

## Research

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### IBG LLC

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# IBG LLC

## Major Rating Factors

### Strengths:

- Very strong capitalization
- Growing, geographically diverse, low-cost brokerage business
- Modest risk appetite

### Weaknesses:

- Consolidated group's operational risk stemming from the complex model-driven options market-making business
- Lower recurring revenue than some retail peers
- Sensitivity to changes in brokerage customers' confidence

### Issuer Credit Rating

BBB/Positive/--

## Outlook

The positive outlook reflects the potential for shrinkage in the market-making business to reduce IBG LLC's risk and for growth of less confidence-sensitive brokerage clients to bolster the firm's business and financial stability. S&P Global Ratings expects that the firm will maintain its risk-adjusted capital (RAC) ratio well above 25%, gross stable funding ratio (GSFR) in excess of 110%, and liquidity coverage metric (LCM) above 90%.

Over the next 12-24 months, we could raise the ratings on IBG if the firm continues to diversify its client base toward more stable and less confidence-sensitive retail and financial adviser clients, remains committed to holding very strong levels of capital, and successfully manages its margin loan exposures with minimal losses, and if options market-making risk runs off.

Over the same time horizon, we could revise the outlook to stable if we expect the firm's RAC ratio to be 15%-20%, or if its business displays less stability or higher risk or losses.

While less likely, we could lower the ratings if IBG suffers a material loss, or if its LCM deteriorates below 90% on a sustained basis, or liquidity otherwise deteriorates.

## Rationale

Our ratings on IBG and its subsidiary, Interactive Brokers LLC, reflect the consolidated firm's solid market position, very strong capitalization, good earnings, and adequate funding and liquidity. We believe these strengths will continue to be at least partially offset by exposure to model and operational risks and the highly competitive and transactional nature of the firm's businesses.

IBG is a holding company that, through its regulated broker-dealer subsidiaries, is a major global electronic broker

serving both retail and institutional clients. We believe IBG's market position and profitability benefit from its technology-enabled low-cost provider status, which supports unique low-cost and high-functionality offerings. While the firm's brokerage is a leader in daily average revenue trades, it is substantially smaller than its main retail peers in terms of total client assets, with \$142.5 billion at Sept. 30, 2018. It is also more reliant on market-sensitive revenues from trading commissions than most rated retail brokerage peers. IBG is growing its retail, financial adviser, and other stickier clients, but unlike its peers, it has more institutional trading clients, which we view as more confidence-sensitive.

The wind-down of IBG's options market-making business has reduced its footprint on the balance sheet and the firm's exposure to market risk, model-driven trading operational risk, and funding risk. In the first half of 2018, trading assets were down 34% compared to year-end 2017, after a 49% decrease between year-end 2016 and 2017. Over the same time, the market-making value at risk declined by about half, which has boosted the firm's S&P Global Ratings RAC ratio to 38% from 26% at year-end 2016. Trading book risk-weighted assets (RWAs) accounted for only 18% of total RWAs at June 30, 2018. That said, IBG's continued market-making operations in the U.S. to support its brokerage business and international market making in profitable locations globally leaves material risk that's not likely to decline further in the near term. We believe that management's plan to continue to grow total equity and to gradually redeploy the market-making segment's capital to the brokerage business should support continued very strong capitalization.

Our rating on Interactive Brokers LLC, IBG's U.S. broker-dealer subsidiary, is at the same level as the 'bbb+' group credit profile because it is an operating company. Our issuer credit rating on IBG is one notch lower than the group credit profile, reflecting the entity's structural subordination as a nonoperating holding company for regulated subsidiaries.

### **Anchor: Reflects U.S. securities firms economic and industry risks**

The anchor is 'bbb-', in line with other securities firms in the U.S. rated under our criteria for nonbank financial institutions (NBFIs). Our 'bbb-' U.S. securities firm anchor reflects our view of the sector's economic and industry risk. The firm's economic risk reflects its geographic mix of revenue, which includes 55% from outside the U.S.

The securities firm anchor reflects risks shared with the 'bbb+' U.S. bank anchor, but it is two notches lower to reflect our view of U.S. securities firms' incrementally higher industry risk relative to banks. The 'bbb+' U.S. bank anchor is based on the diversified, high-income, and resilient U.S. economy that underpins our assessment of economic risk. There is some potential for increasing credit risk in the economy from lending areas that have grown quickly in recent years--such as auto and corporate lending. It also reflects our industry risk view that regulatory enhancements made since the financial crisis, high levels of core deposits, and deep capital markets balance the risks and competition that come with the country's large nonbank financial sector.

The securities firm anchor is two notches below the bank anchor to reflect U.S. securities firms' lower, but still material, regulatory oversight and institutional framework; higher competitive risk; and typically less stable, more transactional, revenue. Also, even accounting for the liquidity of domestic capital markets, differences in assets, and the U.S. investor insurance scheme (The Securities Investor Protection Corp.), funding risk for securities firms is higher than banks, in our view, because securities firms typically lack central bank access.

We believe the anchor for U.S. securities firms is relatively stable, mirroring the U.S. BICRA's stable economic and

industry risk trends (see "Banking Industry Country Risk Assessment: U.S.," published Sept. 25, 2018). The stable trend incorporates our expectations for industry and economic conditions, including economic growth, market volatility, interest rates, regulatory reform, and competition, as well as our expectations for no material change to securities firm-specific industry risks.

**Table 1**

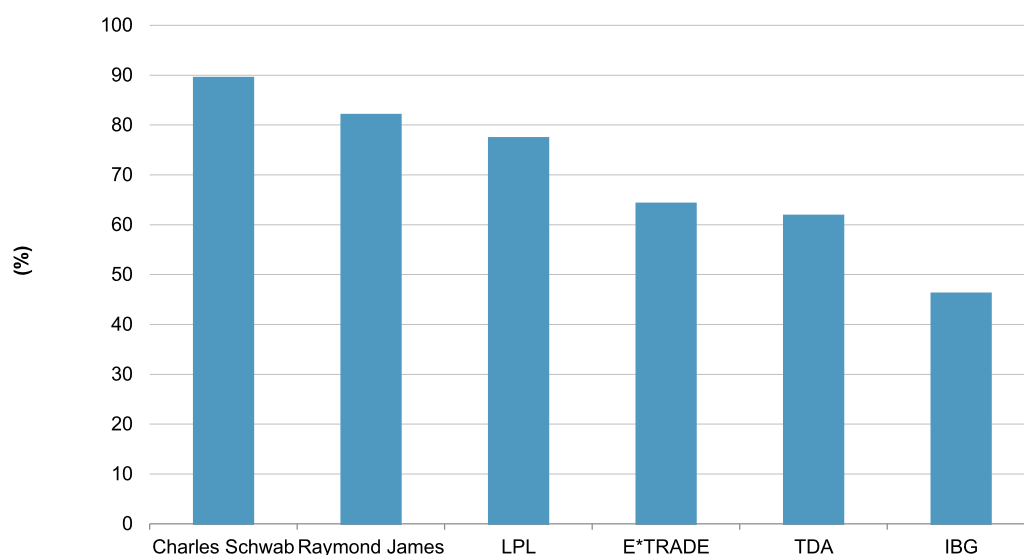
<b>IBG LLC--Key Financial Data</b>					
<b>(Mil. \$)</b>	<b>YTD Jun-2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Adjusted assets	60,274.0	61,133.0	54,645.0	48,728.0	43,385.0
Adjusted common equity	6,671.0	6,404.0	5,792.0	5,338.0	5,184.6
Total adjusted capital (TAC)	6,671.0	6,404.0	5,792.0	5,338.0	5,184.6
Operating revenues	972.0	1,609.0	1,396.0	1,189.0	1,043.3
Noninterest expenses	358.0	651.0	629.0	583.0	537.2
Core earnings	577.0	722.7	699.0	417.0	458.9

**Business position: Market position is growing, but brokerage business is sensitive to investor confidence**

We believe IBG has a solid market position as a global electronic broker to direct and indirect retail as well as smaller institutional clients. It allows clients to trade exchange-listed options, stocks, bonds, foreign exchange, futures, and mutual funds at more than 120 market centers worldwide.

The contribution of trading related income, which we view as potentially less stable than contractually recurring fees and stable sources of net interest income, is higher than most rated retail brokerage peers. The firm's main source of revenue other than trading is net interest income, which accounted for 46% of revenue in the first half of 2018.

**Last-12-Months Recurring Revenue To Net Revenue**  
(As Of Sept. 30, 2018)



Note: Data as of last 12 months ended Sept. 30, 2018. Composition of recurring revenue based on S&P Global Ratings' analysis of company disclosure and may not be fully comparable between companies. Charles Schwab and Raymond James--as reported. LPL--trailing commissions plus advisory plus asset-based plus net interest income (NII). E\*TRADE--NII. TDA--asset-based revenues. IBG--NII. Copyright © 2018 by Standard & Poor's Financial Services LLC. All rights reserved.

The firm's mix of business has shifted as its brokerage business continues to grow rapidly, while market making continues to be wound down. The company will retain some market-making functions, including in select countries where it still trades profitably, and in the U.S. to support its brokerage business in specific products (such as some "delta one" products). While we believe the wind-down of the market-making business reduces the firm's business risk, it also reduces its contribution to diversification and increases exposure to customer confidence-sensitivity.

The firm offers brokerage clients a compelling combination of a high functionality platform at prices well below retail competitors. IBG has differentiated its platform to serve the specific needs of its customer segments beyond retail traders and investors; introducing brokers, registered investment advisers, and institutional clients like hedge funds. The capabilities of the firm's trading platform, its tailored functionality to meet the needs of a broad range of client types, aggressive pricing, and geographic expansion continues to foster strong growth of the electronic brokerage business. These strengths have allowed the firm to continue to grow its brokerage business, with total accounts and customer equity up 26% and 24% year over year, respectively.

IBG is the leader in daily average revenue trades (DARTS) among the U.S. brokers that report DARTS and has grown client assets much more rapidly than peers. However, IBG remains much smaller than rated U.S. peers, with \$145 million in total client assets as of Sept. 30, 2018.

IBG continues to increase its portion of more sticky retail accounts, including direct retail customers, and those served through registered investment advisors and introducing brokers. Direct and indirect retail customers accounted for 50% and 25% of commissions in the first half of 2018, respectively. They also accounted for 36% and 44% of customer equity, respectively, on the same date. We believe these types of customers are more stable and less confidence-sensitive than institutional clients. Unlike its purely retail peers, hedge funds and proprietary trading clients, which we consider more confidence-sensitive and higher risk given their use of portfolio margining, accounted for 25% of commissions and 20% of client equity at the end of the third quarter.

We would view negatively a material increase in IBG's portion of institutional clients because of their relatively higher risk from use of portfolio margining.

With operations spread across 26 countries in Europe, Asia, and the Americas, IBG has good and growing geographic diversification. Foreign operations include market making and electronic brokerage, as well as support clearing and customer service, across multiple product types, predominantly exchange traded or settled. Brokerage clients from outside of the U.S. accounted for 41% of client equity and 47% of commission revenue in the last 12 months ended June 30, 2018, up from 34% and 41%, respectively, in 2016.

We view IBG's management and governance as a neutral rating factor. Although we believe there is some key-man risk from CEO and majority shareholder Thomas Peterffy, we view favorably recent efforts to address this, as well as senior management and ownership's commitment to very strong capitalization, limited risk appetite, and focus on lower-risk brokerage.

**Table 2**

<b>IBG LLC--Business Position</b>					
<b>(Mil. \$)</b>	<b>YTD Jun-2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Total revenues	972.0	1,609.0	1,396.0	1,189.0	1,043.3
Total revenue growth (year over year) (%)	27.7	15.3	17.4	14.0	(3.1)
Net interest income/operating revenues (%)	45.5	42.4	37.8	35.7	33.0
Fee income/operating revenues (%)	47.5	46.3	50.0	59.0	58.9
Market-sensitive income/operating revenues (%)	2.6	2.5	11.7	22.6	25.0
Pretax profit/operating revenues (%)	62.9	65.2	54.5	38.5	48.5
Core earnings/average adjusted common equity (%)	17.7	11.9	12.6	7.9	8.9
Business line revenue contributors: (%)					
Trading and Sales/total revenues (%)	4.4	5.3	13.6	25.1	27.3
Brokerage/total revenues (%)	93.4	87.3	88.8	92.3	91.3
Other revenues/total revenues (%)	2.2	7.3	(2.4)	(17.3)	(18.5)

### **Capital, leverage, and earnings: Very strong risk-adjusted capital**

We view capitalization as very strong given an expected RAC ratio of more than 35%, management and ownership's commitment to maintain conservative capital levels, and strong risk-adjusted earnings. At June 30, 2018, the RAC ratio was 38%, reflecting the firm's commitment to capital and reduced market making trading risk.

Further, the firm has no additional risks not covered in RAC given its minimal illiquid and level 3 assets. We expect the firm to continue to grow equity through good retention of earnings, with very limited stock buybacks and an annual

capital payout ratio remaining in line with the 35% for 2017 and 2016. Interactive Brokers Group Inc.'s status as a public company gives IBG some flexibility to raise additional capital if needed. At the same time, Mr. Peterfy's controlling ownership limits investor pressure to distribute capital.

IBG's extensive use of technology gives it a low expense base, which allows it to be a low-cost provider while still generating pretax margins typically above 50%. Earnings are also strong on a risk-adjusted basis, with average core earnings to S&P Global Ratings RWAs of 3.67%.

All of IBG's regulated subsidiaries have considerable excess regulatory capital, except its U.S. market-making broker Timber Hill LLC, whose capital has been reduced in line with its shrinking operations. We expect the company to continue to reduce the amount of capital at this and the European Timber Hill broker in line with any further reduction in their activity and regulatory capital requirements.

**Table 3**

<b>IBG LLC--Capital</b>					
<b>(Mil. \$)</b>	<b>YTD Jun-2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
S&P Global Ratings total RWA before diversification	17,394.8	16,345.0	16,019.3	18,842.0	N/A
Leverage ratio (%) (U.S. GAAP)	11.1	10.5	10.6	11.0	12.0
S&P Global Ratings RAC ratio before diversification (%)	38.4	39.2	36.2	28.3	N/A
Adjusted total equity/adjusted assets (%)	11.1	10.5	10.6	11.0	12.0
Level III assets/TAC (%)	0.1	0.1	0.0	0.0	0.0
Illiquid assets/TAC (%)	4.3	4.1	7.3	8.9	9.0
ACE/TAC (%)	100.0	100.0	100.0	100.0	100.0
Common equity double leverage (%)	N.M.	102.9	99.0	97.3	97.7
Total equity double leverage (%)	N.M.	102.9	99.0	97.3	97.7

N/A--Not applicable. N.M.--Not meaningful.

**Table 4**

<b>IBG LLC--Earnings</b>					
	<b>YTD Jun-2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Personnel expenses/operating revenues (%)	14.2	15.5	17.3	19.1	19.6
Cost-income ratio (%)	36.8	40.5	45.1	49.0	51.5
Core earnings/operating revenues (%)	59.4	44.9	50.1	35.1	44.0
Internal capital generation/prior year's ACE (%)	2.3	0.8	1.1	0.5	0.4
Net interest income/average earning assets (%)	14.7	10.5	8.6	6.5	5.5
Net interest income/operating revenues (%)	45.5	42.4	37.8	35.7	33.0
Other income/operating revenues (%)	4.4	8.8	0.6	(17.3)	(16.9)
Net nonrecurring income/pretax income (%)	0.0	8.9	0.0	0.0	0.0
Core earnings/average adjusted assets (%)	1.9	1.2	1.4	0.9	1.1
Core earnings/S&P Global Ratings RWA before diversification (%)	6.6	4.4	4.4	2.2	N/A

N/A--Not applicable.

### Risk position: Excess capital helps offset operational risks

We believe the firm's risk management, relatively modest risk appetite, and loss experience remain supportive of the rating, despite a few past outsize losses. More recently, the firm has had limited losses on client margin loans, including during the February 2018 market volatility, which caused losses at some peers.

The company's market-making business uses proprietary models and trading systems to execute a large volume of trades. Consequently, the wind-down of the market-making business has reduced the firm's overall operational and market risk considerably. That said, we believe that even with the reduced scale of the firm's market-making operations, it involves exposure to operational risk from a complex model-based trading system and automated trade execution and risk systems. While we view positively IBG's very good long-term track record of careful management, which we believe can lower the probability of material operational events like malfunctioning systems potentially resulting in large principal losses, no system is foolproof. We believe that the strength of IBG's capitalization offsets the firm's exposure to low-probability high-impact events given it has a cushion of approximately \$5.2 billion of total adjusted capital above our 15% RAC ratio threshold for very strong capitalization.

In its brokerage business, IBG limits its credit risk and collateral-posting requirements by trading almost exclusively in listed securities and cash foreign exchange. Counterparty risk with clearinghouses is limited given their high credit ratings and mutualization of risk. Cash foreign exchange, metals, and contracts for difference transactions are done only with large, highly rated banks. The firm performs credit due diligence and surveillance on its counterparties and limits its net exposures to individual counterparties.

For margin lending, the firm employs a real-time margin compliance monitoring technology, which allows it to quickly liquidate customers' positions if their equity falls below margin requirements. Based on the firm's assessment of client exposures, concentration or leverage, and market conditions, it will also limit exposure or client risk through its pricing, imposing additional limitations or increasing margin requirements. Independently from margin lending, the firm incurs some market risk from clients' trading options. For example, in a market crash scenario (with valuations down or volatility up), retail clients selling put options might be unable to meet their financial commitments, putting IBG on the hook vis-a-vis the counterparties (most likely clearinghouses) to absorb the losses. We believe such risk is well-monitored through adequate margining, with the firm constantly revising its volatility stress assumptions based on market conditions. The firm has not suffered any outsize losses on margin loans since the 2015 loss of \$129 million on the surprise release of the peg between the Swiss franc and the euro by the Swiss Central Bank.

The firm keeps minimal fixed-income inventories so that its exposures to depreciating marked-to-market valuations (stemming from idiosyncratic credit events or a general rise in interest rates) are very small.

**Table 5**

IBG LLC--Risk Position					
(Mil. \$)	YTD Jun-2018	2017	2016	2015	2014
RACF scaled-up VaR	256.3	N/A	405.4	768.0	N/A
Annualized adjusted assets growth rate (%)	(2.8)	11.9	12.1	12.3	14.6
Annualized TAC growth rate (%)	8.3	10.6	8.5	3.0	1.8
Adjusted common equity/managed assets (%)	11.1	10.5	10.6	11.0	12.0

N/A--Not applicable.



### Funding and liquidity: Neutral to the rating

We view IBG's funding and liquidity as adequate given its very liquid balance sheet, excess stable funding of its less liquid assets, and good liquidity management.

IBG's GSFR--available stable funding to the illiquid portion of its assets--was solid at 162.5% as of June 30, 2018. However, this is partially offset by the firm's large derivatives portfolio, which represents additional needs not captured in the GSFR. We expect the derivatives portfolio to slowly shrink as the market making business winds down. Additionally, we believe that IBG's institutional customers expose the firm to more customer confidence-sensitivity than purely retail peers given the firm's reliance on client balances to support client activity.

IBG's LCM--balance sheet liquidity sources relative to balance sheet liquidity needs--was 96.9% as of June 30, 2018, and we expect it to remain above 90%. IBG has a very liquid balance sheet composed of cash; margin loans; exchange-listed marketable securities, which are marked-to-market daily; segregated customer assets; receivables from trade counterparties; and margins posted at central counterparties. Illiquid assets comprise less than 10% of total adjusted capital and less than 1% of assets are Level 3.

The firm is exposed to margin and collateral calls on its \$1.2 billion of open exchange-traded derivatives positions as well as its securities loaned and open client positions. The firm maintains significant unencumbered liquidity to offset its exposure to margin and collateral calls, including approximately \$42 billion of repledgeable collateral available from securities lending transactions and customer margin assets. IBG has uncommitted secured broker bank lines both to fund everyday needs and to provide a ready ability to access the liquidity of its unencumbered securities.

IBG's brokerage business doesn't carry securities inventory, so its funding needs are limited primarily to customer margin loans, which are largely funded by customer free credit balances. We view positively the firm's practice of calculating its regulatory reserves daily. Further, we believe its practices and accounting for customer securities lending activity understate the firm's liquidity in the LCM given that all its securities borrowed transactions are not for funding.

The market-making business's securities portfolio, which primarily consists of market-making inventory and hedges, has declined 34% in 2018 after a 49% decline in 2017. The focus on liquid exchange-traded products makes liquidity management more straightforward and limits the number of counterparties to post margin collateral with. Funding needs for options are limited and not reflected in the amounts reported on the balance sheet, while the rest of the inventory is almost all easily funded liquid, exchange-traded equities. In addition, the firm has substantial latitude to adjust its positions and hedging based on the availability and economics of various funding sources or its liquidity needs.

**Table 6**

<b>IBG LLC--Funding And Liquidity</b>					
<b>(Mil. \$)</b>	<b>YTD Jun-2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Stable funding needs	4,105.4	4,697.5	3,829.0	3,563.7	4,040.8
Available stable funding	6,671.0	6,404.0	5,792.0	5,338.0	5,184.6
Gross stable funding ratio (%)	162.5	136.3	151.3	149.8	128.3
Short-term wholesale funding /adjusted assets (%)	7.4	9.9	9.5	9.2	10.6

**Table 6**

<b>IBG LLC--Funding And Liquidity (cont.)</b>					
<b>(Mil. \$)</b>	<b>YTD Jun-2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Brokerage customer payables/adjusted assets (%)	80.0	77.8	76.4	76.1	73.3
Available liquidity	6,689.0	7,418.9	6,487.9	6,584.5	6,254.8
Balance sheet liquidity needs	6,900.0	8,468.6	7,304.5	6,334.4	6,187.2
Liquidity coverage metric (x)	1.0	0.9	0.9	1.0	1.0
High quality liquid securities + free cash/adjusted assets (%)	4.4	2.9	4.2	4.4	3.2
High quality liquid securities + free cash/short-term wholesale funding (%)	59.3	29.6	44.0	47.8	29.9
Liquid securities + free cash/short-term wholesale funding (%)	67.3	46.0	61.5	66.3	58.1

**Comparable ratings adjustment: None**

We do not make any further adjustment based on a comparison versus peers.

**External influence: None**

We do not factor any external influence into our rating on IBG.

**Ratings Score Snapshot****Table 7**

<b>IBG LLC--Ratings Score Snapshot</b>	
Issuer Credit Rating	BBB/Positive/--
GCP	bbb+
Anchor	bbb-
Business Position	Adequate (0)
Capital and Earnings	Very Strong (+2)
Risk Position	Adequate (0)
Funding & Liquidity	Adequate and Adequate-High (0)
Comparable Ratings Adjustment	0
External Influence	0
Government Influence	0
Group Influence	0
Rating above the Sovereign	0

**Related Criteria**

- Risk-Adjusted Capital Framework Methodology, July 20, 2017
- Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- Nonbank Financial Institutions Rating Methodology, Dec. 9, 2014
- Group Rating Methodology, Nov. 19, 2013
- Banking Industry Country Risk Assessment Methodology And Assumptions, Nov. 9, 2011
- Use Of CreditWatch And Outlooks, Sept. 14, 2009

**Ratings Detail (As Of December 19, 2018)****IBG LLC**

Issuer Credit Rating	BBB/Positive/--
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**Issuer Credit Ratings History**

22-Nov-2017	BBB/Positive/--
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11-Dec-2014	BBB/Stable/--
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19-Dec-2008	BBB+/Stable/--
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**Sovereign Rating**

United States	AA+/Stable/A-1+
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**Related Entities****Interactive Brokers LLC**

Issuer Credit Rating	BBB+/Positive/A-2
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\*Unless otherwise noted, all ratings in this report are global scale ratings. S&P Global Ratings' credit ratings on the global scale are comparable across countries. S&P Global Ratings' credit ratings on a national scale are relative to obligors or obligations within that specific country. Issue and debt ratings could include debt guaranteed by another entity, and rated debt that an entity guarantees.

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