

Insurance Rating Criteria

Master Criteria

Scope

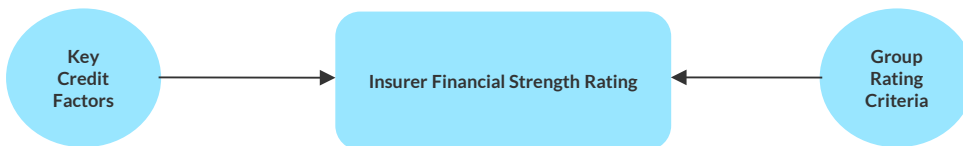
This report specifies Fitch Ratings’ criteria for assigning new and monitored international and national Insurer Financial Strength (IFS) ratings, Issuer Default Ratings (IDRs) and debt/hybrid security ratings, within the global insurance and reinsurance industries. This includes ratings in the non-life (i.e. property/casualty or general insurance), life/annuity, health/managed care, financial guaranty, mortgage and takaful insurance sectors.

Rating Framework

The criteria first covers ratings assigned to insurance operating companies, the most common of which is the IFS rating. IFS ratings cover the ability of the insurer to pay claim obligations in a full and timely manner, and serve as the initial “anchor” against which most other insurance ratings are derived.

IFS ratings are the primary focus of Fitch’s fundamental credit analysis, which is driven by review of up to 11 key credit factors defined in this report. In addition, since many operating companies are a part of larger groups, this report includes guidelines describing how the IFS ratings of certain group members influence the IFS ratings of other group members.

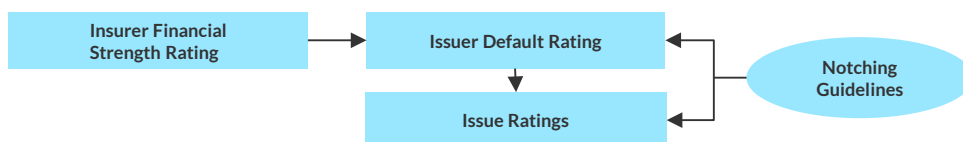
Drivers of Insurer Financial Strength Ratings



Source: Fitch Ratings.

These criteria also cover ratings assigned to debt and hybrid instruments issued by insurance entities, including both holding and operating companies. These are driven by first establishing an IDR for each issuing entity, which are derived from an applicable IFS rating. IDRs then serve as the anchor rating relative to which various classes of debt and hybrid issue ratings are derived. Both the IDR and the various issue ratings are driven by applying notching guidelines defined in these criteria.

Rating Framework – Notching



Source: Fitch Ratings.

These criteria include additional factors that serve to augment the above ratings framework. These include guidelines for Country Ceiling based on transfer and convertibility risk in developing markets, bespoke recovery ratings used to support notching at a lower non-investment-grade level and derivation of short-term ratings.

This report updates and replaces *Insurance Rating Criteria*, dated Nov. 18, 2019.

Applicable Criteria

- [Country-Specific Treatment of Recovery Ratings Criteria \(February 2020\)](#)
- [Country Ceilings Criteria \(July 2019\)](#)
- [Sukuk Rating Criteria \(July 2019\)](#)
- [Insurance-Linked Securities Rating Criteria \(June 2019\)](#)
- [National Scale Ratings Criteria \(July 2018\)](#)

Analysts

EMEA

Harish Gohil
+44 20 3530 1257
harish.gohil@fitchratings.com

North America

Julie Burke
+1 312 368-3158
julie.burke@fitchratings.com

Asia-Pacific

Jeffrey Liew
+852 2263 9939
jeffrey.liew@fitchratings.com

Latin America

Eduardo Recinos
+503 2516 6606
eduardo.recinos@fitchratings.com

Key Credit Factors – Overview and Weighting

The key credit factors listed in the table below form the basis of Fitch’s fundamental credit analysis of an insurance organization, and are used to develop operating company IFS ratings.

Key Credit Factors – Summary

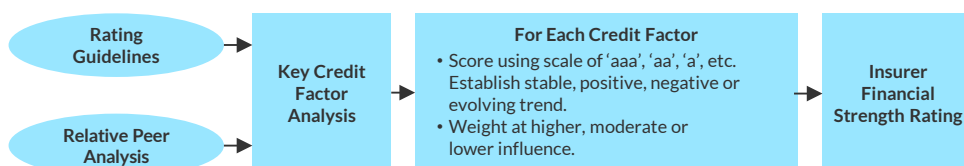
Qualitative	Quantitative
Industry Profile and Operating Environment	Capitalization and Leverage
Business Profile	Debt Service Capabilities and Financial Flexibility
Ownership	Financial Performance and Earnings
Corporate Governance and Management	Investment and Asset Risk ^a Asset/Liability and Liquidity Management ^a Reserve Adequacy ^a Reinsurance, Risk Mitigation and Catastrophe Management ^a

^aFactor does not fully apply or is modestly redefined for some sectors.
Source: Fitch Ratings.

Each key credit factor is evaluated based on application of guidelines by rating category that were established within these criteria, as well as use of peer analysis. Financial ratios and metrics defined within the rating guidelines are differentiated as core and complementary, with core ratios typically receiving greater emphasis.

As depicted in the figure on the next page, Key Credit Factors – Starting Point Weightings, for a given insurance organization, each key credit factor is scored by a rating committee and assigned an indicated forward trend. The weighting of the various factor scores to arrive at the IFS rating is also done by the rating committee.

Key Credit Factors: Rating Committee Analytical Process (Simplified Depiction^a)



^aOwnership and Corporate Governance and Management credit factors follow a different scoring approach.
Source: Fitch Ratings.

The above simplified depiction excludes the impact of group rating criteria and additional considerations, discussed later in this report.

Weighting of Key Credit Factors

The weighting of each key credit factor is determined by rating committees, and such judgments can vary by issuer. Most credit factors are weighted by defining their relative importance to the rating as moderate, lower or higher influence. The most common, or “starting point” weightings, are discussed in the exhibit that follows.

Higher influence is most often used for key credit factors that Fitch believes most define the fundamental credit profile of the given insurer, which often includes Business Profile, Capitalization and Leverage, and Financial Performance and Earnings; and/or cases of unusually strong or weak performance in any of the other credit factor, per above.

Generally, Lower influence is used for credit factors that do not provide a point of distinction for the given insurance organization. For example, Reinsurance, Risk Mitigation and Catastrophe Risk may not be overly important if the mix of business is not exposed to natural catastrophes or other large losses.

Table of Contents

Rating Framework	1
Key Credit Factors	
Overview and Weighting	2
Industry Profile and Operating Environment (IPOE)	5
Business Profile	8
Ownership	12
Corporate Governance and Management	14
Capitalization and Leverage	15
Debt Service Capabilities and Financial Flexibility	21
Financial Performance and Earnings	23
Investment and Asset Risk	26
Asset/Liability and Liquidity Management	28
Reserve Adequacy	30
Reinsurance, Risk Mitigation and Catastrophe Risk	32
Group Rating Criteria	34
Debt/Hybrid Issue Ratings and Notching	40
Bespoke Recovery Rating Analysis	48
Short-Term Ratings	52
Country Ceilings – Transfer and Convertibility Risk	53
Appendix	55
Captive Insurance Companies	68
National Scale Ratings	71
Data Sources, Variations, Limitations and Sensitivities	72

Key Credit Factors – Starting Point Weightings^a

Credit Factor (CF)	Starting Point Weighting	Comments
Industry Profile and Operating Environment	Moderate	Establishes a broad, baseline rating range for the insurance sector/region as a whole, and typically receives Moderate weighting. Can be Higher in below-investment-grade countries.
Business Profile	Higher	May be Moderate when other CFs are particularly important. Use of Lower is possible, but less common.
Ownership	Lower ^b	Impact is neutral in most cases, but CF can become influential in cases when owner is materially stronger or weaker than the rated subsidiary.
Corporate Governance and Management	Lower ^c	Impact is effective in most cases. Becomes influential if performance on this CF is weak.
Capitalization and Leverage	Higher	May be Moderate when other CFs are important. Use of Lower is possible, but less common.
Debt Service Capabilities and Financial Flexibility	Lower	May be Moderate if performance on this CF is strong or weak. Use of Higher is less common.
Financial Performance and Earnings	Higher	Often plays a key role in higher rated, developed markets, but may be less influential when other CFs are important. In lower rated, developing markets, strong performance may receive less weighting if other risks, such as asset quality, are considered dominant.
Investment and Asset Risk	Lower, if Strong Score Higher, if Weak Score	When asset quality is strong, which is more common in developed markets, the influence of this CF is typically Lower. When asset quality is weak/risky, which is more common in developing markets; the influence of this CF may be Higher. This CF may be Moderate when other CFs are important.
Asset/Liability and Liquidity Management	Lower, if Strong Score Higher, if Weak Score	When liquidity and/or asset/liability management (ALM) is strong, which is more common in developed markets, the influence of this CF is Lower. When liquidity and/or ALM is low/risky (more common in developing markets); the influence of this CF may be Higher. This CF may be Moderate when other CFs are important.
Reserve Adequacy	Moderate	May be Higher when performance on CF is weak. May be Lower when lines of business are not prone to reserving issues (i.e. very short tail).
Reinsurance, Risk Mitigation and Catastrophe Risk	Moderate	May be Higher when business is focused on lines subject to large losses (i.e. property catastrophe), and/or cases when reinsurance usage is unusually high or low compared with peers. May be Lower if risk mitigation is not overly important given business focus.

^aWeightings are Higher, Moderate or Lower. ^bMost common use of neutral scoring suggests Lower weighting. ^cMost common use of effective scoring suggests Lower weighting. Source: Fitch Ratings.

Forward-Looking Credit Factor Scoring

Though the scoring of key credit factors relies heavily upon review of historic financial information, Fitch strives to be forward-looking in its analysis. While this is mainly achieved by assigning indicated trends for each credit factor score, Fitch may also employ forecasting and stress testing techniques. Use of these techniques can materially influence credit factor scoring, per committee judgment.

Forward-Looking Techniques

Forecasting	Stress Testing
<p>Involves development or review of predicted financial statements and related ratios.</p> <p>Can also be less formal and involve development of general expectations for a ratio or metric based on judgment surrounding trends.</p> <ul style="list-style-type: none"> An example would be a Fitch expectation that a ratio will likely not fall outside of a given range. 	<p>Designed to identify the near- to intermediate-term vulnerability of an insurer to specific economic circumstances or events, and may include:</p> <ul style="list-style-type: none"> Investment losses from declining equity markets. Heightened defaults or downward ratings migration of an insurer’s bond portfolio. Potential exposure to reserve deficiencies as the insurance cycle troughs. <p>Done on an ad hoc or “as needed” basis, typically at the beginning of, and during, a period of perceived economic variability.</p> <p>When Fitch is concerned that the scenario defined by a stress test may reasonably occur within the rating horizon, Fitch will adjust credit factors scores to appropriately consider stress test results.</p>

Source: Fitch Ratings.

Forecasting-related analysis is conducted in support of most ratings reviews, and is most often based on reviewing and testing management forecasts, and/or coming to judgments on the expected trend in certain key metrics. Stress testing is less common, and is done on an “as needed” basis. It is most commonly used at the perceived start of an economic slowdown, adverse market turn, or cases when a given company has a particularly notable exposure that a rating committee believes is not otherwise being fully captured by the criteria guidelines.

Non-Insurance Risks/Businesses

At times insurance companies have exposure to or own non-insurance businesses. When applicable and material, Fitch will evaluate any non-insurance-related risks, exposures or businesses based on the applicable Fitch rating criteria, and weigh considerations for non-insurance risks into the ratings on a judgmental basis.

Industry Profile and Operating Environment (IPOE)

Fitch evaluates the relative strengths and weaknesses of an insurer's insurance markets and sectors, and overall operating environment from several perspectives.

Regulatory Oversight

- Development of regulatory practices relative to global standards, including the nature of capital oversight and the supervision/oversight process.
- Relative transparency with respect insurance laws and regulatory practices, including transparency from the perspective of insurer reporting requirements.
- Power and resources afforded the regulator, the enforcement track record, and if there is clarity and consistency in how the enforcement process is executed.
- Focus on pricing and product features, and if it is conducive to insurers being able to earn risk-adjusted returns that exceed their cost of capital.
- Products that are mandated under local laws can add stability to market demand.

Technical Sophistication of Insurance Market; Diversity and Breadth

- Underwriting and actuarial practices from a product and reserving perspective.
- Investment analysis skills.
- System capabilities and market use of enterprise risk management.
- Overall technical capabilities and product sophistication.
- Market penetration rates.

Competitive Profile

- Level of competition, and if conducive to insurers earning adequate returns and achieving reasonable business growth.
- Barriers to entry and the degree of competition from outside the traditional market, or from international sources.

Financial Markets Development

- Depth and liquidity of a country's equity and debt markets, including how well they are developed and the ease by which companies can raise capital.
- Robustness and stability of a country's banking system as well as other private providers of capital.
- The capital market's ability to support an insurer's needs to obtain suitable invested assets from an asset-liability management perspective.

Country Risks

- While not a perfect proxy for country risk, the local currency sovereign rating can constrain the score assigned to IPOE, as described in the following table.

Credit Factor Rating/Scoring Guidelines

	AAA	AA	A	BBB	BB	B
Regulatory Oversight	Highly developed Transparent Very effective enforcement	Very developed Transparent Effective enforcement	Developed Transparent Regular enforcement	Less developed Modest transparency Less consistent enforcement	Developing Limited transparency Limited enforcement	Underdeveloped Minimal transparency Minimal enforcement
Technical Sophistication of Insurance Market; Diversity and Breadth	Highly sophisticated Diverse, extremely deep products	Very sophisticated Diverse, very deep products	Sophisticated Reasonably diverse and deep products	Moderate sophistication Moderately diversity and deep products Moderate penetration	Developing sophistication Mainly simple products Modest penetration	Lacking sophistication Limited, simple products Weak penetration
Competitive Profile	Rational Not overly intense or unmanageable	Mostly rational Some periodic challenges	Rational at times Some challenging periods	Often not rational Often very challenging	Extreme and irrational for extended periods Very challenging	Mostly extreme and irrational Extremely challenging
Financial Market Development	Very deep and highly liquid	Deep and very liquid	Relatively deep and liquid	Developed but not deep	Not fully developed	Development is quite limited
Country Risk	Midpoint of the six-notch score typically capped at the Local Currency Sovereign Rating (i.e. at notch position three or four). As a result, the upper end of the score will be set no higher than two or three notches above the sovereign. This Credit Factor often receives moderate to high weighting for insurers in countries with below investment-grade ratings.					

Country/Sector Credit Factor Scores

Non-Life and Life (Including Composite) by Country

Canada, U.S., Western Europe ^a	←	→				
Australia, Japan, Singapore		←	→			
Hong Kong, Korea, New Zealand, Spain			←	→		
Chile, China, Malaysia, Slovenia			←	→		
Italy, Mexico, Taiwan, Thailand				←	→	
Bulgaria				←	→	
Colombia, Morocco, Peru, Russia, Saudi Arabia, South Africa				←	→	
India, Indonesia, Kazakhstan					←	→
Azerbaijan, Brazil, Uruguay, Turkey					←	→
Africa ^b , Guatemala, Panama, Tunisia, Uzbekistan					←	→
Argentina, Belarus						←
Jamaica, Sri Lanka						←
Barbados, Venezuela						←
Reinsurance – Non-Life/Life (Developed) ^f	←	→				
Title (U.S.)			←	→		
Health (U.S.)			←	→		
Mortgage by Country						
Australia			←	→		
U.S.				←	→	
Financial Guaranty (Developed) ^f			←	→		

^aWestern Europe includes higher rated countries, including Austria, Belgium, Denmark, France, Germany, Luxembourg, Netherlands, Norway, Sweden, Switzerland and the UK.

^bAfrica excludes Morocco, South Africa and Tunisia, which are scored separately. ^cLower end of range extends to 'CCC+'. ^dLower end of range extends to 'CCC+'. ^eLower end of range extends to 'CC'. ^fScoring is shown for (re)insurers and financial guarantors in developed markets and could be pulled down in developing markets to reflect local country and other risks. For insurers, the noted score applies to most Bermuda-based companies with notable reinsurance operations.

Source: Fitch Ratings.

Bespoke IPOE Scores/Geographically Diverse Entities

For insurance companies or groups operating across various sectors or geographies, committees will establish a bespoke IPOE score by appropriately combining the various component market/sector IPOE scores. This will include any perceived diversification benefits as well as any risks in controlling wide-spread operations.

Updates to IPOE Scores

The countries included in the exhibit on the previous page are those for which Fitch has international scale insurance credit ratings in place as of the publication date of this report. If Fitch were to assign an international scale rating to an insurer in a country not appearing in the exhibit, the rating committee would develop an IPOE score for that country as part of the ratings analysis.

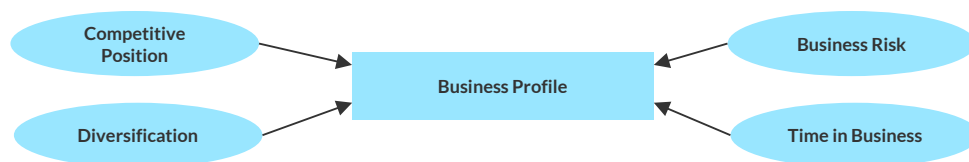
Additionally, if the local currency sovereign rating of any country included in the exhibit changes, the rating committee would update the score for that country, if necessary, as per the capping methodology spelled out above. The updated scores would then be used in support of any ratings review.

In each of the above cases, the new/updated scores would be added to the exhibit and published at the time of the next scheduled routine update to this report. Fitch will also review the current scoring guidelines at least annually in conjunction with its annual criteria review.

Business Profile

The main drivers of business profile are competitive positioning, business risk and diversification. For select companies, the evaluation is also affected for time in business – when less than five years old – in which case the rating can be constrained.

Business Profile Main Drivers



Source: Fitch Ratings.

Competitive Positioning: Considers operating scale, brand strength, franchise value, market share, service and distribution capabilities. Operating scale can directly affect operating efficiency, economies of scale, spread of risk and the ability to reinvest in the business.

Business Risk Profile: Considers the breadth of product offerings; whether products are well established or newly developed; variability of pricing; the stability/incentives of distribution channels; and the extent regulators intervene in product design/features and pricing.

Diversification: Considers variety of business lines, markets, geographies and distribution channels. While diversification is typically a credit positive, seemingly diverse businesses can become correlated in extreme events. Also, diversification into markets without sufficient expertise can lead to severely weaker future performance, and thus be viewed negatively.

Ranking Business Profile

Rankings are done on a relative basis within the cohort of insurers defined by the selected IPOE, based on the guidelines below. The cohort includes insurers both rated and unrated by Fitch. For example, a U.S. medical malpractice writer whose IPOE is U.S. non-life will be ranked relative to all U.S. non-life insurers, not just other medical malpractice writers. A ranking of “moderate” implies an average or typical level within the defined IPOE cohort.

Business Profile – Overall Ranking Guidelines

	Most Favorable	Favorable	Moderate	Less Favorable	Least Favorable
Competitive Positioning					
General	Leading franchise	Substantive franchise	Adequate franchise	Limited franchise	Minimal franchise
<ul style="list-style-type: none"> Franchise Strength Competitive Advantage 	Strong competitive advantages	Some competitive advantages	Limited competitive advantages	Minimal competitive advantages	No competitive advantages
Operating Scale					
	See Accompanying Exhibit on Next Page				
Business Risk Profile	Much lower risk appetite	Lower risk appetite	Average risk appetite	Somewhat higher risk appetite	Higher risk appetite
<ul style="list-style-type: none"> Risk Appetite Business Focus Level of Volatility 	Stable business focus	Reasonably stable business focus	Somewhat less stable business focus	Unstable business focus	Very unstable business focus
	Established, less volatile lines dominate	Established, less volatile lines emphasized	Less established or more volatile lines present	Volatile or less established lines favored	Volatile or less established lines emphasized
Diversification ^a	Very highly diversified	Well diversified	Somewhat diversified	Limited diversification	Very limited diversification.
<ul style="list-style-type: none"> Business Lines Markets Distribution 				May include monoline insurers with some market diversity	May include monoline insurers in very narrow geography
				May include insurers with multiple lines but limited geographic diversity.	May include insurers with other significant limitations

^aFor monoline sectors, such as title, mortgage insurance and financial guaranty, the primary focus is on geographic and distribution-based diversification. The monoline nature of the business lines is already reflected in the Industry Profile and Operating Environment credit factor score. Some consideration will be given, however, for business line diversification achieved through ancillary businesses.

Source: Fitch Ratings.

Operating Scale – Ranking Guidelines

		Most Favorable	Favorable	Moderate	Less Favorable	Least Favorable
Non-Life						
U.S. and Canada	NPW, USD	>23 Bil.	5 Bil.–23 Bil.	1Bil.–4.9 Bil.	200 Mil.–1 Bil.	<200 Mil.
	PHS, USD	>20 Bil.	6.6 Bil.–20 Bil.	1.2 Bil.–6.5 Bil.	200 Mil.–1.1 Bil.	<200 Mil.
	Rank as Writer	Top 5	Top 6–20	Top 21–75	Top 75–200	<Top 200
Europe	GPW, EUR	>15 Bil.	5 Bil.–15 Bil.	1 Bil.–5 Bil.	200 Mil.–1 Bil.	<200 Mil.
	Equity, EUR.	>12 Bil.	4 Bil.–12 Bil.	750 Mil.–4 Bil.	100 Mil.–750 Mil.	<100 Mil.
Russia/Commonwealth of Independent States	GPW, USD	>1 Bil.	200 Mil.–1 Bil.	100 Mil.–200 Mil.	50 Mil.–100 Mil.	<50 Mil.
	Equity, USD	>500 Mil.	300 Mil.–500 Mil.	50 Mil.–300 Mil.	10 Mil.–50 Mil.	<10 Mil.
	Market Share	>15%	5–15%	2–5%	0.5–2%	<0.5%
Asia (Excl. Japan)	NPW, USD	>3.5 Bil.	750 Mil.–3.5 Bil.	100 Mil.–750 Mil.	10 Mil.–100 Mil.	<10 Mil.
	Equity, USD	>4.5 Bil.	750 Mil.–4.5 Bil.	100 Mil.–750 Mil.	10 Mil.–100 Mil.	<10 Mil.
	Market Share	>9%	4%–9%	1%–4%	0.1%–1%	<0.1%
Japan	NPW, JPY	>2.3 Tril.	500 Bil.–2.3 Tril.	100 Bil.–499 Bil.	20 Bil.–90 Bil.	<20 Bil.
	Equity, JPY	>2.0 Tril.	660 Bil.–2 Tril.	120 Bil.–659 Bil.	20 Bil.–110 Bil.	<20 Bil.
Africa/Middle East	GPW, USD	>1 Bil.	400 Mil.–1 Bil.	100 Mil.–400 Mil.	20 Mil.–100 Mil.	<20 Mil.
	Equity, USD	>800 Mil.	200 Mil.–800 Mil.	80 Mil.–200 Mil.	10 Mil.–80 Mil.	<10 Mil.
Latin America (Excl. Brazil)	NPW, USD	>1 Bil.	200 Mil.–1 Bil.	50 Mil.–200 Mil.	10 Mil.–50 Mil.	<10 Mil.
	Equity, USD	>800 Mil.	150 Mil.–800 Mil.	50 Mil.–150 Mil.	10 Mil.–50 Mil.	<10 Mil.
Brazil	NPW, USD	>3.5 Bil.	750 Mil.–3.5 Bil.	100 Mil.–750 Mil.	10 Mil.–100 Mil.	<10 Mil.
	Equity, USD	>1.3 Bil.	500 Mil.–1.3 Bil.	100 Mil.–500 Mil.	10 Mil.–100 Mil.	<10 Mil.
Life						
U.S. and Canada ^a	Assets, USD	>175 Bil.	60 Bil.–175 Bil.	13 Bil.–60 Bil.	1.2 Bil.–13 Bil.	<1.2 Bil.
	TAC, USD	>20 Bil.	6 Bil.–20 Bil.	1.3 Bil.–5.9 Bil.	200 Mil.–1.2 Bil.	<200 Mil.
	Rank as Writer	Top 5	Top 6–20	Top 21–60	Top 61–125	<Top 125
Europe	Assets, EUR	>150 Bil.	50 Bil.–150 Bil.	10 Bil.–50 Bil.	1 Bil.–10 Bil.	<1 Bil.
	Equity, EUR.	>15 Bil.	5 Bil.–15 Bil.	750 Mil.–5 Bil.	100 Mil.–750 Mil.	<100 Mil.
Russia/Commonwealth of Independent States	GPW, USD	>500 Mil.	200 Mil.–500 Mil.	50 Mil.–200 Mil.	10 Mil.–50 Mil.	<10 Mil.
	Assets, USD	>5 Bil.	1 Bil.–5 Bil.	200 Mil.–1 Bil.	100 Mil.–200 Mil.	<100 Mil.
Asia (Excl. Japan)	Assets, USD	>100 Bil.	30 Bil.–100 Bil.	1 Bil.–30 Bil.	100 Mil.–1 Bil.	<100 Mil.
	Equity, USD	>11 Bil.	3 Bil.–11 Bil.	100 Mil.–3 Bil.	10 Mil.–100 Mil.	<10 Mil.
	Market Share	>12%	4%–12%	1%–4%	0.1%–1%	<0.1%
Japan	Assets, JPY	>17.5 Tril.	6 Tril.–17.5 Tril.	1.3 Tril.–5.9 Tril.	120 Bil.–1.29 Tril.	<120 Bil.
	Equity, JPY	>1 Tril.	300 Bil.–1t	65 Bil.–299 Bil.	10 Bil.–64 Bil.	<10 Bil.
	Market Share	>10%	5%–10%	1%–5%	0.2%–1%	<0.2%
Africa/Middle East	Assets, USD	>8 Bil.	1.5 Bil.–8 Bil.	500 Mil.–2.5 Bil.	100 Mil.–500 Mil.	<100 Mil.
	Equity, USD	>2 Bil.	500 Mil.–2 Bil.	150 Mil.–500 Mil.	20 Mil.–150 Mil.	<20 Mil.
Latin America (Excl. Brazil)	Assets, USD	>5 Bil.	2.5 Bil.–5 Bil.	800 Mil.–2.5 Bil.	100 Mil.–800 Mil.	<100 Mil.
	Equity, USD	>600 Mil.	300Mil.–600 Mil.	100Mil.–300 Mil.	10 Mil.–100 Mil.	<10 Mil.
Brazil	Assets, USD	>12 Bil.	3 Bil.–12 Bil.	800 Mil.–3 Bil.	100 Mil.–800 Mil.	<100 Mil.
	Equity, USD	>1.3 Bil.	500 Mil.–1.3 Bil.	100 Mil.–500 Mil.	10 Mil.–100 Mil.	<10 Mil.
Reinsurance Non-Life/Life	NPW, USD	>25 Bil.	15 Bil.–25 Bil.	5 Bil.–15 Bil.	2 Bil.–5 Bil.	<2 Bil.
	Equity, USD	>30 Bil.	10 Bil.–30 Bil.	7 Bil.–10 Bil.	2 Bil.–7 Bil.	<2 Bil.
Title (U.S.) ^b	Revenue, USD		>800 Mil.	300 Mil.–800 Mil.	50 Mil.–299 Mil.	<50 Mil.
Health (U.S.)	MM, USD	>10 Mil.	3.5 Mil.–10 Mil.	1.4 Mil.–3.4 Mil.	360,000–1.3 Mil.	<360,000
	Revenue, USD.	>USD40 Bil.	10 Bil.–40 Bil.	3.2 Bil.–9.9 Bil.	1 Bil.–3.1 Bil.	<1 Bil.
	Rank as Writer	Top 5	Top 6–15	Top 16–40	Top 41–100	<Top 100
Mortgage	Capital, USD	>5 Bil.	2 Bil.–5 Bil.	750 Mil.–2 Bil.	100m–750m	<100 Mil.
	Market Share	>30%	20%–30%	5%–20%	2%–5%	<2%
Financial Guaranty	Capital, USD	>5 Bil.	750 Mil.–5 Bil.	500 Mil.–750 Mil.	250 Mil.–500 Mil.	<250 Mil.
	Revenue, USD	>2 Bil.	300 Mil.–2 Bil.	200 Mil.–300 Mil.	100Mil.–200 Mil.	<100 Mil.

^aIncludes only general account assets. ^bDue to the limited number of notable title insurers in the U.S., differentiation of scoring for operating scale is limited to “Favorable” and below. NPW – Net premiums written. PHS – Policyholders’ surplus. GPW – Gross premiums written. MM – Medical membership. TAC – Total adjusted capital (policyholders’ surplus, asset valuation reserve, half of policyholder dividend obligation).
Source: Fitch Ratings.

The *Operating Scale – Ranking Guidelines* table on the prior page are reviewed annually. The guideline values are derived by Fitch after evaluating market-level distributions within the noted regions and sectors.

Scoring Business Profile

Companies are assigned a final Business Profile ranking between “most favorable” and “least favorable” per the noted guidelines. This is done after Fitch evaluates and weighs each component characteristic. Scoring is per the table on the next page. While guidelines are shown at the rating category level, committees will set scores at the notch level within the rating category guideline.

- Rankings of “favorable” and “moderate” directly aligned with the two-category IPOE range, with “favorable” at the upper half of the range, and “moderate” at the lower half.
- “Most favorable” scores above the upper end of the IPOE range.
- “Less favorable” and “least favorable” score one and two categories below the lower half of the IPOE range.

Time in Business/Runoff: The number of years an insurer actively has been in business, and/or if a company is not actively pursuing new business (i.e. in runoff), can have a material impact on the achievable rating level. Such ratings constraints are defined above. Fitch views a limited track record as elevating business risk profile, reflecting the challenges of executing an unproven business plan, developing operating capabilities and establishing an effective risk control system. These challenges are often more temporary for segments where business is short-tailed, customers are more opportunistic, and significant data is available to evaluate risks (e.g. catastrophe reinsurers.) Corporate governance and ownership factors also play a more important role in the evaluation of a newly formed company. Owners that have limited resources, an aggressive exit strategy, and high return expectations are viewed less favorable in the ratings analysis.

Active companies whose business profile involves buying and then running off blocks of business from third-party insurers are not treated as runoff companies under these criteria.

Credit Factor Scoring Guidelines – Relative to IPOE Credit Factor Score

	Upper Half of IPOE Score Plus One Category	Upper Half of IPOE Score ^a	Lower Half of IPOE Score ^a	Lower Half of IPOE Score Less One Category	Lower Half of IPOE Score Less Two Categories	
Business Profile Rankings						
Most Favorable ^b	←→					
Favorable		←→				
Moderate			←→			
Less Favorable				←→		
Least Favorable					←→	
Additional Adjustments						
Time in Business Constraint	Insurers with less than five years of operating history, or those in runoff, will typically be rated no higher than the ‘BBB’ rating category barring any mitigants, such as parent or group support, when the IPOE Credit Factor Score range is investment grade. In less developed or lower sovereign-rated markets with lower IPOE scores that straddle or fall within non-investment grade, the ratings constraint will be at the lower half of the IPOE score range.					
Potential Mitigation of Country Risk	In some cases the sovereign rating will cause the IPOE score to be constrained due to a sovereign cap applied to the midpoint of the IPOE score range. The committees will consider if there are mitigants that materially reduce the exposure of the business to local country risks, such as material diversification outside of the primary country. In such cases, the Business Profile Score could be set above that implied by the guidelines above to remove an appropriate portion of the pull down embedded in the score for country risk.					

^aUpper/Lower Half of Industry Profile and Operating Environment (IPOE) Score means the following: if IPOE is scored across the ‘AA’ to ‘A’ categories, the upper half is the ‘AA’ category and lower half is ‘A’. If the upper/lower end of the IPOE score straddles two rating categories, then the upper half is the top three notches within the six-notch IPOE score, and the lower half is the bottom three notches. For example, if the IPOE score stated on a notch basis is ‘A-’ to ‘BB’, the upper half is ‘A-’, ‘BBB+’, ‘BBB’ and the lower half is ‘BBB-’, ‘BB+’, ‘BB’.
^bBusiness Profile Credit Factor Scoring for any insurer is limited to no higher than ‘AA+’ across the global insurance industry recognizing the highly competitive nature of the insurance industry. Note: Guidelines above are shown at the rating category (three notches) level. Actual Business Profile Credit Factor Score applied by a committee will be notch-specific within the guideline rating category.

Source: Fitch Ratings.

Mitigation of Country Risk: As noted, in scoring the Business Profile for insurers primarily operating in higher risk countries, committees will consider if there are mitigants in place that materially reduce the exposure to local country risks. Conversely, in cases when an insurer primarily operating in a lower risk country has material operations in a higher risk country(ies), this could negatively affect its Business Profile score.

Takaful – Evaluation of the Business Profile

Business Profile scores for takaful operators use the guidelines outlined in this section, and rankings are made relative to other takaful players and traditional insurance companies in their markets. Since takaful operators do not have a standard global operating model, each structure is reviewed individually, including transferability, accessibility of funds, loss bearing features, fees and split of surplus between the Takaful fund(s).

Unlike conventional insurance, takaful companies must comply with Islamic principles. Fitch does not approve, certify or evaluate Shari'ah compliance, nor does Fitch express an opinion on whether the obligations of a takaful are enforceable under any applicable law. However, Fitch considers the takaful's intention to support its obligations. Hence, Fitch's rating of a takaful reflects the agency's evaluation that the takaful operators would stand behind its respective obligations under the terms of its insurance obligations.

Ownership

Ownership can be neutral, favorable or unfavorable to the insurer’s ratings. In its evaluations, Fitch looks at ownership from the perspective of form, including mutual or stock/public, as well as profile, including bank/financial, industrial corporate, sovereign or supranational.

For purposes of these criteria, ownership is considered from the perspective of the holding company, or top-level insurance operating company within the overall insurance organization. For ownership to potentially influence the insurer’s ratings, the owner has to exercise control. This is almost always the case for 100% ownership, and can exist at less than 100% if there are very strong operational, governance or financial ties. Pacts among minority shareholders can constitute control if recognized legally or overseen by a regulator. Looser associations of shareholders are not sufficient for Fitch to assume control.

Scoring guidelines are highlighted below. If scored at Positive or Negative, a rating committee will judgmentally pull a rating up or down from that implied by the combination of all of the other key credit factors. Rating committees may employ concepts outlined under group rating criteria described later in this report, or support criteria applicable to the parent’s industry, to help inform their judgments on the degree of uplift/pull down.

Ownership – Credit Factor Scoring Guidelines

	Positive	Neutral	Negative
Public and Mutual Ownership ^a		Scored at Neutral; no rating impact.	
Private Ownership			
General	Owner’s credit profile is stronger than the insurer’s and the owner is expected to be supportive of the insurer; degree of rating uplift can vary greatly from case to case.	Owner’s credit profile is comparable with the insurer’s, and owner is not expected to take any materially positive or negative actions toward the insurer; no rating impact.	Owner’s credit profile is lower than the insurer’s rated and/or owner is expected to govern in adverse manner; degree of ratings pull down can vary greatly from case to case.
Sovereign Ownership	Evaluation employs aspects of Group Rating Criteria. Most often sovereign ownership is not considered strategically important and is scored as Neutral. In some cases strategic importance is believed to exist, and is scored Positive with some ratings uplift possible. Uplift is more likely for investment-grade sovereigns.		
Supranational Ownership	Analysts apply the support criteria in Supranationals Rating Criteria.		
Corporate Ownership	Analysts may also consider the support criteria outlined in the criteria applicable to the parent’s industry.		
Bank/Financial Ownership	Analysts may also consider the institutional support approach outlined in Bank Rating Criteria.		
‘AAA’ IFS Rating Limitation	IFS ratings at the ‘AAA’ level are only available under the mutual form of ownership. This is considered in the final rating but is not reflected as an “uplift” in the scoring of the Ownership credit factor for such mutual insurers. However, if a publicly owned stock company would otherwise score as ‘AAA’ but is rated ‘AA+’ due to stock ownership, this will be reflected as a pull-down in its Ownership score.		

^aMutual ownership can affect a rating via scoring applied to various credit factors or subfactors, including Business Profile, Capitalization and Leverage, and Debt Service Capabilities and Financial Flexibility. IFS – Insurer Financial Strength. Source: Fitch Ratings.

Additional discussion of types of ownership follows.

Unrated Owner

If Fitch is unable to fully evaluate the parent company, the insurance organization may be rated based on its Standalone Credit Profile. However, if Fitch has reason to believe the parent relationship could be detrimental to the insurer, such as by operating in a high-risk industry sector or by demonstrating a high-risk strategy, Fitch may impose some constraints on the insurer ratings. In such cases, Fitch will also consider the extent of any regulatory ring-fencing. If information on the parent is too limited, and Fitch is unsure if the insurer will be strongly ring-fenced from the parent, Fitch will not rate the insurer.

Bank Ownership/Financial Conglomerates

In applying the bank support criteria, Fitch will typically assume that a parent bank would have higher propensity to support a bank subsidiary than an insurance subsidiary, especially if the bank is larger. This is due to the relatively more severe consequences on its funding and

liquidity from not supporting the bank. Application of bank support criteria will be tempered in such cases, when appropriate.

Sovereign Ownership

An insurer can be owned directly by a sovereign, such as by the ministry of finance, or indirectly, such as by a holding company or other government body owned by the ministry of finance. The form of ownership is less important than support factors being in place. Sovereign ownership concepts do not apply to cases of temporary government support and related ownership (such as a bailout), but rather when the ownership relationship is expected to be enduring. Additional observations and guidelines follow:

- Sovereign support may exist when a government sponsors the insurer to assure capacity in the market at affordable prices, and/or to help assure overall economic stability.
- When sovereign support is assumed for investment-grade sovereigns, the IFS rating can be aligned with the IDR of the sovereign. At non-investment grade, if uplift is ultimately considered appropriate, it could result in either in the alignment of ratings if the willingness and ability to support is viewed as very strong, or by notching down from the sovereign ratings if there may be some limitations to support.
- For non-investment-grade sovereigns, Fitch generally assumes the sovereign will be more selective in providing support. Support potential will be evaluated based on the insurer's strategic importance to the sovereign compared with other institutions in the country potentially subject to government support.
- When notching down from the rating of the sovereign, the sovereign's local currency IDR is used to set the insurer's local currency IDR, and the sovereign's foreign currency IDR establishes the insurer's foreign currency IDR. Notching between the local or foreign currency IFS rating and operating company IDRs would follow Fitch's typical notching methodology based on recovery assumptions, and any applicable country ceilings.

Supranational Ownership

Criteria detailed in this master insurance criteria report are used to provide the insurer's Standalone Credit Profile, which is also known as the "intrinsic rating" under supranational nomenclature (see [Supranationals Rating Criteria](#)). In applying the supranational support criteria, Fitch notes insurers with supranational ownership, similar to mutual insurers, may feel less pressure to run lean capital positions or add financial leverage in order to meet return on capital targets. Also, in some cases, an insurer owned by a supranational may be exempt from currency exchange controls by its sponsoring governments, which could relieve transfer and convertibility risks (and country ceilings) discussed later.

Corporate Governance and Management

The governance and management of an insurance organization can influence all of the other key credit factors discussed in this section. Accordingly, Fitch’s evaluation of management and governance overlaps with its evaluation of a company’s overall fundamental credit profile.

Good governance practices will not increase a rating, all other factors being equal. However, more limited governance practices, including either jurisdictional or issuer-specific issues, can result in lower ratings than typical quantitative and qualitative credit factors otherwise imply, and can become a dominate factor influencing the overall rating.

Corporate Governance and Management – Credit Factor Scoring Guidelines

	Rating Implications
Effective	There is no rating impact, positive or negative.
Some Weakness	Depending on degree of problems, rating will be pulled down by up to three notches.
Ineffective	Depending on degree of problems, rating will be pulled down at least four notches, and the rating will be capped at 'BB+'. In some cases, if governance or management problems are severe, Fitch may not be able to rate an insurer.

Source: Fitch Ratings.

Elements of governance that would negatively affect ratings include:

- A substantive lack of board independence or planning activities by the board.
- A management team that is viewed as ineffective, key members of management that are guilty of work-related civil or criminal offenses, or management that has blatantly ignored board risk tolerances on multiple occasions.
- Major audit-related issues, such as multiple material weaknesses in the internal control environment, no audit opinion or unfavorable opinion, financial statements are consistently late, or there is a change in the auditor due exclusively to major disagreements on material accounting treatments. Fitch tends to become aware of audit-related issues when financial statements with unfavorable opinions are published, or when issuers are unable to publish financial statements as scheduled.
- Related-party transactions appear to be highly suspect.

Fitch expects well-managed companies to have effective risk management processes, including:

- Management’s risk appetite is defined and communicated through the organization.
- Independence of any risk management function; senior management has an understanding and involvement in risk management issues.
- Effectiveness of processes and/or tools to monitor and control risks.
- Risks are managed centrally or are easily compiled to establish an enterprise wide view.

Fitch is not in a position to audit risk management systems. In situations where management does not interact with Fitch, the evaluation is typically based on historic performance, peer comparisons and/or market intelligence.

Capitalization and Leverage

Fitch’s analysis is done from three perspectives: capital adequacy, financial leverage, and total financing and commitments.

Capital Adequacy Ratios (CAR)

Forms of CARs considered within the ratings analysis include:

- Fitch’s risk-adjusted Prism capital models used for life and non-life insurers, and Fitch’s risk-based U.S. title insurance capital model.
- Operating leverage, such as net written premium to capital, which are not risk adjusted.
- Regulatory capital, such as the Solvency II Standard Capital Requirement (SCR) and NAIC RBC ratio.

In stressed circumstances, regulatory capital ratios can become an especially important consideration due to both the risk of regulatory intervention, or inclusion of such measures in bank/loan covenants or other agreements.

In developing markets where a Fitch proprietary Prism capital model (see details on p. 18) is not yet deployed (such as Latin America), Fitch will evaluate operating leverage ratios in concert with the evaluation of investment risk discussed under Investment and Asset Risk. If investment risks relative to capital are high, as is common in countries with non-investment-grade sovereign ratings, this will pull down the capital adequacy evaluation.

Insurers’ internal models have minimal impact on Fitch’s evaluation, due to limitations in available information, and difficulties with respect to comparisons among insurers.

Financial Leverage Ratio (FLR)

The primary FLR is the adjusted debt-to-capital ratio:

$$\frac{\text{Debt} + \text{Debt Portion of Hybrids}}{\text{Equity Capital} + \text{Debt} + \text{Total Hybrids}}$$

Debt excludes match-funded forms commonly referenced as “operating debt,” as the intent of the FLR is to only focus on debt that finances long-term capital or supports liquidity. Match-funded debt includes repos, securitizations, or other identifiable or traceable pools of financial assets held against specified liabilities.

When goodwill is material, Fitch will calculate two versions of the FLR, one that includes 100% of goodwill as part of equity capital, and one that excludes goodwill. Fitch will place primary emphasis on the first calculation when profit margins are strong, and the market value of equity capital (for publicly traded companies) is at or above book value. The second calculation will receive additional weighting when the goodwill value is less supportable.

In some sectors alternate leverage ratios are emphasized. For example in the U.S. health sector, Fitch focuses on the ratio of debt to EBIT.

The derivation of the debt and equity portion of hybrids follows later in this section.

Rating/Scoring Guidelines for CARs and FLR

Scoring guidelines for the CARs, FLR and related leverage ratios follow. The weighting of the various core and complementary ratios in arriving at the overall credit factor score is done judgmentally by the rating committee.

Credit Factor Scoring Guidelines — CARs and FLR: Core Ratios

	Sectors/Regions	Insurer Financial Strength Rating					
		AAA	AA	A	BBB	BB	B
Financial Leverage Ratio (%)	All Sectors/Regions	<10	10-23	24-31	32-42	43-59	60-80
Fitch Prism Model Score	Non-Life, Life, Reinsurance (Excl. LatAm)	Extremely Strong	Very Strong	Strong	Adequate	Somewhat Weak	Weak
NPW to Capital (x)	Non-Life (LatAm, Without Prism) ^a	<0.7	0.7-1.4	1.5-2.1	2.2-2.8	2.9-3.5	3.6-4.4
Operating Leverage (x)	Life (LatAm, Without Prism) ^a	<8	8-12	13-19	20-29	30-39	40-50
Fitch Risk-Adjusted Capital (RAC) Model Score (%)	Title	>300	300-188	187-130	129-100	99-80	79-50
Debt to EBITDA (x)	Health	<0.8	0.8-1.7	1.8-2.4	2.5-3.4	3.5-4.5	4.6-5.7
Premiums to Statutory Capital (x)	Health	<1.9	1.9-5.0	5.1-8.4	8.5-11.0	11.1-13.9	14.0-19.0
Prescribed Capital Ratio (x)	Mortgage (Australia) ^a	>1.75	1.75-1.50	1.49-1.30	1.29-1.15	1.14-1.07	1.06-1.00
Risk-to-Capital Ratio (x)	Mortgage (U.S.)	<3	3-9	10-15	16-21	22-27	28-34
Par-to-Capital Ratio (x)	Financial Guaranty						
Very Low Frequency/Low Severity (Without Currency Risk)		<35	35-69	70-119	120-164	165-224	225-315
Low Frequency/Medium Severity-Without Currency Risk		<23	23-37	38-57	58-79	80-112	113-155
Medium Frequency/Mixed Severity (Without Currency Risk)		<8	8-12	13-17	18-24	25-37	38-50
Medium Frequency/Mixed Severity (With Currency Risk)		<5.5	5.5-8.4	8.5-13.2	13.3-18.2	18.3-24.9	25.0-35.0
High Frequency/High Severity (Without Currency Risk)		<2.8	2.8-3.9	4.0-5.2	5.3-7.4	7.5-11.2	11.3-15.0
High Frequency/High Severity (With Currency Risk)		<2.1	2.1-2.9	3.0-4.2	4.3-5.9	6.0-8.7	8.8-12.0
Very High Frequency/High Severity (Without Currency Risk)		<1.6	1.6-2.2	2.3-2.9	3.0-4.2	4.3-6.2	6.3-8.5
Very High Frequency/High Severity (With Currency Risk)		<1.1	1.1-1.7	1.8-2.4	2.5-3.4	3.5-4.9	5.0-7.0

^aIn LatAm, and for other non-life and life companies for which Fitch does not use Prism, the NPW-to-capital and operating leverage ratios, respectively, act as core capital adequacy ratios. Where Prism is used, these ratios are complementary. Similarly, in Australia for mortgage insurers, the regulatory prescribed capital ratio acts as the core capital adequacy ratio, where it is a complementary ratio for Australian non-life companies. CARs - Capital adequacy ratio. FLR - Financial leverage ratio. NPW - Net premiums written. PMIERS - Private mortgage insurer eligibility requirements
Source: Fitch Ratings.

Credit Factor Scoring Guidelines — CARs and FLR: Complementary Ratios

	Sectors/Regions	Insurer Financial Strength Rating					
		AAA	AA	A	BBB	BB	B
NPW to Capital (x)	Non-Life	<0.7	0.7-1.4	1.5-2.1	2.2-2.8	2.9-3.5	3.6-4.4
Substitute	Reinsurance - Blended	<0.5	0.5-1.1	1.2-1.7	1.8-2.3	2.4-3.0	3.1-4.3
	Reinsurance - Property Catastrophe	<0.4	0.4-0.6	0.7-0.9	1.0-1.4	1.5-1.9	2.0-3.1
	Title	<1.8	1.8-3.3	3.4-4.7	4.8-6.4	6.5-8.2	8.3-11.0
Net Leverage (x)	Non-Life	<2.4	2.4-4.2	4.3-5.9	6.0-7.9	8.0-9.9	10.0-12.0
Substitute	Reinsurance - Blended	<2.0	2.0-3.5	3.6-5.0	5.1-6.9	7.0-8.9	9.0-11.0
	Reinsurance - Property Catastrophe	<1.2	1.2-1.9	2.0-2.8	2.9-3.9	4.0-5.2	5.3-7.0
	Title	<3.4	3.4-5.1	5.2-6.7	6.8-8.4	8.5-10.2	10.3-13.0
Gross Leverage (x)	Non-Life	<2.9	2.9-5.0	5.1-7.3	7.4-9.4	9.5-11.7	11.8-14.0
Substitute	Reinsurance - Blended	<2.4	2.4-4.2	4.3-6.1	6.2-8.3	8.4-10.7	10.8-13.0
	Reinsurance - Property Catastrophe	<1.4	1.4-2.2	2.3-3.3	3.4-4.9	5.0-6.9	7.0-9.0
U.S. NAIC RBC Ratio (%)	Non-Life (U.S.)	>350	350-250	249-188	187-125	124-88	87-60
Statutory Solvency Margin - Operating Company (%)	Non-Life (Japan)	>763	763-575	574-435	434-328	327-243	242-115
Statutory Solvency Margin - Group (%)	Non-Life (Japan)	>813	813-625	624-475	474-350	349-255	254-125
C-Ross Solvency Ratio (%)	Non-Life (China), Life (China)	>400	400-285	284-200	199-150	149-115	114-80
Solvency II SCR Coverage Ratio (%)	Non-Life (Europe), Life (Europe)	>210	210-161	160-131	130-101	100-76	75-45
Prescribed Capital Ratio (x)	Non-Life (Australia), Mortgage (Australia)	>1.75	1.75-1.50	1.49-1.30	1.29-1.15	1.14-1.07	1.06-1.00
Operating Leverage (x)	Life	<8	8-12	13-19	20-29	30-39	40-50
Substitute	Life (Japan)	<9	9-14	15-21	22-31	32-42	43-53
Asset Leverage (x)	Life	<11	11-17	18-25	26-35	36-48	49-65
Substitute	Life (Japan)	<12	12-19	20-27	28-37	38-49	50-62
U.S. NAIC RBC Ratio (%)	Life (U.S.)	>431	431-323	322-235	234-175	174-125	124-60
Statutory Solvency Margin Ratio (%)	Life (Japan)	>1,125	1,125-800	799-600	599-425	424-275	274-120
U.S. NAIC RBC Ratio (%)	Reinsurance-Non-Life (U.S.)	>288	288-225	224-175	174-125	124-88	87-60
U.S. NAIC RBC Ratio (%)	Reinsurance-Life (U.S.)	>431	431-323	322-235	234-175	174-125	124-60
U.S. NAIC RBC Ratio (%)	Health	>375	375-275	274-213	212-150	149-113	112-85
PMIERS Coverage Ratio (%)	Mortgage (U.S.)	>175	175-150	149-130	129-110	109-90	89-70

³In LatAm, and for other non-life and life companies for which Fitch does not use Prism, the NPW-to-capital and operating leverage ratios, respectively, act as core capital adequacy ratios. Where Prism is used, these ratios are complementary. Similarly, in Australia for mortgage insurers, the regulatory prescribed capital ratio acts as the core capital adequacy ratio, where it is a complementary ratio for Australian non-life companies. CARs - Capital adequacy ratio. FLR - Financial leverage ratio. NPW - Net premiums written. PMIERS - Private mortgage insurer eligibility requirements
Source: Fitch Ratings.

Total Financing and Commitments Ratio (TFC)

The TFC ratio includes both financial and operating debt, securitizations, undrawn LOC facilities, and various commitments, such as the notional value of obligations related to the sale of credit default swaps. During periods of market disruptions, and lost access to capital markets financings, such operational and off-balance sheet commitments can become a direct source of vulnerability to an organization. These various values are summed and divided by equity capital. Scoring guidelines follow. Cautionary indications can pull down the credit factor score.

Credit Factor Scoring Guidelines – TFC

(x)	Low (Neutral)	Medium (Neutral)	High (Caution)	Very High (High Caution)
All Sectors ^a	<0.4	0.4–0.8	0.8–1.5	>1.5

^aFor financial guaranty, total financing and commitments (TFC) ratio excludes insured par values, which are captured in capital adequacy ratios.

Source: Fitch Ratings.

Fitch’s Proprietary Capital Adequacy Models

Fitch employs three capital models called “Prism” to assist in the analysis of capital adequacy for life and non-life insurers:

- Prism Factor-Based Model (FBM), used in EMEA, Asia-Pacific and Bermuda.
- Prism U.S. Non-Life Model.
- Prism U.S. Life Model.

Each Prism model produces a capital score ranging from ‘Exceptionally Strong’ (‘AAA’) to ‘Weak’ (‘B’ and below), as highlighted in the table on the prior page. The different Prism capital models contain risk-based components that are either stochastic-based or factor-based, depending on the domicile and line of business. The approach used in each jurisdiction is influenced heavily by data availability.

Model definition documents for the *Prism U.S. Non-Life Insurance Capital Model*, *Prism U.S. Life Insurance Capital Model*, and *Prism Factor-Based Capital Model* are available on Fitch’s public website. There is also a model definition document available for the *Reserve Adequacy and Volatility Estimator (RAVE) Model*, which both supports evaluation of the Reserve Analysis credit factor, and provides inputs for the Prism U.S. Non-Life model.

Details on Fitch’s *Title Risk-Adjusted Capital (RAC) Model* used for U.S. title insurers can be found in its model definition document.

Hybrids – Debt and Equity Portion

The debt or equity-like aspects of hybrids for purposes of CARs and the FLRs are evaluated based on Fitch’s view of how the features of the hybrid support viability and loss absorption under stress. Fitch employs three categories when defining the debt or equity portions of a hybrid: 100%, 50% and 0%. These are defined in the Hybrid Treatment in CAR and FLR exhibit on the next page for several common types of hybrids.

Complex hybrid features can make it difficult to judge how a hybrid may perform and can cause Fitch to reduce the amount of equity credit otherwise applied. Complex features include look-back provisions, parity security language, coupon step-ups, questionable deferral features, covenants and cross-default provisions, among others, including cases of intergroup hybrid issuance.

Hybrid Treatment in CAR and FLR

Hybrid Type	CAR Treatment	FLR Treatment
Perpetual Preferred		
Noncumulative ^a	100% Equity	0% Debt
Cumulative	100% Equity	50% Debt
Dated Deferrable Securities		
	0% Equity	100% Debt
Mandatory Convertible (True)^b		
Sub Under Three Years	100% Equity	0% Debt
Sub Three to Five Years	50% Equity	50% Debt
Senior Under One Year	50% Equity	50% Debt
Mandatory Convertible (Synthetic)		
Underlying Debt ^a	0% Equity	100% Debt
Forward Contract	0% Equity at Issuance	0% Debt
	100% Equity Upon Funding	0% Debt
Optionally Convertible		
	0% Equity	100% Debt
Contingent Convertible^a		
High Trigger	50% Equity	50% Debt
Low Trigger	0% Equity	100% Debt

^aIncludes mutual certificates such as “certificats mutualistes” in France. ^bAs an exception, favorable treatment will be used if underlying security would otherwise qualify. CAR – Capital adequacy ratio. FLR – Financial leverage ratio. Source: Fitch Ratings.

Additional interpretive details follow:

- **Perpetual Preferred Securities:** In some cases, local laws or regulations prohibit issuance of true perpetual securities, and instead companies issue very long maturing securities that include an option by the issuer to perpetually extend the maturity (most commonly an initial maturity of 30-plus years, with successive automatic extensions into perpetuity by additional periods of 30-plus years). Unless Fitch believes the intent is to let the securities mature, Fitch will treat such securities as perpetual, per above.
- **Dated Deferrable Securities:** These encompass various subordinated/junior subordinated debt and trust preferred securities with a stated maturity that include an ability to defer interest/dividend payments for a period of time (typically three to five years). Fitch views such securities as carrying “signaling risk,” meaning management’s optional (or a defined trigger’s) initiation of a deferral signals to the market that the firm is under stress. Signaling risks provide strong incentives for management to avoid deferral, whether optional or per a mandatory trigger.
- **Mandatory Convertible Securities:** True mandatory convertible securities that are subordinated and deferrable (or zero coupon), not excessively dilutive on conversion (per exchange price/ratio), and will receive varying degrees of equity credit based on the conversion period. Synthetic units are treated as two separate securities, with treatment of the underlying debt security and the equity forward contract detailed above.
- **Optionally Convertible:** Fitch believes these provide no equity characteristics unless actually converted to equity capital.
- **Contingent Convertible Securities:** These hybrids permanently write down or convert to common equity as certain defined triggers are breached as stress sets in. Where triggers are high, meaning they would be written down or converted at early signs of stress, Fitch will afford partial equity credit. Such securities may also qualify for equity credit based on their other underlying features, ignoring the conversion feature.

Hybrid Regulatory Override in CARs

When rigorous capital regulation is in place that Fitch views as supporting viability under stress, Fitch will typically allow regulatory treatment of hybrids to override its own treatment in Fitch's CARs. This regulatory override applies both when a regulator has a more favorable treatment than Fitch's own view, and when a regulator has a less favorable treatment. The regulatory override does not apply to FLRs.

Limits on Amount of Hybrids in Capital Structure

Fitch does not employ an absolute cap on the maximum amount of hybrids that reside in a capital structure of an insurance organization. However, when hybrids begin to exceed 20% of total capitalization (i.e. the ratio of hybrids divided by the sum of hybrids plus debt plus equity capital), favorable hybrid treatment may be negated or reduced in both CARs and FLRs.

Contingent Capital Treatment

Fitch defines contingent capital as a prefunded facility for the benefit of the sponsoring insurance company, but for which funds have not yet been drawn. Such funds reside in a segregated entity (often a special-purpose vehicle [SPV]) and are typically not consolidated into the sponsoring insurer's financial statements. The ability of the insurance company to draw on the capital may be defined by a specific triggering event, or it may be a general option.

The following outlines how Fitch treats contingent capital:

- Any debt issued by the facility is included in the TFC.
- As long as any debt issued by the facility is not an obligation of the sponsoring insurance company, it is excluded from the FLR. However, if such debt is guaranteed by the sponsor, or could otherwise be construed as an economic obligation of the sponsor, it would be included in the FLR.
- The capital funding held within the facility would not be added to the sponsor's equity capital in either the FLR or CARs until it was drawn (unless, in the case of CARs, it qualifies for the regulatory override described above).
- Any enhanced financial flexibility provided by the facility would be considered when scoring the Financial Flexibility subfactor within the key credit factor Debt Service Capabilities and Financial Flexibility discussed later in this report.
- To the extent Fitch conducts any stress or forward analysis based on scenarios that could trigger a draw, in those scenarios, all or a portion of the facility would be added to equity capital in both the pro forma FLRs and CARs.

Debt Service Capabilities and Financial Flexibility

Fixed-Charge Coverage

Fixed-charge coverage ratios are key drivers for the scoring of this credit factor. Unusually low/high levels of coverage can also influence notching between the operating company and holding company (see notching section later in this report).

The coverage ratio guidelines are listed below.

Coverage Guidelines

(x)	Sectors/Regions	Insurer Financial Strength Rating					
		AAA	AA	A	BBB	BB	B
Core Ratios							
Fixed-Charge Coverage Ratio	All Sectors	>16.5	16.5–9.5	9.4–5.0	4.9–2.0	1.9–(1.0)	(1.1)–(5.0)
Complementary Ratios							
Statutory Coverage Ratio	Non-Life (U.S.), Life (U.S.)	>9.3	9.3–5.8	5.7–3.3	3.2–1.4	1.3–0.1	0.0–0.0
Cash Coverage Ratio	Non-Life (U.S.), Life (U.S.)	>11.1	11.1–6.6	6.5–3.6	3.5–1.6	1.5–0.1	0.0–0.0

Source: Fitch Ratings.

Coverage Ratio Guidelines

For hybrids, Fitch makes no adjustments in coverage ratios for deferrable payments (i.e. full value is included), unless deferral has actually occurred.

Coverage ratios are typically based on operating earnings that exclude realized and unrealized gains and losses. However, when such items are large, especially losses during times of stress, Fitch may also look at coverage ratios including these items. Fitch may also include realized and/or unrealized gains or losses to match other aspects of accounting treatment. For example, for UK life insurers under IFRS or UK GAAP, Fitch includes unrealized and realized gains and losses to reflect the treatment of liabilities, which are revalued through the income statement to reflect prevailing interest rates.

Currency Mismatch Issues

Our evaluation of coverage considers any currency mismatch that may make it more difficult for an issuer to service interest or principal payments. If the currency mismatch is reasonably hedged, then debt servicing is evaluated as described above. If not, Fitch will consider a stress scenario in which coverage is affected by enduring adverse exchange rate movements.

Fitch will also consider the case of an unhedged insurer with the bulk of its operations in an emerging market with high inflation, but that borrows in a hard currency (for instance U.S. dollars or euros). Over the long term, currencies in higher inflation economies tend to devalue relative to currencies in lower inflation economies.

- In these cases, we will also consider a hard currency fixed-charge coverage (HC-FCC) ratio. The numerator is pretax earnings derived in applicable hard currency, including that of the noted debt and from other stable, low inflation currencies, less hard currency fixed charges. The denominator is fixed charges in the applicable hard currency.
- HC-FCC below 2x would weaken our evaluation relative to that implied by the standard guidelines, 2.0x–4.9x would typically be neutral, and 5x or greater may uplift our evaluation.

To illustrate the calculation, if an emerging markets insurer issues U.S. dollar debt with annual interest of \$10 million, and produces pretax, pre-interest earnings from a U.S dollar- or euro-based subsidiary of \$30 million, the HC-FCC is 3x, which is neutral.

Financial Flexibility – Subcredit Factor Scoring Guidelines

	AAA	AA	A	BBB	BB	B
General	Exceptionally stable market access	Very stable market access.	Stable market access	Generally stable market access	Mixed market access especially in stressful market periods.	Market access quite unstable and/or very limited
• Market Access	Very long funding history	Long funding history	History of funding	Some possible funding challenges during market stress.	Fairly narrow sources and instruments.	Funding sources very limited
• Funding History	Highly diverse sources (potentially international)	Diverse sources	Reasonably varied sources	Somewhat concentrated sources and instruments	Skewed to intermediate and shorter tenors, or	No to minimal contingent funding
• Diversity	Varied instruments	Varied instruments	Some mix of instruments	More focused on shorter or intermediate tenors, or emphasis on floating rates	Heavy use of floating rates	
• Tenor	Longer tenors with fixed rates	Longer tenors mainly with fixed rates	May be somewhat skewed to intermediate tenors with some floating rates	Modest contingency funding	Contingency funding, if present, is likely de minimus	
• Fixed Versus Variable	Robust contingent funding	Robust contingent funding	Contingency funding			
• Contingency	Very robust contingent funding					
Country Risk	Barring demonstrated market access outside of the country of domicile, typically an insurer’s Financial Flexibility sub-score will not exceed that implied by the degree of financial market development considered in the overall IPOE Score for that insurer’s country.					
Equity Focus						
Developing Markets	In underdeveloped financial markets, funding may be limited primarily to its common equity. Using the above parameters, this typically results in a lower score since funding options are narrow.					
Developed Markets	In contrast, some insurers in developed financial markets simply decide to focus on equity financing. Such companies will typically have very favorable financial leverage and fixed-charge coverage, but no history of market access. Such companies will be scored between ‘A’ and ‘B’ per the guidelines immediately below, which focus on the rating committee’s expectations if broader funding was sought by management in the near term.					
Guidelines for Developed Markets			High confidence market access would be readily available	Reasonable confidence market access would likely be available	Market access possible, but there are notable uncertainties	Near-term market access very likely unavailable
Weighting	When funding is only equity, the Financial Flexibility sub-score dominates the overall Debt Service Capabilities and Financial Flexibility Credit Factor Score.					
Parent as Sole Source of Funding	Some privately owned insurers will obtain funding primarily or exclusively from a parent company. In this case, the score for Debt Service Capabilities and Financial Flexibility will typically be weighted low in the overall rating evaluation, and the positives/negatives of the parent relationship will primarily be reflected in the rating via the evaluation of the Ownership credit factor. More specifically, if the insurer obtains its funding exclusively from the parent, this credit factor will not be scored, and the benefits or risks tied to such parent funding will be considered in the Ownership evaluation. If the insurer is reliant on some funding from outside sources, then this credit factor will be scored and weighed based on the insurer’s servicing capabilities and flexibility with respect those outside funding requirements, and their importance.					

Source: Fitch Ratings.

Financial Flexibility

Defined as the ability of an insurer to generate additional funds relative to needs, an insurer with financial flexibility is more able to access capital required for growth, strategic repositioning or for the replenishment of losses. Companies with low leverage, coupled with well-balanced and diverse financing sources of varying maturities, are typically most financially flexible..

Fitch recognizes that under stress, financial flexibility of even historically strong companies can vanish quickly. As a result, the agency does not assume that financial flexibility will necessarily exist for companies in stressful scenarios.

On the next page, the Financial Performance and Earnings Ratio Guidelines exhibit provides a summary of the characteristics of financial flexibility delineated by rating category.

Overall Credit Factor Scoring

The above financial flexibility evaluation is combined with the evaluation of coverage to arrive at the overall score for the Debt Service Capabilities and Financial Flexibility credit factor.

Financial Performance and Earnings

Financial performance determines the entity's ability to generate capital, the ability to absorb adverse deviations and can affect financial flexibility. In its evaluations, Fitch considers financial performance in absolute terms and in terms of trend, as well as:

- **Quality of Earnings:** Earnings are high quality if from reliable and repeatable sources, such as consistent underwriting profitability. "One-off" items such as gains on asset sales or unusual releases from technical reserves are viewed less favorably, as are earnings derived from highly concentrated investments in risky assets and inflation-driven earnings,
- **Relative to Business Risk:** Insurers that take on a higher degree of risk are expected to obtain a higher level of profitability as an offset. On this basis, the return expected from a low-risk auto insurer would be lower than that from a higher-risk catastrophe reinsurer.
- **Relative to Leverage:** Fitch interprets profitability within the context of operating and financial leverage, as high returns resulting exclusively from high leverage are a negative.
- **Diversification:** Fitch evaluates the diversification of earnings across market and product, as well as risk and fee-based from new sales versus in-force profit, as all else equal, earnings that are well diversified tend to be less volatile.

Financial Performance and Earnings Ratio Guidelines

(%)	Sectors/Regions	Insurer Financial Strength Rating					
		AAA	AA	A	BBB	BB	B
Core Ratios							
Return on Equity	Non-Life, Mortgage, Financial Guaranty	>15	15-10	9-6	5-2	1-(2)	(3)-(10)
Substitute	Reinsurance	>15	15-12	11-8	7-3	2-(2)	(3)-(10)
	Title	>19	19-14	13-10	9-4	3-(3)	(4)-(15)
Combined Ratio	Non-Life, Financial Guaranty (High Frequency/High Severity)	<84	84-98	99-106	107-114	115-124	125-135
Substitute	Reinsurance - Blended	<86	86-96	97-102	103-110	111-120	121-136
	Reinsurance - Property Catastrophe	<78	78-87	88-93	94-102	103-112	113-128
	Title	<81	81-91	92-98	99-108	109-119	120-135
	Mortgage	<29	29-49	50-74	75-107	108-142	143-177
	Financial Guaranty (Low Frequency/Low Severity)	<38	38-52	53-67	68-82	83-97	98-110
Operating Ratio	Non-Life	<71	71-85	86-93	94-103	104-114	115-125
Substitute	Reinsurance - Blended	<76	76-86	87-92	93-100	101-110	111-126
	Reinsurance - Property Catastrophe	<65	65-74	75-80	81-89	90-99	100-115
Return on Equity	Life	>17	17-11	10-7	6-3	2-(2)	(3)-(7)
Substitute (Core Profit Margin)	Life (Japan)	>11.5	11.5-9.0	8.9-7.0	6.9-4.0	3.9-(0.5)	(0.6)-(5.0)
Return on Assets (Pretax)	Life	>1.33	1.33-1.00	0.99-0.65	0.64-0.20	0.19-(0.25)	(0.26)-(0.75)
Substitute	Life (Japan)	>1.0	1.0-0.7	0.6-0.4	0.3-(0.1)	(0.2)-(0.5)	(0.6)-(1.0)
EBITDA to Revenues	Health	>10.5	10.5-8.0	7.9-5.0	4.9-2.3	2.2-1.1	1.0-0.3
Complementary Ratios							
Operating Ratio	Title	<73	73-85	86-94	95-103	104-115	116-125
GAAP Return on Capital	Health	>14.8	14.8-9.0	8.9-5.0	4.9-2.0	1.9-0.9	0.8-0.5
Medical Benefit Ratio	Health	<81	81-83	84-86	87-88	89-92	93-98

Source: Fitch Ratings.

Growth

Fitch generally views growth cautiously if it is at a rate greater than the market or peers, especially during periods of competitive pricing pressures. Excessive growth is considered to be a leading indicator of future financial difficulties, and can take on very high weighting when concerns are significant and cause the reduction of weighting assigned to other favorable performance metrics. Excessive growth can be a concern regardless of whether it is organic or via acquisitions. Understanding the cause of growth is important.

Growth –Scoring Guidelines^a

(%)	Low (Caution)	Moderate (Neutral)	High (Caution)
Developed Markets			
Life ^b (Asset) – Absolute	<5	5–15	>15
Life/Japan (Asset) – Absolute	<0	0–15	>15
Life ^c (Asset) – Relative	<(10)	(10)–10	>10
Non-Life ^d (Premium) – Absolute	<(10)	(10)–8	>8
Non-Life ^d (Premium) – Relative	<(5)	(5)–5	>5
Health (Membership) – Relative	<(5)	(5)–5	>5
Emerging Markets			
Life (Asset) – Relative	<(15)	(15)–15	>15
Non-Life (Premium) – Relative	<(10)	(10)–10	>10

^aGuidelines consider both absolute growth levels and growth levels relative to sector averages/norms. ^bAll developed life regions other than Japan. ^cAll developed life regions, including Japan. ^dIncludes non-life, reinsurance, title, mortgage and financial guaranty.

Source: Fitch Ratings.

Conversely, sharp drops in premiums or assets that can be indicative of a quickly eroding franchise and are also a concern.

In addition to the noted financial ratios, Fitch’s evaluation of financial performance will consider numerous qualitative elements, which can include the following.

Qualitative Considerations

Non-Life

Underwriting profitability is very important when reviewing the performance of non-life (re)insurers. Fitch’s goal is to evaluate the health of the book of business, and management’s understanding of underwriting risks and ability to control them. Key areas considered include:

- Performance versus pricing margins, including impact of investment income on pricing decisions.
- Performance relative to market peers.
- Volatility of underwriting results over time.
- Expense efficiencies and impact of ceding commissions on expense ratios.

To assess the applicable ratios in the Financial Performance and Earnings Ratio Guidelines exhibit on the prior page, Fitch considers business mix, pricing strategy, accounting practices, distribution approach and reserving approach. Fitch examines these ratios for the company as a whole, and by product and market segment when such information is available. Fitch also considers underwriting results on a calendar and accident year when such information is available.

Life

Fitch evaluates earnings at the product line level and consolidated basis, when possible. While strong profitability is generally viewed positively, Fitch recognizes that strong near-term profit may be the result of risk taking, such as inadequate hedging, which would be negative.

Fitch supplements its analysis with quantitative measures that vary by market. For example, return on embedded value (ROEV), new business margin and embedded value variances are used for insurers that provide supplementary financial reporting on an “embedded value” basis.

Growth trends are considered in the context of market conditions and company-specific strategic initiatives. Since in many developed markets life insurance is a mature industry, Fitch generally views modest growth in sales, consistent with market averages, as a sign of health.

Investment and Asset Risk

Investment risks most commonly emanate from varying combinations of credit risk, market risk, interest rate risk and liquidity risk. When available, Fitch reviews investment guidelines to understand risk tolerances, including oversight and control procedures when investment management is outsourced to third-party managers.

Standard ratios are used to evaluate the level of investment risk broadly, but these are supplemented with additional analyses, which in some cases could involve evaluation of specific securities in the portfolio.

Fixed Income

This tends to be the largest asset class for many insurers, and insurers make different choices regarding the trade-off between yield and default risk. Fitch considers the mix, composition and credit quality (ratings) of the fixed-income portfolio. Disproportionately large allocations or concentrations for a given market or rating level, especially those at non-investment grade, are viewed negatively.

Investment and Asset Risk Ratio Guidelines

(%)	Sectors/Regions	Insurer Financial Strength Rating					
		AAA	AA	A	BBB	BB	B
Core Ratios							
Risky Assets Ratio	Non-Life, Reinsurance (Non-Life), Mortgage	<31	31-62	63-87	88-124	125-179	180-240
Substitute	Title	<19	19-52	53-87	88-112	113-127	128-175
	Health	<23	23-34	35-44	45-54	55-64	65-75
	Financial Guaranty	<6	6-12	13-17	18-22	23-27	28-33
Risky Assets Ratio	Life, Reinsurance (Life)	<38	38-74	75-109	110-159	160-224	225-295
Complementary Ratios							
Equity Investments to Capital	Non-Life, Reinsurance	<21	21-52	53-82	83-112	113-137	138-165
Below-Investment-Grade Bonds to Capital	Life	<25	25-47	48-62	63-84	85-119	120-160

Source: Fitch Ratings.

Equities and Real Estate

While fixed-income investments dominate most insurer portfolios, an allocation to equity or real estate is not uncommon since such investments provide higher expected returns, albeit with more volatility. Concentrations in these types of investments are viewed more cautiously as they have greater uncertainty in terms of valuation and liquidity.

Alternative/Esoteric

Fitch pays close attention to unusual investment strategies, especially those involving esoteric investments, less liquid investments or use of concentrations by name or sector. Examples include hedge funds, private equity and limited partnerships, some of which may be internally leveraged. These are all viewed as adding portfolio risk that can be potentially significant, especially in tail scenarios.

For most insurers, esoteric investments represent a small portion of their total portfolio. However some companies, such as so-called "hedge fund reinsurers," take on very large, concentrated exposures in esoteric assets. In such cases, Fitch's standard risky asset ratios may become less informative, and bespoke techniques tailored to the specific investment strategy may be used to evaluate relative portfolio risk.

Developing Markets

For insurers located in developing market countries, the portion of risky assets in the investment portfolio is likely to be materially higher than for insurers located in investment-grade countries. This is partly because investments in securities of local issuers would be speculative-grade and thus considered a risky asset. It is also due to less developed capital

markets, especially fixed-income markets in some cases, including availability of longer maturing fixed-income instruments. Thus, insurers turn more heavily to equities, real estate and alternative investments. All such investments are treated as risky by Fitch in its evaluation, though Fitch recognizes investing in such assets may not be management's preference were safer alternatives more readily available.

Sovereign

Fitch evaluates the level of exposure to the sovereign (country of domicile and/or major operations) within the investment portfolio, by looking at the ratio of sovereign investments to capital. The numerator includes bonds issued by the local sovereign as well as securities of entities, such as domestic banks whose default experience would be highly correlated to the government (to the extent such securities can be identified). Large investments in sovereign and related securities is often most prevalent in developing markets where regulatory requirements, and the relative under-development of local capital markets, limit insurers' investment choices. The exhibit below includes guidelines used to potentially cap the score for this credit factor based on a matrix of the level of the sovereign investments to capital ratio and the local currency rating of the sovereign. Additionally, the Risky Asset Ratio (see calculation details in Appendix) scales sovereign investments based on rating at sovereign rating levels of 'BBB+' and below.

Sovereign Investment Concentration Risk – Scoring Guidelines

Sovereign Debt Rating Level ^b	Sovereign Investments-to-Capital Ratio ^a (%)								
	<15	15-40	41-80	81-100	101-150	150-200	200-300	300-500	>500
AAA	No Impact								
AA	No Impact			Cap +1			Cap		
A	No Impact	Cap +2	Cap +1		Cap	Cap	Cap	Cap -1	Cap -2
BBB	No Impact	Cap +2	Cap +1		Cap	Cap -1	Cap -2	Cap -3	Cap -4
BB/B/CCC	Cap +3 ^c	Cap +2	Cap +1	Cap	Cap -1	Cap -3	Cap -4	Cap -5	

^aIncludes direct sovereign investments and sovereign-related investments. Ratio level may be estimated by Fitch. ^bBased on local currency sovereign rating. ^cApplies between 10%-14%. Note: +/- values are stated in notches relative to notch-specific local currency sovereign rating. Source: Fitch Ratings.

Currency Risk

Some insurers invest in foreign assets, aiming to increase the diversification of their investment portfolio and/or to enhance yield. A significant currency mismatch between assets and liabilities could increase the volatility of earnings and capital, so in such a case Fitch evaluates the hedging strategy. This includes reviewing of the impact of currency movements on earnings, and subject to data availability, reviewing the types of hedging instruments used (e.g. currency swaps, proxy hedging), hedging cost and hedge performance.

Participating Life Policies Adjustment

Fitch considers the extent investment performance may be borne by, or potentially shared, with policyholders. For example, for products where investment performance is directly passed through to the policyholder, such as unit-linked products or variable annuities, risky assets linked to these products are typically excluded from our analysis (other than consideration of their impact on any secondary guarantees).

For life products of a participating nature, for example, where investment losses/profits can be used to influence the level of future crediting rates, Fitch will view such loss sharing features as a potential risk mitigant in the evaluation of investment risk. While related risky assets are still included in Fitch's ratios, the scoring of the ratios and this credit factor relative to guidelines may be judgmentally tempered. However, Fitch notes that how such product features may perform under stress can be difficult to ascertain. For example, the ability of management to execute future reductions in crediting rates can be dependent on whether asset losses are systemic or idiosyncratic, since policy lapses can limit the ability to lower crediting rates.

Asset/Liability and Liquidity Management

Asset/liability management (ALM) is a notable risk factor for life insurers, but generally less so for non-life insurers. For life companies, ALM processes are important in achieving durable profitability objectives, especially in managing interest rate risk on spread-based products and also to support liquidity in periods of disintermediation. As such, for non-life sectors, the liquidity aspects of this credit factor are combined with the Investment and Asset Risk credit factor when applying these criteria, and ALM is only peripherally considered.

Fitch's evaluation of ALM and liquidity risks is often conducted with limited disclosures in published financial statements and notes. This heightens Fitch's reliance on management-provided information (subject to Fitch analytical adjustments) or market-level benchmarking.

Fitch evaluates liquidity and ALM differently at the operating and holding company levels

Operating Company

Liquidity

The evaluation focuses on the marketability of investments, as well as liquid assets relative to liabilities. Fitch also considers the amount of receivable and other balances, as well as the levels of other assets, such as affiliated holdings or real estate. Alternative sources of liquidity to fund unexpected cash needs are evaluated based on their amount and availability.

Duration Gap

When available, Fitch reviews estimates of the duration gap between assets and liabilities to help judge exposure to interest rate risk, especially for life insurers. Fitch prefers calculations that focus only on interest-sensitive insurance liabilities that exclude unit-linked and nonguaranteed separate accounts type products. When possible, Fitch's evaluation will consider hedging. When insurer-specific duration gap information is not available, Fitch considers market average information to be a reasonable proxy.

When evaluating the duration gap, Fitch believes equities and real estate are inferior asset types to match against longer-term interest-sensitive liabilities, compared with traditional fixed-income assets, since neither equities nor real estate offer a defined payment upon a stated maturity. Use of these assets makes their duration difficult to define. Thus, when equities and real estate make up a material portion of assets, Fitch uses a range of duration assumptions for equities and real estate that typically varies between two and 15 years.

Asset/Liability and Liquidity Management Ratio Guidelines

	Sectors Regions	Insurer Financial Strength Rating					
		AAA	AA	A	BBB	BB	B
Core Ratios							
Liquid Assets to Reserves (Loss/Technical, %)	Non-Life, Reinsurance, Title, Mortgage, Financial Guaranty	>188	188-138	137-113	112-88	87-63	62-35
Liquid Asset Ratio (%)	Life	>83	83-68	67-53	52-39	38-29	28-21
Duration Gap (Years in Absolute Value)	Life	<0.5	0.5-1.4	1.5-2.9	3.0-4.9	5.0-7.9	8.0-12.0
Complementary Ratios							
Cash and Equivalents to Policyholder Liabilities (%)	Life (Asia, Excl. Japan)	>11.3	11.3-7.5	7.4-4.5	4.4-2.0	1.9-0.5	0.4-0.0
Operating Cash Flow Ratio (x)	Life (U.S.)	>1.28	1.28-1.15	1.14-1.05	1.04-0.90	0.89-0.65	0.64-0.10
Cash and Invested Assets to Medical Claim Liabilities (x)	Health	>5.5	5.5-3.5	3.4-2.5	2.4-1.8	1.7-1.4	1.3-1.1

Source: Fitch Ratings.

Generally, for a non-life insurers with adequate cash flow, high-quality investments, and a buy and hold investment approach, Fitch does not view ALM as an important rating consideration.

Scenario Testing

Recognizing that the duration gap has limitations as a risk measure, when available, Fitch considers additional forms of analysis. These include scenario analysis completed by the insurer to comply with regulatory standards, or other internal analysis deemed relevant.

Interest Rate Risk/Market Perspective

Financial statement disclosures in most markets provide only limited insights into relative interest rate risk. Thus, Fitch’s general understanding of interest rate risks inherent in certain product types by market, as well as a company’s overall and relative historical performance under different rate conditions, play a role in a high level evaluation of interest rate risk.

Holding Companies

Holding company liquidity analysis differs from that at an operating company, especially when the holding company exists solely to own various operating subsidiaries. Because holding companies typically do not hold large liquid investment portfolios and are much more reliant on cash flow generation as a key liquidity source, if liquidity problems were to develop in an insurance organization overall, they are most likely to occur at the holding company level.

Cash

Maintaining cash balances at a conservative multiple of annual cash needs by a holding company, such as debt service requirements, is viewed as prudent.

Refinancing/Maturities

Refinancing maturing debt is a key source of liquidity risk at many holding companies. Thus, Fitch reviews debt maturities by year together with current short-term debt balances. Unexpected maturities or payments due to covenant triggers and/or guarantees being enacted negatively affect Fitch’s evaluation of financial flexibility.

Cash Flow

The key sources and uses of cash flow that Fitch considers in evaluating holding company liquidity are displayed in the following table.

Holding Company Liquidity – Sources/Uses

Sources	Uses
Earnings on Holding Company Invested Assets	Cash Operating Expenses
Regulated Dividends from Subsidiaries	Shareholder Dividends
Nonregulated Dividends from Subsidiaries	Preferred Dividends
Long-Term Debt Issuance	Interest Expense
CP Issuance	Capital Contributions to Subsidiaries
Equity Issuance	Long-Term Debt Maturity
Bank Lines Drawn	CP Maturity
Tapping Cash or Liquidating Investments	Share Repurchases
Other Sources	Bank Lines Due (Including Covenant Triggers)
	Pension Plan Funding
	Contingencies
	Other Uses

Source: Fitch Ratings.

Reserve Adequacy

Loss reserve adequacy is an important yet challenging area of analysis for non-life (re)insurers. It plays a minimal role in the assessment of life insurers other than for lines of business, such as long-term care insurance. Thus, this credit factor is typically not scored in the life sector.

The greatest challenge in evaluating loss reserve adequacy is that data may be limited and difficult to interpret, whether from regulatory filings such as Schedule P for U.S. insurers, or provided by management. When information is limited, Fitch's evaluation relies on the general riskiness of the lines of business written and their susceptibility to reserving issues, as well as the stability/volatility of historical underwriting performance, including the impact of any reported reserve development.

Fitch looks for uses of reserve discounting, financial or finite reinsurance, or accounting techniques that reduce carried reserves and potentially mask or distort comparability.

Reserve Profile

In reviewing the reserve profile, first Fitch judges influence of reserve risk on the overall rating. Reserve leverage relative to both capital and incurred losses are primary considerations. Higher reserve leverage tends to be common with longer-tail writers and implies a higher influence.

Implied Weighting of Reserves in Rating

Net Loss Reserves/Incurred Losses (x)	Net Reserve Leverage (x)		
	<1.0	1.0- 1.5	>1.5
>2.0	Medium	High	High
1.0- 2.0	Medium	Medium	High
<1.0	Low	Medium	Medium

Source: Fitch Ratings.

Growth

Fitch evaluates whether loss reserves are growing at a rate that is commensurate with growth in underwriting exposures. Reserve growth that falls short of growth in underwriting exposures indicates increasing degrees of caution. In such a case, the nature of such growth will be evaluated more closely to determine if the indication is indeed negative. Fitch also considers the rate of overall growth in premiums, relative to market averages, in its evaluation of Financial Performance and Earnings.

Reserve Growth

Ratio	Neutral	Caution	High Caution
Paid/Incurred Losses (x)	<1.05	>1.05	>1.50
Change in Ratio of Reserves/ Earned Premium (%)	>(5)	<(5)	<(15)

Source: Fitch Ratings.

Experience

Evaluating development trends in reserves provides an indication of a company's reserve setting proficiency. Consistent favorable development is viewed positively, whereas adverse development, or reserve strengthening, is viewed negatively.

Reserve Development to Surplus/Equity

Ratio (%)	<0	0-5	5-10	>10
One-Year Development Ratios	Neutral	Slight Caution	Caution	High Caution
Five-Year Development Ratios	Positive	Slight Caution	Caution	High Caution

Source: Fitch Ratings.

Adequacy

When information is available, Fitch evaluates the overall adequacy of current carried reserves. This evaluation is typically based on any combination of actuarial report reviews, disclosures by management of internal or independent actuarial estimates of reserving point estimates or ranges, and Fitch’s own analysis of loss experience data. This includes the use of Fitch’s Reserve Adequacy and Volatility Estimator model, primarily for U.S. entities. When reserves are carried below midpoint or best estimates, this implies increasing levels of caution, whereas reserving at levels above these estimates is a credit positive, per the table below.

Carried Reserves/Estimated Midpoint

Ratio (%)	Implication
>105	Positive
100–105	Neutral
90–100	Moderate Caution
80–90	Caution
<80	High Caution

Source: Fitch Ratings.

Credit Factor Scoring

In most developed markets, a combined ranking of “neutral” above meets a ‘A’ IFS scoring guideline. For certain developing market countries, Fitch revises this neutral guideline when the agency believes reserving sophistication is below that of developed markets, as per below.

Countries With Neutral Evaluation Below ‘A’

BBB Category	BB Category	B Category
Brazil, Bulgaria, Colombia, India, Malaysia, Morocco, Peru, Russia, Saudi Arabia, Thailand, Turkey	Argentina, Indonesia, Kazakhstan, Panama, Sri Lanka, Uruguay	Africa ^a , Barbados, Belarus, Jamaica, Uzbekistan, Venezuela

^aAfrica excludes South Africa and Morocco.

Source: Fitch Ratings.

Scoring is applied as follows relative to the applicable neutral guideline level:

- Several “cautionary” indications will be scored up to a category lower than neutral
- One or more “high cautionary” indications would typically be scored two or more categories lower than neutral.
- For a score above neutral, the growth indication would need to be neutral, and the company would need to show enduring positive indications with respect to both experience and adequacy indicators.
- ‘AAA’ level reserve adequacy is uncommon.

The above guidelines mainly apply to non-life insurers in the property/casualty area. Select guideline ratios for health, mortgage insurance and financial guaranty insurers are in the table below.

Reserve Adequacy – Health, Mortgage, Financial Guaranty

Complementary Ratios	Sector/Regions	Insurer Financial Strength Rating					
		AAA	AA	A	BBB	BB	B
Loss Reserve Development to BOP Medical Claim Liabilities (MCL)	Health	<(9)	(9)–(3)	(2)–2	3–7	8–14	15–22
Number of Days Claims in MCL (Days)	Health	>58	58–45	44–35	34–25	24–17	16–11
Loss Reserve Development to Capital	Mortgage	<(4)	(4)–(2)	(1)–2	3–7	8–12	13–18
Loss Reserve Development to Earned Premium	Financial Guaranty	<(4)	(4)–(2)	(1)–1	2–4	5–7	8–11

BOP – Beginning of the period.

Source: Fitch Ratings.

Reinsurance, Risk Mitigation and Catastrophe Risk

Fitch's evaluates if capital and earnings are reasonably protected from large loss exposures via mitigation techniques, the most common of which is reinsurance. Other forms of mitigation include securitizations, industry loss warranties (ILWs), or capital markets products, such as options, forwards or futures. Fitch conducts its evaluation recognizing that tight product designs that limit risks, together with diversification, act as an important first line of defense.

Key quantitative measurements, and related guidelines, are listed in the table below.

Reinsurance, Risk Mitigation and Catastrophe Risk

(%)	Sectors/Regions	Insurer Financial Strength Rating					
		AAA	AA	A	BBB	BB	B
Core Ratios							
Reinsurance Recoverables to Capital	Non-Life, Financial Guaranty, Mortgage	<30	30-54	55-82	83-117	118-154	155-195
Substitute	Reinsurance	<18	18-34	35-62	63-97	98-132	133-175
1-250-Year Annual Aggregate Catastrophe Losses to Capital ^a	Non-Life, Reinsurance -Blended	<13	13-29	30-54	55-79	80-99	100-120
Substitute	Reinsurance - Property Catastrophe	<18	18-37	38-64	65-84	85-104	105-130
1-200-Year Annual Aggregate Catastrophe Losses to Capital ^a	Non-Life, Reinsurance -Blended	<10	10-25	26-47	48-69	70-89	90-110
Complementary Ratios							
Net Premium Written to Gross Premium Written	Non-Life, Reinsurance, Mortgage	>86	86-68	67-55	54-40	39-25	24-10
Largest Net Single Risk Limit to Surplus	Title	<14	14-37	38-62	63-87	88-112	113-150
Single Risk Par to Capital (x)	Financial Guaranty	<6	6-14	15-27	28-42	43-59	60-80
Net Notional Par to Gross Notional Par Insured	Financial Guaranty	>96	96-78	77-65	64-55	54-45	44-35

^aThe 250- or 200-year versions of the "annual aggregate catastrophe losses-to-capital" ratio are used based on local market convention. For example, in the U.S. a 250-year ratio (based on T-VAR) is the norm, whereas the 200-year ratio (based on VAR) is typically used in Europe.
Source: Fitch Ratings.

Since risk mitigation is typically tailored to each insurer's unique needs, review of standard ratios only reveals so much. The following are additional qualitative considerations.

Reinsurance

Fitch's evaluation focus on whether:

- Sufficient amounts and types of reinsurance are in place to limit net loss exposures given the unique characteristics of the book.
- There are no apparent holes in the reinsurance program.
- Reinsurance cost does not excessively drive down the ceding company's profitability to inadequate levels and weaken its competitive posture.
- Financial strength of reinsurers is strong, limiting the risk of uncollectible balances due to insolvency of the reinsurer.
- Exposure to possible collection disputes with reinsurers is not excessive.

Data available to Fitch to evaluate reinsurance programs can vary greatly by. When information is limited, Fitch relies more heavily on the ratios and metrics noted above, and also looks for signs of changes in reinsurance programs that could flag a change in risk. These include a shift in the amount of premiums ceded to reinsurers, changes in reinsurers' share of incurred losses or changes in the amount of reinsurance recoverables.

Securitizations

Insurance companies may sponsor risk securitizations, such as catastrophe bonds. Securitizations usually pose minimal to no counterparty credit risk, since they are typically

fully collateralized. However, the protection provided to the ceding company may not be complete due to basis risk, especially if the payout is linked to industry loss indexes or a defined parameter.

Financial Reinsurance

Insurers can use financial reinsurance to augment earnings, which can actually add to overall risks. Examples include:

- Excessive cessions under quota-share treaties simply to earn ceding commissions.
- Finite risk reinsurance that is driven less to achieve risk transfer and more by financial objectives, such as offsetting a current period earnings charge, smoothing earnings and effectively discounting reserves on a present value basis.

Fitch typically views the quality of earnings and capital created through financial reinsurance to be less than that obtained through the use of traditional reinsurance containing higher levels of risk transfer. Analysis of such programs requires high levels of judgment.

Catastrophe Risk

Fitch's analysis of catastrophe risk for non-life insurers involves traditional ratio analysis and, in some regions, a review of the output of catastrophe risk models. The starting point is a review of business mix, geographic concentration, premium growth rate and past results in order to understand the company's overall catastrophe risk management profile. This review considers the nature of catastrophe risk on both a marketwide basis within a jurisdiction as well as the insurer's specific share of market losses.

When provided, Fitch reviews results generated by insurers' internal and licensed catastrophe models. Fitch reviews various confidence levels, including 100-year, 250-year, 500-year, 1,000-year probabilities, and beyond, when possible. Fitch believes a full evaluation of the extreme ends of the "tail" is useful, in part recognizing that actual catastrophe events seem to occur at frequencies greater than implied by many models. Fitch has licensed a third-party model known as CATRADER natural catastrophe modeling tool from AIR Worldwide Corporation (AIR) (primarily used for the U.S.) and, where appropriate and feasible, uses this model to produce loss distribution curve estimates.

Fitch believes modeled results are most informative on an annual aggregate basis (both gross and net of reinsurance). Fitch's also prefers use of tail value-at-risk (T-VaR) measures rather than a probable maximum loss (PML) approach, where available. Fitch recognizes the potential shortfalls in any model-driven analysis and also attempts to not be overly reliant on the results of any one model without also applying judgment in interpretation of the model outputs.

Life Insurer Risk Mitigation

For some life insurers, risk mitigation strategies other than reinsurance can play a significant role, including:

- Derivative hedging to limit market risks on guarantees on variable annuity or unit-linked type products.
- In the U.S., use of various strategies to "cede" excess reserves of life insurance lines subject to regulations covering secondary guarantees to provide for regulatory capital relief.
- Outside the U.S., securitization of the "embedded value" of certain product blocks, in order to enhance capital or liquidity.

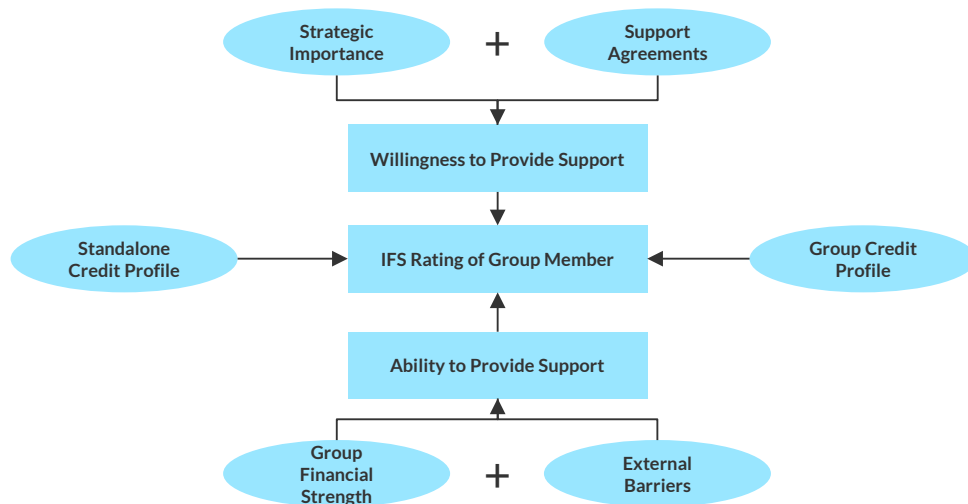
Fitch's evaluation of derivative hedging is similar to that done for reinsurance, but it also considers basis risk, management strategy and any controls related to the hedging program, where such information is available. For some companies, review of historic performance of the hedged business is the primary part of Fitch's evaluation.

Group Rating Criteria

This section defines guidelines for how the IFS ratings of members of an insurance group influence the IFS ratings of other group members. Fitch ultimately takes one of three approaches for a given group member's IFS rating:

- **Standalone:** Based on group member's own financial profile, with no impact from group affiliations.
- **Partial Attribution:** Based on group member's own financial profile, plus some impact of the strengths or weaknesses of other group members.
- **Group:** Based exclusively on the group credit profile.

Group Rating Overview



IFS – Insurer Financial Strength.
Source: Fitch Ratings.

The applicable approach is a function of the ability and willingness of the core group members to provide support, as depicted in the figure on the next page.

Willingness to Provide Support

Willingness of a group to support specific members is a function of:

- Strategic importance of group member.
- Support agreements being in place.

The more strategically important members are to the group as a whole, the more likely Fitch is to use a group or partial attribution approach. Absent sufficient strategic importance, use of formal support agreements can also result in a group or partial attribution approach.

Support Agreements

Support agreements can affect Fitch's evaluation of a group's willingness to support, especially when a group member is less than core. Formal support agreements often result in uplift in a group member's strategic assessment and IFS rating. The degree a formal support agreement can enhance the strategic category is judgmental. Informal support agreements typically have no impact. The following are the primary types of formal support agreements.

Liability Guarantee: Assures the timely payment of a group member's liabilities by another group member(s), and is typically irrevocable even if the insurer is divested (though the guarantee can often be terminated with respect to new liabilities at any time).

"Fortune-Sharing" Reinsurance: Reinsurance programs that are structured to allow the financial fortunes of the participating affiliates to rise and fall together. Examples include a

Strategic Importance of Member

Parameter	Core	Very Important	Important	Limited Importance
History and outlook for success in supporting group objectives	Very strong	Strong	Present, but with some uncertainties	Varied; unclear
Synergies with group as a whole	Key and integral	Synergistic, but short of core by small margin Possibly due to size or newness	Unproven or unclear Possibly due to small relative size, newness or more risky focus than rest of group	No synergistic relationship May (possibly) provide some diversification
Branding	Driver of group branding	Often shares	May not share	May not share
Financial results relative to group expectations	In line Often defines group financial expectations	Generally in line	At times in line, but inconsistent	May fall short
Relative size	Material relative to whole, and/or in absolute terms Can be smaller (see more below)	Modestly short of core	Notably short of core Often managed with the intent to grow to become a more important operation	Typically relatively small May be in runoff
Likelihood of divestiture over ratings horizon	Highly unlikely Any divestiture only after long holding period	Unlikely Any divestiture only after long holding period	Plausible, but not expected	Plausible If likely to be sold, is typically of Limited Importance
Impact of a theoretical divestiture on Fitch's view of group or its members	Reevaluate strategic importance of other core affiliates Review if the group credit profile is affected	Reevaluate strategic importance of other very important affiliates	Limited	None

Additional Comments on Core Group Members: A small member may be core if it plays a key role in the organization's strategy such as an extension of a core business within a smaller, yet important, market coupled with meaningful market share, or acting as an operational hub for an important region markets. Smaller core insurers can also be set up solely to obtain a license in a key jurisdiction, as members of intercompany reinsurance pooling arrangements, or as foreign subsidiaries whose primary strategic purpose is to sell coverage to local affiliates of insureds of the parent insurer. Core entities are typically not select ventures in emerging markets of groups primarily operating in developed markets.

Some organizations may have two or more core businesses. An example would be a U.S. insurance organization composed of significant life and non-life operations with minimal integration. Fitch would typically develop a unique group credit profile for each of the Core business groups.

Source: Fitch Ratings.

quota share of 80% or more of an entire book, an aggregate stop loss to a maximum 70% loss ratio, aggregate catastrophe cover that extends beyond a typical 100-year-500-year probable maximum loss, or intercompany pooling arrangements. If the reinsurance can be easily provided on similar terms by an unrelated third-party, and/or does not allow for fortune sharing, it would not be viewed as a form of support.

Capital Support Agreement: An agreement signed by the board or an empowered member of executive management to maintain capital of a group member above a minimum threshold (usually defined in either absolute terms or as a percentage of regulatory required capital). Capital support agreements are typically legally binding while in force, but they are usually revocable and can be withdrawn if the insurer is divested.

Letters from management and strategic statements of support are viewed as informal.

Ability to Provide Support

Ability of a group to support specific members is a function of:

- Financial strength of the group.
- External barriers that restrict movement of capital/resources.

Financial Strength

The ability to move capital or other assets between affiliated companies is seldom an issue from a regulatory perspective when a group is financially strong. When credit fundamentals are weak, insurance regulators are more cautious, plus other constituents, such as rating

agencies, creditors, distributors and customers may take a negative view of capital movements that diverge from their expectations.

Changes in Strategic Importance – Trend/Divestiture

Trend: Fitch may change a given entity's rating Outlook, and subsequently its rating, to reflect a possible future change in strategic category if based on emerging trends.

Divestiture: If a group announces an agreement to sell, IPO or spin off a supported entity (or that it is exploring strategic alternatives), Fitch would typically change its strategic category to as low as Limited Importance and take other related actions:

- Buyer identified/stronger credit profile than seller: Fitch would likely use Rating Watch Evolving to reflect a potential upgrade if the transaction is completed, or a potential downgrade if it is not completed, reflecting Limited Importance (if Fitch is highly confident in the deal will close the Rating Watch may be Positive).
- Buyer identified/similar credit profile as seller: Fitch would likely use Rating Watch Negative, and if the buyer is weaker, Fitch would likely downgrade the rating to reflect the new Limited Importance category. Any downgrade in this case may be tempered if Fitch believes the entity will continue to be supported while it is owned.
 - Rating Watch Evolving would be used if Fitch has not previously maintained a Standalone Credit Profile on the to-be divested insurer and/or cannot formulate one.
- No buyer identified: Fitch will typically downgrade the entity since the announcement, in and of itself, would indicate a change in strategic importance has already occurred.
 - If management indicates it will only sell to a similarly rated new parent, and that if ultimately not sold, the company will be supported, such statements would be considered by Fitch and may or may not affect the outcome. In addition, Fitch would likely also place the entity's rating on Rating Watch – Evolving.

Fitch typically assumes ability to support exists at an IFS rating of 'A⁺' in developed markets. In highly ratings-sensitive businesses, a higher rating standard may be used. Alternatively, a lower standard may be used in developing markets if ratings in the market are generally below 'A⁺' and regulatory restrictions on capital flows are expected to be low.

External Barriers

External barriers can restrict group members from supporting each other, even if they are otherwise willing and able. Such barriers include regulatory or legal restrictions, potential government intervention, adverse tax consequences and debt covenants. The more significant the perceived external barrier, the more likely Fitch will take a stand alone approach.

In almost all jurisdictions, regulatory capital ratios, and/or solvency margin requirements place some restriction on upstream dividend payments and other capital movements. The degree of regulation, and thus the degree of external barriers, can vary greatly based on jurisdiction.

In developing markets, external barriers imposed by governments can become quite pronounced during times of stress, including government interference as to the ability of foreign affiliates to support local subsidiaries.

Credit Profiles – SACP and GCP

Standalone Credit Profiles (SACP) and Group Credit Profiles (GCP) play an important role in group rating criteria application.

SACP

An SACP for a given group member is developed when its strategic categorization is less than core, or concerns exist related to the ability of the group to provide support. In most other

cases, which include most core affiliates, SACP are not developed (for select core group members, an SACP may be developed as input to the group credit profile).

At times, Fitch may not be able to develop an SACP due to informational constraints or a group member not possessing a true independent profile. In this case, if having an SACP in place is material to the ratings outcome, Fitch will not rate that affiliate.

Assumptions are used when a credit factor truly cannot be evaluated on a standalone basis, but can be reasonably estimated, including:

- Business Profile: typically assumes the affiliate is rebranded from the group brand.
- Debt Service Capabilities and Financial Flexibility: typically not evaluated unless the affiliate has its own existing external capital access.
- Reinsurance provided by affiliates is either unwound in the analysis, or assumed to be provided by unrelated third parties at similar rating levels as the affiliates.
- Services provided by affiliates (investment management, claims processing, etc.) are assumed to be of the same quality, but are provided by unrelated third parties.

GCP

A GCP will be developed whenever this group rating criteria is employed. The GCP is typically based on the financial profile of the consolidated group as a whole. When there is more than one core group within the same organization, a GCP will be developed based on each core group’s (approximated) consolidated profile.

Rating Guidelines

The following guidelines in the tables below demonstrate the highest attainable IFS rating a group member can achieve relative to the GCP, for each strategic category. Potential uplift is influenced by the distance between the GCP and SACP (column 1), and whether financial strength-related barriers are in place than can limit the ability to support. Column 2 is used when there are no barriers, and column 3 is additionally used when there are barriers.

Core

GCP Superior to SACP	Level of GCP	
	No Financial Strength Barriers: Maximum IFS Relative to GCP	Financial Strength Barriers: Cap Based on Notching Up from SACP
0-2 ^a	GCP	No Cap
3-5 Notches	GCP	3 Above
6+ Notches	GCP	4 Above

^aIn many cases for Core subsidiaries, there is no SACP developed. In such cases, this row applies. IFS - Insurer Financial Strength. GCP - Group Credit Profile. SACP - Standalone Credit Profile. Source: Fitch Ratings.

Very Important

GCP Superior to SACP ^a	Level of GCP	
	No Financial Strength Barriers: Maximum IFS Relative to GCP	Financial Strength Barriers: Cap Based on Notching Up from SACP
0-2	GCP	No Cap
3-5 Notches	1 Below	2 Above
6+ Notches	3 Below	3 Above

^aIf a formal support agreement exists per step 3, the maximum IFS rating is the group rating, regardless of the distance between the GCP and SACP. IFS - Insurer Financial Strength. GCP - Group credit profile. SACP - Standalone credit profile. Source: Fitch Ratings.

Important

GCP Superior to SACP ^a	Level of GCP	
	No Financial Strength Barriers: Maximum IFS Relative to GCP	Financial Strength Barriers: Cap Based on Notching Up from SACP
0-2	GCP	No Cap
3-5 Notches	2 Below	1 Above
6+ Notches	4 Below	2 Above

^aIf a formal support agreement exists per step 3, the maximum IFS rating is the group rating, regardless of the distance between the GCP and SACP. IFS – Insurer Financial Strength. GCP – Group Credit Profile. SACP – Standalone Credit Profile. Source: Fitch Ratings.

Limited Importance – When Formal Support^a

GCP Superior to SACP ^a	Level of GCP	
	No Financial Strength Barriers: Maximum IFS Relative to GCP	Financial Strength Barriers: Cap Based on Notching Up from SACP
0-2	GCP	GCP
3-5 Notches	1 Below	2 Above
6+ Notches	2 Below	3 Above

^aIf no formal support agreement Limited Importance Companies are rated at their SACP. IFS – Insurer Financial Strength. GCP – Group Credit Profile. SACP – Standalone Credit Profile. Source: Fitch Ratings.

Core

Fitch typically assigns the GCP to the IFS ratings of core members. If Fitch has concerns related to the ability to support, Fitch may limit full application of the GCP based on the number of notches between the SACP and GCP.

Very Important/Important

Fitch typically rates at the GCP, or between the GCP and SACP. Certain maximum rating benchmarks are used per the tables above, and limitation on the ability of the group to provide support can further affect the degree of ratings uplift. These benchmarks differ somewhat for Very Important and Important.

Limited Importance

Typically rated based on SACP unless a formal support agreement is in place in which case a group member can potentially have its IFS rating uplifted as high as the GCP. The extent of any uplift is based on how strongly it sits within the strategic category. Fitch also typically places some caps on the degree of uplift, as per the earlier exhibit.

Other Group Rating Considerations

Referral of Weakness

Although this section’s primary focus is on uplifting ratings of otherwise lower rated group members due to support, Fitch also considers the case of a weak affiliate pulling down the ratings of other group members. This reflects most groups’ preference to avoid “walking away” from a problem affiliate due to the negative perceptions it could bring to its franchise. In these cases, Fitch will consider an estimate of support the group may need to provide the ailing affiliate and its likelihood. Fitch may adjust the ratings of the insurers potentially providing the support downward and the ratings of those receiving it upward.

Branch Ratings

Typically, branches are the same legal entity as the home office, whether domestic or foreign, and, as a result, are typically assigned the same IDR ratings as the home office. The IFS rating assigned to each will be based on the baseline recovery assumptions applicable for each country of domicile, as outlined in the later section on notching. Thus, the IFS ratings of the

two may or may not be notched to the same degree relative to the IDR if priority-afforded policyholder obligations in each country are different.

If branch regulation in a given jurisdiction does not treat the branch as the same legal entity as the home office, Fitch will rate the branch as if it was a subsidiary, and apply its group rating criteria as per above. The Country Ceiling methodology for transfer and convertibility risks will be applied to branch ratings, when applicable.

Impact of Minority Interests

If a material minority shareholder exists for a given group member (i.e. 20% or greater), Fitch may be less likely to apply a full rating uplift as otherwise implied. The existence of minority interests can affect the ability to inject capital.

Rating Above the GCP

While rare, it is possible for a wholly owned group member to be rated higher than the GCP under a narrow set of circumstances. Fitch's general hesitation to rate above the GCP is based on concerns that if a group came under financial stress, it may seek to extract capital or other resources from the higher rated group member to help assure the group's financial position. For Fitch to consider a rating above the GCP, all of the following would need to be in place:

- Material adverse economic impact to the group would result from a downgrade of the group member due to the extraction of its financial resources that far outweighs any economic benefit from extracting the financial resources.
- The group member possesses its own independent operational and financial infrastructure and its business is unrelated to that of the group.
- Group member competes in a highly ratings-sensitive business in which the group member could not effectively operate with a rating at the level of the GCP.
- Reliance on the group as a whole for financing is very limited.

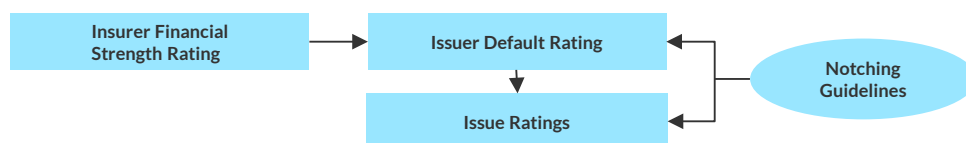
The existence of minority interests may also make Fitch more likely to rate a given group member above the GCP if its SACP is naturally higher than the GCP. The minority interest makes it more difficult to extract capital from the higher rated group member.

While there are no theoretical limits on the notching between the GCP and SACP, it would be extremely rare for the group member to be rated more than two notches above the GCP. Fitch does not give credit for structural protections designed to limit the ability to extract capital, since under stress it is likely that most structural protections could be reversed.

Debt/Hybrid Issue Ratings and Notching

Notching is the practice of establishing a rating relative to an “anchor” and is used to develop debt and hybrid issue ratings. The initial anchor is the IFS rating, from which notching is applied to establish one or more IDRs. Debt/hybrid issue ratings are notched from the IDRs. The degree of notching is based on the guidelines that follow.

Notching Overview



Source: Fitch Ratings.

Straight debt notching is based on assumed recoveries in the event of default. Issues with higher recoveries are notched up from the IDR, and those with lower recoveries are notched down. For hybrids, notching is also influenced by the risk that the hybrid would become nonperforming prior to default.

Fitch typically uses general recovery assumptions for different classes and types of obligations for issuers with IDRs of ‘BB-’ and above. For IDRs of ‘B+’ and below, Fitch develops bespoke recovery estimates, and assigns Recovery Ratings (RR) between RR1 to RR6, in alignment with the six recovery ranges listed in the table below.

Typical Notching Relative to IDR (for Recovery Only)

Recovery Prospects	Degree of Notching	
	Investment Grade	Non-Investment Grade
Outstanding (91%-100%)	+2	+3 (Secured), +2 (Unsecured)
Superior (71%-90%)	+1	+2
Good (51%-70%)	+1	+1
Average (31%-50%)	0	0
Below Average (11%-30%)	-1	-1
Poor (0%-10%)	-2	-2 or -3

IDR – Issuer Default Rating.
Source: Fitch Ratings.

Regulatory Impact on Notching

The form of regulation establishes a theoretical foundation throughout these notching criteria. Fitch classifies regulation as being either “Group Solvency,” “Ring Fencing” or “Other.”

Group Solvency

Laws/rules protect policyholder interests via robust capital requirements at both the operating and consolidated group holdings levels. A group regulator or college system is in place in which key group members and local regulators would be expected to participate. No material group member, including the holding company, has a clear legal ability to seek bankruptcy protection or legal remedies outside the group regulator’s resolution authority.

Ring Fencing

Regulatory intent is to protect policyholder interests by isolating insurance operating companies from the risks of other group members, including both holding companies and non-insurance affiliates. Ring fencing is often attained by imposing robust capital and other standards at the individual operating company level and/or limiting the flow of capital or funds from the operating company to group affiliates via restrictive financial formulas, required pre-approvals by regulators or other means.

Other

Solvency regime is limited in scope and thus considered ineffective, which would be most common in certain offshore locales or some developing markets.

When a regulatory regime shares elements of both Group Solvency and Ring Fencing, Fitch uses a Ring-Fencing classification.

Regulatory Classifications by Country

Country	Classification	Country	Classification
Argentina	Other	Kazakhstan	Other
Australia	Group Solvency	Malaysia	Ring Fencing ^a
Azerbaijan	Other	Mexico	Ring Fencing
Barbados	Other	Morocco	Other
Belarus	Other	New Zealand	Ring Fencing
Bermuda	Group Solvency	Nicaragua	Other
Brazil	Ring Fencing	Panama	Other
Canada	Ring Fencing/Group Solvency ^b	Peru	Ring Fencing
Cayman Islands	Ring Fencing ^c	Russia	Other
Chile	Ring Fencing	Saudi Arabia	Ring Fencing
China	Group Solvency	Singapore	Ring Fencing ^a
Colombia	Ring Fencing	South Africa	Group Solvency
Costa Rica	Ring Fencing	South Korea	Ring Fencing
Dominican Republic	Other	Sri Lanka	Ring Fencing
El Salvador	Other	Switzerland	Group Solvency
European Economic Area	Group Solvency	Taiwan	Group Solvency
Guatemala	Other	Thailand	Ring Fencing
Honduras	Other	Tunisia	Other
Hong Kong	Ring Fencing	Turkey	Ring Fencing
India	Ring Fencing	United States	Ring Fencing
Indonesia	Ring Fencing	Uzbekistan	Other
Jamaica	Other	Uruguay	Ring Fencing
Japan	Group Solvency	Venezuela	Other

^aIf enhanced capital standards at the parent/holding company level are implemented within Malaysia's and Singapore's insurance regulations, the country regulatory classification will likely change to Group Solvency at that time. Prior to that, rating committees will determine on a group by group basis whether notching should be based on Ring Fencing or Group Solvency assumptions based on the nature of any specific capital standards currently put into place by the regulator for a specific group at the consolidated parent/holding company level. ^bTypically, holding companies are not formally regulated in Canada, though several of the largest formerly mutual life insurers have regulated holding companies and some stock companies have entered into an agreement with the regulator creating some heightened direct holding company regulation. Thus, the regulatory designation used in Canada will differ from company to company depending on circumstance. ^cApplies only to Class D reinsurers as defined by Cayman Islands regulations. All other classes are Other.

Source: Fitch Ratings.

IFS Rating to Operating Company IDR Notching

The IDR of the operating company is notched from the IFS rating based on the assumed recovery for policyholder/reinsurance obligations embedded in the IFS rating.

When regulation is classified as either Group Solvency or Ring Fencing, Fitch assumes an IFS rating recovery of Good, based on a belief that regulators will intervene early enough to assure assets will be preserved enterprise wide in a distressed scenario. We assume policyholder/reinsurance obligations, as the largest liability, will share in the strong recoveries of the enterprise as a whole, whether formally afforded priority or not.

When the regulatory classification is Other, a recovery below Good is used for the IFS rating. The appropriate recovery assumption is established by a rating committee based on judgment. Importantly, this lower recovery assumption will typically correlate with lower IPOE (and

related credit factor) scores, resulting in lower IFS ratings compared to those in more robustly regulated jurisdictions.

IDRs are always set at a “recovery neutral” assumption of Average. Thus, at the IFS recovery of Good, the IDR is set one notch lower than the IFS rating. When IFS recoveries are Below Average or Poor, the IDR will be established above the IFS Rating.

Fitch’s cross-sector criteria report, Country Specific Treatment of Recovery Ratings Criteria, also has relevance to the level of the IFS rating tied to recovery assumptions. This report discusses caps that can be placed on recovery assumptions in jurisdictions where enforceability of credit protections is limited or questionable.

Operating Company IDR Notching Guidelines

	Recovery Assumption for IFS Rating			
	Good/RR3	Average/RR4	Below Average/RR5	Poor/RR6
IDR Relative to IFS	-1	0	1	2

IDR – Issuer Default Rating. IFS – Insurance Financial Strength.
Source: Fitch Ratings.

Operating Company IDR to Holding Company IDR Notching

The notching between the operating company IDR and its parent holding company IDR is based on the perceived difference in default risk between the two entities. This evaluation is heavily influenced by the style of regulation employed:

Some global groups operate in jurisdictions where both Group Solvency and Ring-Fencing forms of regulation are in place. When more than 30% of earnings or capital comes from countries that are expected to ring fence, Ring-Fencing-based notching will typically be applied. Fitch is most likely to assume cross-border Group Solvency for holding company IDR notching purposes for groups operating only within the European Union.

IDR Notching Guidelines – Insurance Company to Holding Company

	Regulatory Environment		
	Ring Fencing	Group Solvency ^a	Other
Investment Grade ^b	-1	0	0
Non-Investment Grade	-2	-1	-1

^aIf foreign subsidiaries make up 30% or more of earnings/capital, ring fencing may be employed. ^bBased on operating company Issuer Default Rating.
Source: Fitch Ratings.

Additional Notching Considerations – Ring-Fenced Holding Companies

For Ring-Fencing environments only, holding company IDR notching is also influenced by:

- The degree of financial leverage.
- Fixed-charge coverage.
- Holding company cash levels.

The use of additionally compressed or expanded notching as per the table below is done judgmentally by a rating committee and will heavily consider the current financial metrics and expectations for these metrics over the ratings horizon.

Ring-Fenced Holding Companies – Additional Guidelines

	Compress IDR Notching by 1	Expand IDR Notching by 1
Financial Leverage (FLR) (%)	Under 16	Over 30
Fixed Charge Coverage ^a (x)	Over 12	Under 3
Holding Company Cash	Cash/liquid assets exceeded 75% of debt/hybrid obligations in each of past five years Intention to maintain high levels of holding company cash in at least the intermediate term (i.e. no plans to use to fund merger and acquisition activities or repurchase shares). IFS ratings are in the 'A' category or higher.	–

^aApplies if FLR is in typical 16%–30% range. IDR – Issuer Default Rating. IFS – Insurer Financial Strength.
Source: Fitch Ratings.

Impact of Non-Insurance Operations on Holding Company IDR

In more complex organizations where a holding company owns non-insurance subsidiaries, the use of the above notching guidelines between only the insurance company IDR(s) and holding company IDR may not be comprehensive. In such cases, Fitch will also consider the relative size, creditworthiness and capital/liquidity needs of the various non-insurance operating subsidiaries, as well as the contribution of each to holding company debt service and liquidity. The holding company IDR will be established at a level that appropriately balances the insurance and non-insurance operations.

Debt Issue Notching Relative to IDR

The notching of issue ratings relative to the IDR of the issuing entity is first based on expected recoveries in the event of a default. As previously noted, these are based on general assumptions shown in the table below when the IDR is 'BBB' and above. Bespoke RRs are typically used at IDRs of 'B+' and below.

General Insurance Recovery Assumptions

Obligation Type	Ring Fencing	Regulatory Environment	
		Group Solvency	Other
Insurance Company			
Unsecured Senior Debt	Average	Average	Average or Below Average
Subordinated	Below Average	Below Average	Below Average or Poor
Deeply Subordinated	Poor	Poor	Poor
Holding Company			
Unsecured Senior Debt	Below Average	Below Average	Below Average or Poor
Subordinated	Poor	Poor	Poor
Deeply Subordinated	Poor	Poor	Poor

Source: Fitch Ratings.

Notching guidelines for unsecured senior and subordinated/deeply subordinated debt follow in the tables below.

Unsecured Senior Debt — Notching Guidelines

Issuer Type	Ring Fencing	Regulatory Environment	
		Group Solvency	Other
Insurance Company			
Recovery	Average	Average	Average or Below Average
Notching Relative to IDR	0	0	0 or -1
Holding Company			
Recovery	Below Average	Below Average	Poor
Notching Relative to IDR	-1	-1	-2 IG, -3 BIG

IDR – Issuer Default Rating. IG – Investment grade. BIG – Below investment grade.
Source: Fitch Ratings.

Subordinated and Deeply Subordinated Debt^a — Notching Guidelines

Issuer Type	Regulatory Environment		
	Ring Fencing	Group Solvency	Other
Insurance Company (Sub.)			
Baseline Recovery	Below Average	Below Average	Below Average or Poor
Notching Relative to IDR	-1	-1	-1 or -2
Insurance Company (Deeply Sub.)			
Baseline Recovery	Poor	Poor	Poor
Notching Relative to IDR	-2 IG, -3 BIG	-2 IG, -3 BIG	-2 IG, -3 BIG
Holding Company (Sub. and Deeply Sub.)			
Baseline Recovery	Poor	Poor	Poor
Notching Relative to IDR	-2 IG, -3 BIG	-2 IG, -3 BIG	-2 IG, -3 BIG

^aTable illustrates subordinated debt that does not contain nonperformance features. See Hybrid Notching for subordinated debt with nonperformance features. Sub. – Subordinated. IDR – Issuer Default Rating. IG – Investment grade. BIG – Below investment grade. Source: Fitch Ratings.

Secured Debt Notching

Secured debt is notched based on a bespoke analysis to arrive at the recovery assumption regardless of IDR level (however, no RR will be published unless the IDR is below 'BBB?'). In addition, if the secured debt is large and could have the first claim on a material portion of post-default assets, Fitch may judgmentally use lower general recovery assumptions for more junior securities than shown earlier. Guidelines for secured debt notching follow:

- **Outstanding:** Two notches above the IDR at investment grade; three notches at below investment grade, but also capped at 'BBB?' for non-investment grade.
- **Superior:** One notch above the IDR at investment grade; two notches at below investment grade, but also capped at 'BBB?' for non-investment grade.
- **Good:** One notch above the IDR.
- **Average:** Unsecured debt notching guidelines are used.
- **Below Average/Poor:** Subordinated/deeply subordinated debt guidelines are used.

Funding Agreement-Backed Note (FABN) Program Notching

FABN programs consist of a SPV that issues notes secured by funding agreement(s) issued by a life insurer. Since the funding agreements issued by the life insurer are pari passu with other policyholder claims, the rating of the FABN is notched at the level of the IFS rating of the life insurer.

Guaranteed Debt

Fully guaranteed debt is rated at the higher of that implied by application of these notching criteria relative to the issuer's IDR, or the applicable issue rating of the guarantor based on the ranking of the guarantee, be it senior unsecured, subordinated or other.

Bancassurance Recovery Assumptions

Fitch typically uses the above recovery assumptions when notching the various insurance operating and holding company liabilities for a bancassurance group. However, rating committees may instead use bank-like recovery assumptions for debt and hybrid obligations of an insurance holding company if the committee concludes the holding company would be subject to a bank-like insolvency resolution. However, bank-like recovery assumption would rarely, if ever, be applied to the insurance operating company level.

Insurance Revenue Bonds

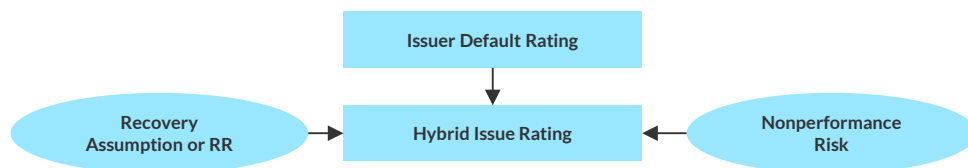
For government-sponsored/organized U.S. insurance entities whose debt has certain elements of a municipal revenue bond, the bond rating will align with the issuer's IDR without use of notching for assumed recovery. In such cases, similar to a U.S. municipal, the rating is mainly influenced by the strength and stability of the assessment (revenue) stream. An example is a

government-sponsored provider of catastrophic risk cover for which a key source of funding is industry premium assessments.

Hybrid Notching

Hybrids are subject to additional notching based on the perceived risk that the hybrid's features could lead to nonperformance, such as a coupon being deferred, or occurrence of principal write-down. In rating hybrids, recovery-based notching is always first applied.

Hybrid Notching Overview



Source: Fitch Ratings.

Hybrid features that are based purely on management discretion are considered to be less likely to be triggered, and thus carry less additional notching for nonperformance risk. Those where discretion is given to regulators, or where triggering is mandatory based on a conservative financial metric, are generally considered more likely to be triggered and carry greater notching.

Regulatory discretion and influence over hybrids is more present under Group Solvency, where hybrids can be included in regulatory capital calculations. It is less prevalent in Ring-Fencing environments, such as for U.S. holding companies.

Nonperformance Risk Classifications

Minimal: This feature is not expected to trigger until the company would otherwise fail or default, such as a trigger tied to a capital ratio that aligns with regulatory intervention. Minimal applies when a trigger is left to the discretion of management, with no expectation of pressure applied by a regulator. Minimal also applies when triggers are highly complex with look-back features, etc., that make the ability to trigger questionable.

Moderate: This designation is used for cases that fall between Minimal and High.

High: This feature is expected to trigger well in advance of failure. This includes mandatory triggers linked to a capital ratio level well above a regulatory minimum (and only modestly below a level that would be very safe). High also applies to optional or discretionary features where the regulator is believed to have significant influence and would be expected to exert

Hybrid Nonperformance Risk – Notching Guidelines

Risk Levels	Additional Notching	Examples
Minimal	0 or 1 ^a	Many legacy hybrids, such as those based on management discretion, and with no or low mandatory deferral triggers, or with constraining look-back features. Capital ratio triggers include 100% of U.S. NAIC RBC ACL, 120% of Canada LICAT, 200% of Japan SMR and, for other Asia-Pacific countries, 100% of minimum statutory solvency margin.
Moderate	1 or 2 ^a	Solvency II Tier 3 and Tier 2 hybrids, such as those with mandatory triggers that are fairly conservative, but may include some constraints. Example: capital triggers include 100% of Solvency II SCR (for coupons and/or bullet maturity redemptions), 150% of U.S. NAIC RBC ACL and 150% of Canada LICAT.
	2	New-style Solvency II Tier 1 hybrids with full coupon discretion and some expectation of regulatory pressure to exercise.
High	3 or More	New-style Solvency II Tier 1 hybrids with very easily activated trigger such as a capital ratio trigger set well above regulatory minimums and without other constraints.

^aFor Minimal, 0 is used as the baseline in most cases, with 1 used as the baseline for holding companies in Ring-Fencing environments. For Moderate, 1 is the baseline in most cases and 2 is used as the baseline for holding companies in Ring Fencing environments. The differentiation is based on greater liquidity typically available at all operating and holding companies under Group Solvency, which make enactment of a hybrid feature by management, such as coupon deferral, less likely than when liquidity may become strained, which is more likely at a Ring-Fenced holding company. Accordingly, regulatory environment is defined based on country of hybrid issuer, and Group Solvency will be used for hybrid notching in a country employing Group Solvency, even if Ring Fencing is employed for holding company notching due to the “30% foreign capital/earnings” guideline. ACL – Authorized control level. LICAT – Life insurance capital adequacy test. SMR – Solvency margin ratio. SCR – Solvency capital requirement.

Source: Fitch Ratings.

such influence if warranted. Most often there is no explicit regulatory authority within the terms of the hybrid itself, but instead the regulator would be expected to exert pressure within the context of its general authorities, for example, by threatening to remove a hybrid for capital consideration if not triggered. Such expectations of regulatory behavior are often highly judgmental and can vary by jurisdiction, issuer and hybrid of a given issuer.

U.S. Surplus Notes and Japanese Kikin Hybrid Notching

Hybrid surplus notes issued by U.S. insurance companies, and kikin issued by Japanese insurance companies, are typically notched down by one from the operating company IDR on a recovery assumption of Below Average (one notch) and Minimal nonperformance risk (zero notches). Regulators historically appeared hesitant to impose deferrals on these instruments, except under relatively severe stress.

However, if the financial leverage ratio of the insurance company (counting surplus notes or kikin as debt) exceeds 15%, the surplus notes or kikin will typically be notched down by two, as in such a case deferral risk is assumed to increase to the Moderate category.

Notching Without an IFS Rating as the Anchor

Although the IFS rating is the typical starting point anchor, there may be select cases where no IFS rating is developed, and the anchor rating is the holding company IDR. This could occur when the issuer’s business does not lend itself to establishing an IFS rating, such as when there is no core group, and no single operating entity(ies) whose footprint comprises a large enough proportion of overall group exposure (for example, a holding company whose business is buying and managing various, unrelated runoff operating companies).

In this case, the key credit factors would be applied to the holding company IDR. However, the ratio guidelines would be evaluated at a lower level to reflect holding company level risk, as defined by notching guidelines. For example, in the case where typically there is a two-notch difference between IFS rating and the holding company IDR, the credit factor scoring guideline ranges would be shifted by approximately two notches.

Distressed Debt Exchanges (DDE)

When debt is restructured, it may be treated as a default if: 1) the restructuring imposes a material reduction in terms compared with the original terms, and 2) the restructuring or exchange is conducted to avoid bankruptcy, a payment default and/or regulatory intervention. When a distressed exchange is announced, the IDR will typically be downgraded to ‘C’. Upon execution of the DDE, the IDR will typically be downgraded to “RD” (Restricted Default), and affected issue ratings will be accordingly changed per the guidelines above. Shortly after a DDE is completed, the IDR will be re-rated based on the go-forward profile and typically raised to a performing level, but often still low speculative grade.

Distressed/Low-Rated Debt and Nonperforming Hybrid Notching

Fitch uses the guidelines in the table below to assign issue ratings to defaulted and distressed debt and hybrid issues, as well as performing debt rated ‘B+’ and below. The table provides a summary of the possible interpretations of low speculative-grade obligations ratings in

Instrument Ratings for Combinations of Issuer IDRs and RRs

	Long-Term IDR			Distressed and Defaulted Issuers				
	B+	B	B-	CCC+	CCC	CCC-	CC	C/RD/D
RR1	BB+	BB	BB-	B+	B	B-	CCC+	CCC
RR2	BB	BB-	B+	B	B-	CCC+	CCC	CCC-
RR3	BB-	B+	B	B-	CCC+	CCC	CCC-	CC
RR4	B+	B	B-	CCC+	CCC	CCC-	CC	C
RR5	B	B-	CCC+	CCC	CCC-	CC	C	C
RR6	B-	CCC+	CCC	CCC-	CC	C	C	C

IDR – Issuer Default Rating. RR – Recovery Rating. Note: Assumes no incremental nonperformance risk in instrument rating relative to the IDR.
Source: Fitch Ratings.

corporate finance, differentiated by performing obligations and nonperforming obligations or issuers. The issue rating for defaulted debt is based on the RR assigned to the issue.

The table that follows demonstrates how Fitch assigns ratings to hybrid securities that are nonperforming, i.e. a loss absorption feature, such as an interest/coupon deferral has been enacted.

Ratings of Nonperforming Hybrid Obligations

Obligation Rating	Nonperforming Obligation
CCC	Loss absorption has been triggered, but the rated obligation is expected to return to performing status with only very low economic losses being sustained that are consistent with 'RR1'.
CCC-	Loss absorption has been triggered, but the rated obligation is expected to return to performing status with only moderate economic losses being sustained that are consistent with 'RR2'.
CC	Loss absorption has been triggered, and the rated obligation is only expected to return to performing status with high economic losses being sustained that are consistent with 'RR3'.
C	Loss absorption has been triggered, and the rated obligation is only expected to return to performing status with severe economic losses being sustained that are consistent with 'RR4' to 'RR6'.

Source: Fitch Ratings.

Bespoke Recovery Rating Analysis

For issuers with IDRs at 'B+' and below, Fitch typically performs a bespoke recovery analysis and assigns an RR to each issue rating. In some cases, Fitch may determine that it cannot assign an RR due to inadequate information, not having sufficient time (i.e. at the time of an IDR downgrade due to an unexpected event), or other complexities. In such cases, Fitch will apply a general recovery assumption and will cite lack of a RR as a ratings limitation.

Fitch typically will not set an RR more than plus or minus one RR level different than that implied by a general recovery assumption. For example, if the general assumption for a class of debt implies 'RR4', Fitch would typically set the RR no higher than 'RR3' and no lower than 'RR5'. However, if a default occurs, Fitch will not impose this limitation on the RR level.

Valuation Approaches

RRs will be based on a liquidation value (LV) approach or going-concern (GC) approach, depending on whether done for an operating or holding company.

Valuation Approach and Key Assumptions

Approach	Operating Company		Holding Company ^a
	Liquidation Value	Liquidation Value Or	Going Concern
Assumed Cause of Insolvency	Material decline in capital below regulatory standards, or in select cases, a significant liquidity shortfall.	Stress rooted at the operating company	Stress rooted at the holding company level.
Other Assumptions	Soon after regulatory intervention, the operating company would default on its debt and/or hybrid obligations after regulators take actions to protect policyholders.	Operating company halts upstream payments to holding company, causing holding company to expend its own liquidity/financial flexibility to service its obligations; ultimately fails to continue to meet its obligations. Both the operating and holding company are ultimately liquidated.	Operating companies remain solvent and able to upstream some funds, but such funds ultimately prove to be insufficient. We then assume holding company seeks bankruptcy protection (if allowed), and attempts to sell all/some operating company subsidiaries.

^aCan use liquidation value or going concern based on cause of assumed stress. In some situations in which the organization structure is more complex, a holding company recovery analysis will combine elements of the liquidation value and going concern approaches. In such cases, the recovery analysis will be tailored to the noted complexity of the structure.

Source: Fitch Ratings.

LV Approach – Operating Company

The LV approach for an operating company involves: 1) defining the hypothetical pro forma balance sheet at the time of insolvency/regulatory intervention, and 2) applying additional stresses to reflect issues that may develop as part of a liquidation process.

The pro forma balance sheet typically sets regulatory capital to zero, but could be negative if the insolvency is assumed to be sudden and severe. Within the balance sheet, key asset and liability values are restated to reflect the hypothetical cause of the insolvency, for example, if the insolvency is based on reserving issues, capital will be reset by increasing reserves.

LV Approach – Holding Company

The analysis starts with a current holding company-only balance sheet, which is adjusted to reflect: 1) operating company insolvency, 2) assumed expenditure of liquidity for both payment of near-term holding company obligations coming due and funding capital contributions to the operating company, 3) draws on committed credit facilities, and 4) application of supplemental stresses as per the table on the next page. The holding company LV is floored at zero.

- Fitch typically assumes no residual value will be available to the holding company from the sale of operating companies under stress, and these subsidiaries will be fully written off.
- Funds available for recoveries will come from existing holding company liquid assets and/or the residual value of any subsidiary or other investments not under stress.

Representative Supplemental Stresses

Category	Typical Stress Range (%)
Investment-Grade Fixed Income – Traded	5–25
Non-Investment-Grade Fixed Income – Traded	10–50
Common Stocks	25–75
Illiquid Invested Assets	25–100
Receivables	5–50
Intangibles	50–100
Claim/Benefit Reserves	5–20 non-life, 0–10 life
Expense Overruns	2–5 of total assets

Note: These ranges are provided for indicative purposes only. As a bespoke analysis, the agency may use other asset valuations where considered more appropriate.

Source: Fitch Ratings.

Fitch will assume that at least a portion of liquid assets of the holding company will need to be expended prior to its liquidation.

- Fitch will reduce current liquid assets for all holding company obligations due within one to two years, including interest payments, principal repayments on maturing debt (including short-term borrowings) or holding company level expenses. Analysis typically assumes common stock, preferred and hybrid dividends will be suspended and thus not included in the subtracted amounts
- Fitch will typically assume that prior to the operating company insolvency, a portion of liquid assets at the holding company will be paid down into the operating company as a capital contribution in a (failed) attempt to help the operating company avoid insolvency. There is no rigid standard for this adjustment, but a typical range would be 10%–20% of current operating company capital.
- Fitch will typically assume that any committed credit facilities are drawn upon to fund any of the above payments, if necessary. This would equally increase holding company liquid assets and debt obligations on the adjusted pro forma balance sheet.

If the holding company holds material insurance or non-insurance subsidiaries that Fitch believes are not under stress and could ultimately be monetized to support recoveries, a GC approach would be used to derive a value for those investments.

GC Valuation – Holding Companies

The GC approach is used when a holding company’s operating subsidiaries are expected to remain solvent, and where default at the holding company is mainly driven by holding company risks, such as excessive use of financial leverage. Fitch assumes:

- Recoveries on holding company obligations will be funded by the value derived from the sale of operating subsidiaries.
- All holding company liquid assets (other than pledged assets supporting secured debt) will be fully expended prior to default, and thus unavailable to support recoveries.
- Multiples will vary from case to case, but will commonly fall within the below ranges.

Multiples may be influenced by local market conditions, regulatory conditions and recent experience of peers. Multiples are subject to a prudence principle that acts to limit/collapse the multiple during periods of market peak/troughs. Actual market values can serve as a starting point, but typically will be reduced to recognize a stressed seller. Discounts applied to observed current market values will correlate with multiple discounts discussed above.

Valuation Multiples— Illustrations

Valuation Method	Typical Multiples (x)
Price/Earnings Multiple	3.0–10.0
Book Value	0.8–1.1
Embedded Values	0.7–0.95

Note: These ranges are provided for illustrative purposes only. Periods of extreme market or economic conditions, or reasonable multiples could fall outside of the above ranges.

Source: Fitch Ratings.

Estimating Creditor Claims

Fitch’s general approach is to classify the creditors according to their seniority such that pari passu creditors are grouped together. The typical order of seniority can be found in the table below.

Creditor Rankings by Seniority

Operating Company	Holding Company
Policyholder Obligations with Seniority	Secured debt
Policyholder Obligations Without Seniority	Unsecured senior debt
Secured Debt	Subordinated debt
Unsecured Senior Debt	Hybrids
Subordinated Debt	
Hybrids	

Source: Fitch Ratings.

In certain jurisdictions, life policyholder obligations have seniority over non-life obligations and primary obligations have seniority over assumed reinsurance obligations. Other obligations that may be present but are less common include pension obligations, obligations under guarantees, derivatives (usually treated pari passu with unsecured senior debt, but in other cases can be collateralized), and contingent claims.

Fitch will make adjustments to the creditor profile to reflect any changes made to the pro forma balance sheets, such as higher claim/benefit reserve levels (due to application of stress values), any draw downs on credit facilities, or assumed repayments of holding company obligations due within one to two years. In select cases, Fitch may also make adjustments for accounting issues, such as adjustments to ensure liabilities reflect the amount owed rather than a fair value (i.e. if a liability was written down to reflect the issuer’s own credit risk).

Determining the Distribution of Value and RR

Fitch typically assumes that this value is distributed to the various classes of creditor according to a legal waterfall after first applying a 10% haircut to cover administrative claims.

Application of the waterfall is a fairly straight forward set of calculations in which no monies are allocated to a more junior class until the more senior class is first paid off in full. One important exception is for secured debt, where the assets securing the debt are removed from the waterfall and their stressed value applied to the credit claims associated with the secured debt. In some cases, secured debt holders may also have a claim on general assets in the waterfall.

Once the estimated recovery ratios are calculated, these are compared with Fitch’s recovery bands to determine the RR.

That said, before the RR is finalized, some consideration is given for hypothetical concessions to junior creditors under negotiated settlements. The earlier noted practice to limit RRs to a range within plus or minus one RR rating related to that implied by the baseline recovery assumption for that class is one way this is achieved. Fitch may also assign the next higher or lower RR relative to that implied by the waterfall if the calculated recovery is at the cusp of a recovery band.

In certain markets, “soft caps” are used that state a typical maximum recovery value that Fitch may assign. These exist in certain jurisdictions that are debtor-friendly and/or have weak enforceability of creditor’s rights. For more information, see *Fitch’s Country-Specific Treatment of Recovery Ratings Criteria*.

Short-Term Ratings

Short-term ratings are assigned using the corresponding table to the left. Where the long-term rating corresponds with either of two short-term ratings, the appropriate short-term rating will usually be determined based on the strength of the issuer's liquidity and financial flexibility profile, as measured by the Debt Service Capabilities and Financial Flexibility (DSCFF) and Asset/Liability and Liquidity Management (ALLM) credit factors used to establish the anchor IFS rating. Unless the liquidity and financial flexibility profile is strong relative to guidelines for the rating level, the lower of the two short-term ratings will typically be used. The short-term rating can also be influenced by structural and regulatory issues.

Holding Company Short-Term Debt Ratings

Fitch uses the lower of the two short-term ratings at the cusps when rating the short-term debt of holding companies. This reflects the structural and regulatory subordination of holding companies, which results in more limited access to liquidity. Short-term debt ratings are mapped from the holding company's long-term IDR.

Operating Company Short-Term Debt and IFS Ratings

When Fitch rates short-term debt issued or guaranteed by an operating company, or when Fitch assigns a short-term IFS rating, Fitch uses the higher of the two short-term ratings if both the Short-Term (ST) DSCFF and ST ALLM scores equal or exceed the thresholds in the table below. Otherwise, the lower rating will be used.

Minimum Short-Term DSCFF and ALLM^a Scores

Short-Term Rating	ST Credit Factor Scores ^b
F1+	aa or Higher
F1	a+ or Higher
F2	a- or Higher

^aThe Asset/Liability and Liquidity Management (ALLM) factor is combined with the "Investment and Liquidity Risk" factor for non-life companies. ^bScores used in short-term rating analysis will employ different subcomponent weightings, compared with those used in scores supporting long-term Insurer Financial Strength ratings to emphasize liquidity and financial flexibility. DSCFF – Debt service capabilities and financial flexibility. ST – Short-term.
Source: Fitch Ratings.

When deriving ST DSCFF and ST ALLM scores for purposes of short-term ratings considerations, while the overall analysis will be the same, Fitch will more heavily weight the Financial Flexibility and Liquidity subcomponents compared with the weightings used in support of long-term IFS ratings analysis. This fine-tuning would be done in order to better recognize situations when debt-servicing and/or asset and asset/liability management risks are longer-term in nature or reside primarily outside the operating company (i.e. at a holding company). Use of such specific short-term scores would be described in Fitch research and rating action commentaries.

Short-term debt ratings of operating companies are mapped relative to the operating company's long-term IDR. Short-term IFS ratings are mapped relative to the long-term IFS rating.

Liquidity Backup

Fitch determines if full (100%) liquidity backup exists for outstanding CP and other short-term obligations. When backup is less than 100%, and there are no mitigants, Fitch may not assign a rating to the CP or short-term obligation. Weak liquidity backup may also affect the issuer's long-term ratings. Backup includes bank commitments, cash/cash equivalents (for a holding company, cash at an operating company subsidiary would not apply), formal parental liquidity support or other alternative formal forms. Material adverse change (MAC) clauses and covenants in bank backup commitments complicate the liquidity analysis and are addressed by the rating committee on a case by case basis.

In lower-rated markets that are generally less liquid, rating committees may adjust these guidelines based on judgment related to unique circumstances.

Rating Correspondence

Long-Term Rating	Short-Term Rating
AAA to AA-	F1+
A+	F1 or F1+
A	F1 or F1+
A-	F2 or F1
BBB+	F2 or F1
BBB	F3 or F2
BBB-	F3
BB+ to B-	B
CCC+ to C	C
RD/D	RD/D

Source: Fitch Ratings.

Country Ceilings – Transfer and Convertibility Risk

Fitch may constrain a foreign currency rating to reflect the risk that an issuer’s government of domicile will place restrictions on the ability of local companies to obtain foreign currency. Fitch publishes Country Ceilings to assist in this evaluation of transfer and convertibility risk (T&C). Country Ceilings are developed by Fitch’s sovereign ratings group.

Country Ceiling Application, Capping and Notching Impact

Country Ceilings can act as a cap on international foreign currency ratings. For example, if an issuer in a developing Latin American market issues euro-denominated debt, its international rating would potentially be subject to the Country Ceiling for that Latin American country. The Country Ceiling is applied as illustrated in the table below.

Assume a country where the Country Ceiling is ‘A-’, and that a local currency IFS rating of ‘A+’ was developed for a given insurer. Now assume Fitch applies its notching guidelines to establish an operating company IDR based on a Good recovery assumption for the IFS, a holding company IDR under Group Solvency, a foreign currency unsecured senior debt rating of the holding company based on a Below Average recovery, and a foreign currency holding company hybrid rating using a Poor recovery and Moderate (two notch) nonperformance risk assumption.

The following table illustrates the two-step notching process. First, standard notching is applied. Then, as a second step, the Country Ceiling is applied. Importantly, only those ratings higher than the Country Ceiling are brought down via the cap. This results in a compression of notching.

Example of Two-Step Notching Process/Country Ceilings

Rating Type	Step 1	Step 2
	Before Ceiling	Apply Ceiling
IFS Rating	A+	A-
Operating Company IDR	A	A-
Holding Company IDR	A	A-
Unsecured Senior	A-	A-
Hybrid	BBB-	BBB-

IDR – Issuer Default Rating.
Source: Fitch Ratings.

Piercing the Country Ceiling

Country Ceilings may not be fully applicable when specific protections are in place, which most commonly would be access by the issuer to significant liquid assets outside of its country. Key is that such foreign liquid assets must be directly available to support debt service, must not otherwise be supporting insurance liabilities and must not lack fungibility.

If foreign liquid assets are greater than foreign debt service obligations (interest expense and maturities) over the ratings horizon (approximately five years), the IDR could exceed the country ceiling as follows:

- One notch if greater than 1x.
- Up to two notches if greater by 1.5x.
- Up to three notches if greater by 2x or more.

Multinationals

For multinational holding companies, the applicable Country Ceiling may not always be obvious, especially when material portions of earnings and capital are derived from multiple, lower-rated countries.

In such cases, the applicable Country Ceiling is determined by ranking the group of countries in descending order from higher to lower by Country Ceiling, and analyzing earnings and cash

flow generation by country. The applicable Country Ceiling will be the highest one where the sum of the earnings/cash flows in that country, and in those countries with higher country ceilings, is sufficient to cover the insurer's interest expense.

IFS Ratings and Country Ceilings

International scale IFS ratings are typically not designated as local or foreign currency ratings, and it is not uncommon for types of insurers, such as global reinsurers, policyholder obligations to be in multiple currencies. When foreign currencies are consistently greater than 25% of total policy obligations, international IFS ratings will be treated as foreign currency ratings, and thus potentially subject to the Country Ceiling.

Similar to the discussion above for debt issuers, if an insurance operating company matches its foreign currency policyholder obligations with assets located outside the country of domicile, and can use those assets to satisfy policyholder obligations without risk of currency intervention by the government or regulator, the Country Ceiling may be pierced.

Appendix

- Financial Ratio Definitions
- Captive Insurance Companies
- National Scale Ratings
- Data Sources, Variations from Criteria and Limitations

Financial Ratio Definitions – Capitalization and Leverage

Ratio Name

Financial Leverage Ratio (FLR)

(All Sectors)

Overview

Numerator includes all long- and short-term debt and hybrids (debt portion after consideration of equity credit) typically at stated book values (nominal). Match-funded operating debt is excluded. When the book value of debt/hybrids significantly differs from par values (for example, due to material “own risk” adjustments or material premiums/discounts to par), when information is available, Fitch will typically reverse such impacts to approximate par values.

Denominator includes equity capital, total non-operating debt and total hybrids (both debt and equity credit components). Equity capital removes actual (or estimated) after-tax unrealized gains and losses on fixed-income securities when appropriate (i.e. when liabilities are at book, not fair value) and when such information is available. If present, equity capital also removes any common controlled goodwill (i.e. internally generated goodwill).

When consolidated financial statements are used and there are minority interests, the calculation will either: 1) include debt of majority-owned subsidiaries in the numerator and minority interests as a part of equity capital in the denominator, or 2) exclude both amounts from the numerator and denominator, respectively.

Basic Formula

$$\frac{\text{Debt} + \text{Debt Portion of Hybrids}}{\text{Equity Capital} + \text{Debt} + \text{Total Hybrids}}$$

Regional and Accounting Notes

IFRS: Total shareholders’ funds, plus unallocated divisible surplus for life products (i.e. fund for future appropriations, RfB [Rückstellung für Beitragsrückerstattungen] or reserves for premium refunds, etc.) plus equalization reserves (catastrophe, claims equalization, contingency, price fluctuation), are together used for equity capital. Based on the nature of liability accounting, an adjustment for unrealized gains and losses on fixed-income investments will also be made when appropriate.

U.S. GAAP: Shareholders’ equity is used for equity capital. Unrealized fixed-income securities gains and losses included in the “other comprehensive income” component of shareholders’ equity are removed.

U.S. Statutory: Policyholders’ surplus is used for equity capital for most sectors other than life, for which total adjusted capital is used (policyholders’ surplus, plus asset valuation reserve, plus one-half policyholder dividend obligation).

No adjustments are made for unrealized fixed-income gains and losses since fixed-income investment are typically carried at amortized cost.

Hybrids Included in Capital: When the value of a hybrid is included in stated shareholders’ funds (or other equity capital financial statement values), such as surplus notes in the U.S. or kikin in Japan, hybrids are either removed from or not added to the denominator as part of total hybrids, to avoid double counting.

Ratio Name

Total Financing and Commitments (TFC) Ratio

(All Sectors)

Overview

Measures a company’s leveraging of its debt and financing activities, and indicates its overall reliance on ongoing access to capital markets and/or other funding sources. A lower value is more favorable.

Numerator includes essentially all financing activities, including financial debt, operating debt, hybrids, both recourse and nonrecourse securitizations, LOC facilities with banks provided to third-party beneficiaries (largely used by alien or offshore reinsurers), debt guarantees and other financing-related commitments. The denominator is equity capital, using the same definition as used in the FLR.

Basic Formula

$$\frac{\text{Debt} + \text{Other Financings}}{\text{Equity Capital}}$$

Regional and Accounting Notes

Financial Guaranty: The value of debt guarantees included in the par to capital ratio is excluded from the numerator of TFC.

Asia-Pacific and Latin America: No adjustment is made to equity capital to remove unrealized gains and losses on fixed-income investments.

Ratio Name

Net Premium Written to Capital

(Non-Life, Reinsurance, Title)

Overview

Measures the degree a company is leveraging its net business writings, and indicates the capital exposure to pricing errors. Since net premiums written are influenced by both business volume and rate adequacy, interpretations must be made carefully since an adverse decline in rate adequacy could lead to apparent improvements in this ratio. A lower value is more favorable.

Numerator is gross premium written minus ceded premium written. The denominator is equity capital, as defined per the TFC ratio.

Continued on next page.

Basic Formula

$$\frac{\text{Net Premium Written}}{\text{Equity Capital}}$$

Regional and Accounting Notes

IFRS: No adjustment is made to equity capital to remove unrealized gains and losses on fixed-income investments. If reported shareholders’ funds are for a bancassurance group, equity attributable to banking operations will be removed (actual or estimated).

Financial Ratio Definitions – Capitalization and Leverage (Continued)

<p>Ratio Name Operating Leverage (Life) Overview Measures the degree a company is leveraging its insurance liabilities, and indicates the exposure of capital to product mispricing/reserving issues. A lower value is more favorable. Numerator includes total insurance liabilities, excluding separate account or unit-linked liabilities. It also excludes certain debt and debt-like liabilities captured in the TFC ratio. The denominator is equity capital, using the TFC ratio definition.</p>	<p>Basic Formula $\frac{\text{Total Insurance Liabilities}}{\text{Equity Capital}}$ Regional and Accounting Notes IFRS: No adjustment is made to equity capital to remove unrealized gains and losses on fixed-income investments. If reported shareholders' funds are for a bancassurance group, equity attributable to banking operations will be removed (actual or estimated).</p>
<p>Ratio Name Asset Leverage (Life) Overview Measures the degree a company is leveraging its total assets, and indicates the exposure of capital to the combination of product mispricing/reserving issues and asset risk. A lower value is more favorable. The numerator includes total assets. The denominator is equity capital, using the same definition as used in the Operating Leverage ratio.</p>	<p>Basic Formula $\frac{\text{Total Assets}}{\text{Equity Capital}}$ Regional and Accounting Notes EMEA and APAC: The numerator substitutes the sum of life technical provisions (including unit-linked) and operational debt.</p>
<p>Ratio Name Net Leverage (Non-Life, Reinsurance, Title) Overview Measures the degree a company is leveraging its net premiums and net insurance liabilities, and indicates the exposure of capital to both pricing and reserving errors. A lower value is more favorable. The numerator is the sum of net premiums written and total insurance liabilities (i.e. gross technical provision or gross technical reserves) less any ceded reserves. The denominator is equity capital, using the same definition used for the denominator of the net premiums written to capital ratio above.</p>	<p>Basic Formula $\frac{\text{Net Premium Written} + \text{Net Insurance Liabilities}}{\text{Equity Capital}}$ Regional and Accounting Notes None.</p>
<p>Ratio Name Gross Leverage (Non-Life, Reinsurance, Title) Overview Measures the degree a company is leveraging its net premiums and net insurance liabilities, and indicates the exposure of capital to both pricing and reserving errors. A lower value is more favorable. The numerator is the sum of net premiums written and total insurance liabilities (i.e. gross technical provision or gross technical reserves) less any ceded reserves. The denominator is equity capital, using the same definition used for the denominator of the net premiums written to capital ratio above.</p>	<p>Basic Formula $\frac{\text{Gross Premium Written} + \text{Gross Insurance Liabilities}}{\text{Equity Capital}}$ Regional and Accounting Notes None.</p>
<p>Ratio Name Premiums to Statutory Capital (Health – U.S.) Overview A version of the net premium written to capital ratio discussed above for non-life companies, tailored to U.S. health insurers. A lower value is more favorable. The numerator is net health premium written. The denominator is statutory policyholders' surplus. Continued on next page.</p>	<p>Basic Formula $\frac{\text{Health Premium Written}}{\text{Policyholders' Surplus (Statutory)}}$ Regional and Accounting Notes None.</p>

Financial Ratio Definitions – Capitalization and Leverage (Continued)

Ratio Name	Basic Formula
Debt to EBITDA (Health – U.S.)	$\frac{\text{Debt} + \text{Debt Portion of Hybrids}}{\text{EBITDA}}$
Overview	Regional and Accounting Notes
An alternate financial leverage measurement to the FLR used for U.S. health insurers considers debt leverage relative to annual cash flow as opposed to total capital. A lower value is more favorable.	None.
The numerator is the same as that used in the FLR. The denominator is a full year (four quarters rolling) of cash flow calculated as EBITDA.	

Ratio Name	Basic Formula
Risk-to-Capital Ratio (Mortgage – U.S.)	$\frac{\text{Net Risk In Force}}{\text{Equity Capital}}$
Overview	Regional and Accounting Notes
Measures the degree a company is leveraging its insured mortgage loan values and indicates the exposure of capital to downturns in mortgage performance. A lower value is more favorable. Risk in force is the unpaid principal of the insured mortgage loans, multiplied by the percentage of the loan covered by insurance.	None.
Numerator, net risk in force, is calculated as gross risk in force (direct plus assumed), less both ceded risk in force and risk in force for which loss reserves have already been established. Equity capital is statutory policyholders' surplus, plus the statutory premium reserve (subject to downward adjustment for GAAP premium deficiency reserves).	

Ratio Name	Basic Formula
Par-to-Capital Ratio (Financial Guaranty)	$\frac{\text{Net Notional Insured Par}}{\text{Equity Capital}}$
Overview	Regional and Accounting Notes
Measures the degree a company is leveraging the value of insured bonds/debt and indicates the exposure of capital to adverse default experience. A lower value is more favorable.	None.
The numerator includes the sum total of the par insured through both issuance of traditional financial guaranty policies and the sale of credit derivatives, net of any amounts ceded to reinsurers. Equity capital equals owners' equity plus Fitch's estimate of the equity, if any, in the unearned premium reserve.	

Ratio Name	Listing of Ratios (Sectors/Regions Used)
Regulatory Capital Ratios (Various Sectors/Regions)	<ul style="list-style-type: none"> • U.S. NAIC RBC Ratio (Non-Life, Life, Reinsurance, U.S. Health) C-Ross • Solvency Ratio (Non-Life, Chinese Life) • Solvency II Standard Capital Ratio Coverage (Non-Life, European Life/Others) Prescribed Capital Ratio (Non-Life, Australian Mortgage) • Statutory Solvency Margin Ratio (Non-Life, Japanese Life) • PMIERS Coverage Ratio (U.S. Mortgage)
Overview	
To the right are various ratios prescribed by insurance regulators for which Fitch has established scoring guidelines	
In the case of the private mortgage insurer eligibility requirements (PMIERS) coverage ratio, the ratio is not prescribed by insurance regulators, but instead a U.S. government-sponsored entity.	

Financial Ratio Definitions – Debt Service Capabilities and Financial Flexibility

<p>Ratio Name Fixed-Charge Coverage Ratio (All Sectors)</p> <p>Overview Measures the amount by which operating earnings can support interest and dividend payments on debt, hybrids and preferred stock, and indicates the degree of cushion should earnings decline. A higher value is more favorable.</p> <p>Numerator is pretax operating earnings (i.e. pretax income exclusive of realized and unrealized gains and losses on investments and other non-operating items) plus pretax fixed charges as defined below. The denominator is pretax fixed charges, also as defined below.</p> <p>Fixed charges are defined to include pretax interest on debt and hybrids, and preferred dividends. However, fixed charges only include such items for securities that are included in the numerator of the FLR (thus, interest on match-funded operating debt is excluded from the add-back in the numerator, and from the denominator). Fixed charges that are not tax deductible, such as many preferred dividends, are typically grossed up by an assumed tax factor. When available, fixed charges include an estimate of the interest portion of rental/lease expense.</p> <p>The add-back of fixed charges within the numerator is only done for fixed charges that are expensed in the income statement, and have reduced pretax operating income. However, fixed charges that have not been expensed are still included in the denominator.</p> <p>In the case of hybrids and preferred stock, there is no “equity credit-like” adjustment applied to interest expense or preferred dividends.</p>	<p>Basic Formula $\frac{\text{Pretax Operating Earnings} + \text{Pretax Fixed Charges}}{\text{Pretax Fixed Charges}}$</p> <p>Regional and Accounting Notes None.</p>
<p>Ratio Name Statutory Coverage Ratio (All Sectors – U.S. Only)</p> <p>Overview Measures the amount by which maximum statutory dividends of an operating subsidiary(ies) can support interest payments on debt, hybrids and preferred stock of a parent holding company, and indicates the degree of cushion should statutory dividend capacity decline. A higher value is more favorable.</p> <p>The numerator is the sum of maximum statutory dividends (based on regulatory formulas) that can be paid by the insurance operating subsidiaries that directly feed the holding company in which the debt obligations are housed (i.e. “stacked” maximum dividends are excluded). The denominator is fixed charges as defined under the fixed-charge coverage ratio.</p>	<p>Basic Formula $\frac{\text{Maximum Statutory Dividends}}{\text{Fixed Charges}}$</p> <p>Regional and Accounting Notes None.</p>
<p>Ratio Name Cash Coverage Ratio (U.S. Non-Life and Life Only)</p> <p>Overview Measures the amount by which maximum statutory dividends of an operating subsidiary(ies), together with committed holding company cash balances, can support interest payments on debt, hybrids and preferred stock of a parent holding company, and indicates the degree of cushion should statutory dividend capacity decline. A higher value is more favorable.</p> <p>The calculation is the same as the statutory coverage ratio, but also adds committed holding company cash to the numerator, where committed cash includes cash currently held at the holding company level, and for which Fitch believes that management has a strategic rationale and intent to maintain such cash to support ongoing debt service.</p>	<p>Basic Formula $\frac{\text{Maximum Statutory Dividends} + \text{Committed Holding Company Cash}}{\text{Fixed Charges}}$</p> <p>Regional and Accounting Notes None.</p>

Financial Ratio Definitions – Financial Performance and Earnings

<p>Ratio Name Return on Equity (ROE) (All Sectors, Except Health)</p> <p>Overview Measures net income relative to equity capital, and indicates both overall profitability and the ability of a company's business to grow equity capital organically. A higher value is more favorable. This ratio is interpreted in concert with the evaluation of applicable capitalization and leverage ratios, since the ROE is influenced by both profitability and leverage.</p> <p>The numerator is net income. The denominator is mean equity capital for the reporting period, using the same definition of equity capital used in the TFC ratio.</p>	<p>Basic Formula</p> $\frac{\text{Net Income}}{\text{Mean Equity Capital}}$ <p>Regional and Accounting Notes IFRS: Mean equity capital includes total shareholders' funds, plus equalization reserves (catastrophe, claims equalization, contingency, price fluctuation), less minority interests.</p>
<p>Ratio Name Combined Ratio (Non-Life, Reinsurance, Title, Mortgage, Financial Guaranty)</p> <p>Overview Measures underwriting profitability. A lower value is more favorable, and a value below 100% indicates an underwriting profit.</p> <p>The combined ratio is the combination of the loss ratio and expense ratio. The loss ratio is incurred losses (including loss adjustment expenses) for the current calendar year divided by net premiums earned. The expense ratio is underwriting and acquisition expenses incurred (such as commissions, salaries and overhead, plus policyholder dividends) divided by net premiums, per comments to the right.</p>	<p>Basic Formula</p> $\frac{\text{Incurred Losses}}{\text{Net Earned Premium}} + \frac{\text{Underwriting and Acquisition Costs}}{\text{Net Premiums}}$ <p>Regional and Accounting Notes Net premiums in the denominator of the expense ratio may be earned or written premiums, with the goal being to match costs to volume, based on the local accounting convention and how expenses are incurred. In certain accounting methods, expenses are incurred as paid, and in others they are incurred as premiums are earned.</p>
<p>Ratio Name Operating Ratio (Non-Life, Reinsurance, Title)</p> <p>Overview Measures operating profitability, which incorporates pretax underwriting and investment performance. A lower value is more favorable.</p> <p>The operating ratio is the combined ratio less the Investment Income Ratio. The Investment Income Ratio is pretax investment income divided by net premiums earned, and excludes realized and unrealized capital gains and losses.</p>	<p>Basic Formula</p> $\text{Combined Ratio} - \frac{\text{Pretax Investment Income}}{\text{Net Earned Premium}}$ <p>Regional and Accounting Notes Net premiums in the denominator of the expense ratio may be earned or written premiums, with the goal being to match costs to volume, based on the local accounting convention and how expenses are incurred. In certain accounting methods, expenses are incurred as paid, and in others they are incurred as premiums are earned.</p>
<p>Ratio Name Pretax Return on Assets (ROA) (Life)</p> <p>Overview Measures operating profitability relative to total assets, and provides an indication of profitability in a manner that is less sensitive to leverage differences than the ROE ratio, but is more sensitive to business mix (and the relative asset intensity of a company's business products). A higher value is more favorable.</p> <p>The numerator is pretax operating income excluding realized and unrealized investment gains and losses. The denominator is mean total assets (including separate account and unit-linked) for the reporting period.</p>	<p>Basic Formula</p> $\frac{\text{Pretax Operating Income}}{\text{Mean Total Assets}}$ <p>Regional and Accounting Notes None.</p>

Continued on next page

Financial Ratio Definitions – Financial Performance and Earnings (Continued)

<p>Ratio Name Core Profit Margin (Life – Japan Only)</p> <p>Overview Measures profitability derived from a Japanese life insurer’s ordinary business activities. A higher value is more favorable.</p> <p>The numerator is core profits, which include mortality and morbidity gain or loss, expense gain or loss, and investment gain or loss (i.e. negative spread). The denominator is gross premium written.</p>	<p>Basic Formula</p> $\frac{\text{Core Profits}}{\text{Gross Premium Written}}$ <p>Regional and Accounting Notes None.</p>
<p>Ratio Name GAAP Return on Capital (Health – U.S.)</p> <p>Overview Measures income relative to capital and indicates both overall profitability and the ability of a company’s business to grow capital organically, similar to ROE. A higher value is more favorable.</p> <p>The numerator is net income plus after-tax interest expense. The denominator is mean total capital, where total capital is equity capital plus the value of debt included in the FLR.</p>	<p>Basic Formula</p> $\frac{\text{Net Income} + \text{After-tax Interest}}{\text{Mean Total Capital}}$ <p>Regional and Accounting Notes U.S. GAAP: Equity capital is shareholders’ equity U.S. Statutory: Equity capital is policyholders’ surplus.</p>
<p>Ratio Name EBITDA to Revenues (Health – U.S.)</p> <p>Overview Measures cash flow generation (approximated) relative to total revenue, and provides an indication of profit margin levels and the business’ ability to generate cash flow. A higher value is more favorable.</p> <p>The numerator is EBITDA as defined in the debt-to-EBITDA ratio. The denominator is total revenues.</p>	<p>Basic Formula</p> $\frac{\text{EBITDA}}{\text{Total Revenues}}$ <p>Regional and Accounting Notes None.</p>
<p>Ratio Name Medical Benefits Ratio (Health – U.S.)</p> <p>Overview Measures underwriting profitability. A lower ratio is more favorable.</p> <p>The numerator is incurred claim (and related expenses). The denominator is net premiums earned.</p>	<p>Basic Formula</p> $\frac{\text{Incurred Claims}}{\text{Net Premiums Earned}}$ <p>Regional and Accounting Notes None.</p>

Financial Ratio Definitions – Investment and Asset Risk

Ratio Name

Risky Assets Ratio

(All Sectors)

Overview

Measures the degree a company is leveraging risky assets within its investment portfolio, and indicates the exposure of equity capital to losses if “risky assets” perform poorly. A lower value is more favorable.

Numerator is risky assets, as defined below, and includes all risky assets whether supporting participating or nonparticipating business. Risky assets supporting business with a full pass through of investment performance to the policyholder, such as unit-linked business or variable annuities, are not included; participating business for purposes of this ratio mainly encompasses business where loss/profit sharing is accomplished via future credit rate and similar adjustments.

Denominator is equity capital, and uses as its starting point the same definition as used in the TFC ratio, unless otherwise stated in the calculation notes to the right. Per these calculation notes, when available/applicable, added to equity capital are reserves designed to help absorb investment losses on participating business.

Risky assets encompass below investment-grade bonds, unaffiliated common stock and “other risky assets.” The definition of “other risky assets” varies among jurisdictions based on reporting conventions and local investing practices, but is intended to capture those investments most common to a given market with market valuation volatility and/or limited liquidity.

Investments in sovereign debt of a country of domicile and/or major operations (as well as sovereign-related investments) rated ‘BBB+’ and below is added to other risky assets, subject to the following scaling adjustments:

Rating	Scaling Amount (%)
BBB+	15
BBB	30
BBB-	50
BB Category	100
B Category	175
CCC Category	300
CC Category	450
C Category	750

The note under the Below Investment Grade Bond-to-Capital Ratio below with respect national ratings analysis also applies to this ratio.

Ratio Name

Below Investment Grade Bond to Capital

(Life)

Overview

Measures the degree a company is leveraging the riskier bonds within its investment portfolio, and indicates the exposure of equity capital to a rise in defaults and impairments. A lower value is more favorable.

The numerator is bond invested assets rated below the ‘BBB’ category, typically stated at statement value, which based on the accounting convention can be market value, amortized cost or some combination. The denominator is equity capital, using the same definition as in the risky assets ratio.

Continued on next page

Basic Formula

Risky Assets

Equity Capital

Regional/Accounting Notes for “Other Risky Assets” and “Equity Capital”

U.S. Non-Life: Alternative investments, real estate and Schedule BA assets.

U.S. Life Statutory: Lower quality mortgage loans, troubled real estate investments and certain Schedule BA assets.

EMEA Non-Life: Affiliated investments. When disclosed/available, other risky assets also include unrated securities and loans to counterparties that Fitch views as being of low quality. Equity capital uses the same definition as for the net premiums written-to-capital ratio.

EMEA Life: Affiliated investments. When disclosed/available, other risky assets also include unrated securities and loans to counterparties that Fitch views as being of low quality. Equity capital uses the same definition as the operating leverage ratio, plus excess reserves/surplus for participating policies designed to absorb or smooth investment losses.

APAC (Excluding Japan) Non-Life and Life: Affiliated investments, private equity, investment funds/beneficial certificates where the underlying assets are primarily linked to equities, and in developing countries, property investments. Added life insurers’ equity capital is unallocated surplus for participating funds.

Japan Life and Non-Life: Affiliated investments. Added to life insurers’ equity capital is unallocated surplus for participating funds.

Reinsurance: Affiliated investments and alternate investments, including but not limited to catastrophe bonds, hedge funds and private equity investments. Equity capital varies depending on the jurisdiction of the company, but typically aligns with the various regional calculation notes discussed previously.

U.S. Title Statutory: Mortgages, real estate and Schedule BA assets.

Mortgage: Mortgage loans, real estate, and both investment-grade and below-investment-grade residential mortgage-backed securities. The latter are included since they are expected to correlate with losses in the mortgage insurance business.

U.S. Health: Real estate (not occupied by company), mortgages in foreclosure and Schedule BA, Part 1 assets. Equity capital equals policyholders’ surplus if statutory accounting basis financial statements are used, and shareholders’ equity if U.S. GAAP financial statements are used.

Financial Guaranty: Alternative investments, real estate and Schedule BA assets. Equity capital in the U.S. is policyholders’ surplus.

Basic Formula

Below Investment Grade Bonds

Equity Capital

Use in National Ratings Analysis

For national scale ratings, the ratio may be calculated two ways — first measuring below investment-grade bonds using international scale ratings, and second measuring below investment grade-bonds using the local national scale, subject to information availability.

Financial Ratio Definitions – Investment and Asset Risk (Continued)

<p>Ratio Name Equity Investments to Capital (Non-Life, Reinsurance)</p> <p>Overview Measures the degree a company is leveraging equities (i.e. common stocks) within its investment portfolio, and indicates the exposure of equity capital to volatility in equity market performance. A lower value is more favorable.</p> <p>Numerator is common stock invested assets, typically stated at market value. Denominator is equity capital, using the same definition as in the risky assets ratio.</p>	<p>Basic Formula</p> $\frac{\text{Common Stocks}}{\text{Equity Capital}}$ <p>Regional and Accounting Notes Affiliated investments are added to the numerator as per the Risky Assets Ratio above.</p>
<p>Ratio Name Sovereign Investments to Capital (All Sectors)</p> <p>Overview Measures the degree a company is leveraging sovereign and related bonds within its investment portfolio, and indicates the exposure of equity capital to a rise in defaults and impairments on such. A lower value is typically more favorable.</p> <p>The numerator is bond invested assets of the sovereign of domicile and/or major operations (as well as those of any highly correlated local entities, such as a bank carrying the sovereign's rating due to support), typically stated at statement value, which based on the accounting convention can be market value, amortized cost or some combination. The denominator is equity capital, using the same definition as in the risky assets ratio.</p>	<p>Basic Formula</p> $\frac{\text{Sovereign Bonds}}{\text{Equity Capital}}$ <p>Regional and Accounting Notes None.</p>

Financial Ratio Definitions – Asset/Liability and Liquidity Management

<p>Ratio Name</p> <p>Liquid Assets to Reserves (Non-Life, Reinsurance, Title, Mortgage, Financial Guaranty)</p> <p>Overview</p> <p>Measures how strongly loss/technical reserves are covered by higher quality, liquid assets. A higher value is more favorable.</p> <p>The numerator is cash and short-term invested assets, unaffiliated investment-grade bonds, 50% of unaffiliated non-investment-grade short-term bonds/deposits and common stocks. The denominator is net loss and loss adjustments, or technical reserves excluding net unearned premium reserves, as defined per local accounting/reporting standards.</p>	<p>Basic Formula</p> $\frac{\text{Liquid Assets}}{\text{Loss/Technical Reserves}}$ <p>Regional and Accounting Notes</p> <p>None.</p>
<p>Ratio Name</p> <p>Liquid Assets Ratio (Life)</p> <p>Overview</p> <p>Measures how strongly policyholder liabilities are covered by higher-quality liquid assets. A higher value is more favorable.</p> <p>The numerator is cash and short-term invested assets, unaffiliated investment-grade bonds, 50% of unaffiliated non-investment-grade short-term bonds/deposits and common stocks (publicly traded only). The denominator is policyholder reserves.</p>	<p>Basic Formula</p> $\frac{\text{Cash and Short-Term Investments}}{\text{Policyholder Reserves}}$ <p>Regional and Accounting Notes</p> <p>U.S. Statutory: Policyholder reserves include general account policyholder liabilities, less policy loans and nonsurrenderable policyholder liabilities.</p>
<p>Ratio Name</p> <p>Cash and Equivalents to Policyholder Liabilities (Life – APAC, Excluding Japan Only)</p> <p>Overview</p> <p>Measures how strongly policyholder liabilities are covered by cash and cash-like assets. A higher value is more favorable.</p> <p>The numerator is cash and other cash-like invested assets (excluding 50% of below investment grade). The denominator is policyholder reserves.</p>	<p>Basic Formula</p> $\frac{\text{Cash and Other Cash-Like Investments}}{\text{Policyholder Reserves}}$ <p>Regional and Accounting Notes</p> <p>None.</p>
<p>Ratio Name</p> <p>Operating Cash Flow Ratio (Life – U.S. Only)</p> <p>Overview</p> <p>Measures the strength of a company’s cash flow generation, and indicates the degree a company operates independently of external cash sources. A higher value is more favorable.</p> <p>The numerator is operating cash inflows. The denominator is operating cash outflows.</p>	<p>Basic Formula</p> $\frac{\text{Operating Cash Flow}}{\text{Cash Outflows}}$ <p>Regional and Accounting Notes</p> <p>None.</p>
<p>Ratio Name</p> <p>Cash and Invested Assets to Medical Claims Liabilities (Health – U.S.)</p> <p>Overview</p> <p>Measures how strongly medical claims are covered by invested assets. A higher value is more favorable.</p> <p>The numerator is total cash and invested assets. The denominator is the medical claims liability/reserves.</p>	<p>Basic Formula</p> $\frac{\text{Total Cash and Invested Assets}}{\text{Medical Claims Liabilities/Reserves}}$ <p>Regional and Accounting Notes</p> <p>None.</p>

Financial Ratio Definitions – Reserve Adequacy Ratios

<p>Ratio Name Loss Reserve Development to BOP MCL (Health – U.S.) Overview Measures the degree prior reserve estimates changed in the year and indicates how variable or stable reserves have been. A lower or negative value is more favorable. The numerator is annual reserve development (a reported redundancy is a negative value; a deficiency is a positive value). The denominator is the beginning of period (BOP) medical claim liability (MCL).</p>	<p>Basic Formula $\frac{\text{Reserve Development (Annual)}}{\text{BOP MCL}}$ Regional and Accounting Notes None.</p>
<p>Ratio Name Number of Days Claims in MCL (Health – U.S.) Overview Measures the amount of claim reserves relative to claims incurred and indicates relative reserve strength. A higher value is more favorable. The numerator is the MCL. The denominator is the ratio of annual medical benefits incurred divided by 365. The outcome is stated in days.</p>	<p>Basic Formula $\frac{\text{Medical Claim Liability}}{\text{(Annual Medical Benefits/365)}}$ Regional and Accounting Notes None.</p>
<p>Ratio Name Loss Reserve Development to Capital (Mortgage) Overview Measures the degree prior reserve estimates changed in the year and indicates how much capital is exposed to the variable of reserves. A lower or negative value is more favorable. The numerator is annual reserve development (a reported redundancy is a negative value; a deficiency is a positive value). The denominator is BOP equity capital.</p>	<p>Basic Formula $\frac{\text{Reserve Development (Annual)}}{\text{Equity Capital (BOP)}}$ Regional and Accounting Notes Australia: Equity capital includes eligible hybrids U.S.: Equity capital is statutory policyholders' surplus.</p>
<p>Ratio Name Loss Reserve Development to Earned Premium (Financial Guaranty) Overview Measures the degree prior reserve estimates changed in the year, and indicates the impact of reserve variability on the loss ratio. A lower or negative value is more favorable. The numerator is annual reserve development (a reported redundancy is a negative value; a deficiency is a positive value). The denominator is net premiums earned.</p>	<p>Basic Formula $\frac{\text{Reserve Development (Annual)}}{\text{Net Premiums Earned}}$ Regional and Accounting Notes None.</p>

Financial Ratio Definitions – Reinsurance, Risk Mitigation and Catastrophe Risk

<p>Ratio Name Reinsurance Recoverables to Capital (Non-Life, Reinsurance, Mortgage, Financial Guaranty)</p> <p>Overview Measures the leveraging of ceded reinsurance recoverables and indicates the exposure of capital to losses on uncollectible balances. A lower value is more favorable.</p> <p>The numerator includes ceded loss/loss adjustment expenses (LAE) and unearned premium reserves. The denominator is equity capital, as defined for the net premiums written-to-capital ratio. The ratio is interpreted in light of the credit quality of reinsurers, the stability of the relationship between insurer and reinsurer, historical collection patterns, and any security held in the form of LOCs, trust accounts or funds withheld.</p>	<p>Basic Formula $\frac{\text{Ceded Loss, LAE and UPR Reserves}}{\text{Equity Capital}}$</p> <p>Regional and Accounting Notes None.</p>
<p>Ratio Name Annual Aggregate Catastrophe Losses to Capital (Non-Life, Reinsurance)</p> <p>Overview Measures the leveraging of capital to a large property catastrophe loss and indicates the pretax impact on capital if such a loss occurred (prior to any mitigating actions). A lower value is more favorable.</p> <p>The numerator uses a modeled annual aggregate pretax probable maximum loss (PML) value net of reinsurance/retrocessions. Subject to availability and reporting customs, the numerator uses either a 250-year (0.4% occurrence probability) or a 200-year (0.5% occurrence probability) PML. The value of the numerator is typically calculated and provided by the rated entity's management and may be derived by them using either third-party models or their own internal models. The denominator is equity capital as defined above for the net premiums written-to-capital ratio.</p>	<p>Basic Formula $\frac{\text{Modeled Probable Maximum Loss}}{\text{Equity Capital}}$</p> <p>Regional and Accounting Notes U.S.: Fitch may alternatively estimate the PML using a licensed model.</p>
<p>Ratio Name Net Premium Written to Gross Premium Written (Non-Life, Reinsurance, Mortgage, Title)</p> <p>Overview Measures the portion of premiums that are retained and not ceded to reinsurers and indicates the overall use of ceded reinsurance capacity. A lower value is generally more favorable, though under-purchasing reinsurance intended to protect capital and earnings can also to risks when policy or aggregate limits/exposures are large relative to equity capital.</p> <p>The numerator is net premiums written. The denominator is gross premiums written.</p>	<p>Basic Formula $\frac{\text{Net Premium Written}}{\text{Gross Premium Written}}$</p> <p>Regional and Accounting Notes None.</p>
<p>Ratio Name Largest Net Single Risk Limit to Surplus (Title)</p> <p>Overview Measures the vulnerability of capital to a potential loss from a single insured exposure. It does not reflect secondary policy exposures. A lower value is more favorable.</p> <p>The numerator is the par value of the largest single risk, as reported in Part 2, Line 2 of the General Interrogatories within the statutory financial statement regulatory filings. The denominator is policyholders' surplus.</p>	<p>Basic Formula $\frac{\text{Largest Single Risk (Par Value)}}{\text{Policyholders' Surplus}}$</p> <p>Regional and Accounting Notes None.</p>

Continued on next page.

Financial Ratio Definitions – Reinsurance, Risk Mitigation and Catastrophe Risk (Continued)

<i>Ratio Name</i>	<i>Basic Formula</i>
<p>Single Risk Par to Capital (Financial Guaranty)</p> <p>Overview Measures the vulnerability of capital to a potential loss from a single insured exposure. A lower value is more favorable.</p> <p>The numerator is the par value of the largest single risk, defined as an individual issuer for corporate securities, an individual seller for structured finance or an individual revenue stream for U.S. municipal finance (e.g. all state general obligations combined, each specific revenue bond, etc.). When such information is available to Fitch, Fitch will combine single risk exposures that are common to the insured and investment portfolios.</p> <p>The denominator is equity capital as defined for the TFC ratio.</p>	$\frac{\text{Largest Single Risk (Par Value)}}{\text{Equity Capital}}$ <p>Regional and Accounting Notes U.S.: Equity capital includes policyholders' surplus plus contingency reserves, plus Fitch's estimate of any equity in unearned premiums.</p>

<i>Ratio Name</i>	<i>Basic Formula</i>
<p>Net Notional Par to Gross Notional Par Insured (Financial Guaranty)</p> <p>Overview Measures the portion of par that is retained and not ceded to reinsurers and indicates the overall use of ceded reinsurance capacity. A lower value is generally more favorable, though under-purchasing reinsurance intended to protect capital and earnings can add to risks.</p> <p>Net notional par insured includes the par value of bonds insured by traditional financial guarantees and the notional value of insurance issued in the form of credit default swaps plus any notional par value assumed through reinsurance. The numerator is net notional par after reinsurance cessions. The denominator is gross notional par prior to reinsurance cessions.</p>	$\frac{\text{Net Notional Par}}{\text{Gross Notional Par}}$ <p>Regional and Accounting Notes None.</p>

Captive Insurance Companies

The rating of a captive insurer is based on the key credit factors outlined earlier in this report, as well as aspects of group ratings criteria. However, given the narrow business focus of a captive, and extraordinary linkages to its parent/sponsor(s), certain rating principles differ for a captive compared with a traditional insurance company:

- A Core captive's IFS rating is usually uplifted to that of its sponsor.
- Conversely, even if the captive's standalone profile is above that of the sponsor, captives' ratings are typically capped at the rating of the parent/sponsor.
- Parameters for defining a captive as Core differ from that of a traditional insurer
- Capital adequacy assessments place greater emphasis on net retained risk limits and ceded reinsurance programs.
- Capital of a captive may include material use of LOCs.
- Nonparent/sponsor business written may cause Fitch to rate the captive as a traditional insurer, as opposed to a captive, if significant.

What Is a Captive Insurer?

For purposes of these criteria, a captive is an insurance company established by a sponsoring organization to exclusively/primarily sell insurance or reinsurance to the sponsoring organization. Captives historically have been used by sponsoring organizations that desire to self-insure certain risks, but for which they are obligated to have insurance in place. As a licensed and regulated entity, the captive meets the legal requirement for provision of insurance. A captive will also typically cede some risks that the sponsor would view as undesirable for self-insurance, such as large losses from catastrophic events. Thus, captives typically have active reinsurance programs.

Certain industry captives that have a significant number of owners/sponsors are typically rated as traditional insurance companies, not as captives. In cases where a captive is part of a legal structure where its capital is effectively ring-fenced from the owner/sponsor, Fitch may apply its insurance-linked securities rating criteria.

Definition of a Core Captive

Because of the unique nature of a captive's business, the parameters in defining a captive as Core under group rating criteria differ from those of traditional insurers.

- Mission and strategic goals of the captive are intricately tied to the parent's risk management and risk financing strategy.
- Captive serves a clear economic purposes in allowing the parent to manage risk and/or costs in a more efficient or effective manner than via use of third-party insurance or reinsurance. This can include providing consistent capacity.
- Vast majority of captive's business is derived from that of the parent and the parent does not view the captive as a profit center or line of business. Cases of a captive providing insurance to customers of the parent would be viewed as nonparent business.
- Parent has made a reasonable financial commitment to the captive and appears supportive of its ongoing solvency and viability.

Rating Core Captives

Core captives are typically assigned an IFS rating equal to the IDR of the captive's parent. For an insurance company parent, the IFS rating of the Core captive is typically aligned to the IFS rating of the parent. In such cases, Fitch cannot assign an IFS rating to a Core captive unless Fitch rates (publicly or privately) the parent.

Because the captive's IFS rating is linked to the parent's rating, Fitch does not normally develop a full SACP for a Core captive. However, certain attributes will be evaluated on a standalone basis to determine if any deviations from the parent's rating are warranted.

Capital Adequacy

Ratio and model scores for a captive that come out at levels lower than the parent's rating may cause Fitch to rate even a Core captive lower than that of the parent.

Net Retained Limits and Ceded Reinsurance

In evaluating capital adequacy, Fitch focuses on net retentions relative to capital, both on a per risk basis and in aggregate. Since a key role of a captive is to shape risk, an appropriate balance between net retentions and ceded reinsurance is important. Unusually large retentions may show lack of commitment on the part of the sponsor or a breach in overall risk management. Additionally, any gaps in placement of a reinsurance program may have a more pronounced impact on a captive's rating than that of a traditional insurer.

LOCs as Capital

A portion of a captive's capital may be provided in the form of a bank LOC. LOCs may be arranged and/or guaranteed by a parent to limit its equity investment and to manage its cost of capital. In some cases, the right to draw on the LOC is given to the regulator of the captive. In either case, the rating of the bank providing the LOC may take on a heightened role in the rating of the captive, especially if performance by the bank on the LOC under stress is critical to the viability of the captive. In such a case, the bank's rating may cap the rating of the captive, but would never "uplift" the rating as would a financial guaranty (unless the LOC was designed to mimic a financial guaranty).

Nonparent/Sponsor Business

If the captive's business includes more than a very small amount of third-party business (i.e. typically under 20%), Fitch will typically rate the captive more as a traditional insurer, and would be less likely to uplift the captive rating to that of the parent/sponsor. Fitch may consider unusual circumstances when a larger portion of third-party business may be appropriate on a case by case basis. When calculating the proportion of a captive's third-party business, Fitch may use either written premium (gross or net) or loss reserves based on which measure Fitch believes best reflects the economic substance of the captive.

Parent/Sponsor Ratings Cap

Even when the captive's standalone profile is above that of the parent, captive ratings are typically capped at the rating of the sponsor for the following reasons:

- Captive would not exist without the sponsorship of the parent.
- Financial flexibility, including access to capital to fund growth or replenish for losses, is derived exclusively from that of the parent.
- The book of business and retention strategy is derived from the parent and the parent's risk appetite.
- Essentially all decisions affecting the financial profile of the captive are set by, or can be heavily influenced by, the parent.
- The parent typically sets upstream dividend policy of the captive, though this may be subject to restrictions of the captive's regulator, which can vary greatly by jurisdiction.

For a captive to be rated higher than the parent, the captive would need to be capitalized at a level significantly higher than that implied by the parent's rating and other aspects of the financial profile, as implied by a SACP, would need to be supportive of a higher rating. In addition, the concepts discussed in the section Rating Above the Group Credit Profile (GCP) within Group Rating Criteria would need to be in place. Fitch believes it would be extremely rare for such conditions to be met in the case of a captive.

For a non-insurance company parent, the parent's IDR typically serves as the cap for both the IFS rating and IDR of the captive, resulting in compression of the captive's IFS/IDR ratings relative to standard notching in many jurisdictions for traditional insurance companies. Such

compression is based on the expectation that insurance creditors of the captive would not recover more than senior creditors of the parent in the case of default, due to the very strong linkages between a captive and its parent. However, in unusual circumstances, where the sponsor is weak and the captive maintains strongly protected and high levels of capital, Fitch may choose to conduct a bespoke recovery analysis, which may result in the captive IFS rating being set one notch above the sponsor's IDR.

For an insurance company parent, the IFS rating of the captive is typically capped at the IFS rating of the parent.

Captives Rated as Insurance-Linked Securitizations

Fitch notes insurance companies form captives as vehicles for capital financing transactions, such as transfer of XXX reserving risks in the U.S. In some cases too, captives serve as defacto SPV in insurance-linked securitizations (ILS). In these cases, the captive may act as a reinsurer of a specific book of business or risk class, and then, transfer the risk to third parties, be it debt investors or banks/other counterparties.

When a captive acts as a SPV in an ILS transaction, its obligations may be rated as a structured finance obligation under Fitch criteria governing ILS entitled Insurance-Linked Securities Rating Criteria. In cases when the captive is not deemed a structured finance SPV, the captive rating methodology discussed in this section may apply.

Private Ratings – Special Considerations

In certain cases of insurance company-sponsored captives as just described, Fitch may be asked to provide a private rating or credit opinion on a captive to a bank or other counterparty. Typically, the private rating/credit opinion is used by the bank or counterparty to judge how much capital to hold against its counterparty risks.

Such private ratings or credit opinions may not reflect all aspects of Fitch's methodology, as Fitch aligns its rating approach to the intended use of the rating or credit opinion.

For example, when a bank LOC is used to guaranty performance of a captive for its obligations due its parent insurance company, the bank is bearing the insured risk if the captive would otherwise fail. The bank may seek a private rating on the LOC facility to judge the risk of a draw for purposes of its capital requirements under bank regulations. In such cases, Fitch's goal would be to provide a rating that best matches the risks specifically assumed by the bank or counterparty. This may be a stand-alone rating of the captive that does not reflect uplift due to parent support.

National Scale Ratings

National scale ratings are an opinion of creditworthiness relative to the universe of entities (and debt/hybrid issues, as applicable) within a single country or monetary union. National ratings can be developed in one of two ways:

- First developing a credit opinion and/or rating on the insurer on the international scale, and then using country-specific correspondence tables to map to a range of applicable national ratings, selecting the most appropriate national rating based on peer analysis;
- Establishing the national rating based primarily on a relative analysis of an insurer's performance on the key credit factors against local peers.

For additional details on national scale ratings see *National Scale Ratings Criteria*.

Other aspects of the master criteria apply as stated to both international scale and national scale ratings, with the following exceptions:

Group Rating Criteria

At times, Fitch will need to use its group rating criteria to establish a national rating on an insurer that is part of an international insurance group. If an international scale rating is not already in place on the noted insurer, Fitch will typically develop an international scale credit opinion on the insurer to assist in the application of group rating criteria. It is that international scale credit opinion that will be applied to the various group rating criteria guidelines.

Notching

Notching for national ratings is the same as that outlined earlier, other than the anchor is the National Long Term Rating, which acts as a proxy for the IDR.

Short-Term Ratings

The same correspondence table is used to assign short-term ratings whether under the international or a national scale.

Recovery Analysis

Bespoke RRs are not used in support of national scale ratings.

Captive Insurance Companies

The general ratings concepts are the same for international and national scale captive ratings. If an international scale rating is not also in place, committees will typically develop a credit opinion for the captive on the international scale to assist in the application of uplifts or constraints related to the sponsor's rating, when the sponsor is foreign.

Data Sources, Variations, Limitations and Sensitivities

Data Sources

Fitch's analysis and rating decisions are based on relevant information available to its analysts. The sources of this information are the issuer and the public domain. The latter includes relevant publicly available information on the issuer, such as audited and unaudited (e.g. interim) financial statements and regulatory filings. The rating process can also incorporate information provided by other third-party sources.

Key assumptions for these criteria are informed by discussions with external parties – such as issuers, institutional owners, regulators and governments – and Fitch's analysis of financial and nonfinancial information, such as issuer financial statements and annual reports; bond documentation; and financial market, industry and economic data and history.

Evaluating Sufficiency and Robustness

Most publicly traded companies would be deemed to provide sufficient and robust information to meet Fitch's standards. In most cases too, regulatory data is considered sufficient and robust to support a rating. Whenever Fitch believes information is neither sufficient nor robust, it will not assign a new rating or it will take steps to withdraw an existing rating.

Fitch will also consider the following:

- Information is sufficient if it is possible to evaluate the key risks defined by these criteria.
- Extent of information typically available for other rated companies is a consideration.
- Fitch may employ reasonable estimations to help fill modest information gaps.
- Typically financial information should cover the last five years, or from the start of business operations (if shorter).
- Circumstances such as mergers/acquisitions may require use of less than five years.
- Although Fitch places reliance on auditors in its review of the robustness of financial statements, Fitch may also review the work of other experts including consultants, risk modeling agencies, and legal advisers.
- Fitch also makes use of a variety of third-party information sources, as well as data provided directly by the rated organization.

Variations from Criteria

A rating committee may adjust the application of these criteria to reflect the risks of a specific transaction or entity. Such adjustments are called variations. All variations will be disclosed in the respective rating action commentaries, including their impact on the rating where appropriate.

A variation can be approved by a ratings committee where the risk, feature, or other factor relevant to the assignment of a rating and the methodology applied to it are both included within the scope of the criteria, but where the analysis described in the criteria requires modification to address factors specific to the particular transaction or entity.

Limitations

Ratings, including Rating Watches and Outlooks, assigned by Fitch are subject to the limitations specified in Fitch's Ratings Definitions and available at <https://www.fitchratings.com/site/definitions>.

Rating Assumption Sensitivity

Fitch's opinions are forward-looking and include Fitch's views of future performance. Insurance ratings are subject to positive or negative adjustment based on actual or projected financial and operational performance. A non-exhaustive list of the primary sensitivities that can influence the ratings and/or Outlook is listed below.

Operating Environment Risk: Deterioration in an insurer's industry characteristics or operating environment due to weakening of the general economic environment, sovereign risks, financial market health (including changes in interest rates and inflation), changes in regulatory/legislative/tort requirements or conditions, and systemic governance in the countries where the insurer is operating, including risk of imposition of foreign-exchange controls.

Business Risk: Developments in an insurer's ability to withstand competitive pressures as shown in its position/franchise in key markets, its business model/diversification, its level of pricing power and its operating efficiency.

Financial Risk: Changes in an insurer's financial profile due to the impact of operational developments, changes in accounting and/or capital standards and policies, the insurer's financial policy or risk appetite, or the availability of funding or reinsurance capacity in case of market disruption.

Event Risk: An unforeseen event that, until it is explicit and defined, is excluded from existing ratings. Event risks can be externally triggered — such as a change in law, a natural disaster, a political shock, a pandemic or an ownership change — or internally trigger — such as a change in policy on capitalization, a major acquisition, fraud or a management or strategic restructuring, or unexpected distress of a significant counterparty.

Support Change Risk: A change in support expected to be available to an insurer, for example due to a change in ownership or group affiliation, or a change in strategic direction or the financial fortunes of an owner or group affiliate.

Instrument-Specific Risks: In the case of issue-level ratings, these may be sensitive to changes in a company's issuer-level ratings, performance risk relative to the risk captured in issuer-level ratings (e.g. for hybrids) and changes in default risk or recovery prospects for the instrument, for example as a function of its seniority, volume of pari passu liabilities or the volume and relative ranking of other liability layers.

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

Copyright © 2020 by Fitch Ratings, Inc., Fitch Ratings Ltd. and its subsidiaries. 33 Whitehall Street, NY, NY 10004. Telephone: 1-800-753-4824, (212) 908-0500. Fax: (212) 480-4435. Reproduction or retransmission in whole or in part is prohibited except by permission. All rights reserved. In issuing and maintaining its ratings and in making other reports (including forecast information), Fitch relies on factual information it receives from issuers and underwriters and from other sources Fitch believes to be credible. Fitch conducts a reasonable investigation of the factual information relied upon by it in accordance with its ratings methodology, and obtains reasonable verification of that information from independent sources, to the extent such sources are available for a given security or in a given jurisdiction. The manner of Fitch's factual investigation and the scope of the third-party verification it obtains will vary depending on the nature of the rated security and its issuer, the requirements and practices in the jurisdiction in which the rated security is offered and sold and/or the issuer is located, the availability and nature of relevant public information, access to the management of the issuer and its advisers, the availability of pre-existing third-party verifications such as audit reports, agreed-upon procedures letters, appraisals, actuarial reports, engineering reports, legal opinions and other reports provided by third parties, the availability of independent and competent third-party verification sources with respect to the particular security or in the particular jurisdiction of the issuer, and a variety of other factors. Users of Fitch's ratings and reports should understand that neither an enhanced factual investigation nor any third-party verification can ensure that all of the information Fitch relies on in connection with a rating or a report will be accurate and complete. Ultimately, the issuer and its advisers are responsible for the accuracy of the information they provide to Fitch 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.

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.