

# Genossenschaftliche FinanzGruppe

Update

## Key Rating Drivers

**Leading German Retail and Commercial Group:** Genossenschaftliche FinanzGruppe's (GFG) ratings reflect the group's leading and highly diversified business profile, strong risk-adjusted capitalisation and low leverage, sound asset quality, a record of profitability that is considerably better than most German peers, as well as its outstanding funding profile, by international standards. GFG's Viability Rating (VR) is one notch above the implied VR, reflecting the high importance for GFG's ratings of its strong business profile.

**Mutual Support Mechanism:** GFG is not a legal entity, but a cooperative banking network whose cohesion is ensured by an institutional protection scheme (IPS) managed by the Bundesverband der Deutschen Volksbanken und Raiffeisenbanken e. V. (BVR). GFG's Issuer Default Ratings (IDRs) are group ratings that apply to each member bank, including its central institution DZ BANK AG Deutsche Zentral-Genossenschaftsbank and its subsidiaries.

**Diversified Business Model:** GFG's domestically focused, stable universal banking business model has delivered stable profits over several economic cycles. It is based on its local banks' strong domestic retail and small SME banking franchise, supported by DZ BANK's product suppliers. These include domestic market leaders in the insurance, asset-management and real-estate businesses. The business model benefits from a strong strategic alignment of DZ BANK and the local banks with intensified cooperation and cross-selling across GFG.

**Sound Asset Quality:** Fitch Ratings expects GFG's asset quality to have remained resilient in 2023, despite macroeconomic and geopolitical risks. We expect impaired loans to increase modestly in the next two years, to about 2% of gross loans due to higher interest rates and inflation, which are likely to drive rising insolvencies in the group's SME and commercial real estate (CRE) portfolios.

**Improved Profitability:** We expect profitability to have recovered in 2023, driven by strong net interest income (NII) and low loan impairment charges (LICs). Operating profit had declined significantly in 2022 due to temporary write-downs in the local banks' securities portfolios and DZ BANK's insurance subsidiary, driven by the sharp increase of interest rates during 2022. Historically, GFG's profits have been more stable than the German banking sector's.

**Strong Capitalisation:** The local banks and DZ BANK are both well-capitalised, and GFG's leverage ratio is high by international standards. We expect GFG's common equity Tier 1 (CET1) ratio to remain close to the current 15% in the medium term, supported by slower loan growth than in previous years.

**Very Stable Funding:** The local banks are predominantly funded by granular, mostly price-inelastic domestic retail deposits, and their structurally large excess liquidity covers most of DZ BANK's short-term funding needs. DZ BANK, as a frequent issuer of unsecured debt and the largest German covered bond issuer to an established and geographically diversified investor base, provides GFG with reliable access to the wholesale markets.

## Ratings

### Foreign Currency

Long-Term IDR	AA-
Short-Term IDR	F1+

Viability Rating	aa-
------------------	-----

Government Support Rating	ns
---------------------------	----

### Sovereign Risk

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-Currency IDR	Stable
--	--------

Sovereign Long-Term Local-Currency IDR	Stable
--	--------

## Applicable Criteria

[Bank Rating Criteria \(September 2023\)](#)

## Related Research

[Global Economic Outlook \(December 2023\)](#)

[Western European Banks Outlook 2024 \(December 2023\)](#)

[Fitch Affirms German Cooperative Banks and DZ BANK at 'AA-'; Outlook Stable \(April 2023\)](#)

## Analysts

Roger Schneider  
+49 69 768076 242  
[roger.schneider@fitchratings.com](mailto:roger.schneider@fitchratings.com)

Justus Roppertz  
+49 69 768076 232  
[justus.roppertz@fitchratings.com](mailto:justus.roppertz@fitchratings.com)

## Rating Sensitivities

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

We could downgrade GFG's and its members' ratings if GFG's impaired loan ratio durably rises above 3%, its average operating profit/risk-weighted assets (RWAs) ratio declines below 1%, or its regulatory CET1 ratio falls durably below 13%. A downgrade of our operating environment score for GFG (aa-/stable) would also put pressure on its ratings.

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

An upgrade of GFG's and of its members' ratings is unlikely, given the already high ratings and in light of the increased economic and financial uncertainties. In addition to a domestic environment that would allow higher lending margins, an upgrade would also require greater cost efficiency, which is likely to necessitate a protracted streamlining of the group's structure, especially at the local banks.

## Other Debt and Issuer Ratings

	Rating
DZ BANK AG Deutsche Zentral-Genossenschaftsbank <sup>a</sup>	
Long-term deposit rating <sup>a</sup>	AA
Short-term deposit rating <sup>a</sup>	F1+
Long-term senior preferred debt <sup>a, b</sup>	AA
Short-term senior preferred debt <sup>a, b</sup>	F1+
Long-term senior non-preferred debt <sup>a</sup>	AA-
Tier 2 subordinated debt	A
AT1 Notes	BBB+
Deutsche Apotheker- und Aerztebank eG	
Long-term deposit rating	AA-
Short-term deposit rating	F1+
Muenchener Hypothekenbank eG	
Long-term deposit rating	AA
Short-term deposit rating	F1+
Local cooperative banks	
Long-term deposit ratings	AA-
Short-term deposit ratings	F1+

<sup>a</sup> Also applies to DZ BANK's subsidiary DZ HYP AG  
<sup>b</sup> Also applies to DZ BANK's subsidiary DZ PRIVATBANK S.A.  
Source: Fitch Ratings

The long-term deposit ratings and long-term senior preferred debt ratings of DZ BANK and its banking subsidiaries, DZ BANK's Derivative Counterparty Rating (DCR), and the long-term deposit rating of Muenchener Hypothekenbank are one notch above their respective Long-Term IDRs because of the protection provided by senior non-preferred and more junior debt buffers to preferred creditors. The deposit ratings of Deutsche Apotheker- und Aerztebank and of the local cooperative banks are aligned with GFG's IDRs due to the absence of sustainable significant senior non-preferred and more junior debt buffers at these entities.

A preferred bail-in resolution strategy with a single-point-of-entry approach is applicable for DZ BANK group, which is directly under the authority of the European Single Resolution Board.

Each local bank is regulated individually as a less significant institution. Consequently, the German regulator's preferred resolution strategy for these banks consists of standard insolvency procedures, and the predominantly deposit-funded local banks have no incentive to build up resolution buffers. Deutsche Apotheker- und Aerztebank and Muenchener Hypothekenbank's preferred resolution strategy also consists of standard insolvency procedures, but Muenchener Hypothekenbank has a very large stock of legacy senior non-preferred debt outstanding, which we expect to remain well in excess of 10% of RWAs.

The ratings of the subordinated Tier 2 and additional Tier 1 notes issued by DZ BANK and its subsidiaries are two and four notches, respectively, below GFG's VR. This is the standard notching for this type of instruments under Fitch's criteria. We use the VR as the anchor rating because we believe that GFG, by protecting the viability of DZ BANK and its subsidiaries, increases the likelihood that all due payments on these notes will continue to be met.

## Significant Changes from Last Review

### GFG Most Likely Returned to Long-Term Profitability Levels in 2023

We expect higher net income for GFG in 2023 than in 2022 and a return to the group's long-term average pretax profit level of about EUR8.7 billion over the past 10 years. This is due to further rising in NII on higher interest rates, a slow repricing of retail deposits and less impact from the fair value result, which is partly offset by cost increase, given the inflationary environment.

Fitch expects GFG's profitability to remain strong and GFG to generate stable profitability in 2024. We believe GFG's net interest margins will benefit from higher new lending margins and rising treasury income due to higher reinvestment yields, which are likely to offset the expected moderate deposit repricing in 2024. Deposit costs have already increased throughout 2023 and Fitch expects them to further rise in 2024 because of changes in the deposit composition, in particular at the primary banks, in favour of higher-interest term deposits.

### Strong Contribution from DZ BANK Group

DZ BANK group raised its 2023 financial guidance, expecting a result above EUR2.5 billion after reporting a pretax profit of EUR1.9 billion in 1H23 (1H22: EUR938 million). DZ BANK group is by far GFG's largest member (accounting for almost 40% of GFG's assets at end-2022), which is driving our expectation of GFG's profitability rebound for 2023 income.

Improved profitability was mainly driven by higher NII (up 26% to EUR1.8 billion in 1H23), low loan impairment charges and adequate cost discipline. Moreover, a significantly higher income from its asset management and insurance activities underpinned the group's financial performance. The latter benefitted from the strong investment result at the insurance subsidiary R+V, reversing last year's first half loss of EUR30 million due to the temporary valuation losses in the securities portfolio.

### Resilient Asset Quality to Weaken Moderately

Loan defaults in GFG remained benign throughout 2023 both at the level of the primary banks and at DZ BANK group. Fitch expects a moderate increase of impaired loans in 2024, which will push LICs upward given the weak macroeconomic environment, as Fitch expects Germany's GDP to expand by only 0.4% in 2024. Default rates could increase, in particular for vulnerable corporate sectors sensitive to energy prices and for retailers, as consumer spending remains under pressure because of the high inflation.

GFG's exposure to CRE lending, which is mainly concentrated in DZ BANK's subsidiary DZ HYP and in Muenchner Hypothekbank, leaves it vulnerable to refinancing risk in combination with falling real estate valuations. Fitch expects new impaired loan inflows, particularly in CRE developments, office and retail property portfolios, to materialise in 2H23 and 2024 as construction costs surged, valuations are adjusted downwards and loans come up for refinancing. LICs are likely to be significantly above the historical average in these segments, but they should not lead to outsized losses in the next two years, due to portfolio collateralisation.


### Fair Value Losses in Security Portfolios Decline Significantly

The sizeable fair value loss in the primary banks' bond portfolios following the steep interest rate rises in 2022 was the main driver of GFG's 2022 net profit decline, which we do not expect to recur in 2023, as a further rise in interest rates during 1H23 has mainly been reversed since autumn and the pull-to-par effect will gradually mitigate further losses. We also believe that primary banks will have further lowered their interest rate risk in the banking book since rates began rising in 2022 to lower earnings volatility.

### Reform of Institutional Protection Scheme Strengthens Cohesion

Moderate changes to the statute of GFG's IPS were approved by GFG's members in June 2023. The changes aim to increase the scope of IPS's tools such as early information rights and the speed of intervention should it become necessary. The modifications support the alignment of members' risk appetite with their risk bearing capacity and aims to improve members' discipline. This is because the local banks define their risk appetite independently and underwriting decisions are not subject to GFG-wide centralised approvals or limits. However, BVR's monitoring systems were also strengthened. This indirectly influences the banks' risk-taking because their individual contributions to GFG's mutual support fund, BVR-Sicherungseinrichtung (BVR-SE), depend on BVR-SE's assessment of each bank's risk profile.

**Ratings Navigator**

Genossenschaftliche FinanzGruppe							ESG Relevance: 	Banks Ratings Navigator		
Operating Environment	Business Profile	Risk Profile	Financial Profile				Implied Viability Rating	Viability Rating	Government Support Rating	Issuer Default Rating
			Asset Quality	Earnings & Profitability	Capitalisation & Leverage	Funding & Liquidity				
	20%	10%	20%	15%	25%	10%	aaa	aaa	aaa	AAA
							aa+	aa+	aa+	AA+
							aa	aa	aa	AA
							aa-	aa-	aa-	AA- Sta
							a+	a+	a+	A+
							a	a	a	A
							a-	a-	a-	A-
							bbb+	bbb+	bbb+	BBB+
							bbb	bbb	bbb	BBB
							bbb-	bbb-	bbb-	BBB-
							bb+	bb+	bb+	BB+
							bb	bb	bb	BB
							bb-	bb-	bb-	BB-
							b+	b+	b+	B+
							b	b	b	B
							b-	b-	b-	B-
							ccc+	ccc+	ccc+	CCC+
							ccc	ccc	ccc	CCC
							ccc-	ccc-	ccc-	CCC-
							cc	cc	cc	CC
							c	c	c	C
							f	f	ns	D or RD

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 business profile score of 'aa-' is above the 'a' category implied score for the following adjustment reason: business model (positive).

The earnings and profitability score of 'a' is above the 'bbb' category implied score for the following adjustment reason: earnings stability (positive).

The capitalisation and leverage score of 'aa-' is above the 'a' category implied score for the following adjustment reason: leverage and risk-weight calculation (positive).

The funding and liquidity score of 'aa' is above the 'a' category implied score for the following adjustment reason: deposit structure (positive).

## Financials

### Financial Statements

	31 Dec 22		31 Dec 21	31 Dec 20	31 Dec 19
	Year end (USDm)	Year end (EURm)	Year end (EURm)	Year end (EURm)	year end (EURm)
<b>Summary income statement</b>					
Net interest and dividend income	21,914	20,546	18,232	18,272	18,185
Net fees and commissions	9,222	8,646	8,675	7,439	7,092
Other operating income	-5,182	-4,858	1,610	1,709	3,665
Total operating income	25,955	24,334	28,517	27,420	28,942
Operating costs	20,350	19,079	18,577	18,036	18,142
Pre-impairment operating profit	5,605	5,255	9,940	9,384	10,800
Loan and other impairment charges	1,454	1,363	-337	2,327	832
Operating profit	4,151	3,892	10,277	7,057	9,968
Other non-operating items (net)	n.a.	n.a.	245	159	211
Tax	1,909	1,790	3,017	2,189	3,133
Net income	2,242	2,102	7,505	5,027	7,046
Other comprehensive income	-5,494	-5,151	133	377	1,055
Fitch comprehensive income	-3,252	-3,049	7,638	5,404	8,101
<b>Summary balance sheet</b>					
<b>Assets</b>					
Gross loans	1,066,532	999,937	944,028	890,576	844,552
Loan loss allowances	10,517	9,860	9,170	9,830	9,119
Net loans	1,056,016	990,077	934,858	880,746	835,433
Interbank	48,100	45,097	15,794	19,651	22,439
Derivatives	20,137	18,880	19,695	29,443	25,232
Other securities and earning assets	401,981	376,881	411,846	399,375	390,104
Total earning assets	1,526,235	1,430,935	1,382,193	1,329,215	1,273,208
Cash and due from banks	125,820	117,964	156,973	120,961	87,421
Other assets	34,350	32,205	27,285	25,715	23,459
Total assets	1,686,405	1,581,104	1,566,451	1,475,891	1,384,088
<b>Liabilities</b>					
Customer deposits	1,101,649	1,032,861	984,926	937,876	880,398
Interbank and other short-term funding	192,434	180,418	207,032	170,802	156,316
Other long-term funding	88,377	82,859	77,280	75,071	46,793
Trading liabilities and derivatives	30,069	28,191	21,932	32,589	54,896
Total funding and derivatives	1,412,529	1,324,329	1,291,170	1,216,338	1,138,403
Other liabilities	137,794	129,190	145,720	137,725	129,525
Preference shares and hybrid capital	249	233	176	246	204
Total equity	135,834	127,352	129,385	121,582	115,956
Total liabilities and equity	1,686,405	1,581,104	1,566,451	1,475,891	1,384,088
Exchange rate		USD1 = EUR0.937559	USD1 = EUR0.884173	USD1 = EUR0.821963	USD1 = EUR0.89015

Source: Fitch Ratings Fitch Solutions, Genossenschaftliche FinanzGruppe

## Key Ratios

	31 Dec 22	31 Dec 21	31 Dec 20	31 Dec 19
<b>Ratios (annualised as appropriate)</b>				
<b>Profitability</b>				
Operating profit/risk-weighted assets	0.5	1.4	1.0	1.5
Net interest income/average earning assets	1.5	1.3	1.4	1.5
Non-interest expense/gross revenue	78.7	65.1	65.8	63.2
Net income/average equity	1.6	6.0	4.2	6.3
<b>Asset quality</b>				
Growth in gross loans	5.9	6.0	5.5	6.2
Loan impairment charges/average gross loans	0.1	-0.1	0.3	0.1
<b>Capitalisation</b>				
Common equity Tier 1 ratio	15.1	15.1	15.3	13.6
Tangible common equity/tangible assets	8.0	8.2	8.2	8.2
Basel leverage ratio	7.4	8.0	8.0	7.0
<b>Funding and liquidity</b>				
Gross loans/customer deposits	96.8	95.9	95.0	95.9
Gross loans/customer deposits + covered bonds	92.2	91.2	90.5	91.7
Liquidity coverage ratio	158.5	160.1	177.6	174.3
Customer deposits/total non-equity funding	79.5	77.4	78.9	79.0

Source: Fitch Ratings Fitch Solutions, Genossenschaftliche FinanzGruppe

## Support Assessment

Commercial Banks: Government Support	
Typical D-SIB GSR for sovereign's rating level (assuming high propensity)	A+ to A-
Actual jurisdiction D-SIB GSR	ns
<b>Government Support Rating</b>	<b>ns</b>
<b>Government ability to support D-SIBs</b>	
Sovereign Rating	AAA/ Stable
Size of banking system	Negative
Structure of banking system	Neutral
Sovereign financial flexibility (for rating level)	Positive
<b>Government propensity to support D-SIBs</b>	
Resolution legislation	Negative
Support stance	Negative
<b>Government propensity to support bank</b>	
Systemic importance	Neutral
Liability structure	Neutral
Ownership	Neutral

The colours indicate the weighting of each KRD in the assessment.

■ Higher influence
 ■ Moderate influence
 ■ Lower influence

GFG's Government Support Rating (GSR) of 'no support' reflects our view that extraordinary sovereign support for EU banks is possible but cannot be relied on because of the Bank Recovery and Resolution Directive and the Single Resolution Mechanism's resolution tools and mechanisms. It is likely that senior creditors will be required to participate in losses, if necessary, instead of, or ahead of, the group receiving sovereign support.

## Subsidiaries and Affiliates

DZ BANK's subsidiaries' issuer and debt ratings are sensitive to a change in DZ BANK's issuer or debt ratings.



Environmental, Social and Governance Considerations

FitchRatings Genossenschaftliche FinanzGruppe

Banks  
Ratings Navigator

Credit-Relevant ESG Derivation

Genossenschaftliche FinanzGruppe has 5 ESG potential rating drivers ➔ Genossenschaftliche FinanzGruppe 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.	key driver	0	issues	5	
	driver	0	issues	4	
	potential driver	5	issues	3	
	not a rating driver	4	issues	2	
		5	issues	1	

Environmental (E)

General Issues	E Score	Sector-Specific Issues	Reference	E Scale
GHG Emissions & Air Quality	1	n.a.	n.a.	5
Energy Management	1	n.a.	n.a.	4
Water & Wastewater Management	1	n.a.	n.a.	3
Waste & Hazardous Materials Management; Ecological Impacts	1	n.a.	n.a.	2
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

**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 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 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.

Social (S)

General Issues	S Score	Sector-Specific Issues	Reference	S Scale
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
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

**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 (SASB).

**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	G Scale
Management Strategy	3	Operational implementation of strategy	Business Profile (incl. Management & governance)	5
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
Group Structure	3	Organizational structure; appropriateness relative to business model; opacity; intra-group dynamics; ownership	Business Profile (incl. Management & governance)	3
Financial Transparency	3	Quality and frequency of financial reporting and auditing processes	Business Profile (incl. Management & governance)	2
				1

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', 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 [www.fitchratings.com/topics/esg/products#esg-relevance-scores](http://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: <https://www.fitchratings.com/understandingcreditratings>. In addition, the following <https://www.fitchratings.com/rating-definitions-document> 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 <https://www.fitchratings.com/site/regulatory>. 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 forecasts of financial and other information are inherently forward-looking and embody assumptions and predictions about future events that by their nature cannot be verified as facts. As a result, despite any verification of current facts, ratings and forecasts can be affected by future events or conditions that were not anticipated at the time a rating or forecast was issued or affirmed. Fitch Ratings makes routine, commonly-accepted adjustments to reported financial data in accordance with the relevant criteria and/or industry standards to provide financial metric consistency for entities in the same sector or asset class.

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 annual fee. Such fees are expected to vary from US\$10,000 to US\$1,500,000 (or the applicable currency equivalent). The assignment, publication, or dissemination of a rating by Fitch shall not constitute a consent by Fitch to use its name as an expert in connection with any registration statement filed under the United States securities laws, the Financial Services and Markets Act of 2000 of the United Kingdom, or the securities laws of any particular jurisdiction. Due to the relative efficiency of electronic publishing and distribution, Fitch research may be available to electronic subscribers up to three days earlier than to print subscribers.

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.

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.