Seasoning Distribution



Creditreform Covered Bond Rating

ING Bank N.V.

Mortgage Covered Bond Program

Creditreform
Rating

LTV Distribution Commercial Loans			LTV Distribution Residential Loans		
LTV	Nominal	% Loans	LTV	Nominal	% Loans
>0 - <=40 %	NA	NA	>0 - <=40 %	1.272,71	10,52%
>40 - <=50 %	NA	NA	>40 - <=50 %	971,05	8,03%
>50 - <=60 %	NA	NA	>50 - <=60 %	1.506,36	12,46%
>60 - <=70 %	NA	NA	>60 - <=70 %	2.185,89	18,08%
>70 - <=80 %	NA	NA	>70 - <=80 %	2.720,79	22,50%
>80 - <=90 %	NA	NA	>80 - <=90 %	2.163,25	17,89%
>90 - <=100 %	NA	NA	>90 - <=100 %	964,78	7,98%
>100%	NA	NA	>100%	308,03	2,55%

Currency Distribution			Loan Distribution by Regions (as % of total Mortgages)		
Currency	Covered Bonds	Cover Assets	Region	% Residential Loans	% Commercial Loans
EUR	9.500,00 m.	12.092,85 m.	Groningen	2,23%	NA
AUD	0,00 m.	0,00 m.	Friesland	2,79%	NA
BRL	0,00 m.	0,00 m.	Drenthe	2,41%	NA
CAD	0,00 m.	0,00 m.	Overijssel	5,48%	NA
CHF	0,00 m.	0,00 m.	Gelderland	10,97%	NA
CZK	0,00 m.	0,00 m.	Noord-Holland	22,95%	NA
DKK	0,00 m.	0,00 m.	Zuid-Holland	23,53%	NA
GBP	0,00 m.	0,00 m.	Zeeland	1,36%	NA
HKD	0,00 m.	0,00 m.	Brabant	12,18%	NA
JPY	0,00 m.	0,00 m.	Utrecht	9,23%	NA
KRW	0,00 m.	0,00 m.	Limburg	2,96%	NA
NOK	0,00 m.	0,00 m.	Flevoland	3,91%	NA
PLN	0,00 m.	0,00 m.			
SEK	0,00 m.	0,00 m.			
SGD	0,00 m.	0,00 m.			
USD	0,00 m.	0,00 m.			
Other	0,00 m.	0,00 m.			

Swap Counterparties

Name	Type of arrangement	LEI
ING Bank N.V.	IRS	3TK20IVIUJ8J3ZU0QE75
ING Bank N.V.	TRS	3TK20IVIUJ8J3ZU0QE75

Swap Agreements

Interest Rate Swap	Intra-group
Currency Swap	NA

ISIN Lists

Issuer	ISIN	Coupon Type	Coupon Rate (%)	Issue date	Maturity date
ING Bank N.V.	XS1433124705	Floating	EIEUR6M + 0.4	16.06.2016	16.09.2026
ING Bank N.V.	XS1333774336	Floating	EIEUR6M + 0.4	15.12.2015	15.12.2023
ING Bank N.V.	XS1373214243	Fix	0,33	29.02.2016	28.02.2023
ING Bank N.V.	XS1264161214	Floating	EIEUR6M + 0.48	22.07.2015	22.01.2026
ING Bank N.V.	XS1433124457	Floating	EIEUR6M + 0.4	15.06.2016	16.09.2024
ING Bank N.V.	XS1565338743	Fix	0,80	14.02.2017	12.02.2027
ING Bank N.V.	XS1373212460	Floating	EIEUR6M + 0.4	29.02.2016	28.02.2023
ING Bank N.V.	XS1220086141	Fix	0,42	16.04.2015	16.04.2025

Data Definitions

The data is presented with a cut-off date. Following the clarification regarding the source of information:
 Issuer: Issuer source of information are all available public information, i.e. Investor Reports, Harmonised Transparency Templates "HTT", National Transparency Templates "NTT", Prospectus etc. Not reported or non available information will be labeled as "NA".

Field Name	Source	Definition
Cover pool asset class	Issuer	The asset type in the cover pool (public sector assets or mortgage assets)
Legal framework	CRA	The set of legislative and regulatory rules of the respective jurisdiction that regulates the covered bonds (CB) program
Nominal value	Issuer	The total amount of outstanding covered bonds as of cut-off date expressed in millions
Cover pool value	Issuer	Aggregate value of all assets in the cover pool as of cut-off date expressed in millions
WAL maturity covered bonds	Issuer	The weighted average remaining maturity of all outstanding covered bonds in years
WAL maturity cover pool	Issuer	The weighted average remaining maturity of all outstanding covered assets in years
Repayment method	Issuer	Hard Bullet: Covered bonds are repaid on the maturity date which cannot be extended Soft Bullet: The maturity date of the covered bonds can be extended by a fixed period Conditional pass-through (CPT): Covered bonds with a scheduled maturity date, and an extension mechanism defined by certain conditions
Overcollateralization	Issuer	Current OC: The proportion of cover assets that exceeds the proportion of currently outstanding covered bonds, calculated as $(\text{Cover pool value} / \text{outstanding covered bonds} - 1) * 100$ Min OC: The OC level that the issuer must maintain according to the respective CB legislation Committed OC: The minimum OC level that the issuer has committed to maintain
Covered bonds coupon type	Issuer	Type of interest rate paid on covered bonds, expressed as a percentage of bond's face value
LT Issuer Rating	CRA	Long-term ratings assess the default risks for each category of a bank's financial instruments with a residual term-to-maturity of more than one year
ST Issuer Rating	CRA	Short-term ratings assess the default risks for each category of a bank's financial instruments with a residual term-to-maturity of less than one year
Legal and regulatory framework analysis	CRA	A qualitative assessment of legislative and regulatory rules of the covered bonds program
Liquidity and refinancing risk	CRA	A qualitative assessment of regulatory requirements for liquidity and refinancing risk of the covered bonds program
First rating uplift	CRA	The rating after adding up the notches from Legal and regulatory framework analysis and Liquidity and refinancing risk with LT Issuer rating
Cover pool and cash flow analysis	CRA	The quantitative assessment of the cover assets and covered bonds at different rating-level stressed scenarios
Second rating uplift	CRA	The rating after adding up the notches from cash-flow analysis with 1st rating uplift (only effective if the rating from cash-flow analysis is higher than the 1st rating uplift)
Metrics date	CRA	The date on which CRA assigned the initial / follow-up rating of the covered bond program
Rating Case Default Rate (RDR)	CRA	Stressed default rate of the cover assets represented by the base case stressed scenario
Rating Case Recovery Rate (RRR)	CRA	Stressed recovery rate of the defaulted assets represented by the base case stressed scenario
Expected Loss	CRA	Stressed loss rate of the cover assets represented by the base case stressed scenario. The expected loss rate has been calculated as $[\text{RDR} * (1 - \text{RRR})]$ [%]
Rating Case Breakeven OC	CRA	The required stressed OC level compatible with the base case rating
Average Seasoning	Issuer	Average length of the loans from the origination date to the cut-off date in months
Loan Size	Issuer	Average size of the loans (i.e. Total value of cover assets / Number of loans)
LTV	Issuer	The loan-to-value (LTV) is the ratio of a loan to the value of the property securing the loan
LEI	CRA	Legal Entity Identifier (LEI) enables unique identification of legal entities in financial transactions
Arrears Distribution	Issuer	The distribution of arrears of the cover assets with respect to each asset class
Seasoning Distribution	Issuer	The distribution of seasoning of the cover assets with respect to each asset class
Asset liability Profile	CRA	The maturity structure of the cover assets and liabilities
% Residential Loans	Issuer	Outstanding value of loans that are secured by the residential property expressed as % of total outstanding loans in the cover pool
% Commercial Loans	Issuer	Outstanding value of loans that are secured by the commercial property expressed as % of total outstanding loans in the cover pool
Fixed Coupon	Issuer	All assets and liabilities in the covered bond program that yield a fixed interest rate
Floating Coupon	Issuer	All assets and liabilities in the covered bond program that have variable interest rates
EIEURxM	Reuters	Euro x Month EURIBOR
EURSWExY	Reuters	Euro x Year Interest Rate Swap Fixing

Disclaimer

© Creditreform Rating AG, 2019. This report is protected by copyright. Any commercial use is prohibited without prior written permission from Creditreform Rating AG. Only the full report may be published in order to prevent distortion of the report's overall assessment. Excerpts may only be used with the express consent of Creditreform Rating AG. Publication of the report without the consent of Creditreform Rating AG is prohibited. Only ratings published on the Creditreform Rating AG web pages remain valid.

We have assumed that the publicly available information, and the documents and information provided to us by the client are complete and accurate and that the copies provided to us represent the full and unchanged contents of the original documents. Therefore, Creditreform does not and cannot independently verify or validate information in every instance during the rating process. Further, Creditreform Rating AG assumes no responsibility for the true and fair representation of the original information.

Future events are uncertain, and forecasts are necessarily based on assessments and assumptions. The information in this report and in other types of credit opinions by Creditreform are provided "as is" without representation or warranty of any kind. This rating is therefore no statement of fact, but an opinion. No representation or warranty, express or implied, as to the accuracy, timeliness, completeness, merchantability or fitness for any particular purpose of any such information is made by Creditreform in any form or manner whatsoever. For this reason, Creditreform Rating AG or its directors, officers, employees, independent contractors, agents, representatives, licensors or suppliers cannot be held liable for the consequences of decisions made on the basis of any of their ratings or assumptions and assessments expressed in this report. Neither should ratings, assumptions or assessments expressed in this report, be construed as recommendations for investors, buyers or sellers. They should only be used by market participants (entrepreneurs, bankers, investors etc.) as one factor among others when arriving at corporate or investment decisions. Ratings or assumptions and assessments expressed in this report are not meant to be used as substitutes for one's own research, inquiries and own assessments.

ANY RATING PERFORMED BY CREDITREFORM RATING AG IS SUBJECT TO THE CREDITREFORM RATING AG CODE OF CONDUCT, WHICH HAS BEEN PUBLISHED ON THE WEB PAGES OF CREDITREFORM RATING AG. IN THIS CODE OF CONDUCT, CREDITREFORM RATING AG COMMITS ITSELF – SYSTEMATICALLY AND WITH DUE DILIGENCE – TO ESTABLISH ITS INDEPENDENT AND OBJECTIVE OPINION AS TO THE SUSTAINABILITY, RISKS AND OPPORTUNITIES CONCERNING THE ENTERPRISE OR THE ISSUE UNDER REVIEW.