

Pacific LifeCorp

And Operating Subsidiaries

Key Rating Drivers

Strong Business Profile: Pacific LifeCorp, along with its insurance subsidiaries (collectively referred to as PLC), is one of the leading providers of individual life insurance and retirement savings products in the U.S. The company maintains a strong competitive position within the affluent market and benefits from an extensive distribution network. PLC has made meaningful progress in diversifying its revenues and earnings away from legacy variable annuities (VAs).

Very Strong Statutory Capital: Fitch Ratings views the capitalization of Pacific Life Insurance Company (PLIC), PLC's key operating subsidiary, as very strong based on its RBC ratio of 586% at YE 2021 and a Prism score of 'Very Strong' at YE 2020. PLIC's total adjusted capital (TAC) increased 6% through YE 2021 to \$12.6 billion. PLC's financial leverage ratio dropped modestly to 18%. PLC's total financing and commitments (TFC) ratio was flat at 0.9x at YE 2021 compared with YE 2020.

Reduced RBC Volatility: PLC diversified and de-risked its product portfolio and strengthened its VA hedging program, which should diminish its capital impact from significant equity market deterioration. The company also reinsures a portion of its VA business to third-party reinsurers.

Strong Earnings: In 2021, Pacific Mutual Holding Company reported net income of \$1.102 billion, up from a loss of \$671 million in 2020. The results reflect strong investment performance, offset by assumption changes and higher claims due to the pandemic.

Moderate Investment Risk: Fitch views the overall quality of PLC's investment portfolio as generally good, but notes the company's above-average exposure to corporate bonds rated 'BBB' could have a material effect on earnings and capital in a severe credit market downturn. PLC also maintains material exposure to commercial mortgage loans, although Fitch believes the company has substantial headroom for losses as a result of pandemic-related disruptions.

Macroeconomic Environment: Sustained macroeconomic disruptions, including sustained equity market volatility, rapidly rising interest rates, and the potential for increased credit losses and impairments would have a negative, but modest, impact on PLC, although Fitch does not expect a material impact to either earnings or capital over the near term.

Rating Sensitivities

Upgrade Sensitivities: Factors that can lead to a positive rating action include a material change in the business risk profile that indicates a risk appetite lower than the life insurance sector as a whole, an ROE above 10%, financial leverage of 15% or less, or a TFC ratio of 0.8x or below.

Downgrade Sensitivities: A negative rating action could occur if deterioration in capitalization is demonstrated by a Prism capital model score below 'Very Strong' or significant earnings and capital volatility, such as a 10% or more drop in TAC, an increase in financial leverage above 20%, or a TFC ratio above 1.2x

Short-Term Ratings: The short-term ratings could be downgraded if the corresponding long-term ratings are downgraded. The short-term ratings could also be downgraded if either of PLC's short-term-debt service and financial flexibility or short-term-asset/liability and liquidity management scores fall below 'aa'.

Ratings

Pacific LifeCorp

IDR A
Senior Unsecured Debt APacific Life Insurance Company
Pacific Life & Annuity Company
Pacific Life Re Limited
Insurer Financial Strength AA-

Outlook

Stable

Financial Data

Pacific LifeCorp		
(\$ Mil.)	2020	2021
Total Assets	190,672	209,486
Shareholders' Equity	17,094	16,615
Net Income	(671)	1,102
Operating ROE (%)	1.6	7.7
Financial Leverage Ratio (%)	19	18

Note: Reported on a GAAP basis. Source: Fitch Ratings, Pacific LifeCorp.

Applicable Criteria

Insurance Rating Criteria (November 2021)

Related Research

U.S. Life Insurance GAAP Results Dashboard: YE 2021 (February 2022)

Fitch Ratings 2022 Outlook: U.S. Life Insurance (December 2021)

VA Statutory Framework (December 2021)

Analysts

Douglas Baker

+1312368-3207

douglas.baker@fitchratings.com

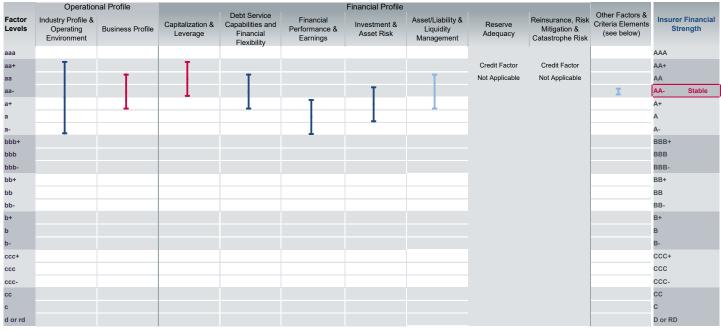
Yevgeniya Goldenberg

+1646582-3630

yevgeniya.goldenberg@fitchratings.com



Key Credit Factors — Scoring Summary



Other Factors & Criteria Elements				
Provisional Insurer Financial Streng	jth			A-
Non-Insurance Attributes	Positive	Neutral	Negative	+0
Corporate Governance & Management	Effective	Some Weakness	Ineffective	+0
Ownership	Positive	Neutral	Negative	+0
Transfer & Convertibility / Country Ceiling	Yes	No	AAA	+0
Insurer Financial Strength (IFS)			Final:	A-
IFS Recovery Assumption	Good			-1
Issuer Default Rating (IDR)			Final:	BBB+

Bar Chart Legend Vertical Bars = Range of Rating Factor Bar Colors = Relative Importance Higher Influence Moderate Influence Lower Influence Bar Arrows = Rating Factor Outlook ↑ Positive ↓ Negative ↓ Evolving □ Stable

Latest Developments

- Fitch believes that the impact to PLC will be minimal, despite an expectation of modest adverse mortality experience related to the coronavirus pandemic in 2022.
- While PLC maintains no direct exposure to industries affected by the conflict in Ukraine, sustained macroeconomic disruptions may have a limited negative impact on the company.

Peer Comparison

Click here for a report that shows a comparative peer analysis of key credit factor scoring.

Industry Profile and Operating Environment (IPOE)

Click here for a link to a report that summarizes the main factors driving the above IPOE score.



Company Profile

Favorable Business Profile

PLC is a well-diversified company, with substantial size and competitive positioning, all attributes Fitch views as "favorable" (i.e. consistent with the 'AA' rating category). These favorable attributes are partially offset by a "moderate" (i.e. consistent with the 'A' rating category) business risk profile. Fitch believes PLC's business risk profile is improving as more volatile product lines are replaced with less volatile products. Overall, Fitch considers PLC's business profile to be favorable.

PLC has a substantive business franchise with many competitive advantages. The company ranks among the 20 largest U.S. life insurers, measured in terms of admitted assets or surplus. PLC's YE 2021 total assets were \$186 billion while surplus exceeded \$11 billion. PLC is a top 10 U.S. annuity writer, scoring in the top 10 for VAs and fixed annuities (FAs). PLC is also a top-10 writer of individual life insurance. The company has a solid competitive position in the affluent and emerging affluent markets, and is establishing a presence in the middle market.

Fitch considers PLC's risk appetite to be on par with the industry as a whole. In recent years, the company changed its focus to more established, less volatile, lines of business.

PLC has diversified its product portfolio by reducing its exposure to legacy VAs with more feature-rich guarantee riders and increasing its emphasis on FAs, investment-only VAs and indexed universal life (IUL) products, as well as growing its institutional and life reinsurance business. PLC's life insurance sales are predominantly IUL, followed by variable UL and life insurance with long-term care benefits. Universal life with no-lapse guarantee (ULNLG) sales account for only a minimal amount of total life sales. PLC's institutional business offers pension risk transfer, institutional annuities, stable value and institutional investment products.

Fitch believes PLC is well diversified by business line, geography and distribution channel. PLC focuses on diverse, third-party, independent distribution channels as opposed to captive distribution. In addition to direct sales of products in the U.S. market, Pacific Life Re Limited (PLRL), a wholly owned subsidiary of PLC, reinsures mortality, morbidity and longevity risks primarily in Europe, Asia and Australia.

Favorable/Moderate Corporate Governance

Overall Fitch scores PLC's corporate governance and management as favorable/moderate and as such does not make any adjustments to the company's business profile score when scoring company profile. PLC's group structure is in line with industry norms, and related-party transactions are relatively limited and in line with the broader industry. PLC's governance structure is in line with peers and encompasses industry best practices regarding board independence and structure.

The company files statutory statements regularly with its state regulators and also publishes audited annual GAAP financials to its public website. Additionally, there are no outstanding criminal or civil legal issues that affect Fitch's view of corporate governance and management.

Ownership

PLC is an intermediate holding company formed in 1997 as the result of the conversion of PLIC to a mutual holding company structure. PLC is owned by Pacific Mutual Holding Company, a mutual holding company formed as a part of the conversion. Pacific Mutual Holding Company must always own at least 51% of PLC, and PLC must always own 100% of PLIC.

Fitch believes a mutual ownership structure has fewer conflicts in owner and creditor interest and generally has allowed management to hold more conservative levels of capital. During the financial crisis, mutual insurers generally benefited from having a stronger capital buffer than stock insurers more focused on growth and return targets.



Capitalization and Leverage

Capitalization and Leverage Remain Very Strong

PLC's insurance subsidiaries are very strongly capitalized on a statutory basis. Financial leverage is consistent with the rating category.

The statutory capitalization of PLC's insurance subsidiaries exceeds expectations for the rating level. As of Dec. 31, 2021, the company reported TAC of \$12.6 billion, representing a four-year CAGR of 6.1%. This was primarily driven by improved operating results and unrealized investment gains. The company's Prism capital model score was 'Very Strong' based on YE 2020 data.

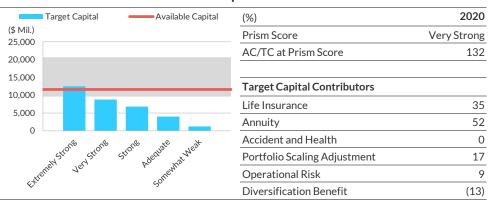
Fitch views PLC's financial leverage as consistent with rating expectations. Financial leverage is comprised of \$1.3 billion of surplus notes issued by PLIC and \$1.7 billion of senior notes issued by PLC. As of Dec. 31, 2021, the ratio of surplus notes to TAC was 10%, below Fitch's tolerance of 15%. As a result, the ratings on the surplus notes reflect standard notching.

PLC's TFC ratio of 0.9x at YE 2021 was flat relative to 2020. PLC's TFC ratio declined substantially at YE 2019 following the sale of its aircraft leasing subsidiary Aviation Capital Group (ACG). The TFC ratio also includes \$1.737 billion of financing instruments outstanding for Pacific Alliance Reinsurance Company of Vermont (PAR Vermont), PLRL and Pacific Baleine Reinsurance Company.

Fitch Expectations

- Financial leverage is expected to decrease modestly in the near to intermediate term due to growth in shareholders' equity.
- TFC is expected to remain below 1x in the near term.

2020 Prism Score — Pacific Life Corp.



AC – Available capital. TC – Target capital. Note: Shaded area represents the high and low of AC due primarily to unrealized bond gains and surplus notes.

Source: Fitch Ratings.

Financial Highlights

(\$ Mil.)	2020	2021
Total Adjusted Capital	11,842	12,561
RBC (%)	628	586
Asset Leverage (x)	14	15
Operating Leverage (x)	8	8
Financial Leverage (%)	19	18

Note: Reported on a statutory basis, except financial leverage, which is GAAP basis. Sources: Fitch Ratings, Pacific LifeCorp, S&P Global Market Intelligence.



Debt Service Capabilities and Financial Flexibility

Strong Coverage and Adequate Financial Flexibility

PLC's interest coverage is in line with expectations. The company has adequate financial flexibility and limited refinancing risk. Backup liquidity is in place.

PLC's GAAP interest coverage is strong for the current rating level, in the 9x–10x range. Based on statutory dividend rules, PLIC's maximum dividend capacity to its parent without regulatory approval in 2022 is \$769 million, which Fitch considers to be a very strong source of debt-servicing capability. Additionally, PLC targets holding company cash levels equivalent to at least 2x interest expense, which Fitch views favorably.

Given its ownership structure, Fitch views PLC's future financial flexibility as somewhat constrained given the limited access to external equity capital. The company has demonstrated the ability to access debt markets through its issuance of surplus notes and senior debt.

PLC has no near-term refinance risk, with the majority of its debt maturing after 2030. The company's next debt maturity is \$134 million of surplus notes due 2023. Other liquidity sources include a \$1 billion revolving credit facility in place through 2026.

PLIC maintains a \$700 million CP program, which is backed by the \$1.0 billion credit facility. As of Dec. 31, 2021, there were no outstanding borrowings under these facilities. The insurance companies have access to funding from the Federal Home Loan Banks (FHLB) of Topeka and San Francisco.

Fitch Expectations

- GAAP interest coverage will be in the 8x-10x range.
- Statutory interest coverage will remain above the median ratio guideline for a company rated 'AA-'.

Financial Performance and Earnings

Less Volatile Earnings Profile

PLC's product diversification reduces earnings volatility. The company has a sizable, but shrinking, legacy VA block of business.

Fitch views PLC's earnings profile as moderate and in line with rating guidelines at the current level. The company's earnings remain exposed to market volatility and low interest rates remain a modest drag on returns. However, business growth in less market-sensitive products and businesses and enhanced hedging strategies reduce earnings volatility. Fitch expects earnings levels to be constrained by hedging costs and lower investment yields. GAAP ROE is expected to remain in the 6%–8% range in the intermediate term. For 2021, PLC reported a GAAP operating ROE of 7.7% benefiting from strong returns on the company's alternative investment portfolio.

Longer term, Fitch expects PLC's policyholder account balances to become more balanced between interest rate, mortality and equity market risk. PLC remains focused on growing protection risk through primary insurance or reinsurance and increasing fee-based revenue by growing its asset management business.

PLC's large VA exposure contributed to GAAP and statutory earnings volatility during prior years, due to reserve increases associated with equity market volatility and declining interest rates. Fitch believes risk mitigation practices will limit losses in a severe scenario.

Fitch Expectations

• Fitch expects volatility in operating results in the short term. In the longer term, operating return on TAC is forecast to remain in the 8%–11% range and ROE on a GAAP basis is forecast to be in the 7%–9% range.

Financial Highlights

(\$ Mil.)	2020	2021
Adjusted Interest Expense	128	145
GAAP Interest Coverage (x)	3.1	9.6
Maximum Statutory Dividend Capacity	769	769
Statutory Interest Coverage (x)	6.0	5.3

Note: GAAP interest coverage consists of pretax operating earnings before interest divided by adjusted interest expense. Statutory interest coverage consists of maximum statutory dividend capacity divided by adjusted interest expense, less interest paid on surplus notes. Adjusted interest expense excludes loss on debt extinguishment and interest on operating debt, match-funded and Aviation Capital Group debt. Source: Fitch Ratings, Pacific LifeCorp.

Debt Maturities

(\$ Mil., as of Dec. 31, 2021)	
2022	0
2023	134
2024 and Later	2,871
Total	3,005

Source: Fitch Ratings, Pacific LifeCorp.

Financial Highlights

(\$ Mil.)	2020	2021
Pretax Gain from Operations	264	1,244
Core Operating Income	209	983
Operating ROE	1.6	7.7
Operating Return on TAC (%)	(0.1)	(6)
Growth in Revenue Before Realized Gains (%)	(7)	20

TAC – Total adjusted capital. Note: Reported on a statutory accounting basis. Source: Fitch Ratings, Pacific LifeCorp, S&P Global Market Intelligence.



Investment and Asset Risk

Moderate Investment Risk

PLC has a high-quality corporate bond portfolio and below-average risky assets. PLC's commercial mortgages and real estate investments continue to perform well despite pandemic-related volatility.

PLC's bond portfolio is heavily weighted toward corporates with only a modest amount of the portfolio invested in below-investment-grade securities. PLC's above-average exposure to corporate bonds rated 'BBB' make it susceptible to credit migration in a market downturn. Fitch believes the corporate portfolio is well diversified between sectors.

PLC's investment strategy for commercial mortgage loans and real estate emphasizes niche property types, exhibiting stable fundamental characteristics and allow PLC to employ conservative underwriting standards. PLC's largest exposures within the commercial mortgage portfolio are apartment and office buildings, and retail and capital losses as a percentage of mortgage assets remain lower than the industry. Fitch believes the company has substantial headroom for losses as a result of pandemic-related disruptions. Fitch believes the portfolio is well managed and diversified by property type.

PLC's risky asset ratio is nearly half of the life insurance industry, reflecting below-average exposure to equities; below-investment-grade bonds; and Schedule BA assets, including private equity investments and hedge funds. PLC's risky asset ratio increased in 2021 after declining materially at YE 2019 following the sale of ACG, which was recorded in the statutory financial statements as a Schedule BA asset. The company's investment strategy largely reflects asset/liability management (ALM) considerations.

Fitch Expectations

- No significant changes are expected in PLC's investment portfolio.
- Credit-related losses are forecast to remain below long-term averages. PLC's investment yield volatility is due to derivative accounting for hedges on VA risks.

Asset/Liability and Liquidity Management

Asset/Liability and Liquidity Management Are Very Strong

Fitch positively views the company's strengthened VA hedging program, which should lessen the capital impact and smooth GAAP net income if equity markets experience significant deterioration. The company has a VA dynamic hedging program to reduce GAAP earnings volatility. The company's fixed-indexed annuities hedge program utilizes both static and dynamic hedging.

PLIC uses wholly owned subsidiaries, PAR Vermont and Pacific Baleine, to reinsure certain reserves related to the ULNLG business and takes reserve credits that enhance the company's capital position. Statutory reserves ceded to PAR Vermont are supported by an excess of loss reinsurance arrangement with an unrelated third party. Statutory reserves ceded to Pacific Baleine are supported by a note facility, which is credit enhanced by a third-party reinsurer, and held in a reinsurance trust for the benefit of PLIC.

Fitch views PLC's ALM practices to be strong. For 2020 cash flow testing, both insurance operating companies passed all "New York 7" interest rate scenarios. As of Dec. 31, 2020, the company's net duration mismatch in aggregate was just under one year, within its target limit of less than 1.5 years.

Fitch believes PLC's fixed products are well protected against product withdrawal risks due to contract provisions, duration and cash flow matching, and disciplined investment processes. Approximately 85% of the company's general account annuity reserves and deposit liabilities are subject to market value adjustments, surrender charges equal to or above 5%, or not subject to discretionary withdrawal, discouraging surrender and protecting PLC from liquidity risks.

Fitch Expectations

 PLC's liquidity metrics will remain strong and operating cash flow coverage will remain extremely strong.

Financial Highlights

	•	
	2020	2021
Cash and Invested Assets (\$ Mil.)	97,293	108,385
Below-Investment-Grade Bonds/TAC (%)	33	37
Risky Assets Ratio (%)	69	81
Investment Yield (%)	3.6	3.4
Average NAIC Rating on Bonds	1.7	1.7

TAC – Total adjusted capita. Note: Reported on a statutory accounting basis.
Source: Fitch Ratings, Pacific LifeCorp, S&P
Global Market Intelligence.

Financial Highlights

(%)	2020	2021
Liquidity Ratio	60	56
Operating Cash Flow Coverage (x)	1.3	1.3
Public Bonds/Total Bonds	56	53
Total Adjusted Liabilities (\$ Mil.)	155,119	173,588

Note: Reported on a statutory accounting basis. Source: Fitch Ratings, Pacific LifeCorp, S&P Global Market Intelligence.



Appendix A: Other Ratings Considerations

Below is a summary of additional ratings considerations that are part of Fitch's ratings criteria.

Group Insurer Financial Strength Rating Approach

Fitch's rating on Pacific Life & Annuity Company (PL&A) is based on the relationship with PLIC, and reflects Fitch's view that PL&A is a Core operating company within the organization. The two entities share common management, resources and branding.

PLC owns London-based PLRL. To help support PLRL, a guarantee agreement exists between PLRL and PLC. In the agreement, obligations of PLRL align with the senior unsecured obligations of PLC. A second guarantee agreement was put in place between PLIC and PLRL in March 2010 that would only be triggered in the event of nonperformance by both PLRL and PLC. PLRL's ratings are tied to PLIC's ratings based on this support agreement.

Notching

For notching purposes, the regulatory environment of the U.S. is assessed by Fitch as being Effective and classified as following a Ring-Fencing approach.

Notching Summary

IFS Ratings

A baseline recovery assumption of Good applies to the IFS rating, and standard notching was used from the IFS "anchor" rating to the operating company IDR.

Holding Company IDR

Standard notching was applied between the insurance operating company and holding company IDRs for a ring-fenced regulatory environment. No adjustments were made for financial leverage, coverage or significant holding company liquidity.

Holding Company Debt

A baseline recovery assumption of Below Average and nonperformance risk of Minimal were applied to the senior unsecured debt. Standard notching relative to the IDR was used.

Hybrids

Since PLIC's financial leverage ratio is below 15%, its surplus notes were notched down by one from the IDR of the insurance company on an assumption of Below Average recoveries (one notch), and Minimal nonperformance risk (zero notches). Regulators historically have appeared hesitant to impose deferrals on these instruments, except under relatively severe stress.

IFS – Insurer Financial Strength. IDR – Issuer Default Rating.

Short-Term Ratings

The holding company Short-Term Issuer Default Rating (IDR) was notched using standard longterm and short-term rating equivalencies, per Fitch criteria. The CP program is supported by bank backup facilities.

The operating company's Short-Term IDR was notched using standard long-term and short-term ratings equivalencies, per Fitch criteria.

Hybrids Treatment

Hybrid	Amount (\$ Mil.)	CAR Fitch (%)	CAR Reg. Override (%)	FLR Debt (%)
Pacific Life Insurance Company				
Surplus Notes	1,268	0	100	100

CAR – Capitalization ratio: FLR – Financial leverage ratio. Note: CAR % shows portion of hybrid value included as available capital, both before (Fitch %) and the regulatory override. FLR % shows portion of hybrid value included as debt in numerator of leverage ratio.

Source: Fitch Ratings.

Transfer and Convertibility Risk (Country Ceiling)

None.

Criteria Variations

None.



Appendix B: Environmental, Social and Governance Considerations

Insurance Ratings Navigator Life Insurance (US) **Fitch**Ratings Pacific LifeCorp Credit-Relevant ESG Derivation Overall ESG Scale Pacific LifeCorp has 6 ESG potential rating drivers Pacific LifeCorp has exposure to compliance risk; treating customers fairly; pricing transparency; privacy/data security, legal/regulatory fines; exposure to own cyber risk but this has very low impact on the rating. key driver 0 issues 0 🍅 Pacific LifeCorp has exposure to social responsibility and its effect on brand strength; increased vulnerability due to credit concentrations but this has very low impact on the rating. Governance is minimally relevant to the rating and is not currently a driver 6 potential driver 2 2 not a rating drive 6 issues

General Issues	E Score	Sector-Specific Issues	Reference	E Sc	ale
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 mpacts	1	n.a.	n.a.	2	
Exposure to Environmental mpacts		Impact of extreme weather events/natural catastrophes on operations or asset quality; credit concentrations	Financial Performance & Earnings; Investment & Asset Risk	1	

Social (S)					
General Issues	S Score	Sector-Specific Issues	Reference		S Scale
Human Rights, Community Relations, Access & Affordability	1	n.a.	n.a.	5	
Customer Welfare - Fair Messaging, Privacy & Data Security		Compliance risk; treating customers fairly; pricing transparency; privacy/data security; legal/regulatory fines; exposure to own cyber risk	Industry Profile & Operating Environment; Business Profile	4	
Labor Relations & Practices		Impact of labor negotiations, including board/employee compensation and composition	Corporate Governance & Management	3	
Employee Wellbeing	1	n.a.	n.a.	2	
Exposure to Social Impacts		Social responsibility and its effect on brand strength; increased vulnerability due to credit concentrations	Business Profile; Investment & Asset Risk; Financial Performance & Earnings; Reinsurance, Risk Mitigation & Catastrophe Risk	1	

Governance (G)				
General Issues	G Score	Sector-Specific Issues	Reference	G Scale
Management Strategy	3	Operational implementation of strategy	Corporate Governance & Management; Business Profile	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	Corporate Governance & Management	4
Group Structure	3	Organizational structure; appropriateness relative to business model; opacity; intra-group dynamics; ownership	Corporate Governance & Management; Ownership	3
Financial Transparency	3	Quality and timing of financial reporting and auditing processes	Corporate Governance & Management	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 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 sisues that are drivers or potential drivers of the issuing entity's credit rating (corresponding with scores of 3, 4 or 5) and provides a brief explanation for the score.

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

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

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 tha 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.

ESG Considerations

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. ESG issues are credit neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.



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

DISCLAIMER & DISCLOSURES

All Fitch Ratings (Fitch) credit ratings are subject to certain limitations and disclaimers. Please read these and disclaimers following this https://www.fitchratings.com/understandingcreditratings. 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 hey 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

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 taxexempt nature or taxability of payments made in respect to any security. Fitch receives fees from issuers, insurers, guarantors, other obligors, $and under writers for rating securities. Such fees generally vary from \, US\$1,000\, to \, US\$750,000\, (or the applicable currency equivalent) per issue.$ 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.

 $Copyright @ 2022 \ by Fitch \ Ratings, Inc., Fitch \ Ratings \ Ltd. \ and its subsidiaries. 33 \ Whitehall \ Street, NY, NY 10004. Telephone: 1-800-753-4824, (212) 908-0500. Fax: (212) 480-4435. \ Reproduction \ or \ retransmission \ in \ whole \ or \ in \ part \ is \ prohibited \ except \ by \ permission. All \ rights \ reserved.$