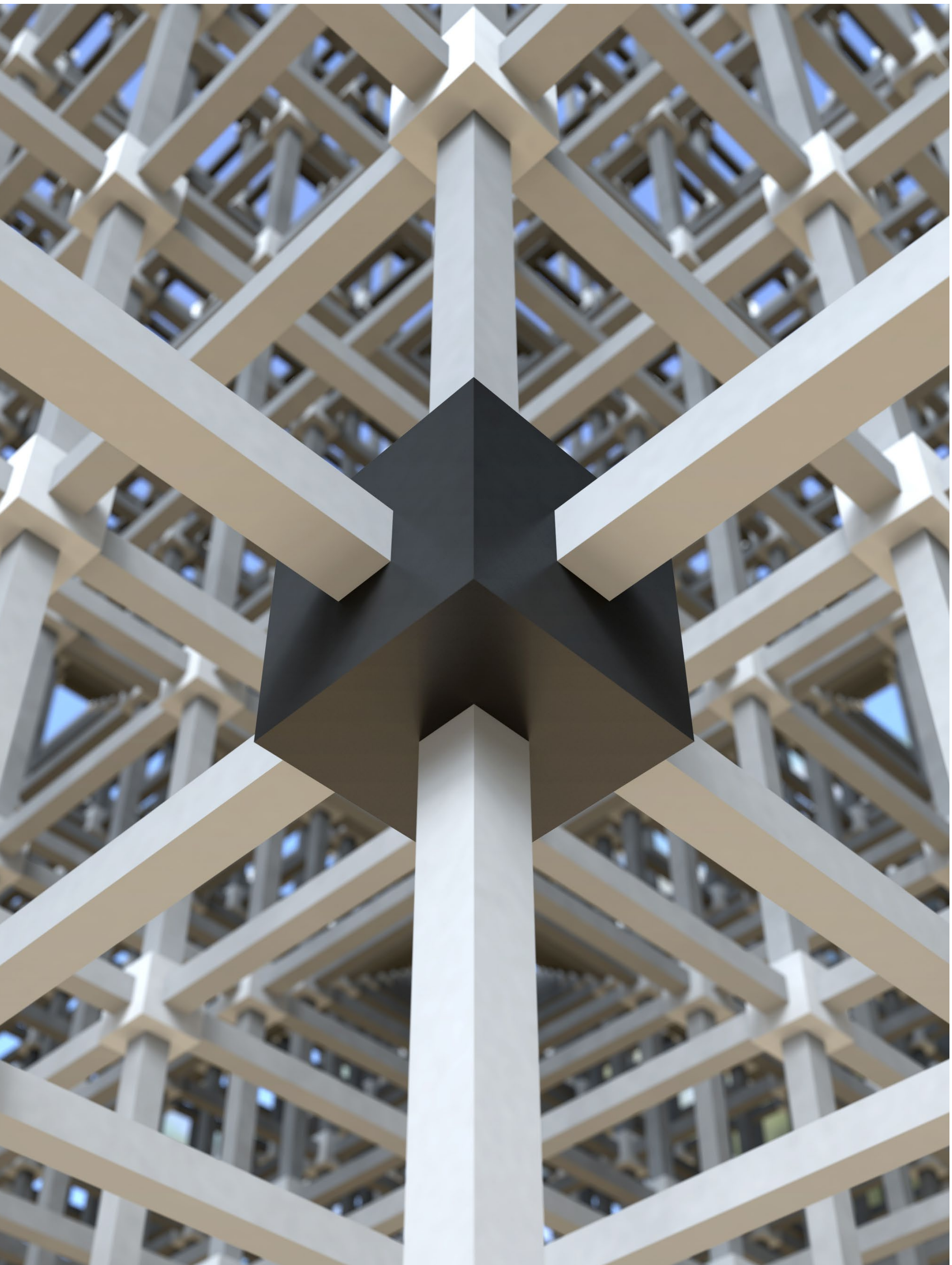
S&P Global Ratings

Japan Corporate Credit Spotlight

Scant Room For Improvement

Oct. 18, 2023

This report does not constitute a rating action.



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Contents

Key Takeaways

- Japanese corporations have limited room to further improve their creditworthiness.
- Corporate performances and finances will be supported by Japan's decent economic health and strong company financial positions; geopolitical tensions, inflation, slowing global growth, and heavy investment are among the risks.
- Companies with weaker creditworthiness remain dependent on market conditions.

Corporate Japan's gumption is evident in the way it has navigated the tests of the past couple of years. That doesn't mean the country's army of salary(wo)men can celebrate. There's not much their companies can do to strengthen further.

With limited room for further improvement in their creditworthiness, Japanese corporations will rely over the next one to two years on a steady domestic economy and their strong financial positions for support. However, geopolitical tensions, inflation, a global economy in the doldrums, and extensive investments by management teams hungry for growth could all throw spanners in the works.

In our analysis, we ask these key questions:

- Do geopolitical tensions mean we should expect ongoing inflation and repeated supply chain bottlenecks?
- Are companies going to be able to pass on higher costs for energy, labor, and materials to their customers?
- Will the U.S. and Europe achieve soft landings for their economies? How about China? Can these economies hold it together enough to prevent a global slowdown?
- How will companies balance the need for investments in growth against the risk of worsening financial health because of growing debt?

We are also closely watching companies with relatively low creditworthiness. We believe the funding and liquidity of such entities will remain at the mercy of financial market conditions.

For this annual study, which S&P Global Ratings launched in 2017, we select about 100 Japanese corporates we consider representative of their sectors based mainly on the size of their sales, market capitalization, and outstanding debt. We then analyze the credit trends of each industry and company. For companies we do not rate, we assess only the business and financial risk profiles.

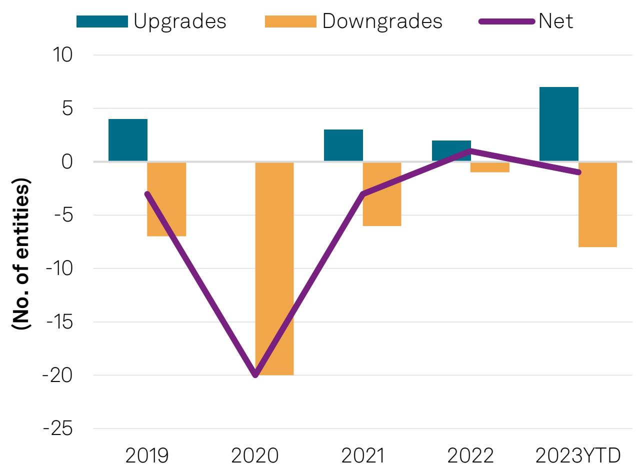
Credit Quality: Things Can Only Get (Slightly) Better

The creditworthiness of the Japanese corporations we rate is likely to be stable for the next one to two years. However, don't expect bonanzas. There is limited room for further improvement in their creditworthiness, in our view. While certain factors underpin the performance and financial health of the companies, there are numerous risks.

We believe the improvement trend that started in 2021 for creditworthiness of the companies we rate is coming to an end. Of the roughly 80 Japanese companies we rate in the corporate sector, eight were downgraded in 2023 (from Jan. 1 to Sept. 30) and seven were upgraded (see chart 1). Because of the upgrades, the number of positive outlooks in 2023 declined to four from eight. Future upgrades are thus less likely for now. Our upgrades were mostly driven by observed improvements in profitability and financial health at companies. A healthier business environment and structural reforms brought about these improvements. Downgrades, meanwhile, were driven by pandemic impacts, the consequences of rising inflation, and excessive investments.

Chart 1

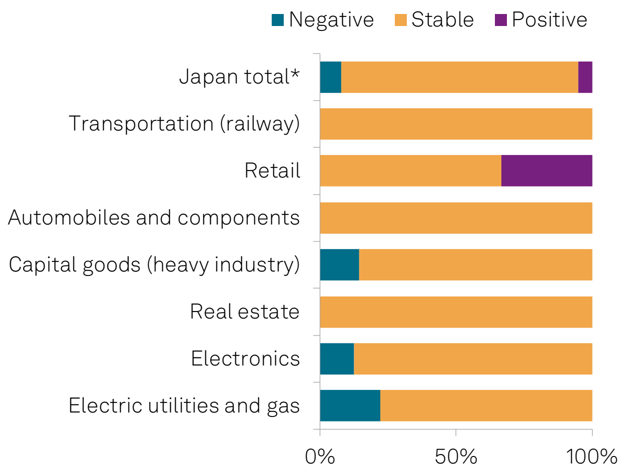
Downgrades nearly equal upgrades



As of Sept. 30, 2023. YTD--Year to date. Source: S&P Global Ratings.

Chart 2

Number of stable outlooks increases



As of Sept. 30, 2023. *Rated corporate entities in Japan.
Source: S&P Global Ratings.

As of Sept. 30, 2023, the outlooks on 87% of the corporates we rate in Japan were stable, up from 66% on Dec. 31, 2022 (see chart 2). Net negative bias at entities continues to outweigh positive assessments. We calculate this by subtracting the number of entities with positive outlooks or ratings placed on CreditWatch with positive implications from those with negative outlooks or on CreditWatch negative. The figure was 3% on Sept. 30, 2023, down from 13% on Dec. 31, 2022. That's less than the global figure of 7% for entities we rate.

Credit quality declined in the pandemic and has not recovered to previous levels. Of the 58 companies we rate and studied for this report, about one third, or 19, have seen their creditworthiness deteriorate since the end of 2019.

This has impacted some industries more than others. For example, long-term issuer credit ratings in the auto industry are below their levels at the end of 2019. The trend toward electrification in this industry has pressured companies to change their business models. They are now working to usher in next-generation technologies and comply with environmental regulations. In the railway industry, ratings are also down. The impact of the COVID-19 pandemic continues, and the burden of growth investments is increasing. Credit recovery in these two industries has been slower than at their foreign peers.

Credit quality has not recovered to pre-pandemic levels

Lower ratings compared with 2019 and particularly affected sectors

	Number of lower ratings	Percentage of lower ratings*
Auto	5	71%
Railways	2	100%
Japan total	19	33%

*Percentage of rated entities in each sector. Source: S&P Global Ratings.

In the electricity and gas industries, long-term issuer credit ratings are where they were in 2019. The government is likely to provide extraordinary support in times of need to these industries. Transparent pricing systems and favorable regulations also support them.

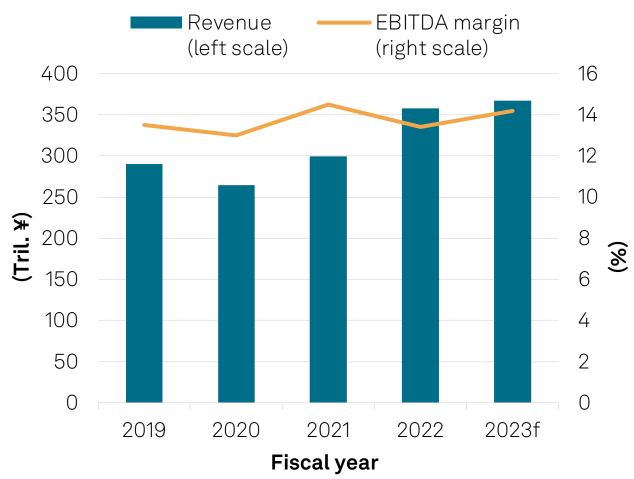
In the information technology (IT) services industry, structural reforms had companies ditch unprofitable hardware operations at the same time as strong demand for digital transformation have pushed ratings above the level they were at in late 2019. General trading and investment companies (GTICs), meanwhile, also saw creditworthiness improve. This was thanks to rising resource prices and the strengthening of nonresource businesses. Both of these factors have improved business performance and finances.

Financial Health: Resilient Despite Inflation

Ratios of debt-to-EBITDA should remain stable, in our view. Given a steady domestic economy, we expect companies to pass on higher costs from inflation to selling prices. A weaker yen should also boost sales, earnings, and cash flow (see charts 3 and 4).

Chart 3

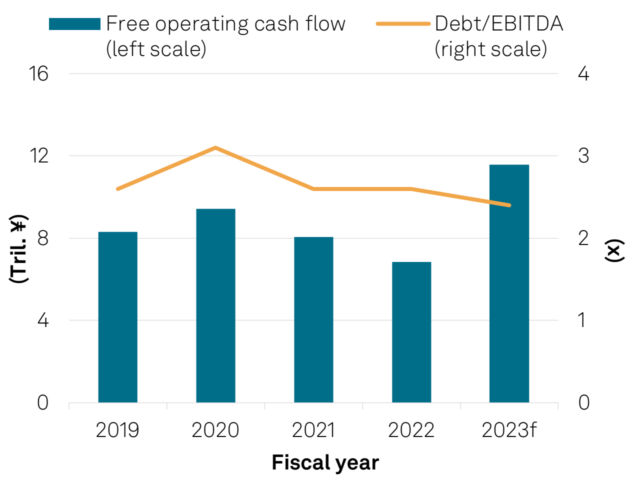
Steady economy supports profitability momentum



Excluding JREITs and GTICs. f--Forecast. Source: S&P Global Ratings.

Chart 4

Debt to EBITDA will remain stable



Excluding JREITs and GTICs. f--Forecast. Source: S&P Global Ratings.

We estimate the average debt-to-EBITDA ratio will improve slightly to 2.4x in fiscal 2023 from 2.6x in fiscal 2022. This is thanks to improvements in EBITDA and working capital. This financial health provides a buffer to risks such as rising costs and slowing economic growth.

The Japanese corporations we rate are generally resilient to severe external conditions. At least 90% of them still have investment grade ratings ('BBB-' or higher), even after we downgraded many entities in 2020 because of the pandemic's impact. By contrast, around 40% of corporations we rate globally have speculative grade ratings ('BB+' or lower).

Risks: There Are Plenty Of Them

The impact of higher interest rates will be limited for many corporations, in our view. We believe the pace at which interest expenses increase will remain moderate. This is thanks to the ongoing accommodative interest rate policy in Japan, diversified maturities for debt at companies, and high rates of fixed interest. We estimate Japan's benchmark interest rate will rise only marginally from being slightly negative to 0% in 2024.

Geopolitical tensions are a potential risk factor. If any risks materialize, we believe they are likely to increase global market volatility and lead to a repeat of supply chain bottlenecks and input cost inflation. Relations between the U.S. and China remain volatile, and the Russia-Ukraine conflict has escalated this year. The recently erupted war between Israel and Hamas in the Middle East further complicates the picture.

Increases in energy, materials, and labor costs threaten the profitability of companies. Japanese corporations are shifting higher costs from inflation to selling prices. They can do so given the solid domestic economy. However, further cost increases due to global supply chain fragmentation, labor shortages in Japan, and the weaker yen could weigh on the profitability of companies. Costs could rise if government measures to reduce the burden of energy costs are lifted. We expect Brent oil prices will stay above our mid- to long-term forecast of $55 per barrel for the next two to three years, at $85 per barrel.

Slowing economies in the U.S., Europe, and China could dampen demand for certain products and services. These include automobiles, electronics, and capital goods. Soft landings in the U.S. and Europe are more likely, but we see risks. Weakness in China's real estate sector is weighing on growth. Still, we think that the impact of the Chinese economy on Japanese companies' earnings is limited compared with that of the U.S. economy. China accounted for 19% of Japan's exports in 2022, the largest share by country, slightly higher than the U.S. However, a significant portion of exports to China from Japan are related to items that will be used in areas such as manufacturing and re-exported. These items are, therefore, less sensitive to China's final domestic demand.

Table 1

GDP growth rates for major economies

%	2022	2023	2024
Japan	1.0	1.8	1.0
U.S.	2.1	2.3	1.3
China	3.0	4.8	4.4
Asia-Pacific	3.9	4.3	4.4
Eurozone	3.4	0.6	0.9

S&P Global Ratings forecasts, as of Sept. 26, 2023.

Financial deterioration driven by excessive investments is also a risk. Such investments could be made to boost earnings in growth sectors and overseas, or to address decarbonization. However, we believe the recent depreciation of the yen and fears of a global slowdown have somewhat dampened Japanese companies' appetites for growth investments over the next six to 12 months. Once the business cycle turns, though, corporations will make more investments, including acquisitions, overseas and in growth sectors, in our view.

There have been many cases where ambitious plans have turned awry. Rakuten Group Inc.'s foray into the mobile business, for example, and general trading and investment companies' (GTICs) spending on upstream interests such as oil, gas, and metals, did not bring appropriate returns. These projects resulted in overinvestment, which pressured finances and credit ratings. In addition, research and development (R&D) costs and investment burdens of Japanese operating companies will inevitably increase in the future because of decarbonization efforts. Whether these investments will deliver healthy returns is highly uncertain. However, delays in addressing decarbonization will pressure competitiveness and force companies to make difficult choices, in our view.

Revised Outlooks: External Conditions Are Key

We revised our outlook for railways up to stable from slightly negative. We expect a rebound in passenger demand will support the sector's financial health and creditworthiness. This is despite continued high levels of growth investment. However, we do not expect to raise long-term issuer credit ratings to their pre-pandemic levels in the next two to three years. The normalization of working from home means transportation revenue is unlikely to return to pre-pandemic levels in the next two to three years. Growth investment burdens, meanwhile, will exceed pre-pandemic levels, in our view.

Same for electric utilities. The outlook is now stable, up from slightly negative. We expect earnings to rebound as higher fuel prices are passed on to retail prices. Dominant positions in their respective supply regions, favorable regulatory frameworks, transparent pricing systems, and the possibility of extraordinary support from the government in times of need help support the creditworthiness of these companies, in our view. However, debt has risen significantly over the past two years and will remain high because of maintenance or replacement of existing facilities. Decarbonization investment is a further burden. As a result, we expect cash flow metrics will recover only gradually over the next one to two years.

The outlook for the chemical industry is slightly negative, down from stable. We believe profitability will decline due to weak market conditions. Meanwhile, high levels of investment will continue in growth areas such as decarbonization. These factors will together pressure creditworthiness.

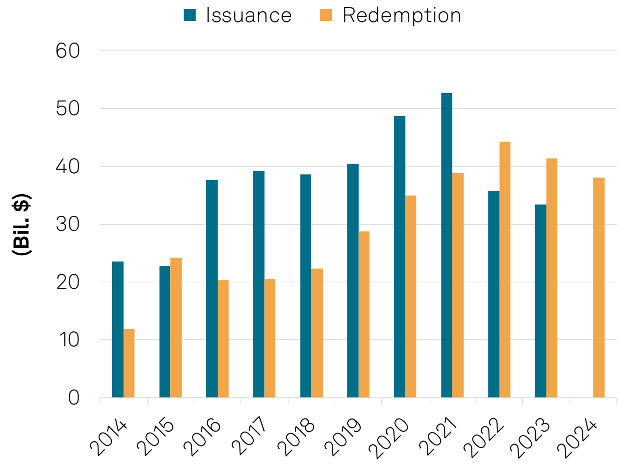
The outlook for the construction and engineering sector is also slightly negative. While demand in the sector remains strong, profitability will decline. This is because of orders with low profit margins and rising costs, in our view. In addition, we expect key cash flow indicators to deteriorate because of rising debt driven by spending on larger construction projects and aggressive real estate development.

Funding And Liquidity: The Mercy Of The Market

Japanese operating companies with relatively low creditworthiness will continue to depend on financial market conditions, in our view. Redemptions of corporate bonds issued with low yields in overseas markets during the pre-pandemic era, when the yen was stronger, will remain high for the next one to two years. We believe investors will be selective in where they park their cash. U.S. dollar-denominated corporate bond issuance by Japanese operating companies plunged to around $35 billion in 2022, down from a record high of more than $50 billion in 2021 (see chart 5).

Chart 5

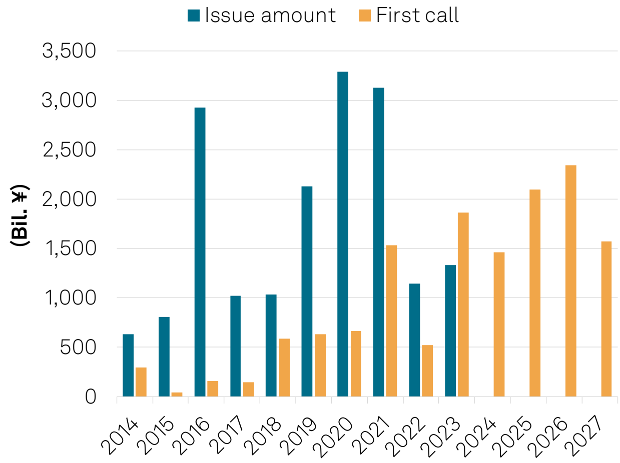
U.S.-dollar bond redemptions will remain high



Japan corporates' issue amount in 2023 as of September 2023.
Source: S&P Global Ratings.

Chart 6

Refinancing will drive hybrid issuance



Japan corporates' issue amount in 2023 as of September 2023.
Source: S&P Global Ratings.

The funding environment deteriorated due to monetary tightening by central banks around the world and concerns about recession among advanced economies. Although the volume of issuance has increased slightly since the beginning of 2023, issuance by entities rated in the 'BB' category or lower has not recovered. Meanwhile, we do not expect any major problems with refinancing yen-denominated bank loans. Domestic banks have relatively healthy balance sheets. However, the risk of unanticipated impacts here should be noted.

We anticipate demand for refinancing hybrid bonds on their first callable dates. This should push up the amount of funds raised through such bonds. We expect the annual average balance of hybrid bonds reaching their first callable dates over the next five years will be around ¥1.8 trillion, higher than the record high of ¥1.5 trillion in 2021 (see chart 6). This includes hybrids we consider to have no equity content and those we do not rate. We also expect some new hybrid bonds to reduce the financial burden of growth investments, including mergers and acquisitions (M&A).

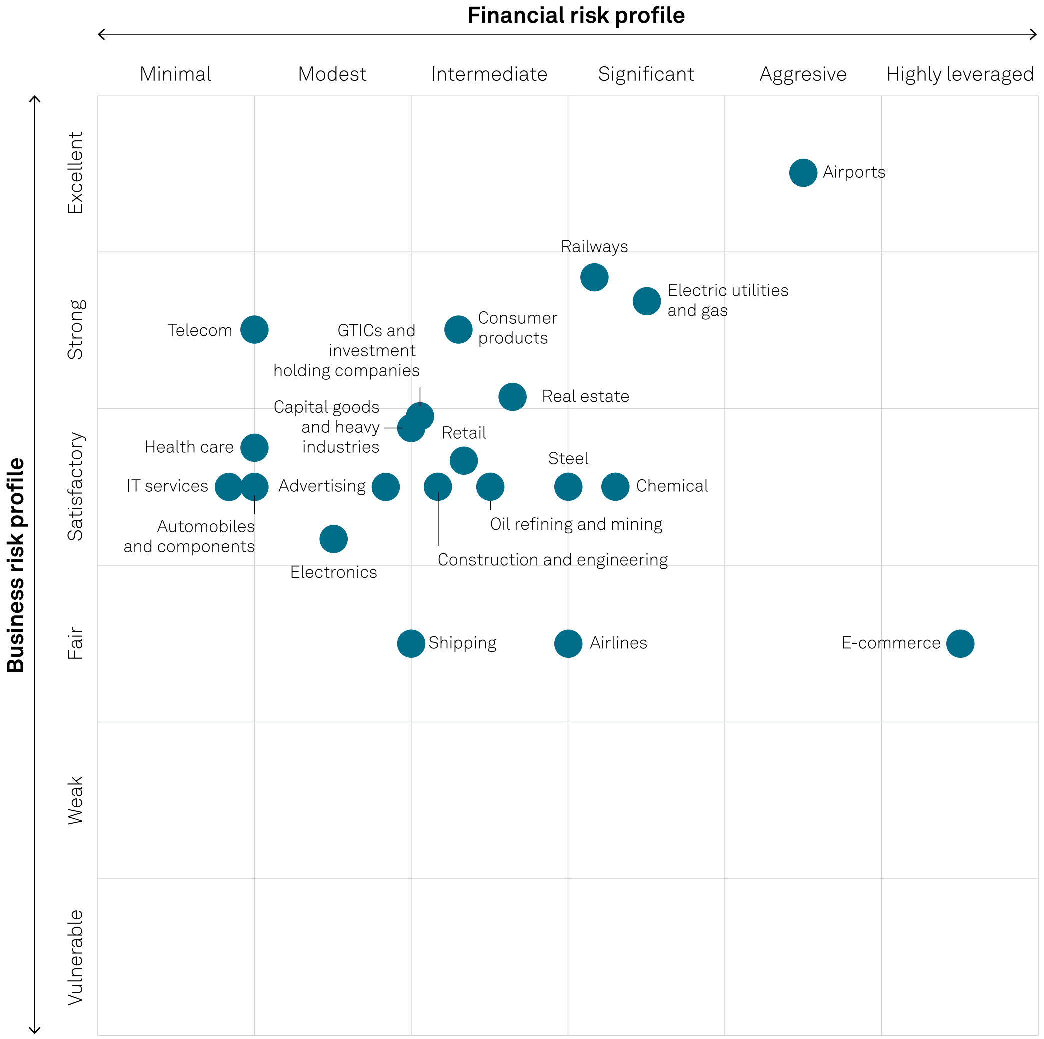
We see a relatively high probability of Japanese companies refinancing hybrid bonds we assess as having intermediate equity content. Low interest rates, the relatively high creditworthiness of the companies, and the proportion of syndicated hybrid loans the companies hold have raised the probability of refinancings, in our view.

Performance: Improvements Outweigh Deteriorations

We revised up our assessment of the financial risk profile of the airline industry, in which passenger demand is recovering from the pandemic, and the consumer goods industry, which is using solid cash flow to cut debt. We revised down the financial risk profile of the chemical industry. While high levels of investment have continued in growth areas such as decarbonization for this sector, profitability has declined due to sluggish market conditions (see chart 7).

Chart 7

Distribution of business risk profiles and financial risk profiles across 21 sectors



As of Sept. 15, 2023. Source: S&P Global Ratings.

Consumer Products (Food And Tobacco)

Outlook – Stable

Ability to pass on rising costs supports creditworthiness

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Secondary contact
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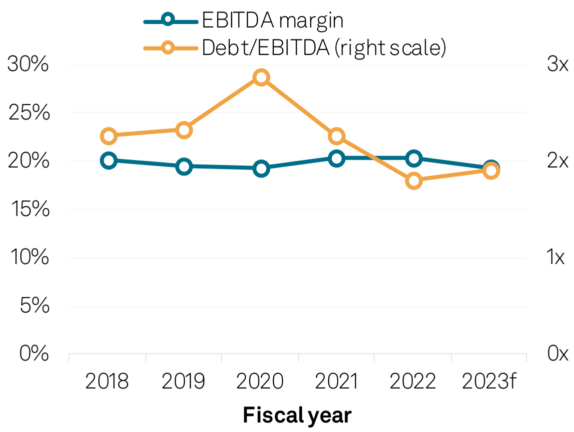
Key assumptions

- Overall profitability will remain steady as companies pass on higher raw material costs.
- Credit quality will hinge on how companies can play to their brands' strengths to pass on costs.
- Consumers will trade down, especially when brand differentiation is difficult, as inflation bites.
- Japanese food companies will continue to hike prices using strong brands, but profitability will still lag overseas peers.
- Companies including Japan Tobacco will keep finances stable, strengthening existing businesses without conducting large M&A.

Credit trends and risks

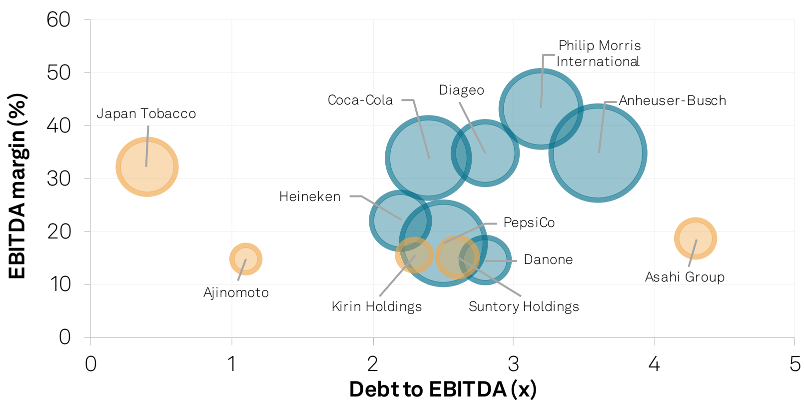
- Steady credit quality thanks to conservative financial management and solid cash flow relative to other industries.
- Economic slowdown and rising prices weighing on consumer sentiment in major markets.
- Falling profitability if costs passed on in recent years do not take hold.
- Potential delays in responding to new consumer behavior through investment in product development, brands, and sales channels compared with peers.

Key figures



f--Forecast. Source: S&P Global Ratings based on company materials.

Peer comparison



Bubble size represents EBITDA for fiscal 2022. Source: S&P Global Ratings.

Consumer products	Long-term issuer credit rating	Business risk profile	Financial risk profile	Anchor	Modifiers or group/govt.
Asahi Group Holdings Ltd.	Not rated	Strong	Aggressive	-	-
Kirin Holdings Co. Ltd.	Not rated	Strong	Intermediate	-	-
Ajinomoto Co. Inc.	A+	Strong	Modest	a	+1
Japan Tobacco Inc.	A+	Strong	Minimal	aa-	-1
Suntory Holdings Ltd.	BBB+	Strong	Intermediate	bbb+	-
Overseas peers					
Philip Morris International Inc.	A-	Strong	Intermediate	a-	-
PepsiCo Inc.	A+	Excellent	Intermediate	a+	-
Heineken N.V.	BBB+	Strong	Intermediate	bbb+	-
Danone S.A.	BBB+	Strong	Significant	bbb	+1
Anheuser-Busch InBev S.A./N.V.	A-	Excellent	Significant	a-	-
Diageo PLC	A-	Excellent	Significant	a-	-
Coca-Cola Co. (The)	A+	Excellent	Intermediate	a+	-

Retail

Outlook – Stable

Reforms and recovering consumption support credit quality

Primary credit analyst
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Secondary contact
Kei Ishikawa

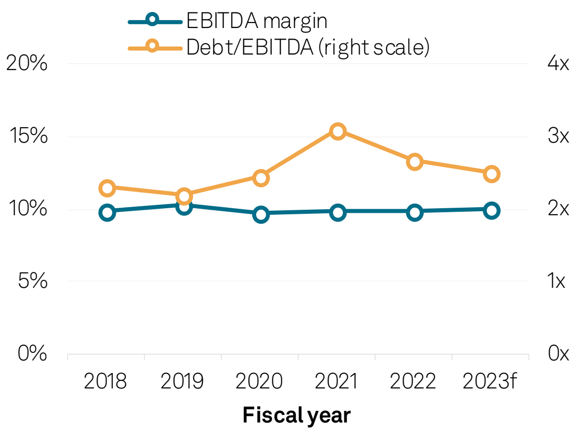
Key assumptions

- Domestic consumption will continue moderately recovering in the next one to two years as pandemic effects wane.
- Companies may fail to fully pass on higher purchasing and operating costs, especially in Japan, amid price competition.
- Companies will offset rising costs through digital technologies, product development, and inventory management.
- The weak yen will continue to boost earnings for overseas operations of the companies studied in fiscal 2023.
- Total EBITDA will remain about ¥2.5 trillion, exceeding the ¥2 trillion of 2019, in the next one to two years.

Credit trends and risks

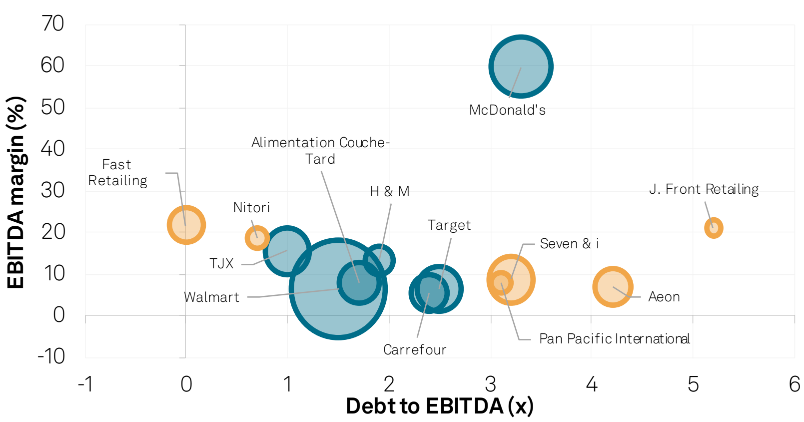
- Stable creditworthiness thanks to solid cash flow despite financial burdens due to growth investments.
- Potential delays in responding to new consumer behavior and a shift in demand to lower prices.
- A potential drop in competitiveness because of limited use of digital technologies compared with peers.

Key figures



f--Forecast. Source: S&P Global Ratings based on company materials.

Peer comparison



Bubble size represents EBITDA for fiscal 2022. Source: S&P Global Ratings.

Retail	Long-term issuer credit rating	Business risk profile	Financial risk profile	Anchor	Modifiers or group/govt.
J. Front Retailing Co. Ltd.	Not rated	Fair	Significant	-	-
Seven & i Holdings Co. Ltd.	A	Strong	Intermediate	a-	+1
Pan Pacific International Holdings Corp.	Not rated	Satisfactory	Significant	-	-
Aeon Co. Ltd.	BBB	Strong	Significant	bbb	-
Nitori Holdings Co. Ltd.	Not rated	Satisfactory	Minimal	-	-
Fast Retailing Co. Ltd.	A	Satisfactory	Minimal	a	-
Overseas peers					
Carrefour SA	BBB	Strong	Intermediate	bbb+	-1
The TJX Companies Inc.	A	Strong	Modest	a	-
Walmart Inc.	AA	Excellent	Modest	aa	-
Target Corp.	A	Strong	Modest	a	-
H & M Hennes & Mauritz AB	BBB	Satisfactory	Modest	bbb+	-1
McDonald's Corp.	BBB+	Strong	Significant	bbb	+1
Alimentation Couche-Tard Inc.	BBB	Satisfactory	Modest	bbb+	-1

Advertising

Outlook – Stable

Credit quality rests on digital media expansion and cost management

Primary credit analyst
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Secondary contact
Makiko Yoshimura

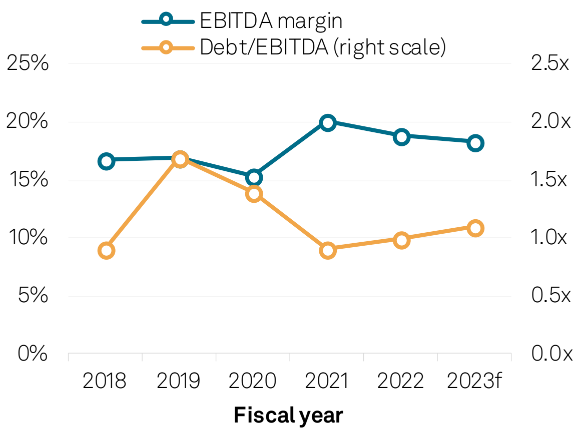
Key assumptions

- Global advertising revenue remains sensitive to the economy and will trail global real GDP, growing 2%-3% in 2023.
- Cost competitiveness and demand for data will lead to relatively high growth for digital media.
- Competition will remain fierce in digital media fields, which could face disruption from AI and other innovations.
- Average debt to EBITDA will be on par with overseas peers at just over 1x, despite aggressive growth investments and shareholder returns.

Credit trends and risks

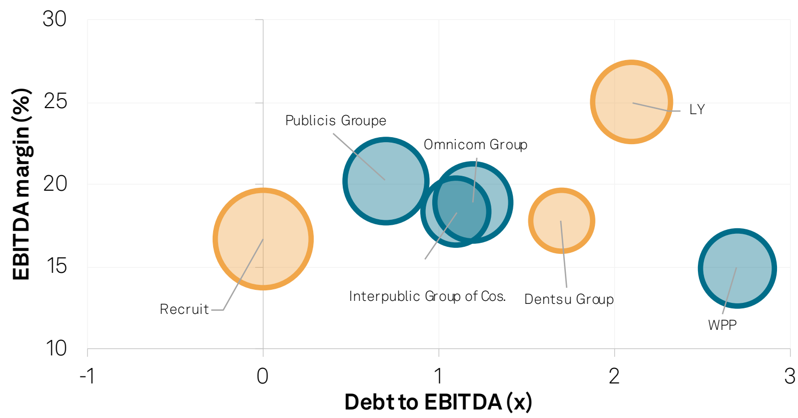
- Profitability stabilizing in the next one to two years thanks to enhanced portfolios.
- Cash flow metrics remaining commensurate with creditworthiness thanks to cost control and selective investments.
- Performance suffering amid heavy pricing pressure and intensifying competition with global peers.
- Financial burdens increasing substantially due to large share buybacks and acquisitions.

Key figures



f--Forecast. Source: S&P Global Ratings based on company materials.

Peer comparison



Bubble size represents EBITDA for fiscal 2022. Source: S&P Global Ratings.

Advertising	Long-term issuer credit rating	Business risk profile	Financial risk profile	Anchor	Modifiers or group/govt.
Dentsu Group Inc.	Not rated	Satisfactory	Intermediate	-	-
Recruit Holdings Co. Ltd.	A	Satisfactory	Minimal	a	-
LY Corp.	Not rated	Satisfactory	Intermediate	-	-
Overseas peers					
WPP PLC	BBB	Satisfactory	Intermediate	bbb	-
Omnicom Group Inc.	BBB+	Satisfactory	Modest	bbb+	-
Publicis Groupe S.A.	BBB+	Satisfactory	Minimal	a-	-1
Interpublic Group of Cos. Inc.	BBB	Satisfactory	Modest	bbb+	-1

Health Care

Outlook – Stable

Stable cash flows and financial bases underpin creditworthiness

Primary credit analyst
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Secondary contact
Makiko Yoshimura

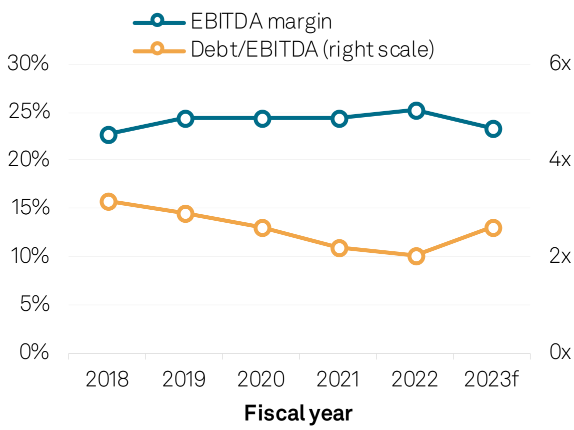
Key assumptions

- Global demand for drugs and medical devices will grow about 5% annually as patient numbers and emerging economy demand rise; Japan demand for drugs will decline 1% due to price controls and rise only by about 2% for devices.
- EBITDA margins will average 23%-25% as cost cuts and strong sales mitigate challenging conditions including pressure on drug prices and fierce competition.
- Profitability will mostly lag foreign peers due to differences in competitiveness and market size for major products.
- Companies will increase investments and shareholder returns within their means after a fall in interest-bearing debt.

Credit trends and risks

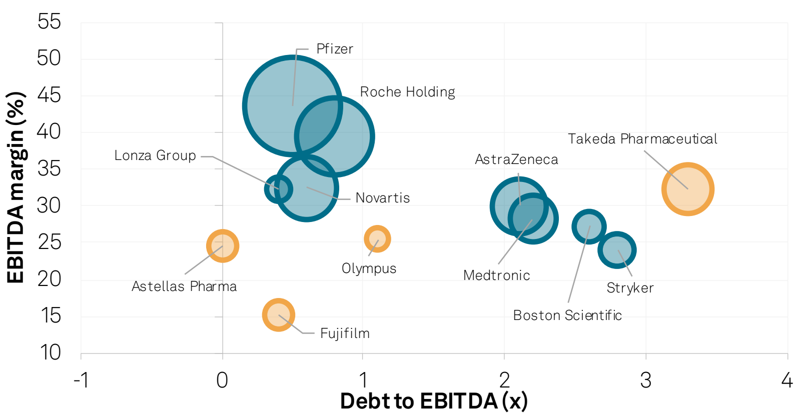
- Stable cash flow and financial bases supporting creditworthiness, backed by strong demand for major products.
- Creditworthiness of companies studied lagging overseas peers due to differences in scale, profitability, and debt.
- Risk of persistently sluggish profitability amid global pressure on drug prices and increasing R&D expenses.
- Risk of further financial deterioration for drug companies due to aggressive growth acquisitions amid fierce competition.

Key figures



f--Forecast. Source: S&P Global Ratings based on company materials.

Peer comparison



Bubble size represents EBITDA for fiscal 2022. Source: S&P Global Ratings.

Health care	Long-term issuer credit rating	Business risk profile	Financial risk profile	Anchor	Modifiers or group/govt.
Takeda Pharmaceutical Co. Ltd.	BBB+	Strong	Intermediate	bbb+	-
Astellas Pharma Inc.	Not rated	Satisfactory	Minimal	-	-
Olympus Corp.	BBB+	Satisfactory	Minimal	a-	-1
Fujifilm Holdings Corp.	AA-	Satisfactory	Minimal	a	+2
Overseas peers					
Roche Holding AG	AA	Excellent	Minimal	aa+	-1
Pfizer Inc.	A+	Excellent	Intermediate	a	+1
Novartis AG	AA-	Excellent	Modest	aa	-1
AstraZeneca PLC	A	Excellent	Intermediate	a	-
Boston Scientific Corp.	BBB+	Strong	Intermediate	bbb+	-
Medtronic PLC	A	Strong	Intermediate	a-	+1
Stryker Corp.	BBB+	Strong	Intermediate	bbb+	-
Lonza Group Ltd.	BBB+	Strong	Intermediate	bbb+	-

E-Commerce

Outlook – Negative

Credit to depend on pace of turnaround in growth-driven business

Primary credit analyst
Makiko Yoshimura

Secondary contact
Kei Ishikawa

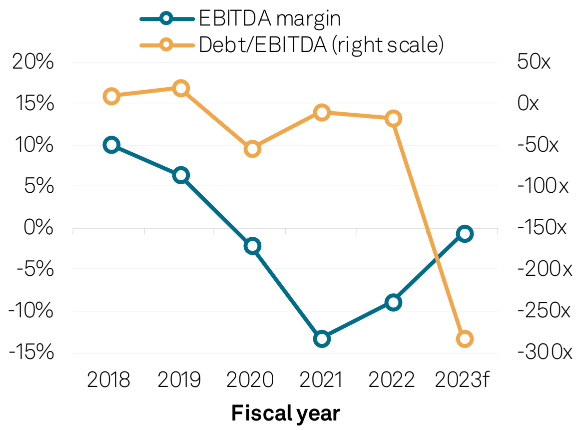
Key assumptions

- Japan's e-commerce (business-to-consumer) market will continue low single-digit growth, given its low penetration rate, despite shifting away from stay-home demand and inflation worsening consumer sentiment.
- Companies can maintain solid domestic market positions thanks to strong platforms and brands, despite competition.
- Cost cuts and other measures will aid a modest earnings recovery from upfront investments in growth areas such as finance, overseas expansion, and those outside of e-commerce.
- Restoring financial bases will take time because of heavy growth investment burdens to date.

Credit trends and risks

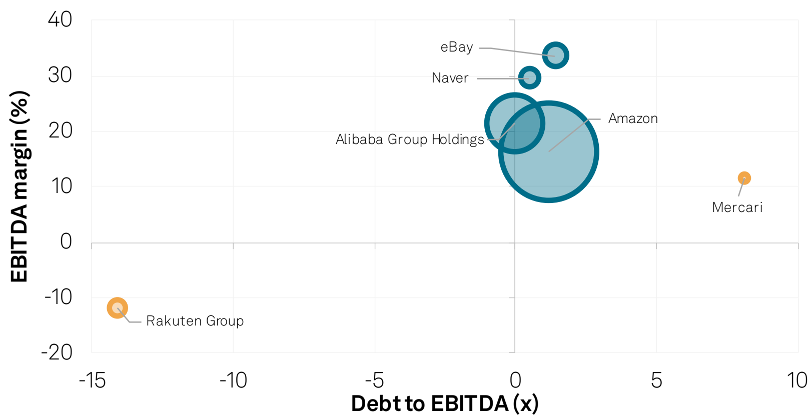
- Overall financial burdens weighing on creditworthiness, despite EBITDA deficits gradually narrowing in growth areas.
- Credit quality lagging overseas peers with strong business bases, ability to cut costs, and solid cash flows and finances.
- More competition with retailers shifting to e-commerce and services that emerge amid slower growth in Japan's market.
- Delayed improvement in financial metrics and worse liquidity as companies take time to clear deficits in growth businesses.

Key figures



f--Forecast. Source: S&P Global Ratings based on company materials.

Peer comparison



Bubble size represents absolute value of EBITDA for fiscal 2022. Rakuten Group EBITDA is negative.
Source: S&P Global Ratings.

E-commerce	Long-term issuer credit rating	Business risk profile	Financial risk profile	Anchor	Modifiers or group/govt.
Mercari Inc.	Not rated	Weak	Highly leveraged	-	-
Rakuten Group Inc.	BB	Satisfactory	Highly leveraged	b+	+2
Overseas peers					
Alibaba Group Holding Ltd.	A+	Strong	Minimal	aa-	-1
Amazon.com Inc.	AA	Excellent	Minimal	aa+	-1
Naver Corp.	A-	Satisfactory	Minimal	a-	-
eBay Inc.	BBB+	Satisfactory	Minimal	a-	-1

Oil Refining And Mining

Outlook – Slightly Positive

High oil prices and domestic oligopoly support creditworthiness

Primary credit analyst
Hiroyuki Nishikawa

Secondary contact
Yuta Misumi

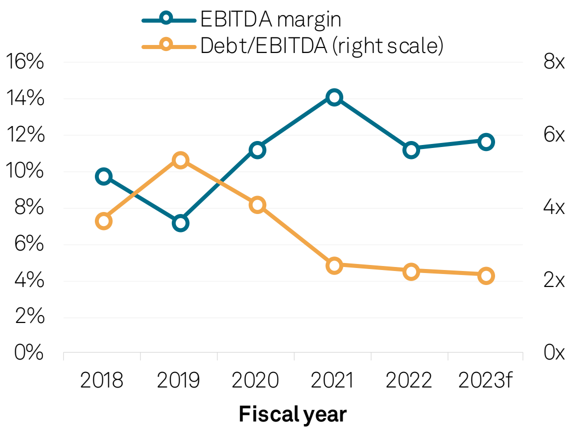
Key assumptions

- Brent crude prices will be $85 per barrel over the next two to three years, above our midcycle assumption price of $55.
- Domestic fuel oil demand will rebound by 1% amid economic recovery in 2023, then slip 2%-3% in 2024 and thereafter.
- Oil exploration and production (E&P) operations will generate steady profit in 2023 thanks to high crude prices and firm demand, yet profit will not rise from the previous year.
- Favorable petroleum product margins will endure in Japan, where an oligopoly has an 80% market share.
- Stable profit and disciplined financial management will temper rising interest-bearing debt, despite investments.

Credit trends and risks

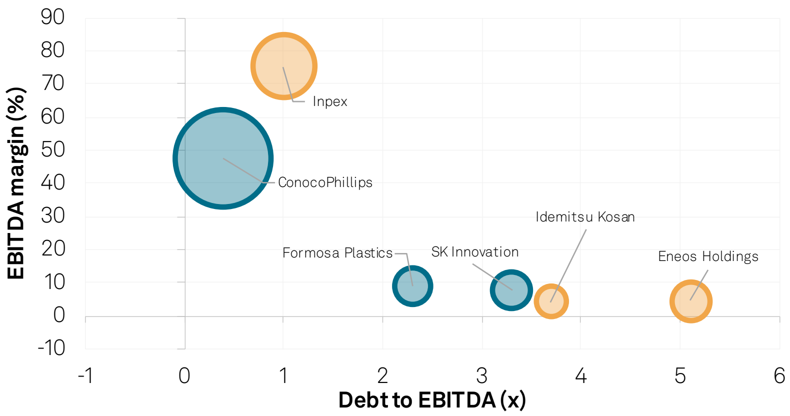
- Credit quality continuing to improve due to high oil prices, steady domestic competition, and financial discipline.
- Heavy losses in E&P or crude inventories if the supply-demand balance reduces oil prices.
- Material fall in demand for fuel oils because of high crude prices and an economic downturn.
- High investment in nonoil operations and renewable energy amid decarbonization, leading to major impairment losses.

Key figures



f--Forecast. Source: S&P Global Ratings based on company materials.

Peer comparison



Bubble size represents absolute value of EBITDA for fiscal 2022. Source: S&P Global Ratings.

Oil refining and mining	Long-term issuer credit rating	Business risk profile	Financial risk profile	Anchor	Modifiers or group/govt.
Inpex Corp.	A-	Satisfactory	Intermediate	bbb	+2
Idemitsu Kosan Co. Ltd.	Not rated	-	-	-	-
Eneos Holdings Inc.	Not rated	-	-	-	-
Overseas peers					
SK Innovation Co. Ltd.	BBB-	Satisfactory	Significant	bbb-	-
Formosa Plastics Corp.	BBB+	Satisfactory	Modest	bbb+	-
ConocoPhillips	A-	Strong	Intermediate	a-	-

Chemicals

Outlook – Slightly Negative

Investments and falling profitability pressure creditworthiness

Primary credit analyst
Hiroshi Nagashima

Secondary contact
Makiko Yoshimura

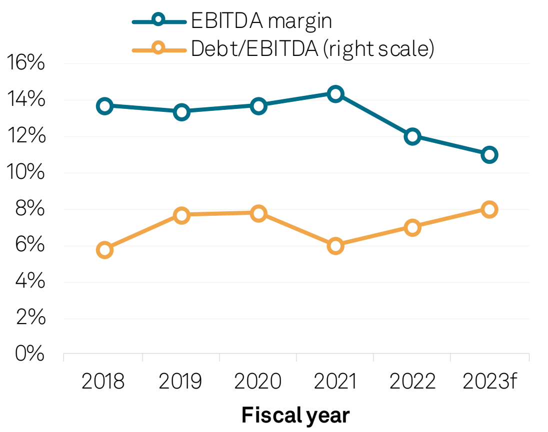
Key assumptions

- Markets for commodity and specialty chemicals will be sluggish: Recovery for the former, driven by autos demand, will be hurt by oversupply due to capacity expansion overseas; the latter by slowdowns for semiconductors and displays.
- Companies studied will curtail commodity chemicals and rationalize low-profit pharmaceuticals and some specialty chemicals, shifting to high-value-added and growth areas such as semiconductors and automotive batteries.
- The average EBITDA margin will decline again in fiscal 2023 due to a deterioration in earnings from pharmaceuticals, semiconductors, and display materials, as well as a slow recovery in commodity chemicals.
- Average debt to EBITDA will be more than 5x at the end of fiscal 2023 (3.9x at the end of fiscal 2022) due to deterioration of profitability amid investment in growth areas such as decarbonization.

Credit trends and risks

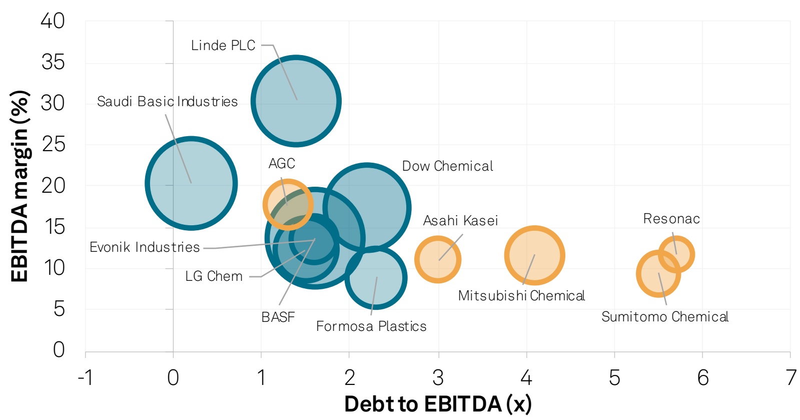
- Declining profitability and heavy investment burdens intensifying downward pressure on credit.
- Major overseas chemicals companies continuing to outperform Japanese peers in average debt to EBITDA.
- Operating performance not recovering if demand in end-use markets such as automobiles declines, commodity chemical prices drop sharply, and restructuring is delayed.
- Key financial ratios deteriorating if large acquisitions or other aggressive growth investments exceed our assumptions.

Key figures



f--Forecast. Source: S&P Global Ratings based on company materials.

Peer comparison



Bubble size represents EBITDA for fiscal 2022. Source: S&P Global Ratings.

Chemicals	Long-term issuer credit rating	Business risk profile	Financial risk profile	Anchor	Modifiers or group/govt.
AGC Inc.	A-	Satisfactory	Modest	bbb+	+1
Mitsubishi Chemical Group Corp.	Not rated	Satisfactory	Significant	-	-
Sumitomo Chemical Co. Ltd.	Not rated	Satisfactory	Aggressive	-	-
Asahi Kasei Corp.	Not rated	Satisfactory	Intermediate	-	-
Resonac Holdings Corp.	Not rated	Satisfactory	Aggressive	-	-
Overseas peers					
Dow Chemical Co. (The)	BBB	Strong	Significant	bbb	-
BASF SE	A-	Strong	Intermediate	a-	-
LG Chem Ltd.	BBB+	Satisfactory	Intermediate	bbb	+1
Saudi Basic Industries Corp.	A	Strong	Modest	a+	-1
Linde PLC	A	Excellent	Intermediate	a+	-1
Formosa Plastics Corp.	BBB+	Satisfactory	Modest	bbb+	-
Evonik Industries AG	BBB+	Strong	Intermediate	bbb+	-

Steel

Primary credit analyst
Kei Ishikawa

Secondary contact
Makiko Yoshimura

Outlook – Stable

Higher earnings stabilize creditworthiness as heavy investments endure

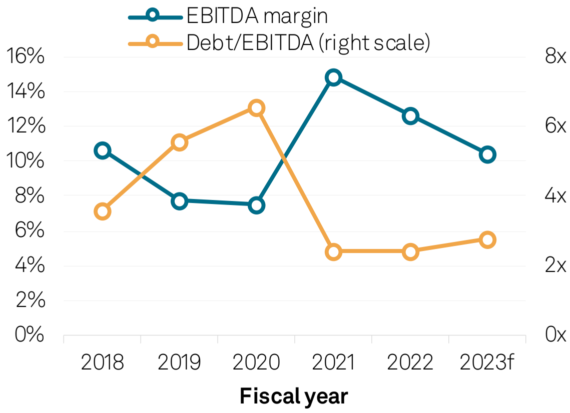
Key assumptions

- Crude steel production and prices will remain low in the next year as demand slows in Japan, China, and other markets.
- Profits will remain high thanks to measures to strengthen earnings, including restructuring and steel price hikes.
- Companies will use operating cash flow to cover investments to maintain competitiveness, curbing interest-bearing debt.
- Average debt to EBITDA will be about 3x, higher than that of some Asian peers.

Credit trends and risks

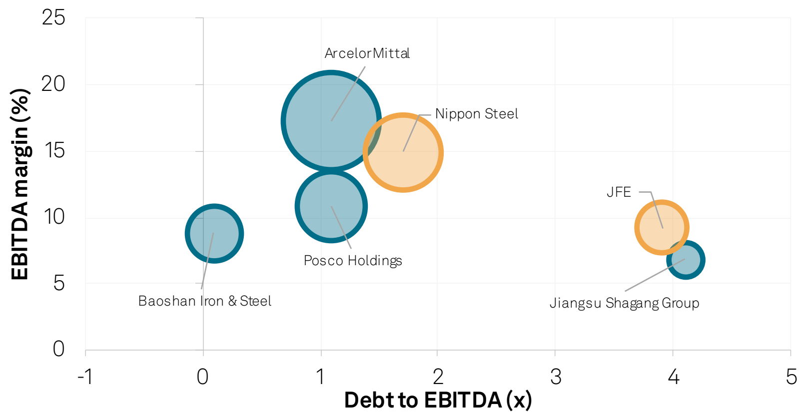
- Financial management supporting creditworthiness, improving cash flow and financial soundness despite investments.
- Creditworthiness withstanding heavy investments on environmental initiatives for now.
- Potentially large swings in profit and cash flow due to increasing volatility in steel markets and materials prices.
- Earnings bases eroding due to economic weakness or competition with highly cost-competitive overseas manufacturers.

Key figures



f--Forecast. Source: S&P Global Ratings based on company materials.

Peer comparison



Bubble size represents EBITDA for fiscal 2022. Source: S&P Global Ratings.

Steel	Long-term issuer credit rating	Business risk profile	Financial risk profile	Anchor	Modifiers or group/govt.
Nippon Steel Corp.	BBB+	Satisfactory	Intermediate	bbb	+1
JFE Holdings Inc.	Not rated	Satisfactory	Significant	-	-
Overseas peers					
Posco Holdings Inc.	A-	Strong	Modest	a	-1
Baoshan Iron & Steel Co. Ltd.	A-	Satisfactory	Modest	bbb+	+1
Jiangsu Shagang Group Co. Ltd.	BBB-	Satisfactory	Intermediate	bbb-	-
ArcelorMittal S.A.	BBB-	Satisfactory	Significant	bb+	+1

Capital Goods And Heavy Industries

Outlook – Slightly Negative

Varying pace of improvement in performance and finances

Primary credit analyst
Makiko Yoshimura

Secondary contacts
Shinichi Endo
Hiroshi Nagashima

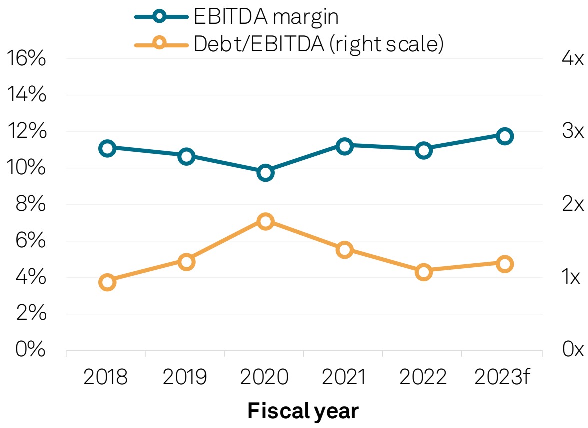
Key assumptions

- Demand in application markets remains uneven; sales will rise 1%-5% thanks to strong product and service capabilities.
- Performance of capital goods is improving moderately; softening demand for semiconductors and consumer products will be offset by a recovery in air conditioners and automotive products; price hikes will cover higher costs.
- Heavy industries earnings will rebound as aircraft markets recover, except where engine inspection costs are higher.
- Median debt to EBITDA will remain flat as companies increase investments despite eased working capital burdens.

Credit trends and risks

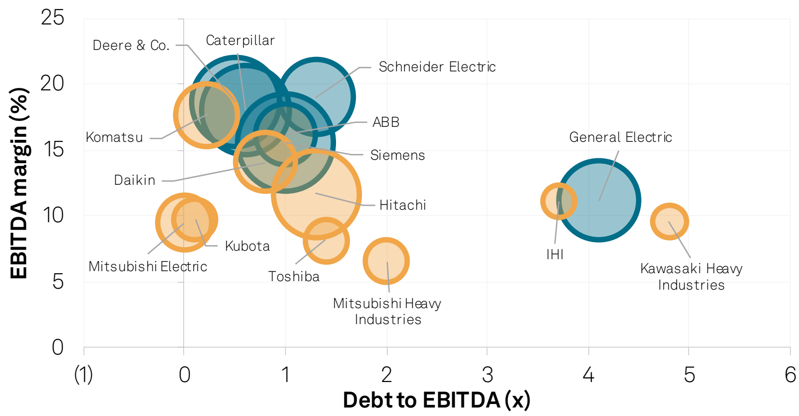
- Credit of capital goods remaining stable as EBITDA and working capital improve, lightening the investment and shareholder return burden; credit remaining under pressure for heavy industries due to uncertain earnings recovery.
- Overseas peers retaining stable credit as ability to pass on costs raises profitability and absorbs investment burdens.
- Demand potentially falling in end markets as interest rates and customer demand dull appetite for capital investment.
- Financial deterioration due to heavy R&D spending (including on decarbonization), investments, or shareholder returns.

Key figures



f--Forecast. Source: S&P Global Ratings based on company materials.

Peer comparison



Bubble size represents EBITDA for fiscal 2022. Source: S&P Global Ratings.

Capital goods and heavy industries	Long-term issuer credit rating	Business risk profile	Financial risk profile	Anchor	Modifiers or group/govt.
Komatsu Ltd.	A	Strong	Modest	a	-
Daikin Industries Ltd.	Not rated	Strong	Modest	-	-
Hitachi Ltd.	A	Strong	Modest	a	-
Toshiba Corp.	BB+	Fair	Intermediate	bb+	-
Mitsubishi Electric Corp.	A	Strong	Modest	a	-
Mitsubishi Heavy Industries Ltd.	BBB+	Satisfactory	Intermediate	bbb	+1
Kubota Corp.	A	Strong	Modest	a	-
Kawasaki Heavy Industries Ltd.	Not rated	Satisfactory	Significant	-	-
IHI Corp.	Not rated	Satisfactory	Intermediate	-	-
Overseas peers					
Schneider Electric S.E.	A-	Strong	Intermediate	a-	-
Caterpillar Inc.	A	Strong	Modest	a+	-1
Deere & Co.	A	Strong	Modest	a	-
General Electric Co.	BBB+	Strong	Intermediate	bbb+	-
ABB Ltd.	A-	Strong	Intermediate	bbb+	+1
Siemens AG	A+	Strong	Modest	a+	-

IT Services

Primary credit analyst
Shinichi Endo

Secondary contact
Makiko Yoshimura

Outlook – Stable

Finances and demand for SI and DX services support credit quality

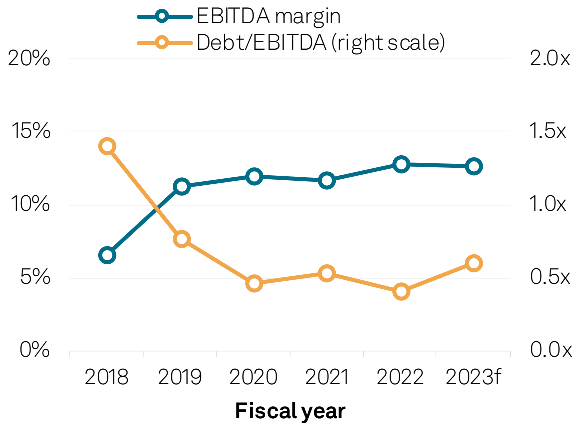
Key assumptions

- The global information technology (IT) services market will grow only 3%-4% in fiscal 2023 amid a worsening economy.
- Japan's market will grow only 2%-3% due to focus on matured conventional system integration (SI) and comparatively low demand in high-growth digital transformation (DX).
- EBITDA margins will improve to midway between 13% and 14% in the next two years with demand for conventional SI and DX, along with expansion of high-profit services such as consulting.
- Earnings growth and profitability will lag overseas peers with strengths in areas including DX.

Credit trends and risks

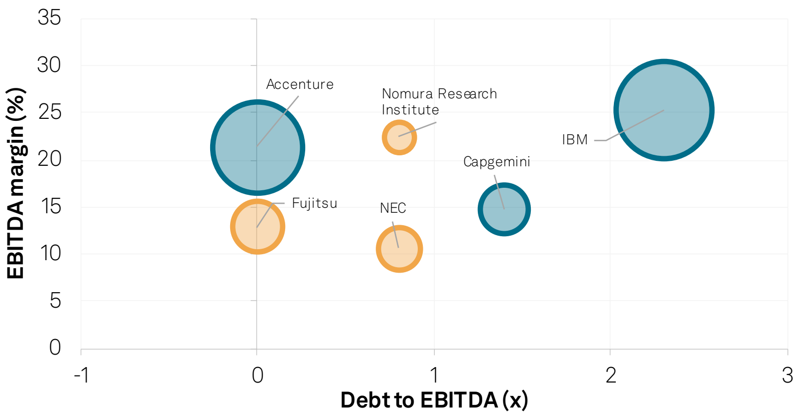
- The three companies studied maintaining relatively strong business bases in IT services in Japan.
- Robust cash flow and finances supporting creditworthiness despite increased investments and shareholder returns.
- Possible drop in client IT investment, especially discretionary spending, amid prolonged global economic stagnation.
- Potential financial hit from large M&A for growth, including expansion overseas, and larger shareholder returns.

Key figures



f--Forecast. Source: S&P Global Ratings based on company materials.

Peer comparison



Bubble size represents EBITDA for fiscal 2022. Source: S&P Global Ratings.

IT services	Long-term issuer credit rating	Business risk profile	Financial risk profile	Anchor	Modifiers or group/govt.
Nomura Research Institute Ltd.	A	Satisfactory	Minimal	a	-
NEC Corp.	BBB+	Satisfactory	Modest	bbb+	-
Fujitsu Ltd.	A-	Satisfactory	Minimal	a-	-
Overseas peers					
International Business Machines Corp.	A-	Strong	Intermediate	bbb+	+1
Accenture PLC	AA-	Strong	Minimal	aa-	-
Capgemini SE	BBB+	Satisfactory	Minimal	a-	-1

Electronics

Primary credit analyst
Kei Ishikawa

Secondary contact
Makiko Yoshimura

Outlook – Stable

Solid demand underpins earnings, financial cushion, and credit quality

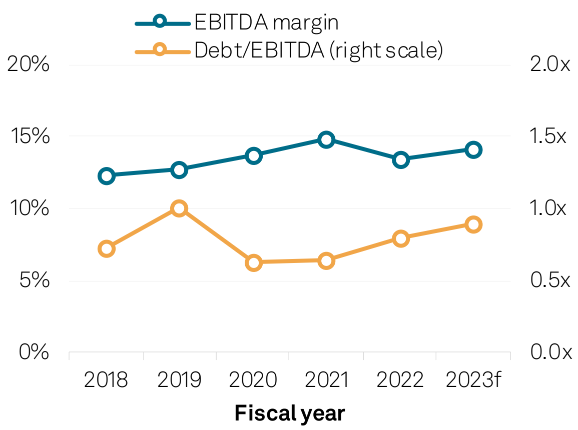
Key assumptions

- Growth in electronics demand will drop to about 2% in 2023 amid economic downturn, outpacing global GDP growth.
- Component demand will remain strong, that for semiconductor and consumer products will recover slowly.
- EBITDA will rise about 5% as performance in growth areas such as products for autos and the weak yen's impact on profit offset delayed recovery for consumer goods.
- Debt to EBITDA will remain generally sound (median 1x) in the next one to two years.

Credit trends and risks

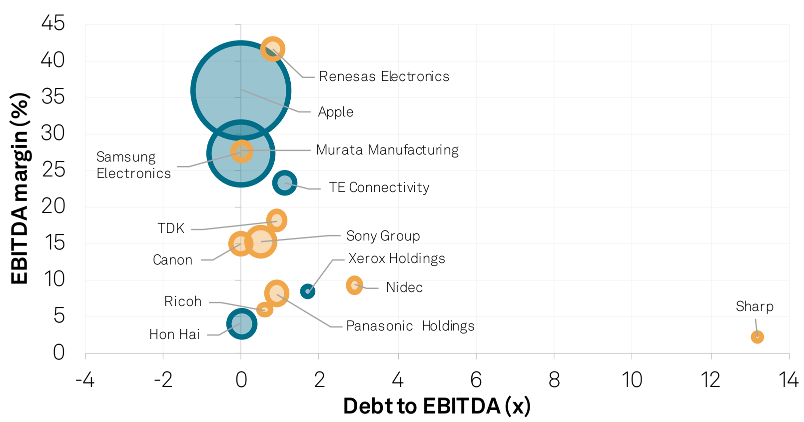
- Continued investments and acquisitions to raise competitiveness; ongoing stable credit quality thanks to sound finances.
- Japanese companies continuing to lag those overseas peers strengthening their market positions and competitiveness.
- Possible geopolitical risk disrupting supply chains; restructuring increasing financial burdens.
- Risk of financial management becoming less conservative with large investments or aggressive shareholder returns.

Key figures



f--Forecast. Source: S&P Global Ratings based on company materials.

Peer comparison



Bubble size represents EBITDA for fiscal 2022. Source: S&P Global Ratings.

Electronics	Long-term issuer credit rating	Business risk profile	Financial risk profile	Anchor	Modifiers or group/govt.
Nidec Corp.	Not rated	Satisfactory	Modest	-	-
Renesas Electronics Corp.	BBB	Satisfactory	Modest	bbb+	-1
Panasonic Holdings Corp.	A-	Satisfactory	Modest	bbb+	+1
Sharp Corp.	B+	Weak	Highly leveraged	b	+1
Sony Group Corp.	A	Satisfactory	Minimal	a	-
TDK Corp.	A-	Satisfactory	Modest	bbb+	+1
Murata Manufacturing Co. Ltd.	Not rated	Satisfactory	Minimal	-	-
Canon Inc.	A	Satisfactory	Minimal	a	-
Ricoh Co. Ltd.	BBB	Fair	Minimal	bbb	-
Overseas peers					
Xerox Holdings Corp.	BB	Fair	Minimal	bbb-	-2
TE Connectivity Ltd.	A-	Satisfactory	Modest	bbb+	+1
Apple Inc.	AA+	Strong	Minimal	aa	+1
Hon Hai Precision Industry Co. Ltd.	A-	Strong	Modest	a	-1
Samsung Electronics Co. Ltd.	AA-	Strong	Minimal	aa-	-

Automobiles And Components

Outlook – Stable

Financial buffers underpin creditworthiness as uncertainty increases

Primary credit analyst
Yuta Misumi

Secondary contact
Katsuyuki Nakai

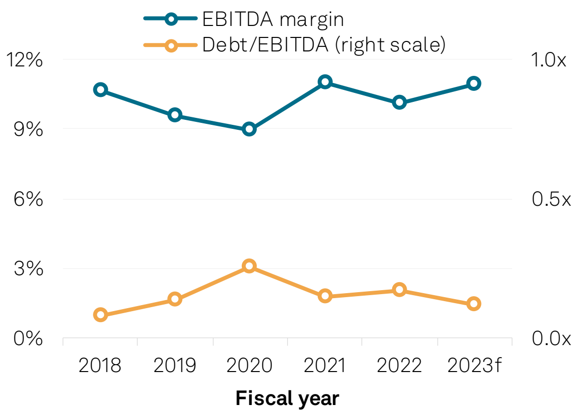
Key assumptions

- Global auto unit sales will increase 5%-7% in 2023, as supply constraints ease, and 1%-3% in 2024.
- Rising interest rates and inflation will weaken demand, pressuring selling prices.
- A moderate increase in car sales, cost controls, new car launches, and a weak yen will support Japanese automakers.
- Average EBITDA margin at companies studied in fiscal 2023 will be about 11%, up about 1 percentage point from 2022.
- Many carmakers will keep net cash positions with spending controls to secure positive free operating cash flow (FOCF).

Credit trends and risks

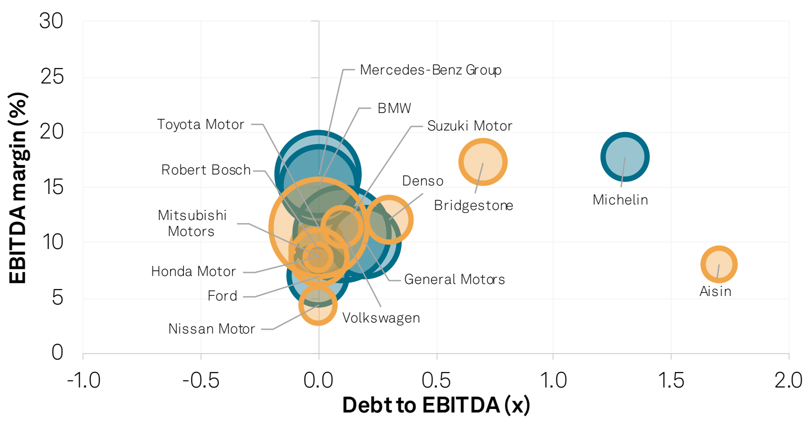
- Profitability supported by a moderate increase in unit sales and efforts to strengthen business bases.
- Stronger finances than overseas peers despite heavy investments in electrification and autonomous driving.
- Profitability falling sharply if economic slowdown softens demand for vehicles or pushes down selling prices.
- Investments and R&D costs for electric vehicles, production, and supply chains could increase financial burdens.
- Market positions at risk in the longer term due to a delay in electrification as the global EV market rapidly expands.

Key figures



f--Forecast. Source: S&P Global Ratings based on company materials.

Peer comparison



Bubble size represents absolute value of EBITDA for fiscal 2022. Source: S&P Global Ratings.

Automobiles and components	Long-term issuer credit rating	Business risk profile	Financial risk profile	Anchor	Modifiers or group/govt.
Bridgestone Corp.	A	Strong	Modest	a	-
Denso Corp.	A+	Strong	Minimal	aa-	-1
Nissan Motor Co. Ltd.	BB+	Fair	Modest	bbb-	-1
Toyota Motor Corp.	A+	Strong	Minimal	aa-	-1
Mitsubishi Motors Corp.	BB+	Weak	Modest	bb+	-
Aisin Corp.	A	Satisfactory	Minimal	a	-
Honda Motor Co. Ltd.	A-	Satisfactory	Minimal	a	-1
Suzuki Motor Corp.	Not rated	Satisfactory	Modest	-	-
Overseas peers					
Compagnie Generale des Etablissements Michelin S.C.A.	A-	Strong	Intermediate	bbb+	+1
Robert Bosch GmbH	A	Satisfactory	Minimal	a	-
General Motors Co.	BBB	Satisfactory	Intermediate	bbb	-
Ford Motor Co.	BB+	Satisfactory	Significant	bb+	-
Mercedes-Benz Group AG	A	Satisfactory	Minimal	a	-
Volkswagen AG	BBB+	Satisfactory	Minimal	a	-2
BMW AG	A	Satisfactory	Minimal	a	-

General Trading And Investment Companies; Investment Holding Companies

Outlook – Stable

Sound financial outlook endures despite lower resource prices

Primary credit analyst
Katsuyuki Nakai

Secondary contacts
Hiroyuki Nishikawa, Yuta Misumi

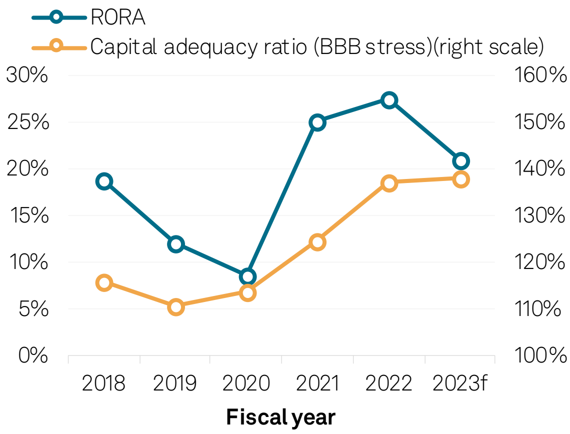
Key assumptions

- General trading and investment company (GTIC) profits will remain strong as they bolster their portfolios, despite economic slowdown, lower resource prices, and rising geopolitical risks.
- The GTIC sector's return on risk-weighted assets (RORA) will remain favorable at 15%-20% in fiscal 2023.
- GTICs' average capital adequacy ratio ('BBB' stress scenario) will remain sound at above 130% in fiscal 2023 thanks to strong bottom lines and financial discipline, although investment will likely increase.
- Investment holding company (IHC) Softbank Group will remain susceptible to stock prices and asset creditworthiness.

Credit trends and risks

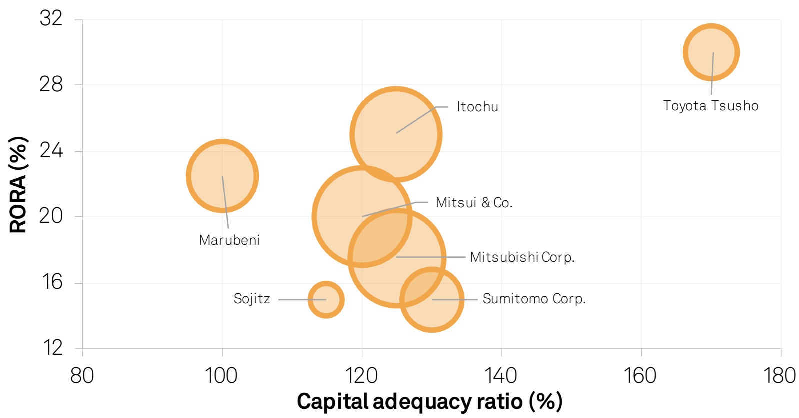
- Improved stability of GTIC creditworthiness; continuing stability of IHC creditworthiness.
- Possible drop in earnings amid lower commodity prices, global economic slowdown, and geopolitical risk.
- Potential financial decline due to substantially large growth investments or shareholder returns.

Key figures



f--Forecast. Source: S&P Global Ratings based on company materials.

Peer comparison



Bubble size represents net profit. Figures for average of most recent three years. Source: S&P Global Ratings.

General trading and investment companies; Investment holding companies	Long-term issuer credit rating	Business risk profile	Financial risk profile	Anchor	Modifiers or group/govt.
General trading and investment companies					
Sojitz Corp.	BBB	Satisfactory	Intermediate	bbb	-
Itochu Corp.	A	Strong	Modest	a	-
Marubeni Corp.	BBB+	Strong	Intermediate	bbb+	-
Toyota Tsusho Corp.	A	Satisfactory	Modest	bbb+	+2
Mitsui & Co. Ltd.	A	Strong	Modest	a	-
Sumitomo Corp.	A-	Strong	Modest	a	-1
Mitsubishi Corp.	A	Strong	Modest	a	-
Investment holding companies					
SoftBank Group Corp.	BB	Weak	Significant	bb-	+1
Overseas peers					
Temasek Holdings (Private) Ltd.	AAA	Excellent	Minimal	aaa	-
Investor AB	AA-	Excellent	Modest	aa	-1

Real Estate

Outlook – Stable

Rental cash flow underpins credit quality; office demand weak

Primary credit analyst
Yuta Misumi

Secondary contact
Hiroyuki Nishikawa

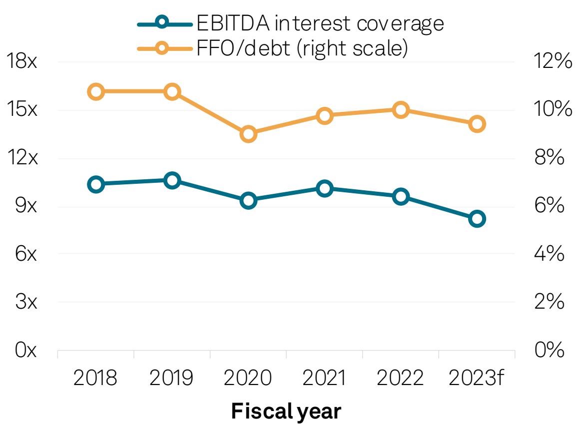
Key assumptions

- Office rents and occupancy rates will face pressure as central Tokyo's office vacancy rate deteriorates slightly to 7.0%-7.5% amid increased supply and falling demand due to remote work.
- Rental revenues will remain firm due to competitive portfolios, despite the weaker office market.
- Average funds from operations (FFO) to debt will decline to 9.0%-9.5% in fiscal 2023 (from around 10%) as debt grows faster than earnings following investment in real estate development.
- Average EBITDA interest coverage will worsen to 8.0x-8.5x in fiscal 2023 (from 9.5x-10.0x) as overseas interest rates push up interest payments on foreign currency borrowings.

Credit trends and risks

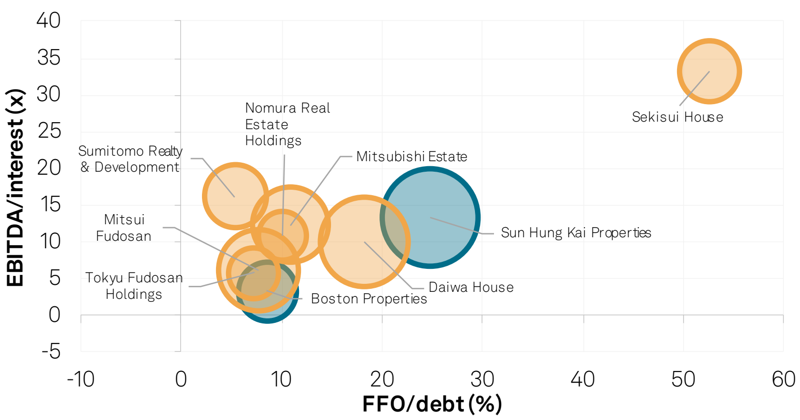
- Stable credit quality thanks to cash flows from leasing properties and recovery of investments.
- Possible deterioration in leasing supply-demand balance due to remote work and increased office supply.
- Slower recovery of investments if rising interest rates or foreign investor disinterest dent real estate markets.
- Higher debt burdens relative to cash flows due to more aggressive investments or shareholder returns.
- More volatile earnings due to increased profit contribution from real estate development.

Key figures



f--Forecast. Source: S&P Global Ratings based on company materials.

Peer comparison



Bubble size represents FFO for fiscal 2022. Source: S&P Global Ratings.

Real estate	Long-term issuer credit rating	Business risk profile	Financial risk profile	Anchor	Modifiers or group/govt.
Daiwa House Industry Co. Ltd.	Not rated	Strong	Significant	-	-
Nomura Real Estate Holdings Inc.	Not rated	Satisfactory	Aggressive	-	-
Tokyu Fudosan Holdings Corp.	Not rated	Satisfactory	Aggressive	-	-
Mitsui Fudosan Co. Ltd.	A-	Strong	Intermediate	a-	-
Mitsubishi Estate Co. Ltd.	A+	Strong	Modest	a+	-
Sumitomo Realty & Development Co. Ltd.	Not rated	Strong	Modest	-	-
Sekisui House Ltd.	A	Satisfactory	Minimal	a	-
Overseas peers					
Sun Hung Kai Properties Ltd.	A+	Excellent	Intermediate	a	+1
Boston Properties Inc.	BBB+	Strong	Intermediate	bbb+	-

Railways

Outlook – Stable

Recovering footfall supports credit quality despite investment burden

Primary credit analyst
Shinichi Endo

Secondary contact
Katsuyuki Nakai

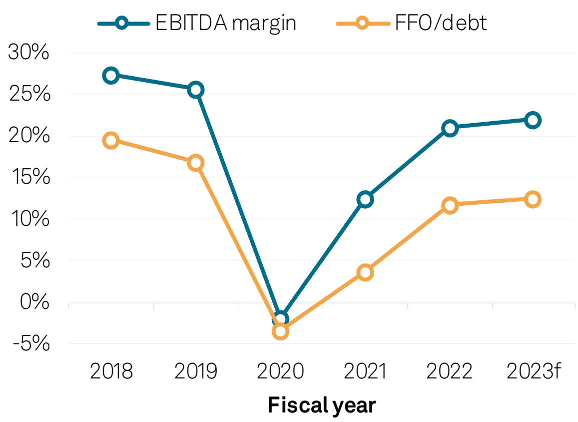
Key assumptions

- Passenger revenue in Japan in fiscal 2023 will be 85%-90% of fiscal 2019 levels, rising to 90%-95% in fiscal 2024.
- Income from passengers other than commuters has recovered to pre-pandemic levels, driven by tourism demand; commuter income has not, in part because many people are still working from home.
- Average EBITDA margins will approach pre-pandemic levels (28%-32% at JR companies; 12%-15% at private operators) because of recovering passenger demand, price hikes, cost cuts, and increased earnings of nonrailway operations.
- Average FFO to debt will remain stable, mainly because of recovering passenger demand.
- JR companies will continue to record negative FOCF; private operators, which will maintain positive FOCF, should see cash flow indicators close in on pre-pandemic levels in fiscal 2023.

Credit trends and risks

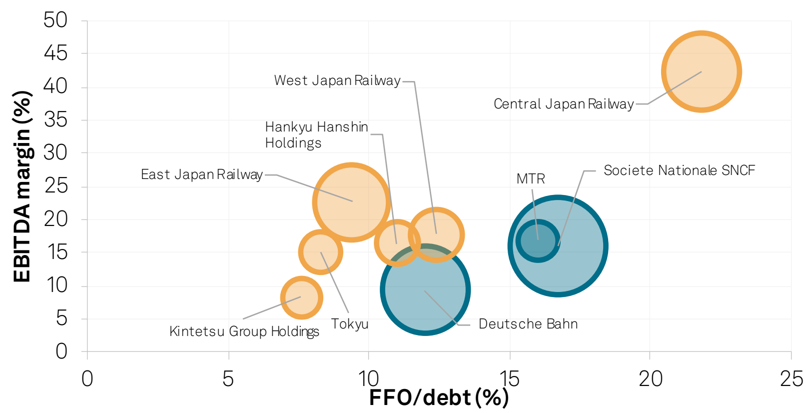
- Private rail and JR companies maintaining strong business bases in their respective sales areas.
- Recovering passenger demand supporting creditworthiness though overall investment burden remains high.
- Weaker finances due to falling demand amid a pandemic resurgence or larger investment in real estate development.
- Less stable profit as nonrailway businesses expand to offset expected stagnation in profitability for railway operations over the long term.

Key figures



f--Forecast. Source: S&P Global Ratings based on company materials.

Peer comparison



Bubble size represents EBITDA for fiscal 2022. Source: S&P Global Ratings.

Railways	Long-term issuer credit rating	Business risk profile	Financial risk profile	Anchor	Modifiers or group/govt.
East Japan Railway Co.	A+	Excellent	Intermediate	a+	-
Central Japan Railway Co.	A+	Excellent	Intermediate	a+	-
West Japan Railway Co.	Not rated	Excellent	Intermediate	-	-
Tokyu Corp.	Not rated	Strong	Significant	-	-
Hankyu Hanshin Holdings Inc.	Not rated	Strong	Significant	-	-
Kintetsu Group Holdings Co. Ltd.	Not rated	Satisfactory	Aggressive	-	-
Overseas peers					
Deutsche Bahn AG	AA-	Strong	Significant	bbb	+5
Societe Nationale SNCF	AA-	Strong	Significant	bbb	+5
MTR Corp. Ltd.	AA+	Excellent	Modest	aa	+1

Shipping

Outlook – Stable

Financial surplus from past two years eases growth investment burden

Primary credit analyst
Ryohei Yoshida

Secondary contact
Katsuyuki Nakai

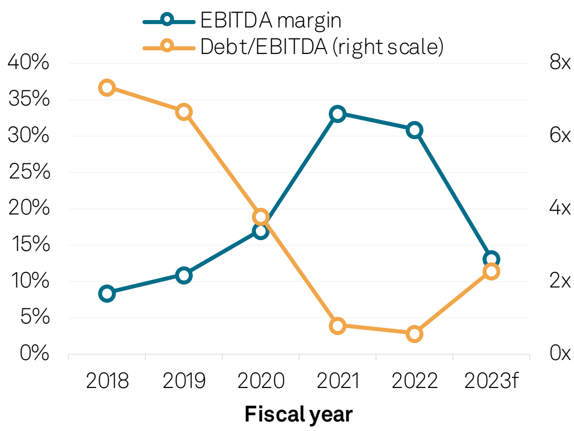
Key assumptions

- After record volatility since 2021, container shipping rates will stay at about pre-pandemic levels over the next one to two years as supply chains normalize.
- Companies studied will continue to invest aggressively on fleets and new business areas, including decarbonization.
- They will continue to work to stabilize profitability through long-term contracts, expand relatively stable business such as car carrier operations, and create efficiencies through measures such as cost reductions.
- Each company maintains EBITDA of over ¥300 billion and EBITDA margins of slightly above 10% over the next one to two years, aided partly by contributions from major equity-method affiliates.

Credit trends and risks

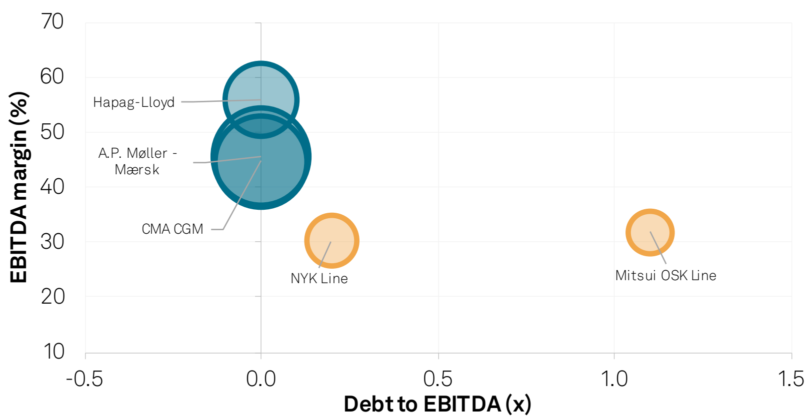
- Continued stable creditworthiness thanks to improved financial leeway because of extremely favorable freight rates, despite debt still rising moderately due to aggressive investments.
- Potential declines in shipping volumes and freight rates because of weak economic growth and geopolitical risk.
- Possible intensifying price competition due to more shipping capacity.
- Possibly worsening financial profiles with mid- to long-term investments likely to rise, including for environmental regulation and M&A in growth areas.

Key figures



f--Forecast. Source: S&P Global Ratings based on company materials.

Peer comparison



Bubble size represents EBITDA for fiscal 2022. Source: S&P Global Ratings.

Shipping	Long-term issuer credit rating	Business risk profile	Financial risk profile	Anchor	Modifiers or group/govt.
NYK Line	Not rated	Fair	Modest	-	-
Mitsui O.S.K. Lines Ltd.	Not rated	Fair	Intermediate	-	-
Overseas peers					
A.P. Moller - Maersk A/S	BBB+	Satisfactory	Minimal	a-	-1
CMA CGM S.A.	BB+	Fair	Minimal	bbb-	-1
Hapag-Lloyd AG	BB+	Fair	Minimal	bbb-	-1

Airlines

Outlook – Slightly Positive

Profitability nears pre-pandemic level as passengers return

Primary credit analyst
Hiroshi Nagashima

Secondary contact
Katsuyuki Nakai

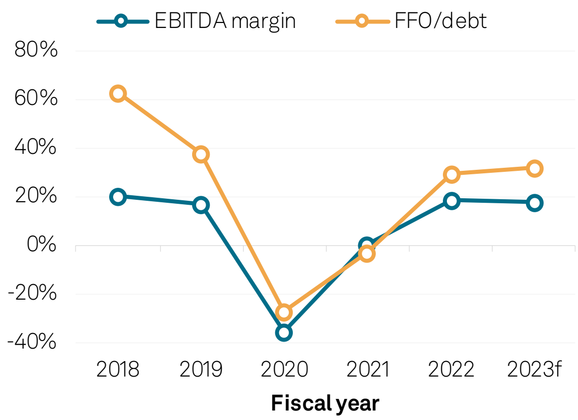
Key assumptions

- Air passenger traffic globally will continue its recovery as the pandemic's impact fades.
- Sales to passengers of companies studied will in fiscal 2023 near the pre-pandemic level, supported by higher air fares.
- International air cargo sales, which were strong during the pandemic, will decline over the next one to two years as a tight supply-demand balance eases and freight rates soften.
- The companies will resume investments in equipment, acquisitions, and shareholder returns as performances recover.

Credit trends and risks

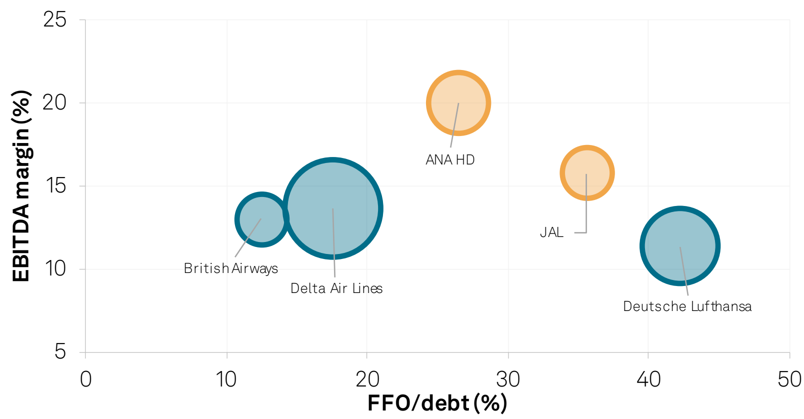
- Average EBITDA margin of the companies, which was significantly negative in fiscal 2020, will recover gradually to its 20% pre-pandemic level; it will be 17%-20% in fiscal 2023 and 18%-21% in fiscal 2024.
- Average ratio of FFO to debt will stabilize after recovering to 31% in fiscal 2022; it will be 32%-34% in fiscals 2023-2024.
- Key financial indicators will stay in line with those of overseas peers for the next couple of years, after a slow recovery from the pandemic.
- Financial soundness could suffer from significant strategic investments and aggressive shareholder returns.
- Possible deterioration in EBITDA margin again because of a staff shortage, including for pilots; sharply rising oil prices; and a further escalation of geopolitical risk.

Key figures



f--Forecast. Source: S&P Global Ratings based on company materials.

Peer comparison



Bubble size represents absolute value of EBITDA for fiscal 2022. Source: S&P Global Ratings.

Airlines	Long-term issuer credit rating	Business risk profile	Financial risk profile	Anchor	Modifiers or group/govt.
Japan Airlines Co. Ltd.	Not rated	Fair	Intermediate	-	-
ANA Holdings Inc.	Not rated	Fair	Significant	-	-
Overseas peers					
Delta Air Lines Inc.	BB+	Satisfactory	Significant	bb+	-
British Airways PLC	BB+	Fair	Significant	bb	+1
Deutsche Lufthansa AG	BB+	Satisfactory	Intermediate	bbb-	-1

Telecommunications

Outlook – Stable

Credit quality stable as firm financial bases offset soft earnings growth

Primary credit analyst
Shinichi Endo

Secondary contact
Makiko Yoshimura

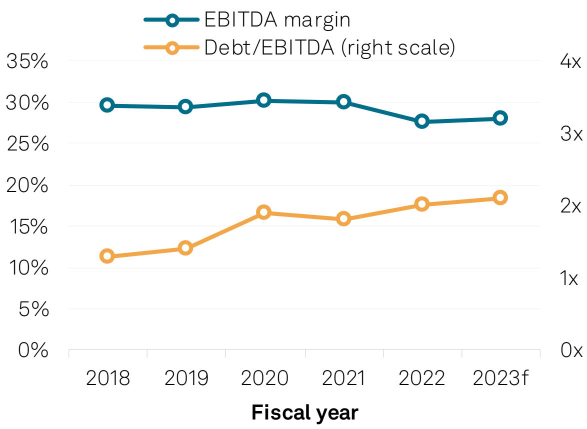
Key assumptions

- Steady 1%-2% annual growth of Japan's mobile subscriptions as 5G networks expand and corporate demand rises.
- Unlike U.S. peers, Japanese carriers are diversifying away from telecom business (mobile and fixed line communications) into higher-growth telecom-related (e.g., content, e-commerce, and financial settlement services) and non-telecom business, given price cuts for mobile plans and weak 5G revenue.
- Average EBITDA margins of companies studied will fall short of the 30% pre-price cut level over the next few years because of weak telecom profit growth and expansion of relatively low profitability non-telecom business.
- Capital investment in 5G will peak in the next one to two years, but shareholder returns and growth investments remain impediments to significant improvement in financial conditions.
- Finances will be more favorable than those of U.S. peers, thanks to the absence of spending on spectrum auctions.

Credit trends and risks

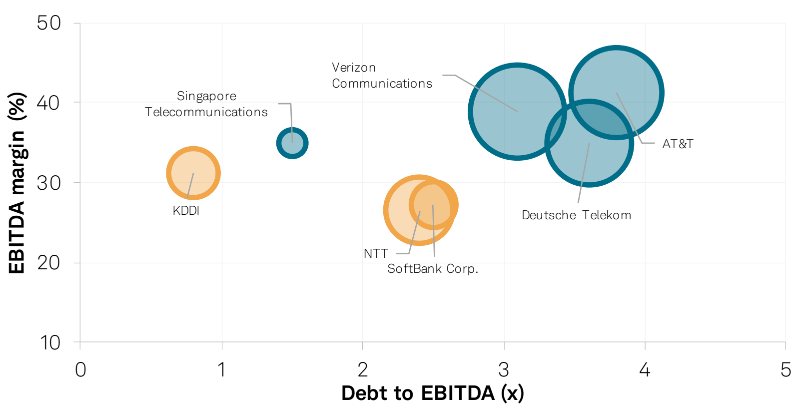
- Maintenance of strong business competitiveness thanks to stable customer bases in core telecom operations, which account for 70%-80% of total EBITDA.
- Steady cash flow from telecom business and disciplined financial management underpinning creditworthiness.
- Risk of pressure on profitability due to further free market policy steps by Japan's government and intensifying price competition on communication fees.
- Potentially worsening finances if shareholder returns and aggressive growth investments exceed our assumptions.

Key figures



f--Forecast. Source: S&P Global Ratings based on company materials.

Peer comparison



Bubble size represents EBITDA for fiscal 2022. Source: S&P Global Ratings.

Telecommunications	Long-term issuer credit rating	Business risk profile	Financial risk profile	Anchor	Modifiers or group/govt.
Nippon Telegraph & Telephone Corp.	A	Strong	Modest	a+	-1
KDDI Corp.	Not rated	Strong	Minimal	-	-
SoftBank Corp.	Not rated	-	-	-	-
Overseas peers					
Verizon Communications Inc.	BBB+	Strong	Intermediate	a-	-1
AT&T Inc.	BBB	Strong	Significant	bbb	-
Deutsche Telekom AG	BBB+	Strong	Significant	bbb	+1
Singapore Telecommunications Ltd.	A	Strong	Intermediate	bbb+	+2

Electric Utilities And Gas

Outlook – Stable

Improved performance eases pressure on creditworthiness

Primary credit analyst
Ryohei Yoshida

Secondary contact
Hiroyuki Nishikawa

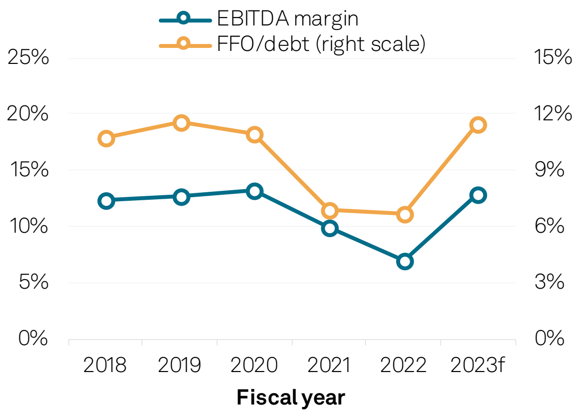
Key assumptions

- Earnings will recover at companies studied, thanks to higher rates, lower raw material and fuel costs, and stable demand.
- Companies will dominate their markets, with stable regulations for networks and pricing systems for passing on costs.
- Debt, which has increased significantly, will remain high because of spending on maintenance and replacement of facilities, along with decarbonization measures.
- Cash flow indicators will improve only slowly excluding the impact of the time lag for costs to be reflected in charges.

Credit trends and risks

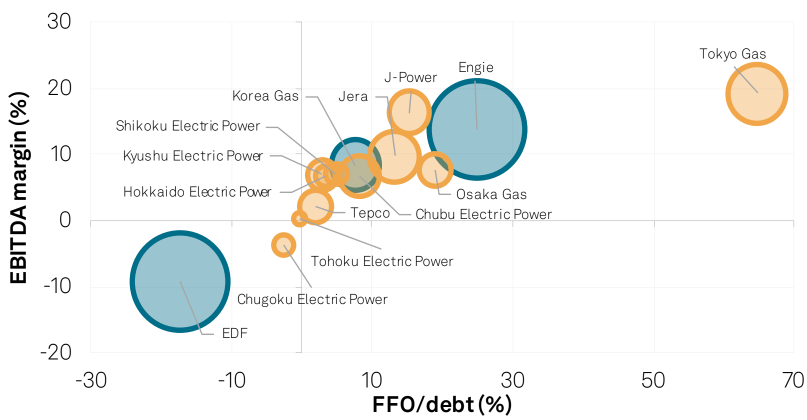
- Heavy debt burdens will endure, but regulatory benefits and government support if needed will prop up creditworthiness.
- High costs and heavy investments threaten recovery of financial health, which has deteriorated significantly.
- Gas companies' investment burdens and earnings volatility could exceed our assumptions due to business expansions.
- Electric utilities' free cash flow deficits could continue due to the burden of safety measures to restart nuclear power plants, acceleration of coal-free thermal power generation, and further intensification of competition.

Key figures



f--Forecast. Source: S&P Global Ratings based on company materials.

Peer comparison



Bubble size represents EBITDA for fiscal 2022. EBITDA of EDF and Chugoku Electric Power are negative. Source: S&P Global Ratings.

Electric utilities and gas	Long-term issuer credit rating	Business risk profile	Financial risk profile	Anchor	Modifiers or group/govt.
Tokyo Electric Power Co. Holdings Inc.	BB+	Satisfactory	Highly leveraged	b+	+3
Chubu Electric Power Co. Inc.	Not rated	Strong	Significant	-	-
The Chugoku Electric Power Co. Inc.	BBB+	Strong	Aggressive	bb+	+3
Tohoku Electric Power Co. Inc.	Not rated	Strong	Significant	-	-
Shikoku Electric Power Co. Inc.	A-	Strong	Significant	bbb	+2
Kyushu Electric Power Co. Inc.	Not rated	Strong	Aggressive	-	-
Hokkaido Electric Power Co. Inc.	Not rated	Strong	Aggressive	-	-
Electric Power Development Co. Ltd. (J-Power)	A	Excellent	Significant	a-	+1
Tokyo Gas Co. Ltd.	AA-	Excellent	Modest	aa	-1
Osaka Gas Co. Ltd.	AA-	Excellent	Modest	aa	-1
Jera Co. Inc.	A-	Strong	Intermediate	a-	-
Overseas peers					
Electricite de France S.A.	BBB	Satisfactory	Aggressive	bb	+3
Engie S.A.	BBB+	Strong	Significant	bbb	+1
Korea Gas Corp.	AA	Strong	Aggressive	bb+	+8

Airports

Outlook – Stable

While performance recovers, heavy investment burdens endure

Primary credit analyst
Hiroshi Nagashima

Secondary contact
Katsuyuki Nakai

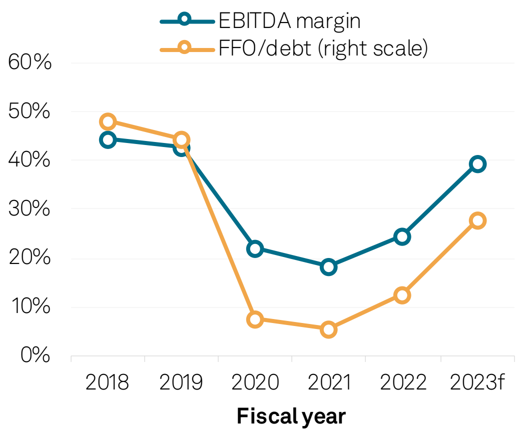
Key assumptions

- Global passenger traffic will not get back to pre-pandemic levels in 2024.
- International passenger numbers at Japan's airports will recover faster as more tourists visit the country, helping retail revenue rebound.
- The average EBITDA margin of airports studied will recover to the 40%-50% pre-pandemic level in fiscal 2024.
- The airports will make significantly higher capital investments than before the pandemic, to strengthen facilities in anticipation of a medium- to long-term increase in passenger demand.
- Average FFO to debt will remain below 10%-15%, the pre-pandemic average, at 5%-10% for the next one to two years.

Credit trends and risks

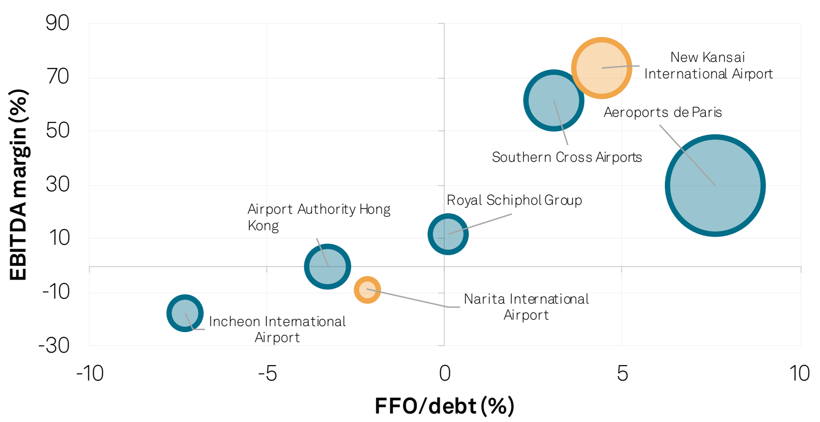
- The two companies studied will remain highly competitive as metropolitan area-based international airports.
- Both companies continue to recover, but creditworthiness will not improve significantly as reducing interest-bearing debt remains slow amid expansion of capital investment.
- Key financial health indicators will continue to lag overseas peers' because of high dependence on debt.
- Possible recurrence of a significant fall in international passenger traffic because of recession and higher airfares.
- Risk of deeper negative free cash flow due to weak performance while large fixed-cost burdens and heavy capital investments endure.

Key figures



f--Forecast. Source: S&P Global Ratings based on company materials.

Peer comparison



Bubble size represents EBITDA. EBITDA of Incheon Intl. Airport is negative. Figures based on average for most recent three years of sales, EBITDA, FFO, and debt. Source: S&P Global Ratings.

Airports	Long-term issuer credit rating	Business risk profile	Financial risk profile	Anchor	Modifiers or group/govt.
Narita International Airport Corp.	Not rated	Excellent	Aggressive	-	-
New Kansai International Airport Co. Ltd.	Not rated	Excellent	Aggressive	-	-
Overseas peers					
Aeroports de Paris SA	A	Excellent	Intermediate	a	-
Airport Authority Hong Kong	AA+	Excellent	Aggressive	bbb	+7
Incheon International Airport Corp.	AA	Excellent	Aggressive	bbb	+6
Royal Schiphol Group N.V.	A	Excellent	Significant	a-	+1
Southern Cross Airports Corp. Holdings Ltd.	BBB+	Excellent	Aggressive	bbb	+1

Construction And Engineering

Outlook – Slightly Negative

Declining profitability and rising debt pressure creditworthiness

Primary credit analyst
Yuta Misumi

Secondary contact
Hiroyuki Nishikawa

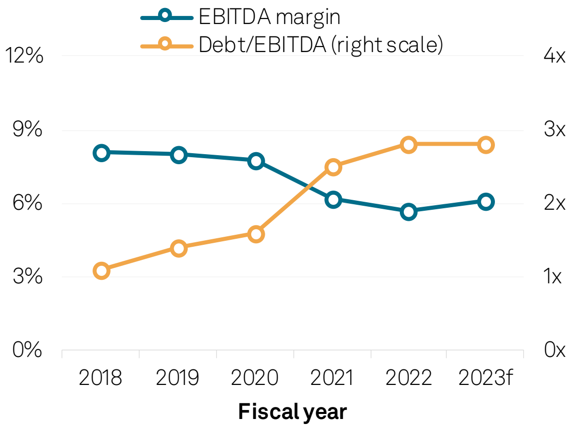
Key assumptions

- Japan's construction market will remain solid thanks to strong demand for construction and civil engineering projects related to redevelopment of central Tokyo, private sector capital investment, and infrastructure development.
- Demand for industrial plants will remain firm, especially relatively low environmental impact natural gas and liquified natural gas ones.
- Average EBITDA margins of companies studied will remain lower than in previous years in the next one to two years because of continued revenue recognition of low-profit construction orders at major construction companies, as well as increases in materials prices and labor costs.
- The average ratio of debt to EBITDA will remain higher than in previous years because of higher debt amid large construction projects and aggressive real estate development at major construction companies.

Credit trends and risks

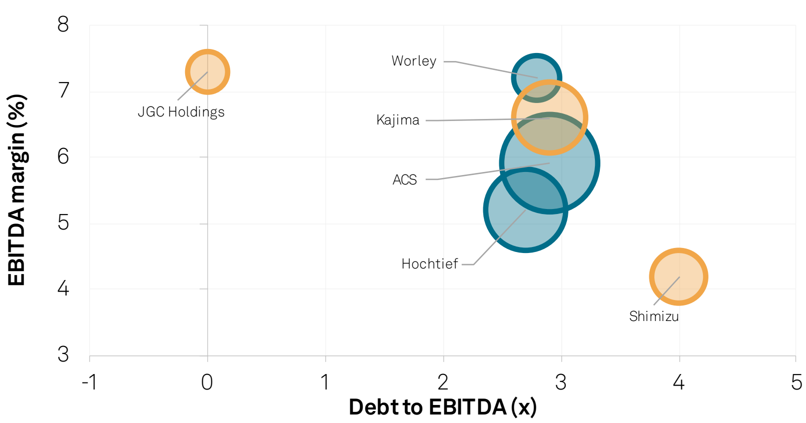
- Creditworthiness remaining stable because of strong business foundations and sound financial management.
- Financial health staying pressured as profitability improves slowly and aggressive growth investments continue.
- Possible pressure on profitability at the companies as material and labor costs increase, construction work is delayed, and competition for orders intensifies.
- Potential rise in debt relative to cash flow due to aggressive growth investments in areas such as real estate development and higher shareholder returns.
- Risk that the global economic downturn significantly reduces orders as clients become less willing to invest.

Key figures



f--Forecast. Source: S&P Global Ratings based on company materials.

Peer comparison



Bubble size represents EBITDA for fiscal 2022. Source: S&P Global Ratings.

Construction and engineering	Long-term issuer credit rating	Business risk profile	Financial risk profile	Anchor	Modifiers or group/govt.
JGC Holdings Corp.	Not rated	Satisfactory	Minimal	-	-
Shimizu Corp.	Not rated	Satisfactory	Significant	-	-
Kajima Corp.	Not rated	Satisfactory	Intermediate	-	-
Overseas peers					
ACS, Actividades de Construccion y Servicios SA	BBB-	Satisfactory	Significant	bbb-	-
Hochtief AG	BBB-	Satisfactory	Intermediate	bbb-	-
Worley Ltd.	BBB	Satisfactory	Intermediate	bbb-	+1

S&P Global Ratings' assessments of business and financial risk profiles are a component of our framework for credit ratings analysis and are not credit ratings. A rating committee determines the final credit rating along with a combination of these assessments, our assessments on management and governance, financial policy, modifiers and other relevant items, and influence from the issuer's group or governments.

We base our assessments of business and financial risk profiles of companies we do not rate solely on public information. For companies we do not rate, we do not assess components necessary to derive a final credit rating, such as the combined output of the business and financial risk profile assessments, modifiers, or group and government influence. Our assessments of the business and financial risk profiles of companies we do not rate in this study are a limited reference indicator that we extrapolate using our rating criteria. Therefore, these assessments in and of themselves do not represent final credit ratings.

All ratings, scores, and profiles in this report are as of Sept. 15, 2023, unless otherwise noted.

Related Research

- Japan Is Robust Enough For Rising Yen Rates, Oct. 13, 2023
- Global Credit Conditions Q4 2023: Resilience Under Pressure, Sept. 28, 2023
- Japan Real Estate: Volatility Up As Development Businesses Expand, May 29, 2023
- An Impending Electric Shock For Japanese Autos? May 17, 2023
- Corporate Japan's Hybrids: Replacements Look Likely, April 19, 2023
- Global Debt Leverage: Japan Corporates Can Tolerate Higher Rates And Inflation, April 11, 2023
- Japan Railways: Diversification Hits Profit Stability, April 4, 2023
- Japan's Electric Utilities Need A Recharge, March 29, 2023
- Corporate Top Trends Update: Asia-Pacific Credit Outlook 2023: Sand In The Gearbox, Feb. 20, 2023
- Japan's LNG Supply: On Solid Ground? Jan. 5, 2023
- Perspectives On Cyber Risk Across Corporates: The Potential Impact Of Cyber Threats Is Growing, Nov. 7, 2022
- Japan Corporate Credit Spotlight: Momentum On The Rocks, Oct. 19, 2022

Appendix

Changes To Our Assessments For Companies We Do Not Rate; New Additions

Below are our key rationales for the business and financial risk profiles of companies we do not rate but have newly added or for which we have made substantial changes since our last publication.

J. Front Retailing Co. Ltd. (Retail)

- **Business risk profile:** J Front Retailing Co. Ltd. has established a strong position and high brand recognition in Japan, especially in the Osaka and Nagoya markets. It has done so even though the domestic department store market has been shrinking for a long time. The company is also strengthening its revenue base by leasing highly competitive commercial facilities in premium locations it has developed.
- **Financial risk profile:** The company has steadily regained financial health over the past two years; cutting debt has been one of its goals. By reducing debt through free cash flow in fiscal 2023 (ending March 31, 2024), the company's ratio of debt to EBITDA is likely to recover to the middle of the 4x range, compared with 5.2x in the previous fiscal year. The interest coverage index, which is a key for its real estate leasing businesses, also remains at a favorable level.

LY Corp. (Advertising)

- **Business risk profile:** LY Corp. has a relatively strong business base in e-commerce, finance, and electronic payments in the domestic market. It also has a strong customer base through distinctive services, such as its search platform and chat app. However, its business is limited to the domestic market. Also, its business scope is in niche e-commerce and search platform businesses. Moreover, its global competitiveness is inferior to global peers'.
- **Financial risk profile:** The ratio of debt to EBITDA should gradually recover from the 2.0x-2.4x range thanks to proper cost management and a light capital investment burden.

Astellas Pharma Inc. (Health care)

- **Business risk profile:** Astellas Pharma Inc. has maintained strong sales of its core products and stable profitability, backed by its relatively competitive position in the oncology, urology, transplant, and immunology sectors. Over the next two to three years, the company will continue to focus more on its three core products. Its profitability, meanwhile, is likely to remain below the global industry average.
- **Financial risk profile:** The company has maintained a very sound financial base with a net cash position in recent years. However, the large-scale acquisition of a U.S. biotech company in the current fiscal year should push the company's key cash flow indicators slightly below current levels over the next one to two years. Healthy interest coverage should support its financial base, though. This reflects its ability to generate predictable cash flows and strong relationships with major banks.

Sumitomo Chemical Co. Ltd. (Chemicals)

- **Business risk profile:** Sumitomo Chemical Co. Ltd. has a strong customer base and a diverse product range as a leading chemicals company in Japan. However, its profitability is likely to deteriorate significantly because of a slump in the global chemicals market and the expiration of patents on major products in the pharmaceutical business.
- **Financial risk profile:** Weakening profitability, continued growth investments, and burdens related to decarbonization have worsened the company's key cash flow metrics and will continue to do so for the foreseeable future. Healthy interest coverage thanks to strong relationships with its key banks could support its financial base to a degree.

Asahi Kasei Corp. (Chemicals)

- **Business risk profile:** Asahi Kasei Corp., a leading chemicals company in Japan, operates mainly in the chemical, housing, and health care fields. Its diversified business portfolio supports its overall earnings stability. On the other hand, the company's profitability is likely to decline because of sluggish global chemical market conditions.
- **Financial risk profile:** The company's debt will likely continue to rise in line with increasing growth investments in specialty chemicals such as those for semiconductors and battery materials, as well as in health care. We expect the company's ratio of debt to EBITDA to remain in the range of 2.5x-2.9x over the next one to two years because of weak EBITDA recovery prospects.

Resonac Holdings Corp. (Chemicals)

- **Business risk profile:** Resonac Holdings Corp., one of Japan's second-tier chemical companies, has the world's largest share of specialty chemicals such as graphite electrodes and semiconductor materials. Steel and semiconductor industries, which are the end-use markets for its main products, are highly cyclical, so the company's earnings are inherently volatile.
- **Financial risk profile:** The company's key cash flow metrics are likely to remain very weak for the foreseeable future because of a large increase in debt as a result of large acquisitions and a decline in profitability amid sluggish global chemical market conditions.

Nomura Real Estate Holdings Inc. (Real estate)

- **Business risk profile:** Nomura Real Estate Holdings Inc. is a major diversified real estate company in Japan that maintains a moderately strong market position. This is thanks to solid brand recognition and real estate management/development capabilities. It also has a good record in real estate development and sales, including residential condominiums.
- **Financial risk profile:** The possibility of early improvement in cash flow-related metrics at Nomura Real Estate is becoming increasingly low. This is because profit growth and the recovery of funds through property sales have not progressed sufficiently amid the continuing burden of upfront growth investment. The recent rise in the share of overall profit from the highly volatile real estate development businesses has further pressured the financial profile.

West Japan Railway Co. (Railways)

- **Business risk profile:** West Japan Railway Co., a leading railway company in the western part of Japan, operates railway transportation business mainly in the Kinki region and has a very strong business foundation.
- **Financial risk profile:** The company's cash flow is likely to recover steadily along with passenger demand. We do not expect cash flow to recover to pre-pandemic levels within the next two years given its high growth investment burden, although this is not as heavy as that of East Japan Railway Co. or Central Japan Railway Co. Meanwhile, healthy interest coverage supports the financial base, backed by strong relationships with its lender banks.

Mitsui O.S.K. Lines Ltd. (Shipping)

- **Business risk profile:** Mitsui O.S.K. Lines Ltd., one of the world's largest shipping companies, has a diverse fleet portfolio. However, its profitability fluctuates significantly because maritime transportation demand is highly cyclical.
- **Financial risk profile:** Its financial position has improved sharply in the past two years, when considering the contributions of equity method affiliates, thanks to a historically strong container shipping market. However, we expect its cash flow ratio to deteriorate moderately over the next one to two years because of lower global freight rates for container ships.

Japan Airlines Co. Ltd. (Airlines)

- **Business risk profile:** Japan Airlines Co. Ltd., one of the country's flagship carriers, has an extensive domestic and international route network. It is strengthening its low-cost carrier and cargo operations. However, the company's earnings are highly volatile because demand for air travel is cyclical and highly susceptible to event risk.
- **Financial risk profile:** We expect cash flow and business performance, which suffered during the COVID-19 pandemic, to recover. The company will continue to strengthen investments for large aircraft and cargo planes. However, its financial burden will be appropriately controlled through a significant reduction in debt over the next three years under disciplined management.

ANA Holdings Inc. (Airlines)

- **Business risk profile:** ANA Holdings Inc., one of Japan's flagship airlines, has an extensive network of domestic and international routes. It operates Japan's largest low-cost carrier as well as large cargo aircraft. However, the company's earnings are highly volatile because demand for air travel is cyclical and highly susceptible to event risk.
- **Financial risk profile:** Cash flow and earnings performance will recover, in our view. The company has been procuring more fuel-efficient small and midsize aircraft, and has been making strategic acquisitions. The company's debt reduction plan over the next three years will limit the risk of the company's finances being overburdened.

JGC Holdings Corp. (Construction and engineering)

- **Business risk profile:** JGC Holdings Corp. has advanced technological and project execution capabilities. It also has a solid business foundation with a proven record in engineering, procurement, and construction (EPC) in energy and chemical plants in Japan and overseas. In particular, it has a high global market share in LNG plants. In the plant engineering business, the company's earnings are volatile, which is standard for this cyclical industry. In some projects, country risk is high. Meanwhile, oil and gas markets are expected to shrink in the longer term because of global decarbonization.
- **Financial risk profile:** JGC is making strategic investments to digitize its EPC business, strengthen its Asian operations, and expand its offshore wind and other growth businesses. However, we expect it to maintain a large net cash position under disciplined financial management.

Shimizu Corp. (Construction and engineering)

- **Business risk profile:** Shimizu Corp. has a leading position in the domestic private construction market because of its cutting-edge technology and strong customer base. However, cash flow and earnings in the construction business are highly volatile.
- **Financial risk profile:** The company's cash flow metrics have deteriorated significantly as debt has risen because of aggressive investments in real estate development. The profitability of construction and engineering work has also deteriorated due to intensifying competition for orders and soaring material costs.

	Business risk profile		Financial risk profile	
Company name	Current	Previous*	Current	Previous*
J. Front Retailing Co. Ltd.	Fair	Fair	Significant	Aggressive
LY Corp.	Satisfactory	-	Intermediate	-
Astellas Pharma Inc.	Satisfactory	-	Minimal	-
Sumitomo Chemical Co. Ltd.	Satisfactory	Satisfactory	Aggressive	Significant
Asahi Kasei Corp.	Satisfactory	Satisfactory	Intermediate	Modest
Resonac Holdings Corp.	Satisfactory	-	Aggressive	-
Nomura Real Estate Holdings Inc.	Satisfactory	Satisfactory	Aggressive	Significant
West Japan Railway Co.	Excellent	-	Intermediate	-
Mitsui O.S.K. Lines Ltd.	Fair	Fair	Intermediate	Aggressive
Japan Airlines Co. Ltd.	Fair	Fair	Intermediate	Aggressive
ANA Holdings Inc.	Fair	Fair	Significant	Aggressive
JGC Holdings Corp.	Satisfactory	-	Minimal	-
Shimizu Corp.	Satisfactory	Satisfactory	Significant	Intermediate

*J. Front Retailing, Sumitomo Chemical, Asahi Kasei, Nomura Real Estate, Japan Airlines and ANA as of September 2022; Shimizu Corp. as of September 2018; Mitsui O.S.K. Lines as of September 2020.

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