

Berlin Hyp AG

Update

Key Rating Drivers

Savings Banks' Support Drives IDRs: Berlin Hyp AG's Issuer Default Ratings (IDRs) are aligned with those of the German savings banks (Sparkassen-Finanzgruppe, SFG; A+/Stable) to reflect Fitch Ratings' opinion that support from SFG would be highly likely, if required. This reflects Berlin Hyp's membership of SFG's mutual support scheme as well as SFG's ownership of Berlin Hyp via its immediate parent Landesbank Berlin Holding AG. We revised the Outlook on Berlin Hyp's Long-Term IDR in July 2021 to mirror the revision of SFG's Outlook.

Very High Likelihood of Support: SFG's propensity to support Berlin Hyp is very high, in our view, since a failure to do so would damage SFG's reputation and its mutual support scheme's credibility. Any necessary support from SFG would be immaterial given Berlin Hyp's small relative size (its equity equals 1% of SFG's equity). We believe SFG would be able to devise adequate and timely support measures, if needed.

Monoline CRE Lender: Berlin Hyp's Viability Rating (VR) reflects its business model as a specialised lender focused on the cyclical commercial real estate (CRE) sector, predominantly in Germany. Its resilient performance and sound risk appetite mitigate this concentration.

Asset Quality to Weaken: Berlin Hyp's non-performing loans (NPL) ratio of 0.6% at end-2020 is lower than those of most peers. This reflects the bank's prudent underwriting standards, including in international lending. We expect NPL inflows to rise in 2021 when state support measures recede and the effect of the crisis becomes more apparent.

Pandemic Weighs on Profitability: Our base case assumes Berlin Hyp will maintain a four-year average operating profit/risk-weighted assets (RWAs) ratio of at least 1% through the crisis. The negative outlook on the bank's earnings and profitability score reflects the risk of higher credit losses in the event of a deeper than expected recession or slower recovery.

In anticipation of a deterioration in loan quality, Berlin Hyp booked loan impairment charges (LICs) of EUR81 million in 2020 (up from almost zero on average in 2016-2019) to account for possible lending risks from the Covid-19 crisis.

Stable Capitalisation: Berlin Hyp's common equity Tier 1 (CET1) ratio of 13.4% at end-2020 is adequate for the bank's risk profile. We expect the bank to retain most of its profits in the coming years to mitigate the RWAs inflation from Basel IV, to which its monoline CRE lending model is particularly exposed.

Sound Funding and Liquidity: Berlin Hyp sources its purely wholesale funding from a diversified institutional investor base, largely through CRE-backed covered bonds. Its membership of SFG's mutual support scheme ensures privileged access to the vast excess liquidity of savings banks, whose investments in Berlin Hyp's unsecured debt carry a regulatory risk weight of 0%.

Rating Sensitivities

Weakening Integration within SFG: Berlin Hyp's IDRs are primarily sensitive to changes in SFG's ratings. Changes in its ownership structure, its strategic relationship with SFG or its membership in SFG's mutual support scheme could also result in lower IDRs.

German CRE Market Disruptions: We would downgrade Berlin Hyp's VR if we expect its four-year average NPL ratio to exceed 3% and its four-year average operating profit/RWAs to fall below 0.8%. This could happen if the impact of the pandemic is materially worse than expected, without credible medium-term prospects to restore both ratios.

Ratings

Foreign Currency
Long-Term IDR A+
Short-Term IDR F1+

Viability Rating bbb

Support Rating 1

Sovereign Risk

Long-Term Foreign-Currency AAA IDR
Long-Term Local-Currency IDR AAA

Outlooks

Long-Term Foreign-Currency IDR

Sovereign Long-Term Foreign-Currency IDR

Sovereign Long-Term Local-Currency IDR

Stable

Applicable Criteria

Bank Rating Criteria (February 2020)

Related Research

Fitch Revises Berlin Hyp's Outlook to Stable after Similar Action on Sparkassen-Finanzgruppe (July 2021)

Fitch Revises Sparkassen-Finanzgruppe's Outlook to Stable from Negative; Affirms at 'A+' (June 2021)

Analysts

Markus Glabach +49 69 768076 195 markus.glabach@fitchratings.com

Roger Schneider +49 69 768076 242 roger.schneider@fitchratings.com

1

Update | 19 July 2021 fitchratings.com



Issuer Ratings		Debt Rating Classes	
Rating level	Rating	Rating level	Rating
IDRs	A+/F1+	Deposit rating	AA-/F1+
Viability rating	bbb	Senior Preferred (SP) debt	AA-/F1+
Support rating	1	Senior Non-Preferred (SNP) debt	A+
Outlook	Stable		
Source: Fitch Ratings			

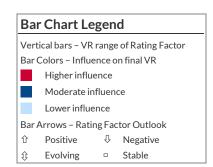
Berlin Hyp's long-term SP debt and deposit ratings are one notch above its Long-Term IDR to reflect the protection of preferred creditors by the bank's large resolution buffers. Berlin Hyp's SNP debt rating is aligned with its Long-Term IDR.

Ratings Navigator



Institutional Support Assessment

Institutional Support			Value
Parent IDR			A+
Total Adjustments (notches)			+0
Institutional Support:			A+
Support Factors (negative)	Equalised	1 Notch	2+ Notches
Parent ability to support and subsidiary abili	ty to use support		
Parent/group regulation		\checkmark	
Relative size	✓		
Country risks	✓		
Parent Propensity to Support			
Role in group		\checkmark	
Potential for disposal		✓	
Implication of subsidiary default	✓		
Integration		✓	
Size of ownership stake	✓		
Support track record	✓		
Subsidiary performance and prospects	✓		
Branding		\checkmark	
Legal commitments		✓	
Cross-default clauses			✓





SFG's Support Drives Berlin Hyp's IDRs and Senior Debt Ratings

Berlin Hyp is a core service and product provider to SFG. Support for the bank is likely to come collectively from SFG through Landesbank Berlin Holding AG, a non-operating holding company, whose only assets are its stakes in Berlin Hyp and Berliner Sparkasse (Berlin's savings bank, which focuses on retail and small SME banking). We view any sale of Berlin Hyp as highly unlikely in the foreseeable future, although a sale would not significantly alter SFG's franchise.

Significant Changes

Outlook on SFG's IDR Stabilised as Uncertainty from Pandemic Has Subsided

We revised the outlooks on SFG's Long-Term IDR, asset quality and earnings & profitability to stable from negative in June 2021 because the risk of a significant deterioration in the underlying metrics had subsided since our previous review in August 2020, and we expect the VR of 'a+' to be sufficiently resilient to plausible downside scenarios. SFG's business model focusing on lending to German SMEs and households proved resilient in 2020 despite a severe decline in GDP after repeated and extended lockdowns in Germany.

Large state programmes to support companies and households affected by the pandemic, and regulatory forbearance for the classification of crisis-driven loan payment holidays and NPLs have strongly mitigated German banks' negative rating migration, RWAs inflation, and provisioning needs since 2Q20. The extensive use of furlough schemes since 2Q20 has protected household income and contained the rise in the unemployment rate to 4.2% at end-2020. This has strongly supported borrowers' ability to service their loans. The use of loan moratoriums has been much lower than in most European countries since the start of the crisis.

Consumer spending declined less in Germany than in other European economies in 2020, despite restrictive lockdowns and tighter restrictions since December 2020. Restrictions continued for most of 1H21, requiring all non-essential outlets to close and led some regional governments to impose travel bans. Consumer spending contracted by 6.1% in 2020 compared with 11% in the UK and 8% on average in the Eurozone.

The economic performance in Germany was better than expected and better than most large European peers in 2020 as only a relatively low proportion of the economy was affected by the lockdowns. We expect the economy to regain momentum as restrictions are being eased and vaccinations progress. Fitch's June 2021 Global Economic Outlook forecasts the German GDP to recover close to its pre-pandemic level by end-2021. The legal obligation for companies that qualify for state support to file for bankruptcy was suspended until end-April 2021. We expect insolvencies in Germany to peak between 2H21 and 1H22 because we expect a large portion of government support programmes to remain in place until the end of the lockdown.

We expect SFG's impaired loans to rise moderately by end-2021, but the four-year-average NPL ratio (about 1%- 1.3% at end-2020, based on Fitch's estimation) to remain below 2% in the medium term. The NPL increase will be mitigated by the group's low risk appetite, conservative underwriting standards, strong collateral and low concentrations. We expect some of SFG's more vulnerable micro and small SME borrowers will not fully recover once state support measures are lifted, and many corporates and SMEs are likely to emerge from the crisis with durably weaker credit profiles. However, we do not expect pressure on SFG's mortgages, given robust collateralisation and the record of above-average payment behaviour on the part of borrowers.

SFG's profit was resilient in 2020 owing to its strong market position, despite LICs rising to 18bp of gross loans (7bp in 2019). In 2020, SFG's operating profit/RWAs remained robust at 0.9% (1.1% in 2019), comfortably within our expectations for an earnings & profitability score of 'a', when adjusted to neutralise the group's strongly overstated RWAs density which results from the savings banks' use of the standardised approach to assess their credit risks. We expect profitability to remain challenged in 2021, despite a recovery in business activity and consumer spending, as LICs will remain material.



Sustainability Linked Bond Issuance

In April 2021 Berlin Hyp became the first bank globally to issue a sustainability-linked bond. The EUR500 million bond combines Berlin Hyp's strategic sustainability goals with its refinancing on the capital market. If the bank fails to achieve its target to cut the loan portfolio's carbon intensity by 40% by 2030, compared to the baseline 2020, this would trigger a step-up on the final coupon.

Resilient German CRE Market

We believe the German CRE market will remain attractive for international investors in the next few years despite the acceleration of secular trends (e.g. working-from-home, online shopping) by the Covid-19 crisis. This attractiveness is underpinned by Germany's resilient economy, robust fundamentals and stable institutional framework. The domestic property market has remained relatively resilient and valuations are reasonable by international comparison despite strong price increases over the last decade. Investment yields remain more resilient than in many foreign markets despite a slight decrease in 1H20, driven by low transaction volumes in 2Q20 as deals were postponed or cancelled due to the pandemic.

The retail and hotel segments have been the most affected by the pandemic so far. If business travel does not rapidly return to pre-pandemic levels, these segments are likely to remain under pressure for longer. However, we do not expect the current crisis to ease the strong margin pressure that has been weighing for many years on banks' lending to German CRE projects.

CRE Focus Brings Exposure to Substantial RWAs Inflation from Basel IV

We estimate the Basel IV RWAs output floor that will be phased in from 2022 to 2027 could inflate Berlin Hyp's RWAs by up to 20%. This would be above the average expected for the broader banking sector. This above-average sensitivity is driven by the bank's focus on income-producing CRE lending and by its use of internal rating models, which resulted in a relatively low RWAs density of 31% at end-2020. Berlin Hyp will continue to build up its capital by allocating a significant portion of its operating profits to its reserves for general banking risks ('Other non-operating items' in the income statement overleaf) in the coming years to match the RWAs inflation from Basel IV. The bank retained EUR70 million this way in 2020. We are confident that capital injections from SFG would be available should a prolonged and severe downturn prevent sufficient profit retention.



Summary Financials and Key Ratios

	31 Dec 20	31 Dec 19	31 Dec 18	31 Dec 17
	(EURm)	(EURm)	(EURm)	(EURm)
Summary income statement	*	*	*	
Net interest and dividend income	313	310	316	271
Net fees and commissions	20	18	23	39
Total operating income	339	332	352	320
Operating costs	183	183	168	188
Pre-impairment operating profit	155	150	184	131
Loan and other impairment charges	62	-2	-37	-56
Operating profit	94	152	222	188
Other non-operating items (net)	-70	-90	-105	-70
Net income	23	61	116	117
Summary balance sheet	<u>.</u>		<u> </u>	
Gross loans	24,452	22,487	20,955	21,089
- of which impaired	141	181	183	256
Loan loss allowances	69	84	90	115
Net loans	24,383	22,403	20,865	20,974
Interbank, other securities and earning assets	6,338	3,966	4,084	5,068
Total earning assets	30,721	26,370	24,949	26,043
Cash and due from banks	1,895	26	1,815	544
Total assets	33,423	27,021	27,178	27,123
Customer deposits	2,732	2,303	2,476	3,052
Interbank and other short-term funding	9,324	3,803	3,719	4,453
Other long-term funding	19,192	18,738	18,880	17,480
Total funding	31,248	24,843	25,075	24,984
Total equity	1,424	1,354	1,264	1,159
Total liabilities and equity	33,423	27,021	27,178	27,123
Profitability	<u>.</u>		<u> </u>	
Operating profit/risk-weighted assets	0.9	1.5	2.4	2.1
Net interest income/average earning assets	1.1	1.2	1.2	1.1
Non-interest expense/gross revenue	53.7	54.3	47.9	59.5
Net income/average equity	1.7	4.6	9.5	10.5
Asset quality				
Impaired loans ratio	0.6	0.8	0.9	1.2
Growth in gross loans	8.7	7.3	-0.6	8.0
Loan loss allowances/impaired loans	49.2	46.1	49.1	44.8
Loan impairment charges/average gross loans	0.4	0.0	-0.1	-0.2
Capitalisation				
Common equity tier 1 ratio	13.4	13.3	13.5	12.5
Basel leverage ratio	4.1	4.6	4.3	4.0
Net impaired loans/common equity tier 1	5.2	7.4	7.5	12.4
Funding and liquidity				
Loans/customer deposits	894.9	976.5	846.4	691.0
Liquidity coverage ratio	140.7	158.8	160.2	183.0
Customer deposits/funding	8.7	9.3	9.9	12.2
Source: Fitch Ratings, Fitch Solutions, Berlin Hyp				



Key Financial Metrics - Latest Developments

Pandemic Likely to Drive Increase in Impaired Loans

In April 2020, we changed the Outlook on Berlin Hyp's asset quality score to Negative from Stable as part of the Covid-19-driven review of German banks to reflect the risk that the economic fallout from the pandemic could weigh on Berlin Hyp's asset quality over the next two years. The number of insolvencies in Germany is likely to rise significantly in 2021 as state support measures to the economy are being phased out.

The negative outlook on Berlin Hyp's asset quality score reflects our expectation that asset quality will come under manageable pressure in 2021 and potentially in 2022 due to the lagging economic impact of the pandemic. Asset quality remained resilient in 2020 as the bank's NPL ratio even declined slightly, but more time will be needed for the asset quality implications of the crisis to become clearer. The strength and pace of the post-pandemic recovery is particularly uncertain in the retail and tourism segments, but it could also speed up structural shifts for office demand. Additionally, Berlin Hyp's risk concentration exposes the bank to tail risks from dislocations in the CRE market. Both effects are likely to lead to a higher level of NPLs.

Berlin Hyp's asset quality had benefited from strong economic conditions prior to the pandemic, leading to historically low NPLs after years of decrease. The high loan concentration inherent in CRE is mitigated by the bank's focus on standard property types in more resilient locations, granular tenant structures and conservative collateral valuation.

LICs and Margin Pressure Will Weigh on Profitability

We expect high LICs to intensify earning pressure in 2021 and 2022. Berlin Hyp booked LICs of EUR81 million in 2020 (33bp of total loans, up from almost zero on average in 2016-2019) to factor in the anticipated near-term deterioration of asset quality as a result of the economic fallout from Covid-19. However, credit risks have not yet materialised.

We expect the bank's pre-impairment profits to remain a sufficient first line of defence. Our base case assumes Berlin Hyp will maintain a four-year average operating profit/RWAs of at least 1% through the crisis, in line with its earnings and profitability score of 'bbb'.

However, a deeper than expected recession or a slower economic recovery could lead to higher than anticipated credit losses and net annual losses in the next two years.

Berlin Hyp's profitability has remained adequate and commensurate with its risk profile in recent years. However, its operating profit peaked in 2018 and weakened moderately in 2019. This is because low interest rates and considerable competitive pressure in the German CRE lending market weigh on lending margins, while net interest income dominates the bank's revenues. Low margins will weigh on revenues beyond the coronavirus crisis because the bank's new business is likely to remain predominantly domestic in the medium term.

Adequate Capitalisation

We revised the trend on Berlin Hyp's capitalisation and leverage score to stable from negative in 4Q20. This was because our sensitivity analysis indicated robust revenues and manageable credit losses throughout the Covid-19 crisis, with only moderate pressure on capitalisation.

Berlin Hyp's fully-loaded CET1 ratio of 13.4% at end-2020 is adequate for its risk profile. The bank has stabilised its CET1 ratio in the past few years. It has done so by retaining almost half of its operating profits to match the RWAs inflation triggered by the bank's continued shift to CRE loans from public sector loans and debt securities investments. We expect the bank will continue to retain a large share of its profits to mitigate the RWAs inflation from the revised Basel III regime, to which its monoline CRE lending model is particularly exposed.

Established Covered Bond Franchise; Privileged Unsecured Funding Access to SFG

Berlin Hyp is purely wholesale-funded and benefits from its privileged access to SFG's large excess liquidity. Savings banks purchase a large proportion of its unsecured debt, which carries a 0% regulatory risk-weight for members of SFG's mutual support scheme. The bank also aims to expand its already broad investor base outside SFG by issuing further green Pfandbriefe.



Berlin Hyp's stock of equity and debt eligible for its minimum requirement for own funds and eligible liabilities (MREL) was equivalent to a very high 57% of RWAs at end-2020 and mainly included about EUR4.6 billion of SNP bonds (45% of RWAs at end-2020). The bank has started to gradually replace maturing legacy SNP debt with cheaper SP debt, but we believe it will retain a comfortable buffer of SNP or more junior instruments over its MREL in the foreseeable future, given the long residual maturity of its stock of SNP debt.

ECB funding (predominantly TLTRO) rose to 30% of Berlin Hyp's total funding at end-2020 (see interbank on the chart across) from 8% at end-2019. This strong increase reflects the bank's opportunistic take-up of TLTRO III, whose conditions the ECB further eased in 2Q20 to tackle the impact of the pandemic. Depending on market conditions over the next few quarters, we believe the bank will arbitrage between using the large excess liquidity accumulated for new lending or to cut funding costs by reducing its stock of mortgage Pfandbriefe.

Adequate Liquidity Against the Background of SFG's Support

Berlin Hyp manages its liquidity prudently. Its liquidity coverage ratio (LCR) is consistently well above regulatory requirements, and management aims to maintain a ratio of at least 120%. The bank sources a significant share of its total funding (typically mostly SNP debt) from members of SFG's mutual support scheme. The resulting above-average funding stability allows Berlin Hyp to minimise the drag on earnings from the low interest-rate environment by optimising the size of its liquidity buffer more than it would probably do if it was independent from SFG. As the share of SNP debt in the funding mix is set to decrease, so could the proportion of funding from SFG members, although we expect the latter to remain significant in the long term. The large TLTRO III take-up supports Berlin Hyp's liquidity buffer, leading to an LCR of 141% at end-2020.



Environmental, Social and Governance Considerations

Berlin Hyp's highest level of ESG credit relevance is a score of '3'. This means ESG issues are credit neutral or have only a minimal credit impact, either due to their nature or the way in which they are being managed by the bank. For more information on our ESG Relevance Scores, visit www.fitchratings.com/esg.

Credit-Relevant ESG Derivation Overall ESG Scale Berlin Hyp AG has 5 ESG potential rating drivers key driver issues Berlin Hyp AG 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. 4 driver 0 issues Governance is minimally relevant to the rating and is not currently a driver. potential driver 5 issues 2 4 issues not a rating drive issues

Environmental (E)			
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	Company Profile; Management & Strategy; Risk Appetite; Asset

ES	cale
5	
4	
3	
2	
1	

How to Read This Page 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 left-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 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 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 the [number of] general 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 and sub-sector ratings criteria and the General Issues and the Sector-Specific Issues have been informed with SASB's Materiality Map.

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

Social (S)			
General Issues	S Score	Sector-Specific Issues	Reference
Human Rights, Community Relations, Access & Affordability	2	Services for underbanked and underserved communities: SME and community development programs; financial literacy programs	Company Profile; Management & Strategy; Risk Appetite
Customer Welfare - Fair Messaging, Privacy & Data Security	3	Compliance risks including fair lending practices, mis-selling, repossession/foreclosure practices, consumer data protection (data security)	Operating Environment; Company Profile; Management & Strategy; Risk Appetite
Labor Relations & Practices	2	Impact of labor negotiations, including board/employee compensation and composition	Company Profile; Management & Strategy
Employee Wellbeing	1	n.a.	n.a.
Exposure to Social Impacts	2	Shift in social or consumer preferences as a result of an institution's social positions, or social and/or political disapproval of core banking	Company Profile; Financial Profile

	G Scale		
	5		
rnings &	4		
	3		
	2		
	1		

2

	CREDIT-RELEVANT ESG SCALE
How	relevant are E, S and G issues to the overall credit rating?
	Highly relevant, a key rating driver that has a significant impact
5	on the rating on an individual basis. Equivalent to "higher"
	relative importance within Navigator.
	Relevant to rating, not a key rating driver but has an impact on
4	the rating in combination with other factors. Equivalent to
	"moderate" relative importance within Navigator.
	Minimally relevant to rating, either very low impact or actively
3	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.

Governance (G)
General Is	SL

Governance (G)			
General Issues	G Score	Sector-Specific Issues	Reference
Management Strategy	3	Operational implementation of strategy	Management & Strategy
Governance Structure	3	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



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 ARE AVAILABLE ON THE AGENCY'S PUBLIC WEB SITE AT WWW.FITCHRATINGS.COM. 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 RATED 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 hey provide to Fitch an

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 reditivorthiness 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 for a particular investor, or the tax-exempt 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 guaranteed by a particular insurer or guarantor, for a single

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.