MOODY'S INVESTORS SERVICE

CREDIT OPINION

16 November 2018

Update

Rate this Research

RATINGS

BNG Bank N.V.	
Domicile	Netherlands
Long Term CRR	Aaa
Туре	LT Counterparty Risk Rating - Fgn Curr
Outlook	Not Assigned
Long Term Debt	Aaa
Туре	Senior Unsecured - Fgn Curr
Outlook	Stable
Long Term Deposit	Aaa
Туре	LT Bank Deposits - Fgn Curr
Outlook	Stable

Please see the <u>ratings section</u> at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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Semiannual update - H1 2018

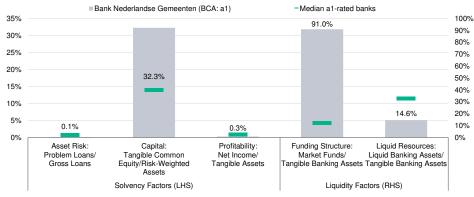
Summary

<u>N.V. Bank Nederlandse Gemeenten</u> (BNG Bank)'s Baseline Credit Assessment (BCA) of a1 reflects (1) the bank's role as the largest lender to the Dutch public sector; (2) its entrenched franchise in a niche market which results in exceptional stability in its fundamentals; (3) its very high asset quality because its portfolio is mostly comprised of loans to Dutch public entities; (4) its high capitalisation; and (5) its adequate funding profile and liquidity position with limited maturity mismatches.

BNG Bank's Aaa deposit and senior unsecured ratings reflect (1) the bank's a1 standalone credit strength; (2) the application of our Advanced Loss Given Failure (LGF) analysis, resulting in a two-notch LGF uplift from the bank's Adjusted BCA of a1, given its significant volume of senior unsecured debt; and (3) government support uplift of two notches, reflecting a very high support probability from the government of the Netherlands (Aaa stable), in view of the bank's public ownership and its role as one of the main providers of financing to the Dutch public sector. The Counterparty Risk Assessment of Aaa(cr)/ Prime-1(cr) assigned to BNG Bank is four notches above the bank's BCA, reflecting the substantial volume of bail-in-able liabilities protecting its operating obligations and the very high probability of government support.

Exhibit 1

Rating Scorecard - Key financial ratios



Source: Moody's Financial Metrics

Credit strengths

- » Largest lender to the Dutch public sector, fully owned by Dutch public entities
- » High asset quality, reflected in the very low level of non-performing loans
- » Financial performance commensurate with the bank's public-policy role
- » Large volume of senior debt, resulting in the bank's deposit and senior unsecured debt ratings benefiting from a very low loss given failure rate and a two-notch uplift from the BCA
- » Very high probability of government support, resulting in a two-notch uplift for the bank's debt and deposit ratings

Credit challenges

- » Borrower concentration given the bank's narrow public-policy mandate
- » Mismatches between assets and liabilities, mitigated by an ample liquidity portfolio and diverse funding
- » Uncertainties about the final computation of the leverage ratio, albeit BNG Bank's ratio is already above 3%

Rating outlook

We do not expect any significant change in BNG Bank's creditworthiness in the near-term, as reflected in the stable outlook on the bank's ratings. Our view is also underpinned by a benign economic environment in the Netherlands.

Factors that could lead to an upgrade

Upward pressure on BNG Bank's BCA could result from a lower reliance on wholesale funding, however this is unlikely given the bank's business model. An upgrade of the bank's BCA will not trigger any upgrade of the bank's deposit and senior unsecured ratings, which are already at Aaa.

Factors that could lead to a downgrade

Downward pressure on BNG Bank's BCA could result from (1) a deterioration in the creditworthiness of the Dutch public sector; (2) a significant increase in the bank's non-0% risk weighted assets; (3) a significant increase in its funding gaps; or (4) a deterioration in its solvency. A downward movement of the bank's BCA could result in downgrades of all ratings. BNG Bank's ratings could also be downgraded if the ratings of the government of the Netherlands were downgraded.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

Key indicators

Exhibit 2

BNG Bank N.V. (Consolidated Financials) [1]

	6-18 ²	12-17 ²	12-16 ²	12-15 ²	12-14 ²	CAGR/Avg. ³
Total Assets (EUR million)	123,795	118,253	128,308	124,489	126,037	-0.54
Total Assets (USD million)	144,538	141,998	135,333	135,232	152,511	-1.5 ⁴
Tangible Common Equity (EUR million)	3,762	3,759	3,475	3,168	2,973	7.04
Tangible Common Equity (USD million)	4,392	4,514	3,665	3,441	3,597	5.9 ⁴
Problem Loans / Gross Loans (%)	0.1	0.0	0.2	0.1	0.1	0.1 ⁵
Tangible Common Equity / Risk Weighted Assets (%)	-	32.3	28.2	24.8	25.5	27.7 ⁶
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	2.0	1.1	3.9	4.0	3.9	3.0 ⁵
Net Interest Margin (%)	0.3	0.3	0.3	0.3	0.4	0.3 ⁵
PPI / Average RWA (%)	-	4.2	3.4	3.1	1.7	3.1 ⁶
Net Income / Tangible Assets (%)	0.3	0.3	0.3	0.2	0.1	0.2 ⁵
Cost / Income Ratio (%)	16.3	18.8	21.5	22.7	33.4	22.6 ⁵
Market Funds / Tangible Banking Assets (%)	90.6	91.0	90.4	90.9	90.9	90.7 ⁵
Liquid Banking Assets / Tangible Banking Assets (%)	15.3	14.6	17.2	13.9	11.7	14.5 ⁵
Gross Loans / Due to Customers (%)	1,337.0	1,572.4	1,159.4	1,301.7	1,204.8	1,315.1 ⁵

[1] All figures and ratios are adjusted using Moody's standard adjustments. [2] Basel III - fully-loaded or transitional phase-in; IFRS. [3] May include rounding differences due to scale of reported amounts. [4] Compound Annual Growth Rate (%) based on time period presented for the latest accounting regime. [5] Simple average of periods presented for the latest accounting regime. [6] Simple average of Basel III periods presented.

Source: Moody's Financial Metrics

Profile

Founded in 1914 and headquartered in the Hague, Bank Nederlandse Gemeenten N.V. is a Dutch credit institution specialised in lending to (semi)-publicly owned institutions.

BNG Bank has no branches and does not provide financing to private customers. The bank's clients are mainly local authorities and public-sector institutions in the area of housing, healthcare, education and public utilities.

The bank's shareholders are Dutch public authorities exclusively; 50% of the bank's shares are held by the Dutch State and the remaining 50% are held by municipal authorities, provincial authorities and a district water board.

Detailed credit considerations

BNG Bank is the largest lender to the Dutch public sector, fully owned by Dutch public entities

BNG Bank's bylaws restrict its ownership to the Dutch public sector. This ownership structure has been stable since 1925 and is unlikely to change, given the bank's mandate to act as a lender to the Dutch public sector. The bank's long-term loan portfolio was \in 80.7 billion at 30 June 2018, slightly up from \notin 79.8 billion at 30 June 2017, and total new long-term lending amounted to \notin 5.8 billion in the first half of 2018, \notin 1.4 billion higher than in the first half of 2017. Demand for loans from the public remained relatively low while prepayments increased. The bank's market share of lending to local governments, housing associations and healthcare institutions was around 55% in terms of outstanding loans and 71% in terms of long-term lending production in 2017 (versus 76% in 2016). We expect the bank to maintain its position in the Dutch public sector financing business, given its mandate, ownership and advantageous funding costs compared with those of commercial banks.

As a bank established with an explicit public-policy mandate, BNG Bank benefits from an entrenched franchise in a niche market. These conditions may result in exceptional stability in terms of asset quality, capital and profitability, supporting the bank's ongoing operating performance and resulting in a very low risk profile. This feature is reflected in a qualitative positive adjustment of one notch in our scorecard.

High asset quality reflected in the very low level of non-performing loans

Despite market volatility, BNG Bank has consistently been able to lend to the Dutch public sector at advantageous rates, given the bank's low funding costs compared with those of commercial banks. The bank's narrow public-policy mandate translates into concentrations in its loan portfolio. However, these concentrations mainly relate to Dutch local governments and housing associations

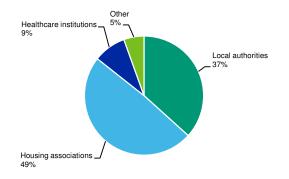
that benefit from guarantees on their liabilities from the central government (€86.7 billion at year-end 2017, including off-balancesheet exposures), and, thus, do not entail any capital charge. The bank has also started export re-financing activities under the central government's Export Credit Guarantee.

A small share (€11.5 billion or 12% of total loans and advances, including off-balance-sheet exposures at year-end 2017) of the bank's lending is subject to a capital charge. These exposures consist of loans, for example, to public-private partnerships. Concentration risks in such loans are modest and volumes are closely monitored. The bank does not intend to materially increase its share of such loans in the foreseeable future.

BNG Bank's securities portfolio (€17.4 billion as of 30 June 2018) mainly consists of highly rated securities. The portfolio is primarily invested in government debt, bonds with government guarantees and covered bonds. At 30 June 2018, this portfolio is mainly composed of securities rated from Aaa to A (94%) and securities in the Baa range (4%). Non-investment-grade securities only represent 2% of the portfolio. BNG Bank's overall exposures to the weaker European sovereigns¹ through both its loan and securities portfolios amounted to €1.7 billion at the end of the first half of the year, down from €2 billion at 30 June 2017. Exposures were primarily in the form of covered bonds, asset backed securities and residential mortgage-backed securities.

Exhibit 3

Breakdown of long-term loan portfolio at year-end 2017 (€80 billion)



Source: company disclosures

The bank's non-performing loans totalled €76 million, representing 9 basis points of its loans and advances at 30 June 2018, reflecting its high asset quality.

These factors result in an Asset Risk score of aa1.

Funding profile and liquidity position are adequate

BNG Bank is almost entirely wholesale funded and, therefore, relies on capital markets for its financing. The bank deploys a diversified funding strategy by issuing debt in multiple currencies and markets, with a view to reaching out to a wide array of investors. BNG Bank's asset and liability management entails some maturity mismatches.

Nevertheless, maturity mismatches could have negative implications for the bank's interest margins (whereby the bank's spreads would rise significantly for a prolonged period and imply an increase in the refinancing cost of outstanding loans). However, at year-end 2017, the loan book is virtually match-funded and refinancing risks over a two-to-three year horizon are very limited. Additionally, the risks implied by the gaps, if any, are under check:

» Due to the limited optionality in its books, all cash flows are highly predictable except for collateral posting needs on derivatives.

- » Liquidity risk is managed through Euro commercial paper and US commercial paper programmes, and the coverage of gaps by a comfortable liquidity buffer constituting highly liquid assets eligible to the liquidity coverage ratio (LCR) of €12.7 billion at 30 June 2018. The bank also has immediate drawing capacity of €9.8 billion on the European Central Bank collateralised by public-sector loans already pledged by BNG Bank at the central bank at year-end 2017. If necessary, the vast majority of BNG Bank's loan book qualifies for central bank funding.
- » The funding gaps are maintained within reasonable limits and by BNG Bank's good standing in the capital markets. As bonds issued by a promotional bank (an institution where lending to the public sector represents more than 90% of total loans), the securities issued by BNG Bank are classified under the level 1 category assets (the highest quality of the High-Quality Liquid Assets). BNG Bank's bonds are also eligible for the European Central Bank's public-sector purchase programme aimed at stimulating the economy. These measures have further enhanced financial institutions' appetite for the bank's securities. At year-end 2017, BNG Bank's LCR was 207% and its net stable funding ratio was 130%, in compliance with the EU prudential requirements.

These factors are reflected in the bank's Combined Liquidity score of baa2.

BNG Bank's leverage ratio is compliant with the minimum regulatory requirements

BNG Bank's capitalisation is commensurate with its low-risk assets. The bank's Common Equity Tier 1 capital ratio stood at 32% at 30 June 2018, compared to a regulatory requirement of 8.875% for 2018². At 30 June 2018, BNG Bank's Tier 1 leverage ratio was 3.6% (H1 2017: 3.3%), already above the expected minimum regulatory requirement of 3%. The bank's Tier 1 capital includes €733 million of Additional Tier 1 capital securities issued in 2015 and 2016.

The European Commission is proposing amendments to the Capital Requirements Regulation, published at the end of November 2016, which states that public development institutions' exposures to regional governments, local authorities or public-sector entities in relation to public-sector investments should be excluded from the denominator of the leverage ratio³. While the final outcome is expected at the end of 2018, BNG Bank's leverage ratio, based on its current capital base, could be substantially in excess of the 3% threshold if this rule were to be implemented and applicable by the institution. For more details, please refer to European lenders to local governments: adequate capitalisation despite expected relaxation in leverage requirements, published in March 2017.

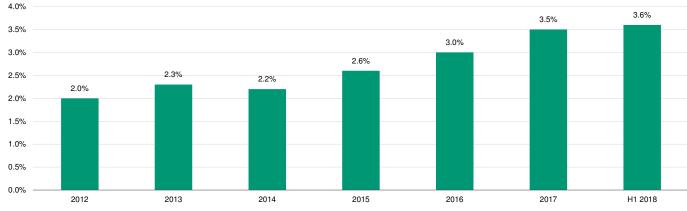


Exhibit 4 BNG Bank's leverage ratio regularly improved in recent years

Tier 1 leverage ratio (%)

Source: Moody's Banking Financial Metrics.

We, therefore, assign a Capital score of aa1 despite the high nominal leverage.

BNG Bank's financial performance is in line with the bank's public-policy role

Like other government-related specialised lenders, BNG Bank must generate sufficient profits to grow its capital in line with its portfolio and comply with regulatory capital requirements. However, the bank must also balance out this growth objective with the provision of efficient, low-cost funding to local governments and their related sectors.

While BNG Bank recorded relatively stable net income until 2013, the bank's bottom-line profit was relatively volatile over the past few years, essentially owing to changes in market value and one-off changes in valuation methods of financial instruments. While we expect rising expenses, driven by the increasing regulatory reporting requirements and the low-interest-rate environment, to continue to constrain BNG Bank's profitability, the bank's business model, dominant position in the market and close relationship with its clients (who are also its shareholders) will continue to provide it with sufficient flexibility in setting up margins, thereby preserving the necessary level of profits.

BNG Bank's net interest margin has consistently been around 30 basis points to 40 basis points because the bank benefited from advantageous funding rates. BNG Bank further improved its net interest result in 2017 thanks to attractive short-term funding rates in US dollars and long-term funding raised at an average weighted spread under the swap rate. However, the prolonged decline in interest rates has weighed on the return on invested capital, further exacerbated by the negative market interest rates on short-term instruments.

Like most other specialised lenders, BNG Bank's costs are low relative to its total assets. The bank's cost-to-income ratio was around 16.3% in H1 2018 including regulatory costs.

These factors are reflected in the bank's Profitability score of ba1.

Support and structural considerations

Loss Given Failure (LGF) analysis

Despite its ownership and public mandate, BNG Bank falls in the scope of the EU Bank Resolution and Recovery Directive, which we consider to be an operational resolution regime. We assume residual tangible common equity of the lower of the current amount and 3%, post-failure losses of 8% of tangible banking assets, a 25% run-off in junior wholesale deposits and a 5% run-off in preferred deposits, and assign a 25% probability to deposits being preferred to senior unsecured debt. The proportion of deposits considered junior is 26%. These are in line with our standard assumptions.

Our LGF analysis indicates a very low loss given failure for the bank's deposits and senior unsecured debt, leading to a two-notch uplift to the bank's Adjusted BCA.

Government support considerations

Despite the objectives of and limitations on government support embedded in the Bank Resolution and Recovery Directive, the scope of which includes BNG Bank, we expect a very high probability of government support for the bank's deposits and senior unsecured debt, resulting in a two-notch uplift for both debt classes. Owing to the bank's ownership and public-policy mission, its potential for receiving support is considerably greater than that of commercial banks, which are expected to be affected by a bail-in.

The very high support assumptions include the support that would come (1) from the Dutch public sector (including the central government) acting as the shareholder of the bank, and (2) from the government stepping in to address systemic risks. BNG Bank was designated as a domestic systemically important bank in 2015.

Counterparty Risk (CR) Assessment

CR Assessments are opinions of how counterparty obligations are likely to be treated if a bank fails and are distinct from debt and deposit ratings in that they (1) consider only the risk of default rather than both the likelihood of default and the expected financial loss, and (2) apply to counterparty obligations and contractual commitments rather than debt or deposit instruments. The CR Assessment is an opinion of the counterparty risk related to a bank's covered bonds, contractual performance obligations (servicing), derivatives (for example, swaps), letters of credit, guarantees and liquidity facilities.

BNG Bank's CR Assessment is positioned at Aaa(cr)

The CR Assessment, prior to government support is positioned three notches above the Adjusted BCA of a1, based on the buffer against default provided to the senior obligations represented by the CR Assessment by subordinated instruments. The main difference with our Advanced LGF approach used to determine instrument ratings is that the CR Assessment captures the probability of default on certain senior obligations, rather than expected loss, therefore we focus purely on subordination and take no account of the volume of the instrument class.

The CR Assessment also benefits from one notch of systemic support. This reflects our view that any support provided by governmental authorities to a bank that benefits senior unsecured debt or deposits is very likely to benefit operating activities and obligations reflected by the CR Assessment as well, consistent with our belief that governments are likely to maintain such operations as a going concern in order to reduce contagion and preserve a bank's critical functions.

About Moody's Bank Scorecard

Our scorecard is designed to capture, express and explain in summary form our Rating Committee's judgment. When read in conjunction with our research, a fulsome presentation of our judgment is expressed. As a result, the output of our scorecard may materially differ from that suggested by raw data alone (though it has been calibrated to avoid the frequent need for strong divergence). The scorecard output and the individual scores are discussed in rating committees and may be adjusted up or down to reflect conditions specific to each rated entity.

Rating methodology and scorecard factors

Exhibit 5 BNG Bank N.V.

Macro Factors		
Weighted Macro Profile	Strong +	100%

Factor	Historic Ratio	Initial Score	Expected Trend	Assigned Score	Key driver #1	Key driver #2
Solvency		50010	includ			
Asset Risk						
Problem Loans / Gross Loans	0.1%	aa1	$\leftarrow \! \rightarrow$	aa1	Quality of assets	Long-run loss performance
Capital						
TCE / RWA	32.3%	aa1	$\leftarrow \! \rightarrow$	aa1	Risk-weighted capitalisation	Nominal leverage
Profitability					•	
Net Income / Tangible Assets	0.3%	ba2	$\leftarrow \rightarrow$	ba1	Earnings quality	
Combined Solvency Score		aa3		aa3		
Liquidity						
Funding Structure						
Market Funds / Tangible Banking Assets	91.0%	caa3	$\leftarrow \rightarrow$	baa3	Term structure	Market funding quality
Liquid Resources						
Liquid Banking Assets / Tangible Banking Assets	14.6%	ba1	$\leftarrow \! \rightarrow$	a3	Additional liquidity resources	
Combined Liquidity Score		b3		baa2		
Financial Profile				a2		
Business Diversification				1		
Opacity and Complexity				0		
Corporate Behavior				0		
Total Qualitative Adjustments				1		
Sovereign or Affiliate constraint:				Aaa		
Scorecard Calculated BCA range				aa3-a2		
Assigned BCA				a1		
Affiliate Support notching				0		
Adjusted BCA				a1		
Balance Sheet			scope million)	% in-scope	at-failure (EUR million)	% at-failure
Other liabilities			,783	7.1%	9,427	7.6%
Deposits		6	,311	5.1%	5,667	4.6%
Preferred deposits			,670	3.8%	4,437	3.6%
Junior Deposits		1,	641	1.3%	1,231	1.0%
		40	4 2 2 2	a 4 aa4	404.222	a / aa/

104,223

31

733

3,714

123,795

84.2%

0.6%

3.0%

100%

104,223

31

733

3,714

123,795

84.2%

0.6%

3.0%

100%

Senior unsecured bank debt

Preference shares (bank)

Equity

Dated subordinated bank debt

Total Tangible Banking Assets

Debt class	De Jure v	vaterfall	De Facto	waterfall	Not	ching	LGF	Assigned	Additiona	lPreliminary
	Instrument volume + o subordinatio	ordinatio	Instrument on volume + subordinatio	ordination	De Jure	De Facto	Notching Guidance vs. Adjusted BCA	LGF notching	notching	Rating Assessment
Counterparty Risk Rating	88.8%	88.8%	88.8%	88.8%	3	3	3	3	0	aa1
Counterparty Risk Assessment	88.8%	88.8%	88.8%	88.8%	3	3	3	3	0	aa1 (cr)
Deposits	88.8%	3.6%	88.8%	87.8%	2	3	2	2	0	aa2
Senior unsecured bank debt	88.8%	3.6%	87.8%	3.6%	2	2	2	2	0	aa2
Instrument class	Loss (Siven	Additional	Prelimina	ry Rating	Gover	nment	Local C	Currency	Foreign

	Failure notching		Assessment	Support notching	Rating	Currency Rating
Counterparty Risk Rating	3	0	aa1	1	Aaa	Aaa
Counterparty Risk Assessment	3	0	aa1 (cr)	1	Aaa (cr)	
Deposits	2	0	aa2	2		Aaa
Senior unsecured bank debt	2	0	aa2	2	Aaa	Aaa

[1] Where dashes are shown for a particular factor (or sub-factor), the score is based on non-public information. Source: Moody's Financial Metrics

Ratings

Exhibit 6	
Category	Moody's Rating
BNG BANK N.V.	
Outlook	Stable
Counterparty Risk Rating	Aaa/P-1
Bank Deposits	Aaa/P-1
Baseline Credit Assessment	al
Adjusted Baseline Credit Assessment	al
Counterparty Risk Assessment	Aaa(cr)/P-1(cr)
Issuer Rating	Aaa
Senior Unsecured	Aaa
Commercial Paper	P-1
Source: Moody's Investors Service	

Source: Moody's Investors Service

Endnotes

- 1 Italy, Portugal and Spain.
- 2 This ratio includes 4.5% Pillar 1 requirement, 1.75% Pillar 2 requirement, 0.75% phased-in Systemic Risk buffer and 1.875% phased in Capital Conservation buffer. The fully-loaded requirement is expected to be 9.75% as the Systemic Risk and Capital Conservation buffers will reach their final levels of 1% and 2% respectively
- 3 Article 429a(d) of the European Commission's proposal for a Regulation of the European Parliament and the Council, dated 23 November 2016

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