

# **Berlin Hyp AG**

## **Update**

## **Key Rating Drivers**

**Support Drives IDRs:** Berlin Hyp AG's Issuer Default Ratings (IDRs) and Shareholder Support Rating (SSR) are aligned with the IDRs of Landesbank Baden-Wuerttemberg (A+/Stable/F1+/bbb+), its sole shareholder. This reflects both that Berlin Hyp is part of LBBW's resolution perimeter and that LBBW's reputation would be greatly damaged if it did not support its subsidiary if needed. The Stable Outlook on Berlin Hyp's Long-Term IDR mirrors that on LBBW.

Berlin Hyp's VR reflects the bank's monoline business model and concentrated loan book, which are balanced by its focus on the German market, where it has an established franchise, and sound financial metrics.

Focus on Domestic CRE: Berlin Hyp is a specialised commercial real estate (CRE) lender focused on investment and development financing, mainly in German metropolitan areas and large cities, where it has expertise. The bank's franchise and business model benefit from its integration into Sparkassen Finanzgruppe (SFG; A+/Stable/F1+) and its strong ties to a large number of savings banks, resulting in enhanced loan origination and cheaper funding compared with independent peers.

**Good Underwriting Record:** Berlin Hyp's risk profile benefits from a long record of underwriting CRE loans, adequate loan collateralisation and a fairly stable CRE portfolio mix, including mainly modern office, residential, retail and logistics properties in resilient geographies. However, Berlin Hyp has a higher appetite for real estate development financing than other German CRE focused peers, and a business with historically higher default rates and lower recoveries than cash-flow-generating CRE.

Concentrated Loan Book: Berlin Hyp's impaired loan ratio increased in 2023 as a result of higher interest rates and structural changes affecting valuations in the bank's office and retail investment and development portfolios. However, we maintain the asset quality score's outlook on stable because our assessment of the bank's asset quality is already adjusted downward for the cyclical performance of CRE markets and the high single-borrower concentration in Berlin Hyp's CRE loan book.

Resilient Profits: Berlin Hyp's operating profit has outperformed that of most German commercial banks in the past decade. We expect the bank's four-year average operating profit/risk-weighted assets (RWAs) ratio to remain at 1.0%–1.5% through the cycle, but profitability could fall below this level if loan demand weakens and loan impairment charges (LICs) increase. Berlin Hyp's revenues also rely on only one business line, with a low contribution of fee income relative to peers, which also weighs on our assessment of the bank's profitability.

Adequate Capital: Berlin Hyp's common equity Tier 1 (CET1) ratio (end-2023: 15.4%) and Basel leverage ratio (4.5%) are adequate for the bank's risk profile, and provide a reasonable buffer over regulatory requirements to absorb probable negative rating migrations in the bank's CRE portfolio in the next two years. Berlin Hyp is also likely to continue to retain a material part of its operating profit to match regulatory RWA inflation.

Wholesale-Funded: Berlin Hyp funds itself mainly through mortgage covered bonds and unsecured debt and does not have meaningful deposits from customers. Its membership in SFG's institutional protection scheme (IPS) also ensures privileged access to SFG's large excess liquidity. Issuance of unsecured debt should decline in 2024 due to the bank's inclusion in LBBW's resolution perimeter, its low upcoming redemptions, and declining new business.

Liquidity metrics are adequate and the bank can tap the overcollateralisation of its mortgage pool in case of need.

### **Ratings**

Currency IDR

Currency IDR

Sovereign Long-Term Local-

Stable

Foreign Currency	
Long-Term IDR	A+
Short-Term IDR	F1+
Viability Rating	bbb+
Shareholder Support Rating	a+
Sovereign Risk (Germany)	
Long-Term Foreign-Currency IDR	AAA
Long-Term Local-Currency IDR	AAA
Country Ceiling	AAA
Outlooks	
Long-Term Foreign-Currency IDR	Stable
Sovereign Long-Term Foreign-	Stable

#### Applicable Criteria

Bank Rating Criteria (March 2024)

#### **Related Research**

Fitch Upgrades Berlin Hyp to 'A+'; Outlook Stable (July 2024)

Fitch Upgrades LBBW's IDR to 'A+'/Stable; Affirms VR at 'bbb+' (July 2024)

German Banks' Commercial Real Estate: Credit Losses to Stay High (February 2024)

Berlin Hyp AG (November 2023)

#### **Analysts**

Marco Diamantini +49 69 768076 114 marco.diamantini@fitchratings.com

Justus Roppertz +49 69 768076 232 justus.roppertz@fitchratings.com

1

Update | 24 July 2024 fitchratings.com



## **Rating Sensitivities**

#### Factors that Could, Individually or Collectively, Lead to Negative Rating Action/Downgrade

A downgrade of LBBW's IDRs, or a change in the ownership structure or the owner's strategic commitment to Berlin Hyp, could lead to a downgrade of its IDRs and SSR.

Berlin Hyp's VR has moderate headroom should the metrics deteriorate more than we forecast. We could downgrade the VR if we expect severe and sustained pressure on the performance of the CRE market to durably weaken the bank's impaired loans and operating profit/RWAs ratios to above 3.0% and below 0.8%, respectively.

#### Factors that Could, Individually or Collectively, Lead to Positive Rating Action/Upgrade

An upgrade of the IDRs and SSR would require an upgrade of LBBW's ratings. An upgrade of Berlin Hyp's VR would require a record of substantially stronger lending margins and a more diversified business model, with significant revenue sources independent from CRE lending.

## **Other Debt and Issuer Ratings**

Rating	
AA-	
F1+	
AA-	
F1+	
A+	
-	AA- F1+ AA- F1+

Berlin Hyp's long-term senior preferred debt and deposit ratings are rated one notch above its Long-Term IDR to reflect the protection that could accrue to these creditors from the build-up of junior resolution debt and equity buffers. This is because we expect Berlin Hyp to meet its resolution buffer requirement with senior non-preferred and more junior instruments only. Berlin Hyp's senior non-preferred debt rating is aligned with its Long-Term IDR. Berlin Hyp's short-term senior preferred debt and deposits are rated in line with LBBW's short-term senior preferred debt and deposits.

## Significant Changes from Last Review

#### Strengthened IPS

In January 2024, SFG implemented a reform of its IPS. In Fitch's view, the amendments to the statutes of the IPS have substantially strengthened its governance, risk monitoring and funds. As a result, the probability of timely support for LBBW from its owners has increased. Berlin Hyp's IDRs are equalised with those of its parent.

The reformed IPS clearly defines the responsibilities and timelines in a potential support scenario. The role and powers of the IPS's central body were also strengthened. The central body has decision-making power over recovery and support measures, including the raising of the required funds from the IPS's members, with a simple majority within two weeks of the receipt of the request for intervention. We therefore believe that the IPS would provide support to a member in need in a timelier manner compared to the past.

The risk-monitoring system was also strengthened with quantitative triggers, allowing for an early identification of member with deteriorating financial profile and enabling early intervention measures. This is also supported by a newly created internal audit unit within the IPS. In our view, this reduces the probability of a member requiring support.

The creation of an additional support fund as part of the reform, which we estimate will reach EUR5 billion–EUR6 billion by 2033, also improves the IPS's ability to support a larger number of members that may require capital support at the same time. This is in addition to SFG's sound pre-impairment operating profitability and strong capitalisation, which already provide it with sufficient financial flexibility to support also large members.

#### **Resilient Profit Despite Asset Quality Deterioration**

Berlin Hyp's new business volumes halved to EUR2.9 billion in 2023 (2022: EUR5.8 billion), broadly in line with the sharp fall of CRE transactions in Germany. We expect new business volumes to have remained subdued also in 1H24. Prolongations doubled to EUR2.2 billion in 2023 (2022: EUR1.1 billion), driving total new lending volume to EUR5.1 billion in 2023. Close to three quarters of the new lending volume in 2023 was domestic, with a focus on large



and medium cities. New business focused on residential property (44%) followed by offices (32%), logistic premises (13%) and retail (7%). However, at 41% of total mortgage loans, offices still accounted for Berlin Hyp's largest CRE exposure at end-2023, followed by residential property (29%).

Loan-to-value ratios in the portfolio were resilient in 2023, and valuation declines are mitigated by the higher proportion of new buildings in Berlin Hyp's mortgage book compared to peers (one third of the mortgage book was classified as green at end-2023). At the same time, we expect inflows into impaired loans to continue in 2024, when about 18% of the mortgage book is due for refinancing.

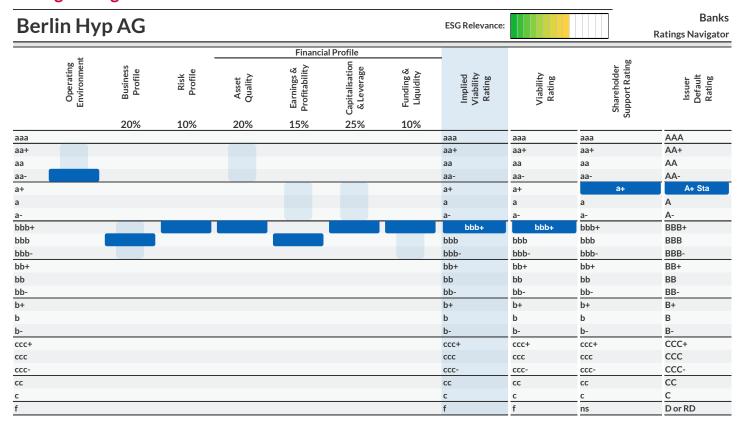
Impaired loans increased to EUR492 million at end-2023 (1.7% of gross loans; end-2022: EUR127 million, 0.5%). We expect some of the inflows in 2023 to reverse in 2024 as developments are finalised and the properties are sold. The rise in impaired loans drove most of the increase in LICs to EUR152 million in 2023 (53bp of average gross loans) from EUR13 million in 2022. The remaining LICs were precautionary provisions, which resulted from the increase in a post-model adjustment for the CRE portfolio to EUR127 million at end-2023 (end-2022: EUR48 million). We expect precautionary provisions to cover a material share of credit losses in 2024, but for LICs to remain high compared to the historical average.

Net interest income increased in 2023 on the back of an increase in average loan volumes and higher income from the closing of derivatives to hedge against early termination rights, which will not recur in 2024. At the same time, the 2022 valuation losses in the bond portfolio, driven by the sudden increase in interest rates, did not recur in 2023, and bank levies were substantially lower, in line with those of European peers. Altogether, this compensated for the surge in LICs, resulting in a stable operating profit in 2023. Berlin Hyp also expects operating profit in 2024 to remain broadly in line with the 2023 level.

Capitalisation, funding and liquidity metrics all improved in 2023 compared to 2022, and we expect them to remain stable in 2024.



## **Ratings Navigator**



The Key Rating Driver (KRD) weightings used to determine the implied VR are shown as percentages at the top. In cases where the implied VR is adjusted upwards or downwards to arrive at the VR, the KRD associated with the adjustment reason is highlighted in red. The shaded areas indicate the benchmark-implied scores for each KRD.

## **VR** - Adjustments to Key Rating Drivers

The asset quality score of 'bbb+' has been assigned below the 'aa' category implied score due to the following adjustment reason(s): concentrations (negative).

The earnings & profitability score of 'bbb' has been assigned below the 'a' category implied score due to the following adjustment reason(s): revenue diversification (negative).

The capitalisation & leverage score of 'bbb+' has been assigned below the 'a' category implied score due to the following adjustment reason(s): risk profile and business model (negative).



## **Financials**

#### **Financial Statements**

31 Dec	23	31 Dec 22ª	31 Dec 21	31 Dec 20	
12 months	12 months	6 months	12 months	12 months (EURm)	
(USDm)	(EURm)	(EURm)	(EURm)		
•	·		,		
546	498	197	407	313	
20	18	13	25	20	
7	6	3	2	5	
573	523	213	433	339	
232	212	93	194	183	
341	311	120	239	155	
150	137	25	2	62	
191	174	95	238	94	
-55	-50	-25	-187	-70	
54	49	29	1	0	
82	75	41	50	23	
<del>.</del>	·	·	·		
	*		•		
32,489	29,655	28,036	26,240	24,452	
539	492	127	146	141	
477	436	33	49	69	
32,012	29,219	28,003	26,191	24,383	
313	285	211	152	112	
5,836	5,327	5,559	6,799	6,226	
38,161	34,831	33,773	33,141	30,721	
42	39	27	2,654	1,895	
644	588	612	415	808	
38,847	35,457	34,412	36,210	33,423	
<del>.</del>					
4,848	4,425	3,103	2,394	2,732	
2,718	2,481	4,565	8,809	9,324	
28,228	25,765	24,168	22,637	19,192	
35,794	32,671	31,836	33,841	31,248	
1,068	975	849	759	751	
1,984	1,811	1,727	1,611	1,424	
38,847	35,457	34,412	36,210	33,423	
	USD1 = EUR0.912742	USD1 = EUR0.937559	USD1 = EUR0.884173	USD1 = EUR0.821963	
	12 months (USDm)  546 20 7 573 232 341 150 191 -55 54 82  32,489 539 477 32,012 313 5,836 38,161 42 644 38,847  4,848 2,718 28,228 35,794 1,068 1,984	(USDm)         (EURm)           546         498           20         18           7         6           573         523           232         212           341         311           150         137           191         174           -55         -50           54         49           82         75           32,489         29,655           539         492           477         436           32,012         29,219           313         285           5,836         5,327           38,161         34,831           42         39           644         588           38,847         35,457           4,848         4,425           2,718         2,481           28,228         25,765           35,794         32,671           1,068         975           1,984         1,811           38,847         35,457           USD1 =	12 months (USDm)         12 months (EURm)         6 months (EURm)           546         498         197           20         18         13           7         6         3           573         523         213           232         212         93           341         311         120           150         137         25           191         174         95           -55         -50         -25           54         49         29           82         75         41           32,489         29,655         28,036           539         492         127           477         436         33           32,012         29,219         28,003           313         285         211           5,836         5,327         5,559           38,161         34,831         33,773           42         39         27           644         588         612           38,847         35,457         34,412           4,848         4,425         3,103           2,718         2,481         4,565 <t< td=""><td>12 months (USDm)         12 months (EURm)         6 months (EURm)         12 months (EURm)           546         498         197         407           20         18         13         25           7         6         3         2           573         523         213         433           232         212         93         194           341         311         120         239           150         137         25         2           191         174         95         238           -55         -50         -25         -187           54         49         29         1           82         75         41         50           32,489         29,655         28,036         26,240           539         492         127         146           477         436         33         49           32,012         29,219         28,003         26,191           313         285         211         152           5,836         5,327         5,559         6,799           38,161         34,831         33,773         33,141           <t< td=""></t<></td></t<>	12 months (USDm)         12 months (EURm)         6 months (EURm)         12 months (EURm)           546         498         197         407           20         18         13         25           7         6         3         2           573         523         213         433           232         212         93         194           341         311         120         239           150         137         25         2           191         174         95         238           -55         -50         -25         -187           54         49         29         1           82         75         41         50           32,489         29,655         28,036         26,240           539         492         127         146           477         436         33         49           32,012         29,219         28,003         26,191           313         285         211         152           5,836         5,327         5,559         6,799           38,161         34,831         33,773         33,141 <t< td=""></t<>	

<sup>&</sup>lt;sup>a</sup>With transfer of ownership to LBBW, Berlin Hyp disclosed annual accounts as at 30 June 2022 and 31 December 2022 each as a Short Financial Year. The Income Statement as of 31 December refers to a six-month period.

<sup>b</sup> Refers to contributions to the fund for general banking risks, as per Article340g German GAAP Source: Fitch Ratings, Fitch Solutions, Berlin Hyp AG



## **Key Ratios**

	31 Dec 23	31 Dec 22	31 Dec 21	31 Dec 20
Ratios (%; annualised as appropriate)				
Profitability				
Operating profit/risk-weighted assets	1.6	1.6	2.2	0.9
Net interest income/average earning assets	1.5	1.2	1.3	1.1
Non-interest expense/gross revenue	40.6	43.7	44.8	53.7
Net income/average equity	4.2	4.9	3.3	1.7
Asset quality				
Impaired loans ratio	1.7	0.5	0.6	0.6
Growth in gross loans	5.8	3.9	7.3	8.7
Loan loss allowances/impaired loans	88.5	26.2	33.7	49.2
Loan impairment charges/average gross loans	0.5	-0.2	0.1	0.4
Capitalisation	· · · · · · · · · · · · · · · · · · ·	·	<u> </u>	
Common equity Tier 1 ratio	15.4	13.7	14.3	13.4
Tangible common equity/tangible assets	4.9	4.9	4.3	4.2
Basel leverage ratio	4.5	4.5	4.2	4.1
Net impaired loans/common equity Tier 1	3.4	5.8	6.2	5.2
Funding and liquidity				
Gross loans/customer deposits	670.2	903.5	1,096.0	894.9
Gross loans/customer deposits + covered bonds	132.9	144.4	153.2	162.1
Liquidity coverage ratio	149.8	124.5	128.4	140.7
Customer deposits/total non-equity funding	13.5	9.8	7.1	8.7
Net stable funding ratio	111.3	105.8	_	_
Source: Fitch Ratings, Fitch Solutions, Berlin Hyp AG				



# **Support Assessment**

Shareholder IDR	A+
Total Adjustments (notches)	0
Shareholder Support Rating	a+
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	
Shareholder ability to support	
Shareholder Rating	A+/ Stable
Shareholder regulation	Equalised
Relative size	1 Notch
Country risks	Equalised
Shareholder propensity to support	
Dolo in group	1 Notch
Role in group	
Reputational risk	Equalised
- '	Equalised  1 Notch
Reputational risk	
Reputational risk	1 Notch

Berlin Hyp's SSR reflects our view of LBBW's very high propensity of support. This is because LBBW's reputation would be greatly damaged if, as Berlin Hyp's owner, it failed to provide support, should this ever be needed.

Banks



## **Environmental, Social and Governance Considerations**

Berlin Hyp AG

#### **Fitch**Ratings Ratings Navigator Credit-Relevant ESG Derivation erall 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. 0 Governance is minimally relevant to the rating and is not currently a driver potential driver 5 issues

								_							
				not a rating driver		4	issues		2						
						5	issues		1						
Environmental (E)															
General Issues	E Score	Sector-Specific Issues	Reference	ES	cale										
GHG Emissions & Air Quality	1	n.a.	n.a.	5		How to Read This Page ESG scores range from 1 to 5 based on a 15-level color gradati Red (5) is most relevant and green (1) is least relevant.									
Energy Management	1	n.a.	n.a.	4		The Environmental (E), Social (S) and Governance (G) tab break out the individual components of the scale. The right-hand I shows the aggregate E, S, or G score. General Issues are relev across all markets with Sector-Specific Issues unique to a particul industry group. Scores are assigned to each sector-specific iss				break out the individual components of the scale. The right shows the aggregate E, S, or G score. General Issues a across all markets with Sector-Specific Issues unique to			ak out the individual components of the scale. The right-han ws the aggregate E, S, or G score. General Issues are rel oss all markets with Sector-Specific Issues unique to a part		
Water & Wastewater Management	1	n.a.	n.a.	3		These scores signify the credit-relevance of the sector- issues to the issuing entity's overall credit rating. The Referen highlights the factor(s) within which the corresponding ESG are captured in Fitch's credit analysis.									
Waste & Hazardous Materials Management; Ecological Impacts	1	n.a.	n.a.	2		The Credit-Relevant ESG Derivation table shows the overall score. This score signifies the credit relevance of combined and G issues to the entity's credit rating. The three columns to left of the overall ESG score summarize the issuing entity's component ESG scores. The box on the far left identifies son the main ESG issues that are drivers or potential drivers or issuing entity's credit rating (corresponding with scores of 3, 4 and provides a brief explanation for the score.				e of combined E, S three columns to the					
Exposure to Environmental Impacts	2	Impact of extreme weather events on assets and/or operations and corresponding risk appetite & management; catastrophe risk; credit concentrations	Business Profile (incl. Management & governance); Risk Profile; Asset Quality	1						tential drivers of the					
Social (S)  General Issues	S Score	Sector-Specific Issues	Reference	SS	cale	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									
Human Rights, Community Relations, Access & Affordability	2	Services for underbanked and underserved communities: SME and community development programs; financial literacy programs	Business Profile (incl. Management & governance); Risk Profile	5		Nations Principles for Responsible Investing (PRI) and Sustainability Accounting Standards Board (SASB). Sector references in the scale definitions below refer to Secto displayed in the Sector Details box on page 1 of the navigator.									
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; Business Profile (incl. Management & governance); Risk Profile	4											
Labor Relations & Practices	2	Impact of labor negotiations, including board/employee compensation and composition	Business Profile (incl. Management & governance)	3											
Employee Wellbeing	1	n.a.	n.a.	2											
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 practices	Business Profile (incl. Management & governance); Financial Profile	1											
Covernous (C)							CRECIT	DELEV	ANT ESG S	CALE					
Governance (G)															
General Issues	G Scor	e Sector-Specific Issues	Reference	G S	cale		How relevant are E, S a overall credi		edit rating?						
Management Strategy	3	Operational implementation of strategy	Business Profile (incl. Management & governance)	5		5	sign bas	nificant im	pact on the ratir lent to "higher"	driver that has a ng on an individual relative importance					
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	Business Profile (incl. Management & governance); Earnings & Profitability; Capitalisation & Leverage	4		4	an i fact	impact on lors. Equiv	ating, not a key the rating in co valent to "moder vithin Navigator.	rating driver but has mbination with other rate" relative					
Group Structure	3	Organizational structure; appropriateness relative to business model; opacity; intra-group dynamics; ownership	Business Profile (incl. Management & governance)	3		3	or a	actively ma	anaged in a way	either very low impact y that results in no quivalent to "lower" avigator.					
Financial Transparency	3	Quality and frequency of financial reporting and auditing processes	Business Profile (incl. Management & governance)	2		2	Irrel sect		he entity rating	but relevant to the					
				1		1	Irrel		he entity rating	and irrelevant to the					

The highest level of ESG credit relevance is a score of '3', unless otherwise disclosed in this section. A score of '3' means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. Fitch's ESG Relevance Scores are not inputs in the rating process; they are an observation on the relevance and materiality of ESG factors in the rating decision. For more information on Fitch's ESG Relevance Scores, visit https://www.fitchratings.com/topics/esg/products#esg-relevance-scores.



#### SOLICITATION & PARTICIPATION STATUS

For information on the solicitation status of the ratings included within this report, please refer to the solicitation status shown in the relevant entity's summary page of the Fitch Ratings website.

For information on the participation status in the rating process of an issuer listed in this report, please refer to the most recent rating action commentary for the relevant issuer, available on the Fitch Ratings website.

#### **DISCLAIMER & DISCLOSURES**

All Fitch Ratings (Fitch) credit ratings are subject to certain limitations and disclaimers. Please read these limitations and disclaimers by following this link: <a href="https://www.fitchratings.com/understandingcreditratings">https://www.fitchratings.com/rating-definitions-document</a> details Fitch's rating definitions for each rating scale and rating categories, including definitions relating to default. 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. Directors and shareholders' relevant interests are available at <a href="https://www.fitchratings.com/site/regulatory">https://www.fitchratings.com/site/regulatory</a>. Fitch may have provided another permissible or ancillary service to the rated entity or its related third parties. Details of permissible or ancillary service(s) 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.

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 and to the market in offering documents and other reports. In issuing its ratings and its reports, Fitch must rely on the work of experts, including independent auditors with respect to financial statements and attorneys with respect to legal and tax matters. Further, ratings and forecast

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 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 US\$1,000 to US\$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 Art 2001

Fitch Ratings, Inc. is registered with the U.S. Securities and Exchange Commission as a Nationally Recognized Statistical Rating Organization (the "NRSRO"). While certain of the NRSRO's credit rating subsidiaries are listed on Item 3 of Form NRSRO and as such are authorized to issue credit ratings on behalf of the NRSRO (see https://www.fitchratings.com/site/regulatory), other credit rating subsidiaries are not listed on Form NRSRO (the "non-NRSROs") and therefore credit ratings issued by those subsidiaries are not issued on behalf of the NRSRO. However, non-NRSRO personnel may participate in determining credit ratings issued by or on behalf of the NRSRO.

 $Copyright @ 2024 \ by Fitch \ Ratings, Inc., Fitch \ Ratings \ Ltd. \ and its subsidiaries. \ 33 \ Whitehall \ Street, NY, NY 10004. \ Telephone: 1-800-753-4824, (212) 908-0500. \ Reproduction \ or \ retransmission in \ whole \ or \ in \ part is \ prohibited \ except \ by \ permission. \ All \ rights \ reserved.$