

BNG Bank N.V.

Key Rating Drivers

Support Driven Ratings: BNG Bank N.V.'s ratings are equalised with those of the Dutch sovereign. The ratings reflect Fitch's view of an extremely high probability of support from the Dutch state in the event of stress. The Dutch state's strong propensity to support BNG Bank is mainly underpinned by the bank's policy role and its full public sector ownership.

Well-Established Policy Role: BNG Bank is the larger of the two Dutch policy banks. It has a clear, strategic and long-established role to provide banking services and financing to the public authorities. Fitch believes that BNG Bank will continue to play a significant role in supporting state policy objectives, and that it would be difficult to transfer this role to commercial banks, given the low yield and long maturity of the assets generated by the bank's business model.

Full Public Ownership: BNG Bank's full public ownership is long-term and strategic. Half of its capital is held by the Dutch state with the other half owned by Dutch local authorities. The bank's articles of association prevent private ownership.

Low Resolution Risk: BNG Bank is within the scope of the Bank Resolution and Recovery Directive, which allows for senior creditors to absorb losses if necessary. BNG Bank is subject to simplified obligations in relation to resolution planning which means that, should it ever fail, it would be liquidated under national insolvency law. In our view, this substantially reduces the risk of resolution being triggered.

Fitch believes that the Single Resolution Board would not be incentivised to take resolution action if it was clear the Dutch state in its shareholder role was willing to pre-emptively inject capital into the bank. We believe this is demonstrated by the clarity over the preferred course of action in the unlikely event BNG Bank fails or likely to fail, and the absence of a requirement to hold bail-in-able debt.

Pre-Emptive Support: Fitch believes the state would act pre-emptively to replenish BNG Bank's capital levels, if needed, due to the dependence of the bank's business model on wholesale funding and investor confidence. It is highly likely support from the sovereign would be arranged in accordance with the private investor test as part of state aid considerations. In our view, this substantially reduces the risk of resolution being triggered.

Low-Risk Operations: Extraordinary support is highly unlikely given the low-risk nature of BNG Bank's assets, the bank's solid risk-weighted capital ratios and prudent liquidity management. Lending is generally extended either to Dutch public sector bodies, or to housing associations and healthcare institutions, with most of them benefiting from the state's guarantee. However, the bank operates with a moderately low leverage ratio.

Rating Sensitivities

Sovereign Support Assessment: A downgrade of the Dutch sovereign rating would lead to a downgrade of the BNG Bank's ratings. Ratings are also sensitive to changes in Fitch's assessment of the Netherlands' propensity to support the bank. A weakening in BNG Bank's strategic importance to the Dutch state or a reduction in the state's ownership, which we view as highly unlikely, would result in a downgrade of BNG Bank's ratings. A deviation from its narrowly defined domestic policy role would also be rating-negative.

Change in Resolution Approach: Fitch would take a negative rating action if there were any changes to the resolution approach, particularly if it implies BNG Bank could be resolved with the use of the bail-in tool.

Ratings

Foreign Currency

Long-Term IDR AAA
Short-Term IDR F1+
Derivative Counterparty Rating AAA(dcr)

Support Rating 1
Support Rating Floor AAA

Sovereign Risk

Long-Term Foreign-and Local- AAA

Currency IDR

Country Ceiling AAA

Outlooks

 ${\sf Long\text{-}Term}\, {\sf Foreign}\, {\sf Currency}$

IDK

Sovereign Long-Term Foreignand Local-Currency IDR Stable Stable

Applicable Criteria

Bank Rating Criteria (February 2020)

Related Research

Fitch Affirms BNG Bank at 'AAA'; Outlook Stable (February 2021) Fitch Affirms Netherlands at 'AAA'; Outlook Stable (April 2021)

Analysts

Playoust, Andreea +33 1 44 29 91 71 andreea.playoust@fitchratings.com

andreea.piayoust@ntchratings.com

Levasseur, Romain

+33 1 44 29 91 76

romain.levasseur@fitchratings.com



Debt Rating Classes

Rating level	Rating
Senior unsecured	AAA/F1+
Source: Fitch Ratings	

BNG Bank's senior unsecured debt is rated in line with the Long-Term IDR. Fitch believes the default risk of the bank's senior unsecured debt is equivalent to the default risk related to the IDR. BNG Bank's Derivative Counterparty Rating (DCR) is at the same level as the Long-Term IDR, which is the highest possible level.

Significant Changes

Strategy to Focus Exclusively on the Dutch Public Sector

BNG Bank's new strategic plan focuses on consolidating the bank's role as a key provider of social and sustainable financing to the Dutch public sector, which underpins BNG Bank's policy bank role, in our view. The bank aims to remain a privileged partner for public sector entities (central government and local authorities, housing associations, healthcare institutions and educational institutions and public-owned entities) and will discontinue lending to entities outside the public sector, which was already relatively limited. BNG Bank will also be more selective in its approach to projects that are not well-suited to its social and sustainability strategy.

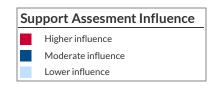
Improving Credit Process

Fitch believes the implementation of the new credit process will strengthen the overall credit risk framework of the bank. BNG Bank has started an investment program to tackle the shortcomings raised by an independent audit which followed an unusual negative credit event experienced by the bank in 2019. The main changes include improved process for an early detection of any deterioration in the credit profile of its clients and the increased supervision of its non-solvency free (non-zero risk-weighted) loan portfolio.



Sovereign Support Assessment

Support Factors	Positive	Neutral	Negative
Sovereign ability to support system			_
Size of banking system relative to economy			✓
Size of potential problem	✓		
Structure of banking system			✓
Liability structure of banking system		✓	
Sovereign financial flexibility (for rating level)		✓	
Sovereign propensity to support system			
Resolution legislation with senior debt bail-in			✓
Track record of banking sector support		✓	
Government statements of support			✓
Sovereign propensity to support bank			
Systemic importance			
Liability structure of bank			
Ownership			
Specifics of bank failure			
Policy banks			
Policy role	✓		
Funding guarantees and legal status		✓	
Government ownership	✓		



Source: Fitch Ratings

Extremely High Probability of Support

In Fitch's view, legislative, regulatory and policy initiatives, including the implementation of the Bank Recovery and Recovery Directive (BRRD), have substantially reduced the likelihood of sovereign support for EU commercial banks in general. However, Fitch continues to factor Dutch state support into BNG Bank's ratings given the nature of BNG Bank's business, status and public ownership.

Fitch believes the Dutch state will act pre-emptively to maintain BNG Bank's viability. In addition, banks are required under the BRRD to draw up recovery plans prior to resolution. On the basis of a recovery plan, the relevant resolution authority will draw up a resolution plan. The Single Resolution Board (SRB), a central body, ensures centralised management of the resolution of 'significant banks', including BNG Bank. It makes a resolvability assessment of each bank to evaluate the extent to which a bank is resolvable without public support or central bank liquidity assistance.

Resolution action requires all the following conditions to be met: the institution is failing or likely to fail; failure could not be avoided by a private solution or a supervisory action within reasonable framework; and a resolution is necessary in the public interest to prevent insolvency. If these conditions were met, the SRB would place the entity concerned under resolution and adopt a solution scheme involving resolution measures. Where the bail-in tool is applied as part of a resolution scheme, a minimum level of losses equivalent to 8% of the total liabilities (including own funds) must be imposed on a bank before access can be granted to a resolution fund. At this stage, if resolution has been triggered, senior unsecured creditors may have to share losses.

When the three conditions above required to trigger resolution are being considered, the public shareholders of a bank may decide to protect their investment. They may do this by taking all necessary measures to restore capitalisation to ensure that the bank does not fail. We believe that, for BNG Bank, such measures would qualify as a "private sector solution". However, since the shareholders of BNG Bank are public sector entities, any recapitalisation must be compliant with EU state-aid rules.



Under the EU state-aid rules, public support does not qualify as state aid if the investments by the state in a company do not confer an advantage to the company. This would be the case when the state acts in market conditions in the same way as a private investor. This principle is commonly referred to as the "market economy operator test".

The BRRD and the SRB do not restrict shareholders' ability to carry out a capital injection under market conditions to protect their investments in a strategic, long-term and viable institution. The implementation of the BRRD into Dutch law also does not include any specific provisions on the treatment of public banks. This could suggest that the Dutch authorities are confident that the BRRD provides sufficient flexibility for public shareholders to inject funds into public banks to address any capital shortfalls.

Simplified Obligations in Relation to Resolution Planning

On 27 February 2019, the SRB announced that simplified obligations apply in the case of BNG Bank. Under simplified obligations, the preferred course of action for BNG Bank in the event that it is failing or likely to fail, and if failure cannot be avoided by a private solution, is insolvency under national law.

The SRB has not communicated any explicit minimum requirement for own funds and eligible liabilities yet or require BNG Bank to build a buffer of bail-in-able debt. We believe that the adoption of a formal plan that does not involve the use of a bail-in tool reduces the likelihood that BNG Bank's senior unsecured creditors will suffer losses. This is because it reduces the risk the state will be prevented from providing support to the bank in a timely manner.

Under the Single Resolution Mechanism Regulation, when considering whether resolution is necessary in the public interest to prevent insolvency, the resolution authorities need to consider whether or not insolvency would present a threat to financial stability, among other factors. The adoption of a simplified obligations plan for BNG Bank, in our view, means that the resolution authorities do not consider the insolvency of BNG Bank to be a threat to financial stability, for example due to its specific business model and Dutch public sector focus.

As a result, we believe the resolution authorities may not be incentivised to intervene and take resolution action if it is clear that the Dutch state, in its capacity as BNG Bank's shareholder, is willing to inject capital even if this may operationally take time. Capital injection may be lengthened, for example, because it would need to go through a political approval process in the Netherlands or be approved for compliance with EU state-aid rules.



Company Summary

BNG Bank is the larger of the two main policy banks in the Netherlands with a clear mandate to provide funding at the lowest possible cost to the Dutch public sector and related entities. BNG Bank's customer base consists almost entirely of Dutch local authorities, public sector utilities and entities involved in social housing, healthcare and educational institutions.

BNG Bank is involved in a small number of public-private partnerships, some internationally, where we expect the bank to be less active in line with its reshaped strategy. BNG Bank also provides refinancing to banks under the Dutch export credit guarantee scheme.

The bank has a stable and low-risk business model with net interest income as a main source of revenue at about 98% in 2020. A very low cost of funding for the public sector requires narrow lending margins, which make business economically unattractive for a commercial bank.

BNG Bank's public ownership helps it secure regular access to the wholesale market and in several currencies to fulfil its funding needs, although the Dutch state provides no explicit guarantee on the bank's issued debt. Nevertheless, government involvement in the bank is substantial given the ownership structure and the policy role of the bank. BNG Bank is 50% owned by the Dutch state and 50% by related public sector entities such as provinces and municipalities. Non-public, commercial ownership is forbidden by the bank's articles of association.

Important Policy Role in the Netherlands

BNG Bank's primary objective is to provide financing for all maturities to the public sector while keeping prices and interest to a low level. At least 90% of BNG Bank's loans need to qualify as promotional. A promotional loan's purpose is to meet public policy objectives.

BNG Bank aims at retaining a substantial market share in the Dutch public-and semi-public-sector long-term financing above 55% (69% in 2020). The bank's return on equity target is set by the Ministry of Finance at a modest 3.7% for 2021 (the bank's return on equity was at 5.2% in 2020) and reflects the bank's low-risk asset mix and policy role. The management has generally met most of its financial and business objectives.

Low-Risk Appetite

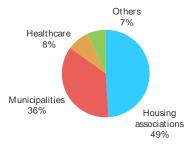
BNG Bank's very low appetite for credit risk follows from its policy role. Most of the loans granted in 2020 were zero risk-weighted (solvency-free) as they were extended either to the Dutch public sector bodies or benefited from the state guarantee. The vast majority of loans are extended to government bodies or guaranteed by the Dutch housing guarantee fund (Waarborgfonds Sociale Woningbouw) or the Dutch healthcare guarantee fund (Waarborgfonds voor de Zorgsector) and ultimately the Dutch state.

Non-solvency-free loans are permitted if they have a social impact and if borrowers are at least partly publicly-owned, and include project financing in the area of property energy transition and renewable energy. The bank predominantly lends to Dutch entities and foreign exposure is limited and mostly in the form of interest-bearing securities.

The bank does not have a trading book and has low market risk, which mostly relates to interest rate and foreign exchange risk. At end-2020, the impact on earnings from a plus-or-minus 100bp gradual parallel shift of the interest-rate curve would have been a low EUR19 million negative / EUR23 million positive. Foreign currency risk arises from substantial funding in foreign currency, while lending is exclusively in euros. The risk is fully hedged through swaps.

Long-Term Lending by Sector

EUR86bn at end-2020



Source: Fitch Ratings, BNG Bank

BNG Bank's Public Sector





2015 2016 2017 2018 2019 2020 a Granted to/guaranteed by public authorities b In zero risk-weighted long-term lending to core clients

Source: Fitch Ratings, BNG Bank



Summary Financials and Key Ratios

	31 Dec 2	.0	31 Dec 19	31 Dec 18	31 Dec 17
	Year end	Year end	Year end	Year end	Year end
	(USDm)	(EURm)	(EURm)	(EURm)	(EURm
	Audited - unqualified	Audited - unqualified	Audited - unqualified	Audited - unqualified	Audited unqualified
Summary income statement	*	•	•	•	
Net interest and dividend income	580	477	435	434	435
Net fees and commissions	30	25	30	28	23
Other operating income	-16	-13	41	117	18
Total operating income	595	489	506	579	64:
Operating costs	170	140	119	118	117
Pre-impairment operating profit	425	349	387	461	520
Loan and other impairment charges	19	16	153	-2	-7
Operating profit	405	333	234	463	533
Other non-operating items (net)	-1	-1	-7	-4	;
Tax	135	111	64	122	14:
Net income	269	221	163	337	393
Other comprehensive income	9	7	-87	127	183
Fitch comprehensive income	277	228	76	464	570
Summary balance sheet	·	<u> </u>			
Assets	•			·	
Gross loans	108,462	89,152	88,472	85,217	86,042
- Of which impaired	482	396	290	57	4:
Loan loss allowances	255	210	193	47	34
Net loans	108,207	88,942	88,279	85,170	86,008
Interbank	146	120	66	82	10:
Derivatives	35,715	29,356	26,466	19,956	20,795
Other securities and earning assets	23,238	19,101	18,785	30,611	30,08
Total earning assets	167,306	137,519	133,596	135,819	136,993
Cash and due from banks	2,813	2,312	1,272	1,587	2,996
Other assets	24,974	20,528	14,821	103	36
Total assets	195,093	160,359	149,689	137,509	140,02
Liabilities		·			
Customer deposits	6,812	5,599	5,575	5,800	5,417
Interbank and other short-term funding	24,128	19,832	12,403	8,125	11,65
Other long-term funding	122,924	101,039	103,361	98,431	94,955
Trading liabilities and derivatives	33,604	27,621	23,325	19,985	22,814
Total funding	187,467	154,091	144,664	132,341	134,83
Other liabilities	1,425	1,171	138	177	235
Preference shares and hybrid capital	892	733	733	733	733
Total equity	5,309	4,364	4,154	4,258	4,220
Total liabilities and equity	195,093	160,359	149,689	137,509	140,02
Exchange rate	,	USD1 = EUR0.821963	USD1 = EUR0.89015	USD1 = EUR0.873057	USD1 = EUR0.83382

BNG Bank N.V. Rating Report | 29 April 2021



Summary Financials and Key Ratios

	31 Dec 20	31 Dec 19	31 Dec 18	31 Dec 17
Ratios (annualised as appropriate)				
Profitability				
Operating profit/risk-weighted assets	2.8	1.9	3.8	4.6
Net interest income/average earning assets	0.3	0.3	0.3	0.3
Non-interest expense/gross revenue	28.8	23.7	20.5	18.3
Net income/average equity	5.2	3.9	8.0	9.8
Asset quality				
Impaired loans ratio	0.4	0.3	0.1	0.1
Growth in gross loans	0.8	3.8	-1.0	-1.8
Loan loss allowances/impaired loans	53.0	66.6	82.5	79.1
Loan impairment charges/average gross loans	0.0	0.2	0.0	0.0
Capitalisation		·	·	
Common equity Tier 1 ratio	33.0	32.3	32.1	30.0
Fully loaded common equity Tier 1 ratio	33.0	n.a.	n.a.	31.0
Tangible common equity/tangible assets	2.7	2.8	3.1	3.0
Basel leverage ratio	3.5	3.6	3.8	3.5
Net impaired loans/common equity Tier 1	4.6	2.5	0.3	0.3
Funding and liquidity		·	·	
Loans/customer deposits	1,592.3	1,586.9	1,469.3	1,588.4
Liquidity coverage ratio	133.0	158.0	175.0	207.0
Customer deposits/funding	4.4	4.5	5.1	4.8
Net stable funding ratio	122.0	126.0	133.0	130.0



Key Financial Metrics - Latest Developments

Resilient Asset Quality

BNG Bank's asset quality is strong owing to its low-risk exposures which translated into a very sound Stage 3 loans ratio of 0.4% at end-2020. We expect asset quality to be stable despite the coronavirus pandemic with a limited inflow into Stage 3 loans in the next 12-18 months. BNG Bank granted temporary suspension of interest and principal payments to only 20 borrowers in 2020 for a total loan outstanding amount of EUR20 million (less than 0.5% of gross loans at end-2020). A large majority of the moratoria have expired and are performing.

Loan impairment charges (LICs) are small and infrequent. In 2020, LICs declined to 2bp after an unusual spike to 18bp in 2019. We expect LICs to decline further in 2021 as the bank's loan book typically generates close to zero losses and as the fallout from the pandemic abates.

The securities portfolio is low risk and almost exclusively investment grade. Exposure to the peripheral eurozone is being gradually run down and was moderate at EUR925 million at end-2020, representing around 20% of total equity.

Low Interest Rate Environment Puts Pressure on Profitability

Profitability is not a key strategic factor for BNG Bank as shareholders require a modest single-digit return on equity. BNG Bank benefits from an exceptionally low cost of funding due to its high rating and investors' trust in the bank's strong relationship and association with the state. The bank's net interest margin has been stable but quite narrow at about 30bp in 2017-2020.

Fitch expects profitability to continue to suffer from low interest rates, although the bank has managed to navigate the low rate environment well so far. Operating efficiency is very strong due to limited staff and a lack of branches. We expect a moderate increase in operating costs driven by higher staff expenses related to the reshuffling of the risk department.

Strong Capital Ratios, Low Leverage

BNG Bank reports solid risk-weighted regulatory capital ratios as it benefits from low risk-weights on its large public sector loan book. At end-2020 the bank's fully-loaded common equity Tier 1 ratio was at 33%, well above its 22% internal target. Fitch expects a limited effect from Basel III end-game proposals on BNG Bank's capital ratios because the bank uses the standardised approach for calculating risk-weights.

The bank complies with the minimum regulatory leverage ratio of 3% since 2016, owing to profit retention and issuance of additional Tier 1 instruments subscribed by the Dutch provinces (in total EUR733 million). Changes to EU's Capital Requirement Regulation (effective in 2021) will result in the exclusion of promotional loans from the leverage exposure measure. This will have a significant positive effect on BNG Bank's leverage ratio since most of its loans qualify as promotional. Fitch expects the leverage ratio to at least double once the regulation becomes effective.

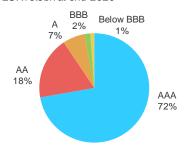
Reliant on Wholesale Funding, Low Refinancing Risk

BNG Bank is highly reliant on wholesale funding but has maintained access to the capital markets through the cycle, most likely owing to its links to the state and consequently high ratings. The bank is actively issuing internationally and in various currencies (only around 55% of long-term debt issuance in 2019-2020 was denominated in euros). BNG Bank's debt issues qualify in the EU as Level 1 (highest quality) liquid assets for the purposes of calculating the liquidity coverage ratio. BNG Bank does not gather retail deposits or issue secured debt. The bank drew EUR11 billion under the ECB's TLTRO programme in 2020.

Refinancing risk is mitigated by prudent liquidity management. In addition to annual refinancing needs of about EUR15 billion for 2021, the bank's liquidity is sensitive to market movements as it may be required to post additional cash collateral on derivatives used to hedge market risk. At end-2020, the bank's liquid assets comprising cash and highly liquid securities (rated AAA or AA) totalled EUR22.6 billion. BNG Bank could also use its entire solvency-free loan portfolio as collateral to obtain funding from the ECB, if needed.

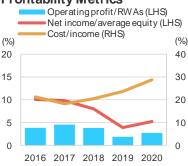
Securities Portfolio

EUR16.5bn at end-2020



Source: Fitch Ratings, BNG Bank

Profitability Metrics



Source: Fitch Ratings, BNG Bank

Raised Funding by Currency



^a Weighted average Source: Fitch Ratings, BNG Bank



Environmental, Social and Governance Considerations

FitchRatings

Environmental (E)

BNG Bank N.V.

Banks
Ratings Navigator

Credit-Relevant ESG Derivation				Overa	I ESG Scale
BNG Bank N.V. has 5 ESG potential rating drivers	key driver	0	issues	5	
BNG Bank N.V. has exposure to compliance risks including fair lending practices, mis-selling, repossession/foreclosure practices, consumer data protection (data security) but this has very low impact on the rating.					
Governance is minimally relevant to the rating and is not currently a driver.	driver	0	issues	4	
	potential driver	5	issues	3	
	not a rating driver	4	issues	2	
	not a rading driver	5	issues	1	

General Issues	E Score	Sector-Specific Issues	Reference
GHG Emissions & Air Quality	1	n.a.	n.a.
Energy Management	1	n.a.	n.a.
Water & Wastewater Management	1	n.a.	n.a.
Waste & Hazardous Materials Management; Ecological Impacts	1	n.a.	n.a.
Exposure to Environmental Impacts	2	Impact of extreme weather events on assets and/or operations and corresponding risk appetite & management; catastrophe risk; credit concentrations	Company Profile; Management & Strategy; Risk Appetite; Asset Quality

ES	cale
5	
4	
3	
2	
1	

ESG scores range from 1 to 5 based on a 15-level color gradation. Red (5) is most relevant and green (1) is least relevant.
The Environmental (E), Social (S) and Governance (G) tables break out the individual components of the scale. The right-hand box shows the aggregate E, S, or G score. General Issues are relevant across all markets with Sector-Specific Issues unique to a particular industry group. Scores are assigned to each sector-specific issue. These scores signify the credit-relevance of the sector-specific issues to the issuing entity's overall credit rating. The Reference box highlights the factor(S) within which the corresponding ESG issues are captured in Fitch's credit analysis.
The Credit-Relevant ESG Derivation table shows the overall ESG score. This score signifies the credit relevance of combined E, S and G issues to the

How to Read This Page



score signifies the credit relevance of combined E, S and G issues to the entity's credit rating. The three columns to the left of the overall ESG score summarize the issuing entity's sub-component ESG scores. The box on the far left identifies some of the main ESG issues that are drivers or potential drivers of the issuing entity's credit rating (corresponding with scores of 3, 4 or 5) and provides a brief explanation for the score.

Classification of ESG issues has been developed from Fitch's sector ratings criteria. The General Issues and Sector-Specific Issues draw on the classification standards published by the United Nations Principles for Responsible Investing (PRI) and the Sustainability Accounting Standards Board (SASE).

Sector references in the scale definitions below refer to Sector as displayed in the Sector Details box on page 1 of the navigator.

Governance (G)			
General Issues	G Score	Sector-Specific Issues	Reference
Management Strategy	3	Operational implementation of strategy	Management & Strategy
Governance Structure		Board independence and effectiveness; ownership concentration; protection of creditor/stakeholder rights; legal /compliance risks; business continuity; key person risk; related party transactions	Management & Strategy; Earnings & Profitability; Capitalisation & Leverage
Group Structure	3	Organizational structure; appropriateness relative to business model; opacity; intra-group dynamics; ownership	Company Profile
Financial Transparency	3	Quality and frequency of financial reporting and auditing processes	Management & Strategy



	CREDIT-RELEVANT ESG SCALE
How	relevant are E, S and G issues to the overall credit rating?
5	Highly relevant, a key rating driver that has a significant impact on the rating on an individual basis. Equivalent to "higher" relative importance within Navigator.
4	Relevant to rating, not a key rating driver but has an impact on the rating in combination with other factors. Equivalent to "moderate" relative importance within Navigator.
3	Minimally relevant to rating, either very low impact or actively managed in a way that results in no impact on the entity rating. Equivalent to "lower" relative importance within Navigator.
2	Irrelevant to the entity rating but relevant to the sector.
1	Irrelevant to the entity rating and irrelevant to the sector.

The highest level of ESG credit relevance is a score of '3' - ESG issues are credit neutral or have only a minimal credit impact on BNG Bank, either due to their nature or the way in which they are being managed by BNG Bank. For more information on our ESG Relevance Scores, visit https://www.fitchratings.com/topics/esg



The ratings above were solicited and assigned or maintained at the request of the rated entity/issuer or a related third party. Any exceptions follow below.

ALL FITCH CREDIT RATINGS ARE SUBJECT TO CERTAIN LIMITATIONS AND DISCLAIMERS. PLEASE READ THESE LIMITATIONS AND DISCLAIMERS BY FOLLOWING THIS LINK: HTTPS://FITCHRATINGS.COM/UNDERSTANDINGCREDITRATINGS. IN ADDITION, RATING DEFINITIONS AND THE TERMS OF USE OF SUCH RATINGS ACM/UNDERSTANDINGCREDITRATINGS. IN ADDITION, RATING DEFINITIONS AND THE TERMS OF USE OF SUCH RATINGS ACM PUBLISHED RATINGS, CRITERIA, AND METHODOLOGIES ARE AVAILABLE FROM THIS SITE AT ALL TIMES. FITCH'S CODE OF CONDUCT, CONFIDENTIALITY, CONFLICTS OF INTEREST, AFFILIATE FIREWALL, COMPLIANCE, AND OTHER RELEVANT POLICIES AND PROCEDURES ARE ALSO AVAILABLE FROM THE CODE OF CONDUCT SECTION OF THIS SITE. FITCH MAY HAVE PROVIDED ANOTHER PERMISSIBLE SERVICE TO THE RATED ENTITY OR ITS RELATED THIRD PARTIES. DETAILS OF THIS SERVICE FOR WHICH THE LEAD ANALYST IS BASED IN AN ESMA- OR FCA-REGISTERED FITCH RATINGS COMPANY (OR BRANCH OF SUCH A COMPANY) CAN BE FOUND ON THE ENTITY SUMMARY PAGE FOR THIS ISSUER ON THE FITCH RATINGS WEBSITE.

Copyright © 2021 by Fitch Ratings, Inc., Fitch Ratings Ltd. and its subsidiaries. 33 Whitehall Street, NY, NY 10004. Telephone: 1-800-753-4824, (212) 908-0500. Fax: (212) 480-4435. Reproduction or retransmission in whole or in part is prohibited except by permission. All rights reserved. In issuing and maintaining its ratings and in making other reports (including forecast information), Fitch relies on factual information it receives from issuers and underwriters and from other sources Fitch believes to be credible. Fitch conducts a reasonable investigation of the factual information relied upon by it in accordance with its ratings methodology, and obtains reasonable verification of that information from independent sources, to the extent such sources are available for a given security or in a given jurisdiction. The manner of Fitch's factual investigation and the scope of the third-party verification it obtains will vary depending on the nature of the rated security and its issuer, the requirements and practices in the jurisdiction in which the rated security is offered and sold and/or the issuer is located, the availability and nature of relevant public information, access to the management of the issuer and its advisers, the availability of pre-existing third-party verifications such as audit reports, agreed-upon procedures letters, appraisals, actuarial reports, engineering reports, legal opinions and other reports provided by third parties, the availability of independent and competent third-party verification sources with respect to the particular security or in the particular jurisdiction of the issuer, and a variety of other factors. Users of Fitch's ratings and reports should understand that neither an enhanced factual investigation nor any third-party verification can ensure that all of the information Fitch relies on in connection with a rating or a report will be accurate and complete. Ultimately, the issuer and its advisers are responsible for the accuracy of the information they provide to Fitch a

The information in this report is provided "as is" without any representation or warranty of any kind, and Fitch does not represent or warrant that the report or any of its contents will meet any of the requirements of a recipient of the report. A Fitch rating is an opinion as to the creditworthiness of a security. This opinion and reports made by Fitch are based on established criteria and methodologies that Fitch is continuously evaluating and updating. Therefore, ratings and reports are the collective work product of Fitch and no individual, or group of individuals, is solely responsible for a rating or a report. The rating does not address the risk of loss due to risks other than credit risk, unless such risk is specifically mentioned. Fitch is not engaged in the offer or sale of any security. All Fitch reports have shared authorship. Individuals identified in a Fitch report were involved in, but are not solely responsible for, the opinions stated therein. The individuals are named for contact purposes only. A report providing a Fitch rating is neither a prospectus nor a substitute for the information assembled, verified and presented to investors by the issuer and its agents in connection with the sale of the securities. Ratings may be changed or withdrawn at any time for any reason in the sole discretion of Fitch. Fitch does not provide investment advice of any sort. Ratings are not a recommendation to buy, sell, or hold any security. Ratings do not comment on the adequacy of market price, the suitability of any security aparticular investor, or the taxexempt nature or taxability of payments made in respect to any security. Fitch receives fees from issuers, insurers, guarantors, other obligors, and underwriters for rating securities. Such fees generally vary from U\$\$1,000 to U\$\$750,000 (or the applicable currency equivalent) per issue. In certain cases, Fitch will rate all or a number of issues issued by a particular issuer, or insured or guaranter dby a particular insurer or guarantor, for a single annua

For Australia, New Zealand, Taiwan and South Korea only: Fitch Australia Pty Ltd holds an Australian financial services license (AFS license no. 337123) which authorizes it to provide credit ratings to wholesale clients only. Credit ratings information published by Fitch is not intended to be used by persons who are retail clients within the meaning of the Corporations Act 2001.