InteractiveBrokers

2019 ANNUAL REPORT

A Year of Strength, Growth and Innovation

Interactive Brokers offers a continually-expanding set of global products and services on a single, technologically advanced platform, all at no to low cost.

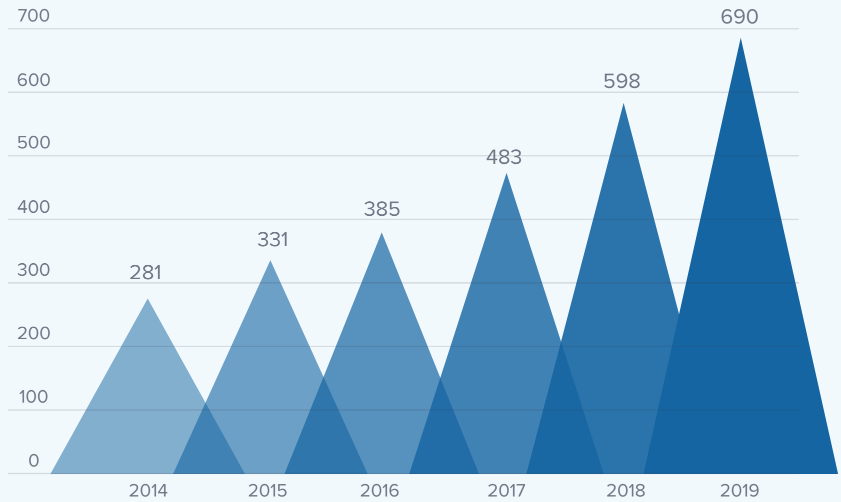
	2014	2019
Company Net Revenues	$1.0 billion	$1.9 billion
Company Pretax Margin	49%	60%
Brokerage Pretax Profit	$589 million	$1.2 billion
Equity Capital	$5.2 billion	$7.9 billion

Client Accounts
(Thousands)

20%

GROWTH*

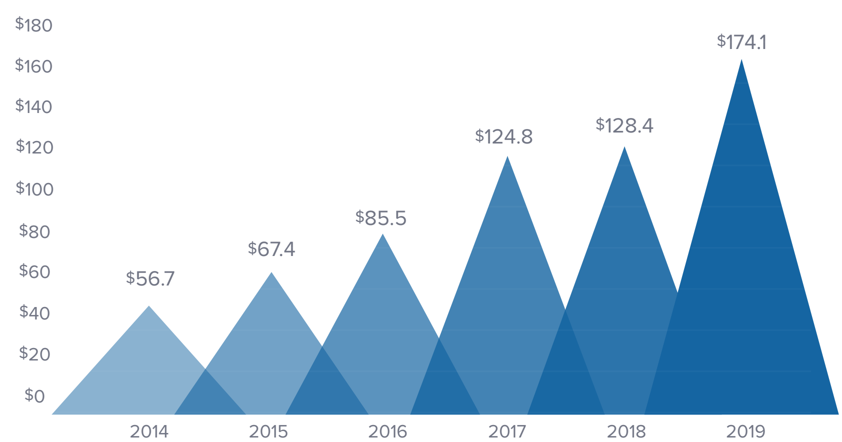
Currently in over **200** countries and territories



Client Equity
(Billions)

25%

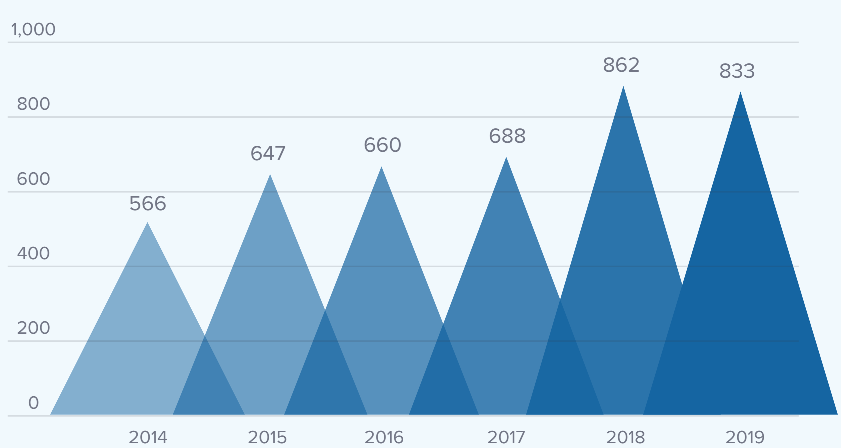
GROWTH*



Total Client DARTs
(Thousands)

8%

GROWTH*



* Five-year compound annual growth rate

IBKR PRO

Minimizing Trading Costs[1] With The Lowest Margin Rates[2] and Industry-Leading Efficient Executions

The Interactive Brokers' Margin Rate Advantage

US Margin Loan Rates Comparison for IBKR Pro[3]

	$25K	$300K	$1.5M	$3.5M
Interactive Brokers[4]	**3.08%**	**2.74%**	**2.44%**	**2.20%**
E-Trade	9.75%	8.25%	6.75%	6.75%
Fidelity	8.82%	7.57%	5.00%	5.00%
Schwab	8.82%	7.57%	N/A	N/A
TD Ameritrade	9.75%	8.25%	N/A	N/A

Each firm's information reflects the standard online margin loan rates obtained from their respective websites. Competitor rates and offers subject to change without notice. Services vary by firm. **Margin borrowing is only for sophisticated investors with high risk tolerance. You may lose more than your initial investment.** For additional information regarding margin loan rates, see ibkr.com/interest

1. Lower investment costs will increase your overall return on investment, but lower costs do not guarantee that your investment will be profitable.

2. According to StockBrokers.com Online Broker Survey 2020: Read the full article *Online Broker Reviews.* For more information see, www.ibkr.com/awards

3. Annual Percentage Rate (APR) on USD margin loan balances for IBKR Pro as of 02/10/2020. Interactive Brokers calculates the interest charged on margin loans using the applicable rates for each interest rate tier listed on its website. For additional information on margin loan rates, see ibkr.com/interest.

4. Options and futures are risky and are not suitable for all investors. Please review "Characteristics and Risks of Standardized Options" and the CFTC Futures Trading Risk Disclosure. You can obtain a copy by calling 312 542-6901 before trading these respective products.

SmartRouting Delivers Execution Excellence to IBKR Pro

IB SmartRouting℠ searches for the best prices available at the time of the order, and seeks to immediately execute the order electronically.

- Continuously evaluates fast-changing market conditions.
- Dynamically re-routes all or parts of the order to achieve optimal execution.

For IBKR Pro clients, Interactive Brokers does not sell its customer order flow to high frequency traders. Orders go directly to an execution venue, including exchanges, ECNs and dark pools.

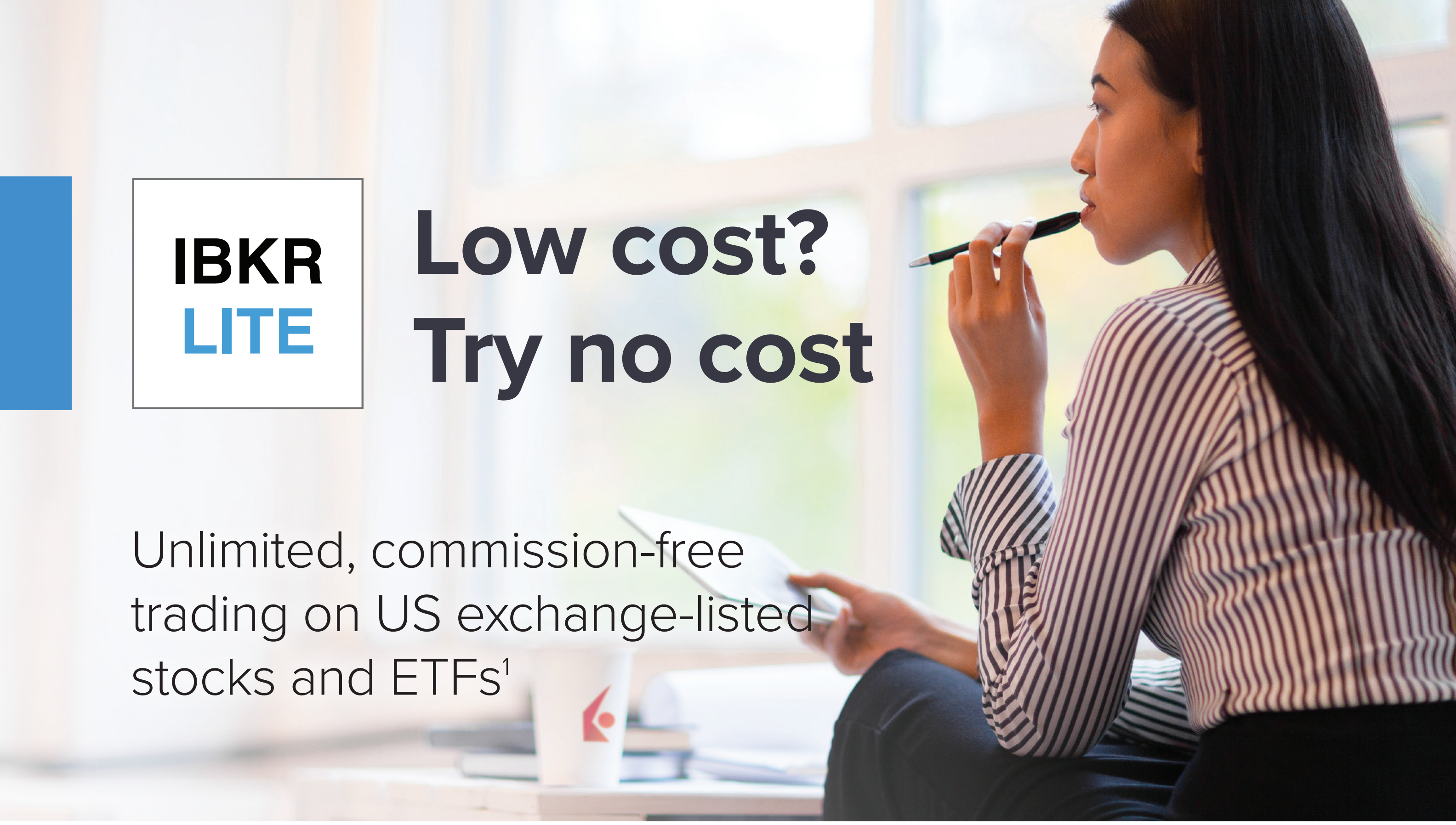
Interactive Brokers' US stock price executions were significantly better than the industry's during the second half of 2019.[5]

US Equities Execution Price Improvement Comparison[5]

	Price Improvement (per 100 shares)
Interactive Brokers	**$0.45**
Industry	$0.02
IBKR Advantage	**$0.43**

Net US Dollar Price Improvement vs. Industry Bid / Offer. Net US Dollar Improvement per Share Definition: ((# of Price Improved Shares * Price Improvement Amount) - (# of Price Disimproved Shares * Price Disimprovement Amount)) / Total Number of Executed Shares

5. According to IHS Markit, a third-party provider of transaction analysis.



IBKR LITE

Low cost? Try no cost

Unlimited, commission-free trading on US exchange-listed stocks and ETFs[1]

Introduced on September 26, 2019, **IBKR Lite** provides our award-winning technology for market participants to enjoy **unlimited, commission-free trading** in US exchange-listed stocks and ETFs[1], plus the same low-cost access to markets worldwide with no account minimums and no inactivity fees[2].

IBKR Lite
Margin Loan Rate
4.08%[3]

Client interest benefits:

- **Earn** competitive interest on the idle cash in their accounts[4]
- **Borrow** against the securities in their accounts
- **Join** the Stock Yield Enhancement Program, lend their fully paid stock and IBKR will share the earnings with them

IBKR Lite clients have access to our desktop platform and to IBKR Mobile, our robust mobile trading app that gives the freedom to trade on-the-go.

See **ibkr.com/lite** for more details

1. The IBKR Lite pricing plan is available to the following account types: Individual, Joint, Trust and IRA. In addition, US financial advisors can offer IBKR Lite to their clients.
2. Certain orders are subject to non-commission related fees, and trades in non-exchange listed stocks or certain order types may be subject to standard commission rates. See ibkr.com/liteinfo for details.
3. Rates as of 02/10/2020
4. Accounts with a NAV of less than USD 100,000 (or equivalent) will be paid at a rate proportional to accounts with a NAV of USD 100,000 (or equivalent) or more. The proportion is determined by the ratio of the account's NAV to USD 100,000 (or equivalent). This does not apply to currencies with negative interest rates. See ibkr.com/interest for details.

Customer-Focused Innovation

BET, LEARN, WIN

Interactive Brokers' Simulated Sports Betting Exchange

We introduced our simulated sports betting exchange – **BET, LEARN, WIN** – to teach the nature of trading and investing, and to introduce our platform to more people.

Bet, Learn, Win operates as a simulated peer-to-peer market where participants buy, sell and trade bets on real sporting events, such as football, soccer, and basketball. Each player will start with $1,000 in virtual currency to use for simulated betting.

Up to $100 of IBKR Share Credits are being offered as a reward to up to 1 million new clients who open Interactive Brokers brokerage accounts and convert up to $1,000 of their simulated betting virtual profits to real IBKR shares.

See **sports.ibkr.com** for more details

Adding Value and Technology

Interactive Brokers continuously adds new products...

CME Group

CME Group Micro E-mini Futures

Interactive Brokers participated at the open of trading in these futures, the most successful product launch in CME Group's history.

Fractional Shares

Investors can now buy and sell fractions of shares, which allows them to **transact a specific dollar amount, as low as USD 1.00,** of a security or ETF. Those who prefer to invest a certain dollar amount, and investors who are handling smaller amounts of money but still want to invest in a particular group of securities, can participate.

Mutual Fund/ETF Parser

The Parser, part of our robust PortfolioAnalyst™ application, identifies and classifies the individual component stocks within mutual funds and ETFs. Clients can then get an **accurate, granular picture of their overall exposure** quarterly to asset classes, industry sectors, and individual companies. We provide access to over 20,000 mutual funds around the world, including over 8,000 with no transaction fee.

...and new international opportunities

Access to the Moscow Exchange

Interactive Brokers clients around the world can now trade on the Moscow Exchange, expanding our global access.

Stock Yield Enhancement Program in Canada

Our clients can now lend their fully-paid Canadian stock shares to **earn additional yield**, by enrolling easily online. We are the first broker to offer this program in Canada.

Singapore

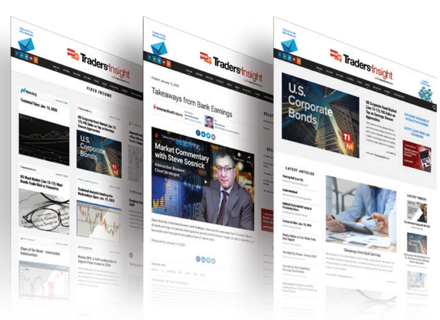
Interactive Brokers continues to broaden its global presence, with the recent approval to open an office in Singapore which should be operational in early 2020.

Traders’ University

Tools and Content to Learn, Collaborate and Get the Latest Market Commentary

Traders’ Academy

Traders’ Academy continues to expand its offerings of online courses, webinars and short videos to help our clients better understand asset classes, markets and currencies, and how IBKR’s tools can help capture market opportunities. Visit **ibkr.com/ibta**



Traders' Insight

Our market commentary website is located at **tradersinsight.news** and conveniently integrated within TWS for our clients. Commentaries from ETF providers, asset managers, exchanges, research providers and IBKR analysts help to navigate gyrations in stocks, options, futures, forex, bonds and more.

IBKR Quant

IBKR Quant serves quantitative professionals who are interested in programming, with topics ranging from deep learning, AI, Blockchain, and programming languages like R and Python. Contributors cover markets throughout the Americas, Europe and Asia. Visit **ibkr.com/quant**

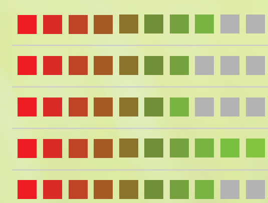
ESG

Invest Responsibly with Environmental, Social and Governance Scores

As growing numbers of investors seek to invest more responsibly, Interactive Brokers can make Environmental, Social and Governance (ESG) investing easier.

ESG scores from Thomson Reuters are now available across all of IBKR's trading platforms, providing traders and investors with additional data for making investment decisions and evaluating risks on more than just financial factors.

IBKR trading platforms present ESG scores in an easy-to-use and understand graphical format.



Interactive Advisors, our online advisory affiliate, introduced five socially responsible investing portfolios, designed to invest in companies that operate businesses with socially desirable products and services, and incorporate ESG factors into investment decision-making.

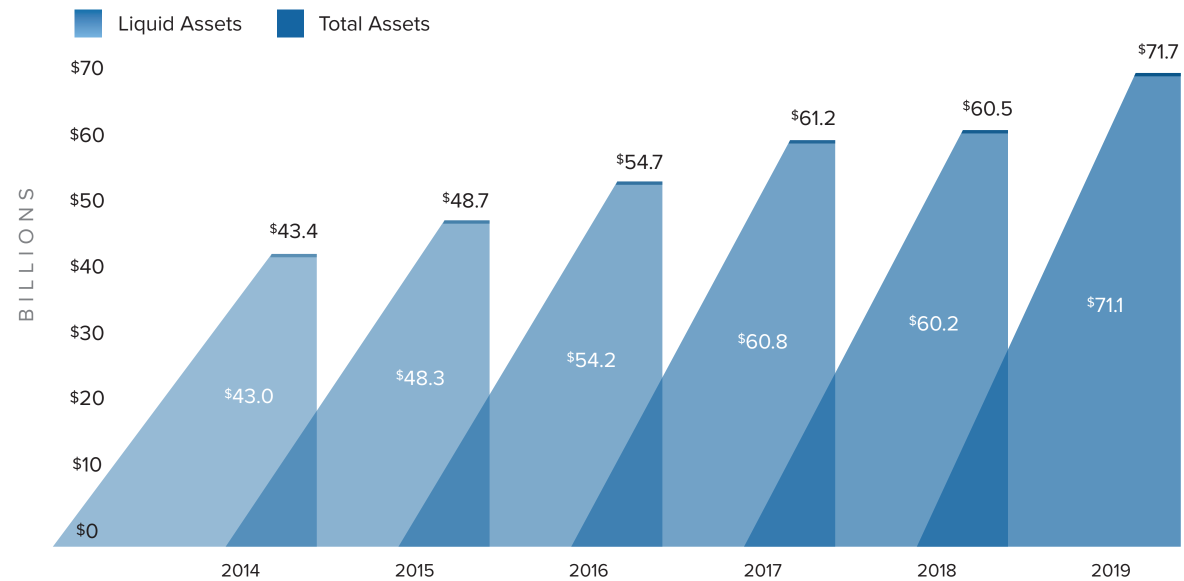
InteractiveAdvisors

Interactive Advisors enables **ESG investing at low cost**, with an AUM fee of just 0.11%

Financial Strength with Liquidity and Capital

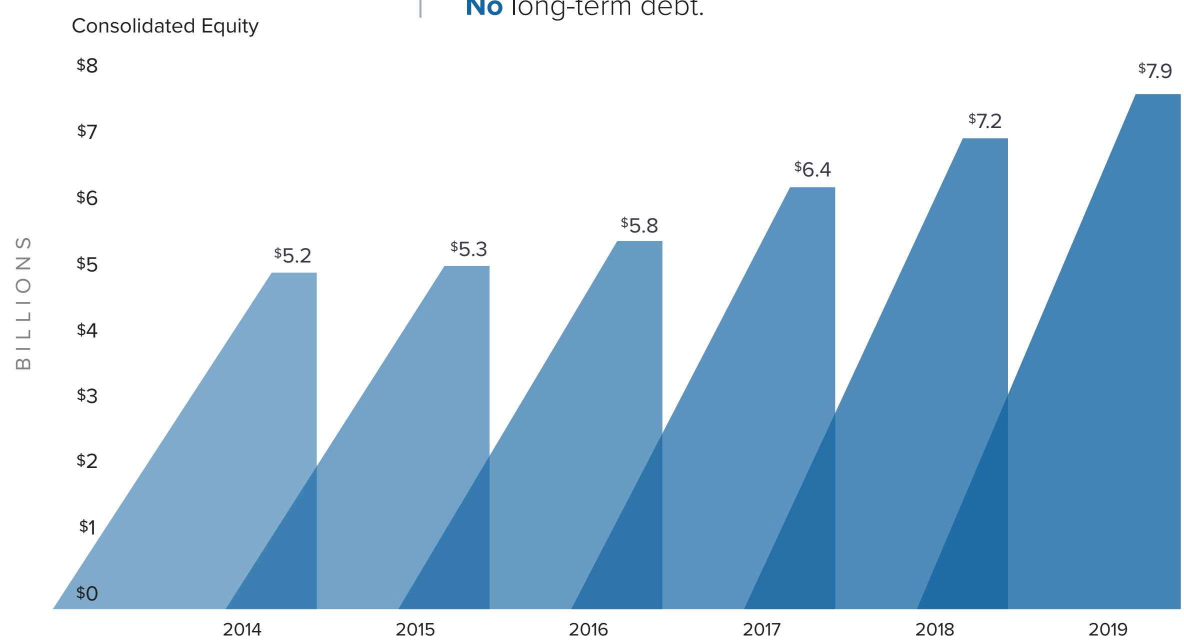
Liquid Balance Sheet

99% of our balance sheet is comprised of liquid assets.



Strong Capital Base

$7.9 billion of consolidated equity.
Over **$6 billion** of capital in excess of regulatory requirements.
No long-term debt.



Consistent Recognition as an Industry Leader

BARRON'S

2019 Barron's Awards[1]:

Interactive Brokers was Rated #1 – Best Online Broker

Rated 4.5 for Best for Mobile Traders

Rated 5 for Best for International Traders

Rated 4.5 for Best for Frequent Traders

Investopedia

2019 Investopedia Awards:

Best Overall

Best for Low Costs

Best for International Trading

Best for Options Trading

preqin

2019 Preqin Prime Broker Awards:

Top 10 Prime Broker for Single-Manager Hedge Funds

Top 10 Broker for CTAs

Top 10 Prime Broker for North America

ForexBrokers.com

2019 ForexBrokers.com Awards:

Rated #1 for Professionals

INVESTOR'S BUSINESS DAILY®

2019 Investor's Business Daily Awards:

Rated #1 for Low Commissions and Fees

Rated #1 for Mobile Trading Platform/Apps

Rated #1 for Range of Products

Rated #1 for Website Security

STREETWISE REPORTS

2019 Streetwise Reports Awards:

Best for Research (both US and Canada)

HFM WEEK

2019 HFM Week US Hedge Fund Services Awards:

Best Mobile Application

2019 HFM Week European Hedge Fund Services Awards:

Best Prime Broker – Technology

1. Barron's is a registered trademark of Dow Jones & Company, Inc.

For more information, see ibkr.com/awards

Dear Shareholders: February 25, 2020

As your ranks change over the years, a periodic overview of the Company may be helpful to understand where we have come from, where we are today and what we see for the future.

Forty three years ago, I started Interactive Brokers on the options trading floor of the American Stock Exchange with $200,000 of capital. Over that time period, with the exception of small losses in 1991 and 1992, when we could not quite cover overhead, the company has been profitable every year. Today our equity capital exceeds $8 billion, all from retained earnings after dividends, and our market value is $23 billion.

As open outcry exchanges in the U.S. and worldwide began to go electronic in the 1990s, we built our electronic brokerage platform so that we, along with our fellow floor traders, would be able to carry on with our trading activities.

Our initial clients were the professional traders whose trading activity was their main source of income, which necessitated the very best possible executions, with zero custodial charges, very low interest rates on margin loans and borrowed shares, and high interest rates paid on idle cash and shares lent.

Many of our clients were international arbitrageurs, so we incorporated the ability to trade and invest in products globally onto our platform.

Some of these clients then moved on to hedge funds and asked us to build the trading tools needed by sophisticated hedge funds, opening up a new client base. In addition, to distinguish ourselves from other prime brokers, we developed technology like online, real time displays of our loan and borrow rates for specific shares and actionable bids and offers for bonds.

Another group of clients decided to pool their resources to form proprietary trading groups, and used the sophisticated features created for hedge funds.

Yet another group went into the money management business by forming Investment Advisory businesses. This group needed different account structures, automated portfolio building, and allocation and rebalancing tools which we built for them.

All along, our strategy has been that whatever we build for one client must be available to all, at no charge. That is the reason why today, everyone on our platform, from large institutions to a single individual, has the ability to use all of our research and investment tools, from the simplest to the most complex.

While we do not provide capital introduction like our prime broker and RIA custodian competitors, we maintain that providing a more versatile platform, with better execution prices and lower costs, allows all of our clients to outperform their peers. Superior performance is the best recommendation.

As to the immediate economic outlook, I see smooth sailing ahead, though this may be interrupted by the coronavirus and potential election year political turbulence. Some people hate Trump, some like him and many do not know just what to think. The question for market observers is whether the President’s personality can be put aside to ensure that future economic growth, through the appointments of judges and regulators with free market convictions, can continue.

Do voters want officials to favor more regulation and government control over their lives, or do they want less regulation and individual freedom? That is the question Americans will answer in November and their answer will reverberate through the markets all around the world.

Sincerely,

Thomas Peterffy
Chairman

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the year ended December 31, 2019

Commission File Number: 001-33440

INTERACTIVE BROKERS GROUP, INC.

(Exact name of registrant as specified in its charter)

Delaware	**30-0390693**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

One Pickwick Plaza
Greenwich, Connecticut 06830
(Address of principal executive office)

(203) 618-5800
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of the exchange on which registered
Common Stock, par value $.01 per share	IBKR	The Nasdaq Global Select Market

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark whether the registrant is a well-known seasoned issuer, as defined in Rule 405 of the securities act. Yes ☒ No ☐

Indicate by check mark whether the registrant is not required to file reports pursuant to Section 13 or 15(d) of the act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of ''large accelerated filer,'' ''accelerated filer'' and ''smaller reporting company'' in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐ Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The aggregate market value of the voting and non-voting common equity stock held by non-affiliates of the registrant was approximately $4,032,724,571 computed by reference to the $54.20 closing sale price of the common stock on the Investors Exchange LLC, on June 28, 2019, the last business day of the registrant's most recently completed second fiscal quarter.

As of February 25, 2020, there were 76,750,794 shares of the issuer's Class A common stock, par value $0.01 per share, outstanding and 100 shares of the issuer's Class B common stock, par value $0.01 per share, outstanding.

Documents Incorporated by Reference: Portions of Registrant's definitive proxy statement for its 2020 annual meeting of shareholders are incorporated by reference in Part III of this Form 10-K.

ANNUAL REPORT ON FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2019

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

We have included or incorporated by reference in this Annual Report on Form 10-K, and from time to time our management may make statements that may constitute ''forward-looking statements'' within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are not historical facts, but instead represent only our beliefs regarding future events, many of which, by their nature, are inherently uncertain and outside our control. These statements include statements other than historical information or statements of current condition and may relate to our future plans and objectives and results, among other things, and may also include our belief regarding the effect of various legal proceedings, as set forth under ''Legal Proceedings and Regulatory Matters'' in Part I, Item 3 of this Annual Report on Form 10-K, as well as statements about the objectives and effectiveness of our liquidity policies, statements about trends in or growth opportunities for our businesses, included in ''Management's Discussion and Analysis of Financial Condition and Results of Operations'' in Part II, Item 7 of this Annual Report on Form 10-K. By identifying these statements for you in this manner, we are alerting you to the possibility that our actual results may differ, possibly materially, from the anticipated results indicated in these forward-looking statements. Important factors that could cause actual results to differ from those in the forward-looking statements include, among others, those discussed below and under ''Risk Factors'' in Part I, Item 1A of this Annual Report on Form 10-K and ''Management's Discussion and Analysis of Financial Condition and Results of Operations'' in Part II, Item 7 of this Annual Report on Form 10-K.

Factors that could cause actual results to differ materially from any future results, expressed or implied, in these forward-looking statements include, but are not limited to, the following:

- general economic conditions in the markets where we operate;
- increased industry competition and downward pressures on electronic brokerage commissions and on bid/offer spreads in the remaining market making business we operate;
- risks inherent to the electronic brokerage and market making businesses;
- implied versus actual price volatility levels of the products in which we continue to make markets;
- the general level of interest rates;
- failure to protect or enforce our intellectual property rights in our proprietary technology;
- our ability to keep up with rapid technological change;
- system failures, cyber security threats and other disruptions;
- non-performance of third-party vendors;
- conflicts of interest and other risks due to our ownership and holding company structure;
- the loss of key executives and failure to recruit and retain qualified personnel;
- the risks associated with the expansion of our business;
- our possible inability to integrate any businesses we acquire;
- the impact of accounting standards issued but not yet adopted;
- compliance with laws and regulations, including those relating to the securities industry; and
- other factors discussed under ''Risk Factors'' in Part I, Item 1A of this Annual Report on Form 10-K or elsewhere in this Annual Report on Form 10-K.

We undertake no obligation to publicly update or revise any forward-looking statements to reflect events or circumstances that may arise after the date of this Annual Report on Form 10-K.

PART I

ITEM 1. BUSINESS

Overview

Interactive Brokers Group, Inc. (‘‘IBG, Inc.’’ or the ‘‘Company’’) is an automated global electronic broker and market maker (although, we have substantially exited the options market making business - see Note 2 - Discontinued Operations and Costs Associated with Exit or Disposal Activities to the audited consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K). We custody and service accounts for hedge and mutual funds, registered investment advisors, proprietary trading groups, introducing brokers and individual investors. We specialize in routing orders while striving to achieve best executions and processing trades in stocks, options, futures, foreign exchange instruments (‘‘forex’’), bonds, mutual funds and exchange traded funds (‘‘ETFs’’) on more than 135 electronic exchanges and market centers around the world. In the United States of America (‘‘U.S.’’), we conduct our business primarily from our headquarters in Greenwich, Connecticut, and from Chicago, Illinois. Abroad, we conduct our business through offices located in Canada, the United Kingdom, Luxembourg, Switzerland, India, China (Hong Kong and Shanghai), Japan, and Australia. As of December 31, 2019, we had 1,643 employees worldwide.

IBG, Inc. is a holding company whose primary asset is the ownership of approximately 18.5% of the membership interests of IBG LLC (the ‘‘Group’’), the current holding company for our businesses. IBG, Inc. is the sole managing member of IBG LLC.

When we use the terms ‘‘we,’’ ‘‘us,’’ and ‘‘our,’’ we mean IBG, Inc. and its subsidiaries (including IBG LLC). Unless otherwise indicated, the terms ‘‘common stock’’ and ‘‘IBKR shares’’ refer to the Class A common stock of IBG, Inc.

We are a successor to the market making business founded by our Chairman, Mr. Thomas Peterffy, on the floor of the American Stock Exchange in 1977. Since our inception, we have focused on developing proprietary software to automate broker-dealer functions. During that time, we have been a pioneer in developing and applying technology as a financial intermediary to increase liquidity and transparency in the capital markets in which we operate. The proliferation of electronic exchanges since the early 1990s has provided us with the opportunity to integrate our software with an increasing number of exchanges and market centers to create one automatically functioning, computerized platform that requires minimal human intervention. Over four decades of developing our automated trading platforms and our automation of many middle and back office functions have allowed us to become one of the lowest cost providers of broker-dealer services and significantly increase the volume of trades we handle.

Our activities are divided into two principal business segments: electronic brokerage and market making (being discontinued). For a description of these segments and the products and services they provide, refer to ‘‘Business Segments’’ below in this Item 1.

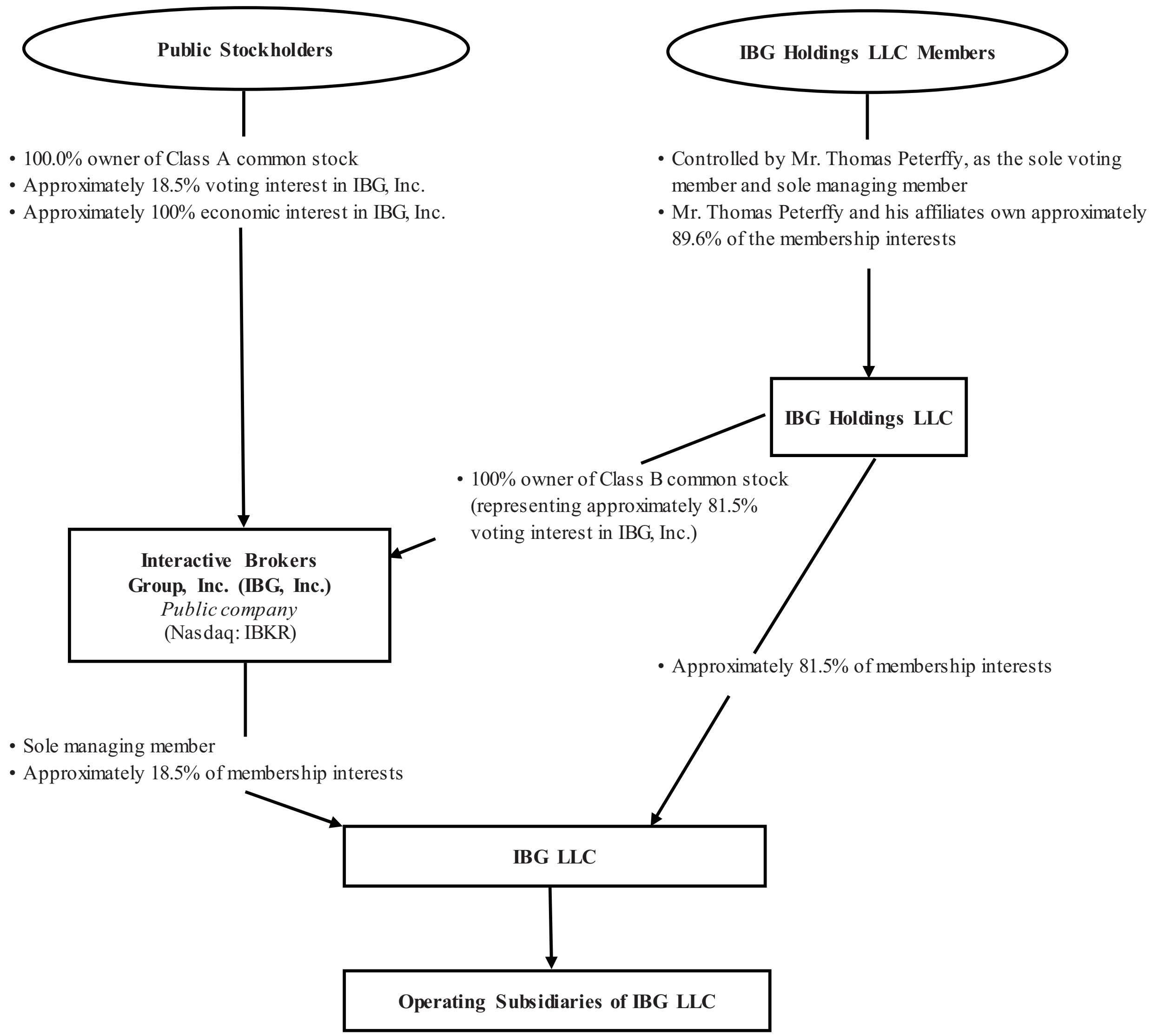
Our internet address is www.interactivebrokers.com and the investor relations section of our website is located at www.interactivebrokers.com/ir. We make available free of charge, on or through the investor relations section of our website, this Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as well as proxy statements, registration statements, prospectus supplements, and Section 16 filings for our directors and officers, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the U.S. Securities and Exchange Commission (‘‘SEC’’). The SEC maintains an internet site, www.sec.gov, that contains annual, quarterly and current reports, proxy and information statements and other information that issuers file electronically with the SEC. Our electronic SEC filings are made available to the public on the SEC’s internet site. In addition, posted on our website are our Bylaws, our Amended and Restated Certificate of Incorporation, charters for the Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee of our board of directors, our Accounting Matters Complaint Policy, our Whistle Blower Hotline, our Corporate Governance Guidelines and our Code of Business Conduct and Ethics governing our directors, officers and employees. Within the time periods required by SEC and the Nasdaq Stock Market LLC (‘‘Nasdaq’’), we will post on our website any amendment to the Code of Business Conduct and Ethics and any waiver applicable to any executive officer, director or senior financial officer. In addition, our website includes information concerning purchases and sales of our equity securities by our executive officers and directors, as well as disclosure relating to certain non-GAAP financial measures, if any, (as defined in

Regulation G) promulgated under the Securities Act of 1933, as amended (the ''Securities Act'') and the Securities Exchange Act of 1934, as amended (the ''Exchange Act'') that we may make public orally, telephonically, by webcast, by broadcast or by similar means from time to time.

Our Investor Relations Department can be contacted at Interactive Brokers Group, Inc., Two Pickwick Plaza, Greenwich, Connecticut 06830, Attn: Investor Relations, telephone: 203-618-4070, e-mail: investor-relations@interactivebrokers.com.

Our Organizational Structure and Overview of Recapitalization Transactions

The graphic below illustrates our current ownership structure and reflects current ownership percentages. The graphic below does not display the subsidiaries of IBG LLC.



(1) In connection with redemption transactions in 2018, as of December 31, 2019, IBG Holdings LLC held for sale for the benefit of certain of its members 869,135 shares of IBG, Inc. Class A common stock, representing an additional 0.21% of the voting interests in IBG, Inc.

Our primary assets are our ownership of approximately 18.5% of the membership interests of IBG LLC, the current holding company for our businesses, and our controlling interest and related contractual rights as the sole managing member of IBG LLC. The remaining approximately 81.5% of IBG LLC membership interests are held by IBG Holdings LLC (''Holdings''), a holding company that is owned directly and indirectly by our founder and Chairman, Mr. Thomas Peterffy and his affiliates, management and other employees of IBG LLC, and certain other members. The IBG LLC membership interests held by Holdings will be subject to purchase by us over time in connection with offerings by us of shares of our common stock.

The table below presents the amount of IBG LLC membership interests held by IBG, Inc. and Holdings as of December 31, 2019.

	IBG, Inc.	Holdings	Total
Ownership %	18.5%	81.5%	100.0%
Membership interests	76,759,595	338,670,642	415,430,237

Purchases of IBG LLC membership interests, held by Holdings, by the Company are governed by the exchange agreement among us, IBG LLC, Holdings and the historical members of IBG LLC, (the ''Exchange Agreement''), a copy of which was filed as an exhibit to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2009 and filed with the SEC on November 9, 2009. The Exchange Agreement, as amended June 6, 2012, provides that the Company may facilitate the redemption by Holdings of interests held by its members through the issuance of shares of common stock through a public offering in exchange for the interests in IBG LLC being redeemed by Holdings. Periodically since June 2011, with the consent of Holdings and the Company (on its own behalf and acting as the sole managing member of IBG LLC), IBG LLC has agreed to redeem certain membership interests from Holdings through the sale of common stock and to distribute the proceeds of such sale to the beneficial owners of such membership interests. From 2011 through 2019, the Company issued 15,417,157 shares of common stock (with a fair value of $506 million) to Holdings in exchange for an equivalent number of shares of member interests in IBG LLC.

Business Segments

Electronic Brokerage

Electronic brokerage represented 97% of net revenues and 98% of income before income taxes from electronic brokerage and market making combined during 2019. As an electronic broker, we execute, clear and settle trades globally for both institutional and individual customers. Capitalizing on our proprietary technology originally developed for our market making business, our systems provide our customers with the capability to monitor multiple markets around the world simultaneously and to execute trades electronically in these markets at a low cost in multiple products and currencies from a single trading account.

Since launching this business in 1993, we have grown to approximately 690 thousand institutional and individual brokerage customers. We provide our customers with what we believe to be one of the most effective and efficient electronic brokerage platforms in the industry, which includes advanced order management, trade execution and portfolio management. Our brokerage system features unique architectural aspects that may impose a significant barrier to entry for firms wishing to compete in this business and permit us to compete favorably against our competitors.

We are able to provide our customers with high-speed trade execution at low commission rates, in large part because of our proprietary technology. As a result of our advanced electronic brokerage platform, we attract sophisticated and active investors. No single customer represented more than 1% of our commissions in 2019.

Our key product offerings include:

- *IBKR Pro*^{SM} is the traditional IBKR service designed for sophisticated investors. IBKR Pro^{SM} offers the lowest cost access to stocks, options, futures, forex, bonds, mutual funds and ETFs on over 135 electronic exchanges and market centers in 33 countries.
- *IBKR Lite*^{SM} is a new offering that provides unlimited commission-free trades on U.S. exchange-listed stocks and ETFs as well as low cost access to global markets without required account minimums or inactivity fees to participating U.S. customers. IBKR Lite^{SM} was designed to meet the needs of investors who are seeking a simple, commission-free way to trade U.S. exchange-listed stocks and ETFs and do not wish to consider our efforts to obtain greater price improvement through our IB SmartRouting^{SM} system.

- *IBKR Integrated Investment Account* - From a single point of entry in one IBKR Integrated Investment Account our customers are able to transact in 25 currencies, across multiple classes of tradable, primarily exchange-listed products traded on more than 135 electronic exchanges and market centers in 33 countries around the world seamlessly. Our offering features a suite of cash management services, including:
  - *Interactive Brokers Debit Mastercard®* - Interactive Brokers Debit Mastercard® allows customers to spend and borrow directly against their account at lower rates than credit cards, personal loans and home equity lines of credit, with no monthly minimum payments and no late fees. Customers can use their card to make purchases and ATM withdrawals anywhere Debit Mastercard®[1] is accepted around the world.
  - *Bill Pay* – Our Bill Pay program allows customers to make electronic or check payments to almost any company or individual in the U.S. It can be configured for one-time or recurring payments and permits customers to schedule future payments.
  - *Direct Deposit* – Our Direct Deposit program allows customers to automatically deposit paychecks, pension distributions and other recurring payments to their (non-retirement) brokerage account with us.
- *Insured Bank Deposit Sweep Program* - Our Insured Bank Deposit Sweep Program provides eligible customers with up to $2,500,000 of Federal Deposit Insurance Corporation (''FDIC'') insurance on their eligible cash balances in addition to the existing $250,000 Securities Investor Protection Corporation (''SIPC'') coverage for total coverage of $2,750,000. Customers continue earning the same competitive interest rates currently applied to cash held in their brokerage accounts with us. We sweep each participating customer's eligible cash balances daily to one or more banks, up to $246,500 per bank, allowing for the accrual of interest and keeping within the FDIC protected threshold. Cash balances above $2,750,000 remain subject to safeguarding under the SEC's Customer Protection Rule 15c3-3.
- *Investors' Marketplace℠* - The Investors' Marketplace℠ is an expansion of our Money Manager Marketplace and our Hedge Fund Capital Introduction program. This program is the first electronic meeting place that brings together individual investors, financial advisors, money managers, fund managers, research analysts, technology providers, business developers and administrators, allowing them to interact to form connections and conduct business.
- *Fractional Trading* – Fractional Trading allows customers to buy and sell using a cash quantity or fractional shares, which are stock units that amount to less than one full share. This new functionality allows customers to purchase as little as $1 of almost any U.S. stock, experiment with trading and investing without committing substantial sums of money, and learn about building and rebalancing diversified portfolios.

For all customers, our platform offers:

- *Low Costs* - We provide our customers with among the industry's lowest overall transaction costs in two ways. First, we offer among the lowest execution, commission and financing costs in the industry. Second, our IBKR Pro℠ customers benefit from our advanced routing of orders designed to achieve the best available trade price.
- *IB SmartRouting℠* – IB SmartRouting℠ retains control of the customer's order, continuously searches for the best available price and, unlike most other routers, dynamically routes and re-routes all or parts of a customer's order to achieve optimal execution and among the lowest execution and commission costs in the industry. To highlight the quality of our price executions, we publish on our website independent measurements performed by a third-party provider of transaction analysis to illustrate our net price improvement for commissionable trades versus the industry. We also offer Transaction Cost

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[1] Debit Mastercard is a trademark registered to Mastercard International Incorporated Corporation, Delaware, 2000 Purchase Street, Purchase, New York 10577-2405.

Analysis reporting to allow customers to track execution performance using multiple criteria. Our IBKR Pro℠ customers benefit from our advanced order routing technology for all trades, while our IBKR Lite℠ customers benefit from this technology for their trades in products not eligible for IBKR Lite℠.

- *Automated Risk Controls* - Throughout the trading day, we calculate margin requirements for each of our customers on a real-time basis across all product classes and across all currencies. Our customers are alerted to approaching margin violations and if a customer's equity falls below what is required to support that customer's margin, we attempt to automatically liquidate positions on a real-time basis to bring the customer's account into margin compliance. This is done to protect us, as well as the customer, from excessive losses.

- *Flexible and Customizable System* - Our platform is designed to provide an efficient customer experience, beginning with a highly automated account opening process and ending with a fast trade execution and reporting. Our sophisticated interface provides interactive real-time views of account balances, positions, profits or losses, buying power and "what-if" scenarios to enable our customers to more easily make informed investment decisions and trade effectively. Our system is configured to remember the user's preferences and is specifically designed for multi-screen systems. When away from their main workstations, customers are able to access their accounts through our IB WebTrader℠ or MobileTrader℠ interfaces for a seamless experience.

- *Securities Financing Services* - We offer a suite of automated Stock Borrow and Lending tools, including our depth of availability, transparent rates, global reach and dedicated service representatives. Our Stock Yield Enhancement Program allows our customers to lend their fully-paid stock shares to us in exchange for cash collateral. In turn, we lend these stocks in exchange for collateral and earn stock lending fees. We pay our customers a rebate on the cash collateral generally equal to 50% of the income we earn from lending the shares. This allows customers holding fully-paid long stock positions to enhance their returns.

- *Trade Desk* - We offer broker-assisted trading through our block trade desk, which is ideal when customers are away from their computer; and through our corporate bond desk, for times when large customer orders need access to more liquidity than is currently available electronically.

New promotional offerings this year included:

- *BET, LEARN, WIN Promotion* – During 2019 we launched our simulated sports betting exchange ("Simulated Exchange") that operates as a simulated peer-to-peer market where participants can buy, sell and trade simulated bets on real sporting events. As part of the launch, we are offering the first 2.2 million participants who open a Simulated Exchange account $1,000 in virtual currency for trading these contracts. Winnings in Simulated Exchange accounts may be converted, by eligible participants, into up to $100 worth of IBKR shares, on a one-time basis, upon opening of a brokerage account with us. This promotion is intended to teach participants about the probabilistic nature of markets, trading and investing and to introduce new customers to our brokerage platform. The promotion is scheduled to end on December 31, 2020 or when all awards are distributed, whichever occurs first.

- *IBKR Welcome Shares Program* – We offer "Welcome Shares" of up to $1,000 in IBKR to friends of our satisfied customers. We invite certain customers to refer their friends to open a new account, and those customers will be eligible to receive $1 worth of IBKR shares (capped at $1,000) for each $100 of net deposits into their account during the first year. Our customers making the referral are not eligible to receive any IBKR shares or other monetary benefit under this program.

Analytical offerings on our platform include:

- *IB Risk Navigator℠* - We offer free to all customers our real-time market risk management platform that unifies exposure across multiple asset classes around the globe. The system is capable of identifying overexposure to risk by starting at the portfolio level and drilling down into successively greater detail within multiple report views. Report data is updated every ten seconds or upon changes to portfolio composition. Predefined reports allow the summarization of a portfolio from different risk perspectives, and allow views of Exposure, Value at Risk (''VaR''), Delta, Gamma, Vega and Theta, profit and loss and position quantity measures for the different portfolio views. The system also offers the customer the ability to modify positions through ''what-if'' scenarios that show hypothetical changes to the risk summary.

- *PortfolioAnalyst* – Our PortfolioAnalyst reporting tool is designed to allow customers to evaluate the performance of their portfolio by creating and saving reports based on a set of measurement criteria and optionally comparing their data to selected industry benchmarks.
- *Portfolio Builder* - Portfolio Builder allows our customers to set up an investment strategy based on research and rankings from top buy-side providers and fundamental data; use filters to define the universe of equities that will comprise their strategy and back-test their strategy using up to three years of historical performance; work in hypothetical mode to adjust the strategy until the historical performance meets their standards; and with the click of a button let the system create the orders to invest in a strategy and track its performance in their portfolio.
- *Mutual Fund/ETF Parser* - The Parser categorizes the individual component stocks within mutual funds and ETFs. Customers can get an accurate, granular picture of their overall exposure to asset classes, industry sectors and companies.
- *Interactive Analytics℠ and IB Option Analytics℠* - We offer our customers state-of-the-art tools, which include a customizable trading platform, advanced analytic tools and over 100 sophisticated order types and algorithms. We also provide a real-time option analytics window which displays values that reflect the rate of change of an option's price with respect to a unit change in each of a number of risk dimensions.
- *Probability Lab® (Patent Pending)* - The Probability Lab® provides customers with an intuitive, visual method to analyze market participants' future stock price forecasts based on current option prices. This tool compares a customer's stock price forecast versus that of the market, and scans the entire option universe for the highest Sharpe ratio multi-leg option strategies that take advantage of the customer's forecast.

We cater to various customer groups with specific service needs.

For advisors, we offer:

- *Greenwich Compliance* – Greenwich Advisor Compliance Services (''Greenwich Compliance'') offers direct expert registration and start-up compliance services, as well as answers to basic day-to-day compliance questions for experienced investors and traders looking to start their own investment advisor firms. Greenwich Compliance professionals have regulatory and industry experience, and can help investment advisors trading on our brokerage platform meet their registration and compliance needs.
- *Model Portfolios* - Model Portfolios offer advisors an efficient and time-saving approach to investing customer assets. They allow advisors to create groupings of financial instruments based on specific investment themes, and then invest customer funds into these models.
- *IBKR Client Risk Profile* - IBKR Client Risk Profile is designed to help advisors determine the most suitable investments for their customers, based on each customer's risk tolerance. This information is collected through a custom-designed questionnaire. Advisors can view the scores through the Advisor Portal and create custom pre-trade allocation groups and profiles in TWS to place orders and allocate trades for customers with similar risk profiles.

For introducing brokers and advisors, we offer:

- *White Branding* - Our large financial advisor and broker-dealer customers may ''white brand'' our trading interface, account management and reports with their firm's identity. Broker-dealer customers can also select from among our modular functionalities, such as order routing, trade reporting or clearing, on specific products or exchanges where they may not have up-to-date technology, in order to offer to their customers a complete global range of services and products.

For customers looking for online advisory services, we offer:

- *Interactive Advisors (formerly known as IBKR Asset Management)* – Interactive Advisors recruits registered financial advisors, vets them, analyzes their investment track records, and groups them by their risk profile. Retail investors who are interested in having their individual accounts robo-traded are grouped by their risk and return preferences. Retail investors can assign their accounts to be traded by one or more advisors. Interactive Advisors also offers our customers Smart Beta Portfolios which combine the benefits of actively managed fund stock selection techniques with passive ETFs low cost automation to provide broad market exposure and potentially higher returns, as well as Socially Responsible Investing.

Market Making

Market making represented 3% of net revenues from electronic brokerage and market making combined during 2019. As previously announced, we transferred our U.S. options market making operations to Two Sigma Securities, LLC effective September 29, 2017 and also exited the majority of our options market making activities outside the U.S. by December 31, 2017. During 2019, we discontinued our market making activities in Canada. We intend to continue conducting certain proprietary trading activities in stocks and related instruments to facilitate our electronic brokerage customers' trading in products such as ETFs, ADRs, CFDs and other financial instruments, as well as exchange-traded market making activities in a few select markets outside of the U.S. However, we do not expect the facilitation activity to be of sufficient size as to require reporting as a separate segment in the near future.

As a market maker, we provide liquidity by offering competitively tight bid/offer spreads over a broad base of tradable, exchange-listed products, including equity derivative products, equity index derivative products, equity securities and futures. As principal, we commit our own capital and derive revenues or incur losses from the difference between the price paid when securities are bought and the price received when those securities are sold. Historically, our profits have been principally a function of transaction volume and price volatility of electronic exchange-traded products rather than the direction of price movements. Other factors, including the ratio of actual to implied volatility and shifts in foreign currency exchange rates, can also have a meaningful impact on our results, as described further in "Business Environment" in Part II, Item 7 of this Annual Report on Form 10-K.

Our strategy is to calculate quotes at which supply and demand for a particular security are likely to be in balance a few seconds ahead of the market and execute small trades at tiny but favorable differentials. Because we provide continuous bid and offer quotations and we are continuously both buying and selling quoted securities, we may have either a long or a short position in a particular product at a given point in time. As a matter of practice, we will generally not take portfolio positions in either the broad market or the financial instruments of specific issuers in anticipation that prices will either rise or fall. Our entire portfolio is evaluated many times per second and continuously rebalanced throughout the trading day, thus minimizing the risk of our portfolio at all times. This real-time rebalancing of our portfolio, together with our real-time proprietary risk management system, enables us to curtail risk and trade efficiently. Our quotes are based on our proprietary model rather than customer order flow.

As of December 31, 2019, we continued to conduct market making operations in India through our subsidiary, Interactive Brokers (India) Private Limited ("IBI"), which is a member of the National Stock Exchange of India Ltd. and the Bombay Stock Exchange; and in Hong Kong through our subsidiary, Interactive Brokers Hong Kong Limited ("IBHK"), a member of the cash and derivatives markets of the Hong Kong Exchange. All other options market making operations we previously conducted were discontinued. We expect to continue assessing whether and when to discontinue the remaining operations.

The above trading activities take place on exchanges, and all securities and commodities that we trade are cleared by exchange owned or authorized clearing houses.

Technology

Our proprietary technology is the key to our success. We believe that integrating our system with electronic exchanges and market centers worldwide results in transparency, liquidity and efficiencies of scale. Together with the IB SmartRouting^{SM} system and our low execution costs, this approach reduces overall transaction costs to our customers and, in turn, increases our transaction volume and profits. Over the past 40 years, we have developed an integrated trading system and communications network and have positioned our company as an efficient conduit for the global flow of risk capital across asset and product classes on electronic exchanges around the world, permitting us to have one of the lowest cost structures in the industry. We believe that developing, maintaining and continuing to enhance our proprietary technology provides us and our customers with the competitive advantage of being able to adapt quickly to the changing environment of our industry and to take advantage of opportunities presented by new exchanges, products or regulatory changes before our competitors.

Our proprietary technology infrastructure enables us to provide our customers with the ability to execute trades at among the lowest execution costs in the industry for comparable services. Customer trades are both automatically captured and reported in real time in our system. Our customers trade on more than 135 electronic exchanges and market centers in 33 countries around the world. These exchanges and market centers are all partially or fully electronic, meaning that a customer can buy or sell a product traded on that exchange via an electronic link from his or her computer terminal or mobile device through our system to the exchange. We offer our products and services through a global communications network that is designed to provide secure, reliable and timely access to the most current market information. We provide our customers with a variety of means to connect to our brokerage systems, including cross connects, dedicated point-to-point data lines, extranets, virtual private networks and the Internet.

Specifically, our customers receive worldwide electronic access through our Trader Workstation (our real-time Java-based trading platform), our proprietary Application Programming Interface (“API”), our IBKR Mobile app, our browser-based IB WebTrader℠, our customer-portal-based Quick Trade or industry standard Financial Information Exchange (“FIX”) connectivity. Customers who want a professional quality trading application with a sophisticated user interface utilize our Trader Workstation, which can be accessed through a desktop or variety of mobile devices. Customers interested in developing program trading applications in Python, Java, C++, .NET (C#), ActiveX and Excel technologies utilize our API. Large institutions with FIX infrastructure prefer to use our FIX solution for seamless integration of their existing order gathering and reporting applications.

While many brokerages, including some online brokerages, rely on manual procedures to execute many day-to-day functions, we employ proprietary technology to automate, or otherwise facilitate, many of the following functions:

- account opening process;
- order routing and best execution;
- seamless trading across all types of securities and currencies around the world from one account;
- order types and analytical tools offered to customers;
- delivery of customer information, such as confirmations, customizable real-time account statements and audit trails;
- compliance;
- customer service; and
- risk management through automated real-time credit management of all new orders and margin monitoring.

Research and Development

One of our core strengths is our expertise in the rapid development and deployment of automated technology for the financial markets. Our core software technology is developed internally, and we do not generally rely on outside vendors for software development or maintenance. To achieve optimal performance from our systems, we are continuously rewriting and upgrading our software. Use of the best available technology not only improves our performance but also helps us attract and retain talented developers. Our software development costs are relatively low because the employees who oversee the development of the software are often the same employees who design the application, evaluate its performance, and participate along with our quality assurance professionals in our robust quality assurance testing procedures. The involvement of our developers in each of these processes enables us to add features and further refine our software rapidly.

Our internally-developed, fully integrated trading and risk management systems are unique and transact across all product classes on more than 135 electronic exchanges and market centers and in 25 currencies around the world. These systems have the flexibility to assimilate new exchanges and new product classes without compromising transaction speed or fault tolerance. Fault tolerance, or the ability to maintain system performance despite exchange malfunctions or hardware failures, is crucial to ensuring best executions for our customers. Our systems are designed to detect exchange malfunctions and quickly take corrective actions by re-routing pending orders when possible.

Our company is technology-focused, and our management team is hands-on and technology-savvy. Most members of the management team write detailed program specifications for new applications. The development queue is prioritized and highly disciplined. Progress on programming initiatives is generally tracked on a bi-weekly basis by a steering committee consisting of senior executives. This enables us to prioritize key initiatives and achieve rapid results. All new business starts as a software development project. We generally do not engage in any business that we cannot automate and incorporate into our platform prior to entering into the business.

The rapid software development and deployment cycle is achieved by our ability to leverage a highly integrated, object-oriented development environment. The software code is modular, with each object providing a specific function and being reusable in multiple applications. New software releases are tracked and tested with proprietary automated testing tools. We are not hindered by disparate and often limiting legacy systems assembled through acquisitions. Virtually all of our software has been developed and maintained with a unified purpose.

For over 40 years, we have built and continuously refined our automated and integrated, real-time systems for world-wide trading, risk management, clearing and cash management, among others. We have also assembled a proprietary connectivity network between us and exchanges around the world. Efficiency and speed in performing prescribed functions are always crucial requirements for our systems. As a result, our systems are able to assimilate market data, disseminate market prices to customers and update risk management information in real time, across tradable products in all available product classes.

Risk Management Activities

The core of our risk management philosophy is the utilization of our fully integrated computer systems to perform critical risk-management activities on a real-time basis. In our electronic brokerage business, integrated risk management seeks to ensure that each customer's positions are continuously credit checked and brought into compliance if equity falls short of margin requirements, curtailing bad debt losses. In our market making business, our real-time integrated risk management system seeks to ensure that our overall positions are continuously hedged at all times, curtailing risk.

We actively manage our global currency exposure on a continuous basis by maintaining our equity in a basket of currencies we call the GLOBAL. We define the GLOBAL as consisting of fractions of a U.S. dollar, Euro, Japanese yen, British pound, Swiss franc, Hong Kong dollar, Indian rupee, Canadian dollar, Chinese renminbi, Australian dollar, Mexican peso, Swedish krona, Norwegian krone, and Danish krone. We currently transact business and are required to manage balances in each of these 14 currencies. The currencies comprising the GLOBAL and their relative proportions can change over time. Additional information regarding our currency diversification strategy is set forth in "Quantitative and Qualitative Disclosures about Market Risk" in Part II, Item 7A of this Annual Report on Form 10-K.

Electronic Brokerage

We calculate margin requirements for each of our customers on a real-time basis across all product classes (stocks, options, futures, forex, bonds, mutual funds and ETFs) and across all currencies. Recognizing that our customers are experienced investors, we expect our customers to manage their positions proactively and we provide tools to facilitate our customers' position management. However, if a customer's equity falls below what is required to support that customer's margin, we will automatically liquidate positions on a real-time basis to bring the customer's account into margin compliance. We do this to protect us, as well as the customer, from excessive losses. These systems further contribute to our low-cost structure. The entire credit management process is completely automated.

As a safeguard, all liquidations are displayed on custom built liquidation monitoring screens that are part of the toolset our technical staff uses to monitor performance of our systems at all times the markets around the world are open. In the event our systems absorb erroneous market data from exchanges, which prompts liquidations, risk specialists on our technical staff have the capability to halt liquidations that meet specific criteria. The liquidation halt function is highly restricted.

Our customer interface includes color coding on the account screen and pop-up warning messages to notify customers that they are approaching their margin limits. This feature allows customers to take action, such as entering margin reducing trades, to avoid having us liquidate their positions. These tools and real-time margining aid our customers in understanding their trading risk at any moment of the day and help us maintain low commissions.

Market Making

We employ certain hedging and risk management techniques to protect us from a severe market dislocation. Our risk management policies are developed and implemented by our Chairman and our steering committee, which is comprised of senior executives of our various operating subsidiaries. Our strategy is to calculate quotes a few seconds ahead of the market and execute small trades at a tiny but favorable differential as a result. This strategy is made possible by our proprietary pricing model, which evaluates and monitors the risks inherent in our portfolio, assimilates market data and reevaluates the outstanding quotes in our portfolio many times per second. Our model automatically rebalances our positions throughout each trading day to manage risk exposures both on our options and futures positions and on underlying securities, and it will price the increased risk that a position would add to the overall portfolio into the bid and offer prices we post. Under risk management policies implemented and monitored primarily through our computer systems, reports to management, including risk profiles, profit and loss analysis and trading performance, are prepared on a real-time basis as well as daily and periodical bases. Although our market making is completely automated, the trading process and our risk are monitored by a team of individuals who, in real-time, observe various risk parameters of our consolidated positions. Our assets and liabilities are marked-to-market daily for financial reporting purposes and re-valued continuously throughout the trading day for risk management and asset/liability management purposes.

Operational Controls

We have automated the full cycle of controls surrounding our businesses. Key automated controls include the following:

- Our technical operations team continuously monitors our network and the proper functioning of each of our nodes (exchanges and market centers, internet service providers (“ISPs”), leased customer lines and our own data centers) around the world.
- Our real-time credit manager software provides pre and post-execution controls by:
  - testing every customer order to ensure that the customer’s account holds enough equity to support the execution of the order, rejecting the order if equity is insufficient or directing the order to an execution destination without delay if equity is sufficient; and
  - continuously updating a customer account’s equity and margin requirements and, if the account’s equity falls below its minimum margin requirements, automatically issuing liquidating orders in a smart sequence designed to minimize the impact on the account’s equity.
- Our clearing system captures trades in real-time and performs automated reconciliation of trades and positions, corporate action processing, customer account transfer, options exercise, securities lending and inventory management, allowing us to effectively manage operational risk.
- Our accounting system operates with automated data feeds from clearing and banking systems, allowing us to produce financial statements for all parts of our business every day by mid-day on the day following trade date.
- Software developed to interface with the accounting and market making systems performs daily profit and loss reconciliations, which provide tight financial controls over market making functions.

- Our market making system continuously evaluates securities and futures products in which we provide bid and offer quotes and changes our bids and offers in such a way as to maintain an overall hedge and a low-risk profile. The speed of communicating with exchanges and market centers is maximized through continuous software and network engineering maintenance, thereby allowing us to achieve real-time controls over market exposure.

Transaction Processing

Our transaction processing is automated over the full life cycle of a trade. Our fully automated IB SmartRouting^{SM} system searches for the best possible combination of prices available at the time a customer order is placed and immediately seeks to execute that order electronically or send it where the order has the highest possibility of execution at the best price. Our market making software generates and disseminates to the exchanges and market centers, in which we still operate, continuous bid and offer quotes on tradable, exchange-listed products.

At the moment a trade is executed, our systems capture and deliver this information back to the source, either to the customer via the brokerage system or the market making system, in most cases within a fraction of a second. Simultaneously, the trade record is written into our clearing system, where it flows through a chain of control accounts that allow us to reconcile trades, positions and money until the final settlement occurs. Our integrated software tracks other important activities, such as dividends, corporate actions, options exercises, securities lending, margining, risk management and funds receipt and disbursement.

IB SmartRouting^{SM}

IB SmartRouting^{SM} searches for the best destination price in view of the displayed prices, sizes and accumulated statistical information about the behavior of market centers at the time an order is placed, and IB SmartRouting^{SM} immediately seeks to execute that order electronically. Unlike other smart routers, IB SmartRouting^{SM} never relinquishes control of the order, and constantly searches for the best price. It continuously evaluates fast-changing market conditions and dynamically re-routes all or parts of the order seeking to achieve optimal execution. IB SmartRouting^{SM} can represent each leg of a spread order independently, if needed, and in that event enters each leg at the best possible venue. IB SmartRouting Autorecovery^{SM} re-routes a customer's U.S. options order in the case of an exchange malfunction, and we absorb the risk of double executions. In addition, IB SmartRouting^{SM} checks each new order to see if it could be executed against any of its pending orders. As the system gains more users, this feature becomes more important for customers in a world of multiple exchanges, market centers and penny priced orders because it increases the possibility of best executions for our customers ahead of customers of other brokers. As a result of this feature, our customers have a greater chance of executing limit orders and can do so sooner than those who use other routers.

Clearing and Margining

Our activities in the U.S. are entirely self-cleared. We are a clearing member of OCC (the Options Clearing Corporation), the Chicago Mercantile Exchange Clearing House, The Depository Trust & Clearing Corporation and ICE Clear U.S.

In addition, we are fully or partially self-cleared in Canada, the United Kingdom, Switzerland, France, Germany, Belgium, Austria, the Netherlands, Norway, Sweden, Denmark, Finland, India, Hong Kong and Australia.

Customers

We currently service approximately 690 thousand cleared customer accounts and have customers residing in over 200 countries and territories around the world. Our target customer is one who requires the latest in trading technology and worldwide access, and who expects low overall transaction costs. Our customers are mainly comprised of individuals, trading desk professionals, electronic retail brokers, hedge funds, mutual funds, financial advisors, proprietary trading firms, and introducing brokers and banks that require global access.

Our customers primarily fall into two groups based on services provided: cleared customers which are the majority of our customers, and non-cleared customers, the latter also known as trade execution customers.

- Cleared Customers: We provide trade execution and clearing services to our cleared customers who are generally attracted to our low commissions, low financing rates, high interest paid and best price execution. Our cleared customers include institutional and individual traders and investors, hedge funds, financial advisors and introducing brokers.

- Trade Execution Customers: We offer trade execution for customers who choose to clear with another prime broker or a custodian bank; these customers take advantage of our low commissions for trade execution as well as our best price execution. Our non-cleared customers include online brokers and the customer trading units of commercial banks. These customers are attracted by our IB SmartRouting^{SM} technology as well as our direct access to stock, options, futures, forex, bond, mutual fund and ETFs markets worldwide.

Employees and Culture

We take pride in our technology-focused company culture and embrace it as one of our fundamental strengths. We continually improve our technology and we minimize corporate hierarchy to facilitate efficient communication among employees. We have assembled what we believe is a highly talented group of employees and we expect to continue to provide significant rewards for our employees who provide substantial value to us and the world's financial markets.

As of December 31, 2019, we had 1,643 employees, of which 1,580 own either common shares of the Company, restricted stock units or both, all of whom were employed on a full-time basis. None of our employees are covered by collective bargaining agreements. We believe that our relations with our employees are good.

Competition

Electronic Brokerage

The market for electronic brokerage services is rapidly evolving and highly competitive. We believe that we fit neither within the definition of a traditional retail broker nor that of a traditional prime broker. Our primary competitors include the prime brokerage and electronic brokerage arms of major commercial and investment banks and brokers, such as Goldman Sachs, Morgan Stanley and JP Morgan, and offerings to target professional traders by large online retail brokers. We also encounter competition to a lesser extent from full commission brokerage firms, including Merrill Lynch and Morgan Stanley, as well as other financial institutions, most of which provide online brokerage services, such as Fidelity and Pershing. The electronic brokerage businesses of many of our competitors are relatively insignificant within the totality of their firms' business.

Market Making

The competitive environment for market makers has evolved considerably in the past several years, most notably with the rise in high frequency traders (''HFTs''), which transact significant trading volume on electronic exchanges by using complex algorithms and high-speed execution software that analyzes market conditions. HFTs that are not registered market makers operate with fewer regulatory restrictions and are able to move more quickly and trade more cheaply. This issue has been an area of focus amongst regulators who examine the practices of HFTs and their impact on market structure.

As previously described, we are in the process of discontinuing our options market making activities globally.

Regulation

Our securities and derivatives businesses are extensively regulated by U.S. federal and state regulators, foreign regulatory agencies, numerous exchanges and self-regulatory organizations of which our subsidiaries are members. In the current era of heightened regulation of financial institutions, we expect to incur increasing compliance costs, along with the industry as a whole. Our approach has been to build many of our regulatory and compliance functions into our integrated order routing, custodial and market making systems.

Overview

As registered U.S. broker-dealers, Interactive Brokers LLC (''IB LLC'') and Timber Hill LLC (''TH LLC'') are subject to the rules and regulations of the Exchange Act, and as members of various exchanges, we are also subject to such exchanges' rules and requirements. Additionally, IB LLC is subject to the Commodity Exchange Act and rules promulgated by the Commodity Futures Trading Commission (''CFTC'') and the various commodity exchanges of which it is a member. We are also subject to the requirements of various self-regulatory organizations such as the Financial Industry Regulatory Authority (''FINRA'') and the National Futures Association (''NFA''). Our foreign subsidiaries are similarly regulated under the laws and institutional frameworks of the countries in which they operate.

U.S. broker-dealers and futures commission merchants are subject to laws, rules and regulations that cover all aspects of the securities and derivatives business, including:

- sales methods;
- trade practices;
- use and safekeeping of customers' funds and securities;
- capital structure;
- risk management;
- record-keeping;
- financing of customers' purchases; and
- conduct of directors, officers and employees.

In addition, the businesses that we may conduct are limited by our agreements with and our oversight by regulators. Participation in new business lines, including trading of new products or participation on new exchanges or in new countries often requires governmental and/or exchange approvals, which may take significant time and resources. As a result, we may be prevented from entering new businesses that may be profitable in a timely manner, or at all.

As certain of our subsidiaries are members of FINRA, we are subject to certain regulations regarding changes in control of our ownership. FINRA Rule 1017 generally provides that FINRA approval must be obtained in connection with any transaction resulting in a change in control of a member firm. FINRA defines control as ownership of 25% or more of the firm's equity by a single entity or person and would include a change in control of a parent company. As a result of these regulations, our future efforts to sell shares or raise additional capital may be delayed or prohibited by FINRA.

Net Capital Rule

The SEC, FINRA, CFTC and various other regulatory agencies within the U.S. have stringent rules and regulations with respect to the maintenance of specific levels of net capital by regulated entities. Generally, a broker-dealer's capital is its net worth plus qualified subordinated debt less deductions for certain types of assets. The Net Capital Rule requires that at least a minimum part of a broker-dealer's assets be maintained in a relatively liquid form.

If these net capital rules are changed or expanded, or if there is an unusually large charge against our net capital, our operations that require the intensive use of capital would be limited. A large operating loss or charge against our net capital could adversely affect our ability to expand or even maintain these current levels of business, which could have a material adverse effect on our business and financial condition.

The U.S. regulators impose rules that require notification when net capital falls below certain predefined criteria. These rules also dictate the ratio of debt-to-equity in the regulatory capital composition of a broker-dealer, and constrain the ability of a broker-dealer to expand its business under certain circumstances. If a firm fails to maintain the required net capital, it may be subject to suspension or revocation of registration by the applicable regulatory agency, and suspension or expulsion by these regulators could ultimately lead to the firm's liquidation. Additionally, the Net Capital Rule and certain FINRA rules impose requirements that may have the effect of prohibiting a broker-dealer from distributing or withdrawing capital and requiring prior notice to U.S. regulators and approval from FINRA for certain capital withdrawals.

As of December 31, 2019, aggregate excess regulatory capital for all of the operating subsidiaries was $6.4 billion.

IB LLC is subject to the Uniform Net Capital Rule (Rule 15c3-1) under the Exchange Act and to the CFTC's minimum financial requirements (Regulation 1.17) under the Commodities Exchange Act. Additionally, Interactive Brokers Canada Inc. (''IBC'') is subject to the Investment Industry Regulatory Organization of Canada (''IIROC'') risk adjusted capital requirement; Interactive Brokers (U.K.) Limited (''IBUK'') is subject to the U.K. Financial Conduct Authority (''FCA'') financial resources requirement; IBKR Europe S.a.r.l. (''IBEU'') is subject to the Luxembourg Commission de Surveillance du Secteur Financier (''CSSF'') financial resources requirement; IBKR Financial Services AG (''IBKRFS''), is subject to the Swiss Financial Market Supervisory Authority (''FINMA'') eligible equity requirement; Interactive Brokers (India) Private Limited (''IBI'') is subject to the National Stock Exchange of India net capital requirements; Interactive Brokers Hong Kong Limited (''IBHK'') is subject to the Hong Kong Securities and Futures Commission (''SFC'') financial resource requirement; Interactive Brokers Securities Japan, Inc. (''IBSJ'') is subject to the Japanese Financial Services Agency (''FSA'') capital requirements; and Interactive Brokers Australia Pty Limited (''IBA'') is subject to the Australian Securities Exchange liquid capital requirement.

The table below summarizes capital, capital requirements and excess regulatory capital as of December 31, 2019.

	Net Capital/ Eligible Equity	Requirement	Excess
		(in millions)	
IB LLC	$5,381	$549	$4,832
IBKRFS	584	91	493
IBHK	360	145	215
Other regulated operating subsidiaries	867	44	823
	$7,192	$829	$6,363

As of December 31, 2019, all of the operating subsidiaries were in compliance with their respective regulatory capital requirements. For additional information regarding our net capital requirements see Note 16 – ''Regulatory Requirements'' to the audited consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K.

Protection of Customer Assets

To conduct customer activities, IB LLC is obligated under rules mandated by its primary regulators, the SEC and the CFTC, to segregate cash or qualified securities belonging to customers. In accordance with the Securities Exchange Act of 1934, IB LLC is required to maintain separate bank accounts for the exclusive benefit of customers. In accordance with the Commodity Exchange Act, IB LLC is required to segregate all monies, securities and property received from commodities customers in specially designated accounts. IBC, IBUK, IBEU, IBI, IBHK, IBSJ and IBA are subject to similar requirements within their respective jurisdictions.

To further enhance the protection of our customers' assets, since 2011 IB LLC has been performing daily (i.e., instead of the required weekly) customer reserve computations along with daily adjustments of the money set aside in safekeeping for our customers.

Supervision and Compliance

Our Compliance Department supports and seeks to ensure proper operations of our electronic brokerage and market making businesses in accordance with applicable regulatory requirements. The philosophy of the Compliance Department, and the Company as a whole, is to build automated systems to try to minimize manual steps in the compliance process and then to augment these systems with experienced staff members who apply their judgment where needed. We have built automated systems to handle wide-ranging compliance issues such as trade and audit trail reporting, financial operations reporting, enforcement of short sale rules, enforcement of margin rules and pattern day trading restrictions, review of employee correspondence, archival of required records, execution quality and order routing reports, approval and documentation of new customer accounts, and anti-money laundering and anti-fraud surveillance. Our automated operations and automated compliance systems provide substantial efficiencies to our Compliance Department. Nonetheless, we have increased our Compliance staffing over the past several years to meet the increased regulatory burdens faced by all industry participants.

Our electronic brokerage subsidiaries have Chief Compliance Officers who report to the Chief Executive Officer or business head for their subsidiary, Global Chief Regulatory Officer (or regional Compliance Head) and the IBG LLC Audit and Compliance Committee. In the U.S., these Chief Compliance Officers, plus certain other senior staff members, are FINRA and NFA registered principals with supervisory responsibility over the compliance aspects of our businesses. Similar roles are undertaken by staff in certain non-U.S. locations as well. Staff members in the Compliance Department and in other departments of the firm are also registered with FINRA, NFA or other regulatory organizations.

Patriot Act and Increased Anti-Money Laundering ("AML") and "Know Your Customer" Obligations

Registered broker-dealers traditionally have been subject to a variety of rules that require that they "know their customers" and monitor their customers' transactions for potential suspicious activities. Under the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (the "USA Patriot Act"), broker-dealers are subject to even more stringent requirements. Likewise, the SEC, CFTC, foreign regulators, and the various exchanges and self-regulatory organizations, of which our operating subsidiaries are members, have passed numerous AML and customer due diligence rules. Significant criminal and civil penalties can be imposed for violations of the USA Patriot Act, and significant fines and regulatory penalties can also be imposed for violations of other governmental and self-regulatory organization AML rules.

As required by the USA Patriot Act and other rules, we have established comprehensive anti-money laundering and customer identification procedures, designated AML Compliance Officers for each electronic brokerage subsidiary, trained our employees and conducted independent audits of our programs. Our anti-money laundering screening is conducted using a mix of automated and manual reviews and has been structured to comply with regulations in various jurisdictions. We collect required information through our new account opening process and screen accounts against databases for the purposes of identity verification and for review of potential negative information and appearance on government lists, including the Office of Foreign Assets and Control, Specially Designated Nationals and Blocked Persons lists. Additionally, we have designed and implemented restrictions to prevent certain types of high-risk activity, including potentially manipulative patterns of trading, and generate and review a sophisticated suite of surveillance reports and queues to identify potential money laundering, market manipulation, fraud and other suspicious activities.

Dodd-Frank Reform Act

The Dodd-Frank Wall Street Reform and Consumer Protection Act imposes strict reporting and disclosure requirements on the financial services industry. We maintain a robust system for evidence of our supervisory review of controls over financial reporting and management monitors accounting and regulatory rulemaking developments for their potential effect on our financial statements and internal controls over financial reporting.

Business Continuity Planning

Federal regulators and industry self-regulatory organizations have passed a series of rules in the past several years requiring regulated firms to maintain business continuity plans that describe what actions firms would take in the event of a disaster (such as a fire, natural disaster or terrorist incident) that might significantly disrupt operations. We have developed business continuity plans that describe steps that we and our employees would take in the event of various scenarios. We have built backup capabilities for key operations performed at our regional offices in North America, Europe and Asia that would be utilized in the event of a significant outage at our main data center or primary office locations. In addition, we have strengthened our technical infrastructure and have built redundancy of systems so that certain operations can be handled from multiple offices or remotely. We continually evaluate opportunities to further our business continuity planning efforts.

Foreign Regulation

Our international subsidiaries are subject to extensive regulation in the various jurisdictions where they have operations. The most significant of our international subsidiaries are: IBC, registered to do business in Canada as an investment dealer; IBUK, registered to do business in the U.K. as a broker; IBEU, registered to do business in Luxembourg as an investment firm; IBKRFS, registered to do business in Switzerland as a securities dealer; IBI, registered to do business in India as a stock broker; IBHK, registered to do business in Hong Kong as a securities dealer; IBSJ, registered in Japan as a financial instruments firm; and IBA, registered to do business in Australia as a securities dealer and futures broker.

In Canada, IBC is subject to the IIROC risk adjusted capital requirement. In the United Kingdom, IBUK is subject to the FCA financial resources requirement. In Luxembourg, IBEU is subject to the CSSF financial resources requirement. In Switzerland, IBKRFS is subject to the FINMA eligible equity requirement. In India, IBI is subject to the National Stock Exchange and Bombay Stock Exchange capital requirements. In Hong Kong, IBHK is subject to the SFC rules with respect to net capital requirements and stockholder's equity requirements. In Japan, IBSJ is subject to the FSA, the Osaka Securities Exchange, and the Tokyo Stock Exchange capital requirements. In Australia, IBA is subject to the Australian Securities Exchange liquid capital requirement.

Executive Officers and Directors of Interactive Brokers Group, Inc.

The table below presents the names, ages and positions of our current directors and executive officers as of December 31, 2019.

Name	Age	Position
Thomas Peterffy	75	Chairman of the Board of Directors
Milan Galik	53	Chief Executive Officer, President and Director
Earl H. Nemser	73	Vice Chairman and Director
Paul J. Brody	59	Chief Financial Officer, Treasurer, Secretary and Director
Thomas A. Frank	64	Executive Vice President and Chief Information Officer
Lawrence E. Harris	63	Director
Gary Katz	59	Director
John M. Damgard	80	Director
Philip Uhde	34	Director

Thomas Peterffy - Mr. Peterffy has been at the forefront of applying computer technology to automate trading and brokerage functions since he emigrated from Hungary to the United States in 1965. In 1977, after purchasing a seat on the American Stock Exchange and trading as an individual marker maker in equity options, Mr. Peterffy was among the first to apply a computerized mathematical model to continuously value equity option prices. By 1986, Mr. Peterffy developed and employed a fully integrated, automated market making system for stocks, options and futures. As this pioneering system extended around the globe, online brokerage functions were added and, in 1993, Interactive Brokers was formed.

Milan Galik - Mr. Galik joined us in 1990 as a software developer and has served as the Chief Executive Officer of the Company since October 2019. He has also served as President of the Company and IBG LLC since October 2014. Mr. Galik served as Senior Vice President, Software Development of IBG LLC from October 2003 to October 2014. In addition, Mr. Galik has served as Vice President of Timber Hill LLC since April 1998 and serves as a member of the board of directors of the Boston Options Exchange. Mr. Galik received a Master of Science degree in electrical engineering from the Technical University of Budapest in 1990.

Earl H. Nemser - Mr. Nemser has been our Vice Chairman since November 2006. Mr. Nemser has been the Vice Chairman of the Company since 1988 and also serves as a director and/or officer for various subsidiaries of IBG LLC. Mr. Nemser serves as an Independent Advisor to the law firm Dechert LLP. Mr. Nemser served as Special Counsel to Dechert LLP from January 2005 to October 2018. Prior to such time Mr. Nemser served as Partner at the law firms of Swidler Berlin Shereff Friedman, LLP from 1995 to December 2004 and Cadwalader, Wickersham & Taft LLP prior to 1995. Mr. Nemser received a Bachelor of Arts degree in economics from New York University in 1967 and a Juris Doctor, magna cum laude, from Boston University School of Law in 1970.

Paul J. Brody - Mr. Brody has been our Chief Financial Officer, Treasurer and Secretary since November 2006. Mr. Brody joined the Company in 1987 and has served as Chief Financial Officer of IBG LLC since December 2003. Mr. Brody serves as a director and/or officer for various subsidiaries of IBG LLC. From 2005 to 2012, Mr. Brody served as a director, and for a portion of the time as member Vice Chairman, of The Options Clearing Corporation, of which Interactive Brokers LLC and Timber Hill LLC are members. He also served as a director of Quadriserv Inc., an electronic securities lending platform provider, from 2009 to 2015. Mr. Brody received a Bachelor of Arts degree in economics from Cornell University in 1982.

Thomas A. Frank - Dr. Frank joined us in 1985 and has served since July 1999 as Executive Vice President and Chief Information Officer of Interactive Brokers LLC. In addition, Dr. Frank has served as Vice President of Timber Hill LLC since December 1990. Mr. Frank has served as a director of The Options Clearing Corporation, since 2015. Dr. Frank received a Ph.D. in physics from the Massachusetts Institute of Technology in 1985.

Lawrence E. Harris - Dr. Harris has been a director since July 2007. He is a professor of Finance and Business Economics at the University of Southern California, where he holds the Fred V. Keenan Chair in Finance at the Marshall School of Business. Dr. Harris also serves as trustee of the Clipper Fund, director of the Selected Funds, and as the research coordinator of the Institute for Quantitative Research in Finance. Dr. Harris formerly served as Chief Economist of the U.S. Securities and Exchange Commission. Dr. Harris earned his Ph.D. in Economics from the University of Chicago, and is a CFA charterholder. He is an expert in the economics of securities market microstructure and the uses of transactions data in financial research. He has written extensively about trading rules, transaction costs, index markets, and market regulation. Dr. Harris is also the author of the widely respected textbook *Trading and Exchanges: Market Microstructure for Practitioners*.

Gary Katz – Mr. Katz has been a director since January 2017. He was the President and Chief Executive Officer of the International Securities Exchange (''ISE'') and a co-founder of ISE. Mr. Katz was one of the principal developers of the unique options market structure – an auction market on an electronic platform – used by all three options exchanges; ISE, ISE Gemini and ISE Mercury and was named as inventor or co-inventor on six patents that the ISE received or applied for relating to its proprietary trading system and technology. He served on the Executive Board of Eurex and on the Board of Directors of The Options Clearing Corporation and chaired the Board's newly formed technology committee. Mr. Katz also served on the Board of Directors of Direct Edge. Mr. Katz graduated from New York University with a master's degree in Statistics with Distinction and a bachelor's degree from Queens College. Mr. Katz is currently chairman of the board of Farmer's Pantry LLC, a start-up in the consumer goods industry and also serves on the board of STRS, LLC, a start-up in the financial industry meeting the unique needs of credit card issuers and merchants.

John M. Damgard - Mr. Damgard has been a director since December 2018. He served as President of the Futures Industry Association (''FIA'') from 1982 to 2013 and was a founder, past president and a member of the board of the Institute for Financial Markets. Prior to joining FIA in 1982, Mr. Damgard directed the Washington office of ACLI International, a leading commodity merchant firm active in cash and futures markets worldwide. Mr. Damgard served as Deputy Assistant and Acting Assistant Secretary of Agriculture and was responsible for the major marketing and regulatory functions at the U.S. Department of Agriculture (''USDA''). While at the USDA, Mr. Damgard led the Administration's efforts during the creation of the Commodity Futures Trading Commission, a new independent regulatory agency. Mr. Damgard studied at the University of Virginia for two years and received a B.A. from Knox College in 1964 with a major in Political Science and a minor in Economics.

Philip Uhde - Mr. Uhde, is the founder and Managing Partner of Echinus Partners, an approximately $1.2 billion investment partnership making concentrated, long-term investments in the public markets. Mr. Uhde has led many investments in financial services companies, including Moody's, S&P Global, Fimalac (Fitch), MSCI, Visa, MercadoLibre, Charles Schwab, Guidewire and IBG, Inc. Prior to founding Echinus Partners in 2012, Mr. Uhde was a member of the investment team at SPO Partners, an investment partnership founded in 1969. Before that he was an analyst at Sloane Robinson, an emerging markets hedge fund, where he focused on Asian equities. He received a BA in Economics and East Asian Studies from Yale University in 2008. Echinus Partners manages a fund that has been an IBKR shareholder for many years. During the course of this ownership, Mr. Uhde has made in-depth studies into various aspects of the Company's business with numerous recommendations to management.

ITEM 1A. RISK FACTORS

We face a variety of risks that are substantial and inherent in our businesses, including market, liquidity, credit, operational, legal and regulatory. In addition to the risks identified elsewhere in this Annual Report on Form 10-K, the following risk factors apply to our business results of operations and financial condition:

Risks Related to Our Company Structure

Control by Mr. Thomas Peterffy of a majority of the combined voting power of our common stock may give rise to conflicts of interests and could discourage a change of control that other stockholders may favor, which could negatively affect our stock price, and adversely affect stockholders in other ways.

Mr. Thomas Peterffy, our founder and Chairman, and his affiliates beneficially own approximately 89.6% of the economic interests and all of the voting interests in Holdings, which owns all of our Class B common stock, representing approximately 81.5% of the combined voting power of all classes of our voting stock. As a result, Mr. Thomas Peterffy has the ability to elect all of the members of our board of directors and thereby to control our management and affairs, including determinations with respect to acquisitions, dispositions, material expansions or contractions of our business, entry into new lines of business, borrowings, issuances of common stock or other securities, and the declaration and payment of dividends on our common stock. In addition, Mr. Thomas Peterffy is able to determine the outcome of all matters requiring stockholder approval and will be able to cause or prevent a change of control of our company or a change in the composition of our board of directors and could preclude any unsolicited acquisition of our company. The concentration of ownership could discourage potential takeover attempts that other stockholders may favor and could deprive stockholders of an opportunity to receive a premium for their common stock as part of a sale of our company and this may adversely affect the market price of our common stock.

Moreover, because of Mr. Thomas Peterffy's substantial ownership, we are eligible to be and are, treated as a "controlled company" for purposes of the Nasdaq Rules. As a result, we are not required by Nasdaq to have a majority of independent directors or to maintain Compensation and Nominating and Corporate Governance Committees composed entirely of independent directors to continue to list the shares of our common stock on Nasdaq. Our Compensation Committee is comprised of Messrs. Thomas Peterffy (Chairman of the Compensation Committee) and Earl H. Nemser (our Vice Chairman). Mr. Thomas Peterffy's membership on the Compensation Committee may give rise to conflicts of interests in that Mr. Thomas Peterffy is able to influence all matters relating to executive compensation, including his own compensation.

We are dependent on IBG LLC to distribute cash to us in amounts sufficient to pay our tax liabilities and other expenses.

We are a holding company and our primary assets are our approximately 18.5% equity interest in IBG LLC and our controlling interest and related rights as the sole managing member of IBG LLC and, as such, we operate and control all of the business and affairs of IBG LLC and are able to consolidate IBG LLC's financial results into our financial statements. We have no independent means of generating revenues. IBG LLC is treated as a partnership for U.S. federal income tax purposes and, as such, is not subject to U.S. federal income tax. Instead, its taxable income is allocated on a pro rata basis to Holdings and us. Accordingly, we incur income taxes on our proportionate share of the net taxable income of IBG LLC, and also incur expenses related to our operations. We intend to cause IBG LLC to distribute cash to its members in amounts at least equal to that necessary to cover their tax liabilities, if any, with respect to the earnings of IBG LLC. To the extent we need funds to pay such taxes, or for any other purpose, and IBG LLC is unable to provide such funds, it could have a material adverse effect on our business, financial condition and results of operations.

We are required to pay Holdings for the benefit relating to additional tax depreciation or amortization deductions we claim as a result of the tax basis step-up our subsidiaries received in connection with our initial public offering and certain subsequent redemptions of Holdings membership interests.

In connection with our initial public offering ("IPO"), we purchased interests in IBG LLC from Holdings for cash. In connection with redemptions of Holdings membership interests, we acquired additional interests in IBG LLC by issuing shares of Class A common stock in exchange for an equivalent number of shares of member interests in IBG LLC (the "Redemptions"). In addition, IBG LLC membership interests held by Holdings may be sold in the future to us and financed by our issuances of shares of our common stock. The initial purchase and the Redemptions did, and the subsequent purchases may, result in increases in the tax basis of the tangible and intangible assets of IBG LLC and its subsidiaries that otherwise would not have been available. Such increase will be approximately equal to the amount by which our stock price at the time of the purchase exceeds the income tax basis of the assets of IBG LLC underlying the IBG LLC interests acquired by us. These increases in tax basis will result in increased deductions in computing our taxable income and resulting tax savings for us generally over the 15 year period which commenced with the initial purchase. We have agreed to pay 85% of these tax savings, if any, to Holdings as they are realized as additional consideration for the IBG LLC interests that we acquire.

As a result of the IPO and the Redemptions by Holdings, the increase in the tax basis attributable to our interest in IBG LLC is $1.3 billion. The tax savings that we would actually realize as a result of this increase in tax basis likely would be significantly less than this amount multiplied by our effective tax rate due to a number of factors, including the allocation of a portion of the increase in tax basis to foreign or non-depreciable fixed assets, the impact of the increase in the tax basis on our ability to use foreign tax credits and the rules relating to the amortization of intangible assets, for example. Based on facts and assumptions as of December 31, 2019, including that subsequent purchases of IBG LLC interests will occur in fully taxable transactions, the potential tax basis increase resulting from the historical and future purchases of the IBG LLC interests held by Holdings could be as much as $9.0 billion. The Tax Receivable Agreement requires 85% of such tax savings, if any, to be paid to Holdings, with the balance to be retained by us. The actual increase in tax basis depends, among other factors, upon the price of shares of our common stock at the time of the purchase and the extent to which such purchases are taxable and, as a result, could differ materially from this amount. Our ability to achieve benefits from any such increase, and the amount of the payments to be made under the Tax Receivable Agreement, depends upon a number of factors, as discussed above, including the timing and amount of our future income.

The tax basis of $9.0 billion assumes that (a) all remaining IBG LLC membership interests held by Holdings are purchased by us in a taxable transaction and (b) such purchases in the future are made at prices that reflect the closing share price as of December 31, 2019. In order to have a $9.0 billion tax basis, the offering price per share of Class A common stock in such future public offering will need to exceed the then current cost basis per share of Class A common stock by approximately $29.93.

If either immediately before or immediately after any purchase or the related issuance of our stock, the Holdings members own or are deemed to own, in the aggregate, more than 20% of our outstanding common stock, then all or part of any increase in the tax basis of goodwill may not be amortizable and, thus, our ability to realize the annual tax savings that otherwise would have resulted if such tax basis were amortizable may be significantly reduced. Although the Holdings members are prohibited under the Exchange Agreement from purchasing shares of Class A common stock in a public offering, grants of our common stock to employees and directors who are also members or related to members of Holdings and the application of certain tax attribution rules, such as among family members and partners in a partnership, could result in Holdings members being deemed for tax purposes to own shares of Class A common stock.

If the Internal Revenue Services (“IRS”) successfully challenges the tax basis increase, under certain circumstances, we could be required to make payments to Holdings under the Tax Receivable Agreement in excess of our cash tax savings.

Future sales of our common stock in the public market could lower our stock price, and any additional capital raised by us through the sale of equity or convertible securities may dilute your ownership in us.

The members of Holdings have the right to cause the redemption of their Holdings membership interests over time in connection with offerings of shares of our common stock. We intend to sell additional shares of common stock in public offerings in the future, which may include offerings of our common stock to finance future purchases of IBG LLC membership interests which, in turn, will finance corresponding redemptions of Holdings membership interests. These offerings and related transactions are anticipated to occur at least annually into the future. The size and occurrence of these offerings may be affected by market conditions. We may also issue additional shares of common stock or convertible debt securities to finance future acquisitions or business combinations. We currently have approximately 77 million outstanding shares of common stock. Assuming no anti-dilution adjustments based on combinations or divisions of our common stock, the offerings referred to above could result in the issuance by us of up to an additional approximately 339 million shares of common stock. It is possible, however, that such shares could be issued in one or a few large transactions.

We cannot predict the size of future issuances of our common stock or the effect, if any, that future issuances and sales of shares of our common stock may have on the market price of our common stock. Sales of substantial amounts of our common stock (including shares issued in connection with an acquisition), or the perception that such sales could occur, may cause the market price of our common stock to decline.

Certain provisions in our amended and restated certificate of incorporation may prevent efforts by our stockholders to change our direction or management.

Provisions contained in our amended and restated certificate of incorporation could make it more difficult for a third-party to acquire us, even if doing so might be beneficial to our stockholders. For example, our amended and restated certificate of incorporation authorizes our board of directors to determine the rights, preferences, privileges and restrictions of unissued series of preferred stock, without any vote or action by our stockholders. We could issue a series of preferred stock that could impede the completion of a merger, tender offer or other takeover attempt. These provisions may discourage potential acquisition proposals and may delay, deter or prevent a change of control of us, including through transactions, and, in particular, unsolicited transactions, that some or all of our stockholders might consider to be desirable. As a result, efforts by our stockholders to change our direction or management may be unsuccessful.

Risks Related to Our Business

Our business may be harmed by global events beyond our control, including overall slowdowns in securities trading.

Like other brokerage and financial services firms, our business and profitability are directly affected by elements that are beyond our control, such as economic and political conditions, broad trends in business and finance, changes in volume of securities and futures transactions, changes in the markets in which such transactions occur and changes in how such transactions are processed. A weakness in equity markets, such as a slowdown causing reduction in trading volume in U.S. or foreign securities and derivatives, has historically resulted in reduced transaction revenues and would have a material adverse effect on our business, financial condition and results of operations.

Our business could be harmed by a systemic market event.

Some market participants could be overleveraged. In case of sudden, large price movements, such market participants may not be able to meet their obligations to brokers who, in turn, may not be able to meet their obligations to their counterparties. As a result, the financial system or a portion thereof could collapse, and the impact of such an event could be catastrophic to our business.

Our future success will depend on our response to the demand for new services, products and technologies.

The demand for our services that rely on electronic communications gateways, is characterized by:

- rapid technological change;
- changing customer demands;
- the need to enhance existing services and products or introduce new services and products; and
- evolving industry standards.

New services, products and technologies may render our existing services, products and technologies less competitive. Our future success will depend, in part, on our ability to respond to the demand for new services, products and technologies on a timely and cost-effective basis and to adapt to technological advancements and changing standards to address the increasingly sophisticated requirements and varied needs of our customers and prospective customers. We cannot assure you that we will be successful in developing, introducing or marketing new services, products and technologies. In addition, we may experience difficulties that could delay or prevent the successful development, introduction or marketing of these services and products, and our new service and product enhancements may not achieve market acceptance. Any failure on our part to anticipate or respond adequately to technological advancements, customer requirements or changing industry standards, or any significant delays in the development, introduction or availability of new services, products or enhancements could have a material adverse effect on our business, financial condition and results of operations.

Our reliance on our computer software could cause us great financial harm in the event of any disruption or corruption of our computer software. We may experience technology failures while developing our software.

We rely on our computer software to receive and properly process internal and external data. Any disruption in the proper functioning of our software due to, for example, erroneous or corrupted data, or cyber-attacks, may cause us to make erroneous trades or suspend our services and could cause us great financial harm. To maintain our competitive advantage, our software is under continuous development. As we identify and enhance our software, there is risk that software failures may occur and result in service interruptions and have other unintended consequences.

We depend on our proprietary technology, and our future results may be impacted if we cannot maintain technological superiority in our industry.

Our success in the past has largely been attributable to our sophisticated proprietary technology that has taken many years to develop. We have benefited from the fact that the type of proprietary technology equivalent to that which we employ has not been widely available to our competitors. If our technology becomes more widely available to our current or future competitors for any reason, our operating results may be adversely affected. Additionally, adoption or development of similar or more advanced technologies by our competitors may require that we devote substantial resources to the development of more advanced technology to remain competitive. The markets in which we compete are characterized by rapidly changing technology, evolving industry standards and changing trading systems, practices and techniques. Although we have been at the forefront of many of these developments in the past, we may not be able to keep up with these rapid changes in the future, develop new technology, realize a return on amounts invested in developing new technologies or remain competitive in the future.

The loss of our key employees would materially adversely affect our business.

Our key executives have substantial experience and have made significant contributions to our business, and our continued success is dependent upon the retention of our key management executives, as well as the services provided by our staff of trading system, technology and programming specialists and a number of other key managerial, marketing, planning, financial, technical and operations personnel. The loss of such key personnel could have a material adverse effect on our business. Growth in our business is dependent, to a large degree, on our ability to retain and attract such employees.

We may not pay dividends on our common stock at any time in the foreseeable future.

As a holding company for our interest in IBG LLC, we will be dependent upon the ability of IBG LLC to generate earnings and cash flows and distribute them to us so that we may pay any dividends to our stockholders. To the extent (if any) that we have excess cash, any decision to declare and pay dividends in the future will be made at the discretion of our board of directors and will depend on, among other things, our results of operations, financial conditions, cash requirement, contractual restrictions and other factors that our board of directors may deem relevant. Since the second quarter of 2011, we have declared and paid a quarterly cash dividend of $0.10 per share. Although not required, we currently intend to pay quarterly dividends of $0.10 per share to our common stockholders for the foreseeable future.

Our future efforts to sell shares or raise additional capital may be delayed or prohibited by regulations.

As certain of our subsidiaries are members of FINRA, we are subject to certain regulations regarding changes in control of our ownership. FINRA Rule 1017 generally provides that FINRA approval must be obtained in connection with any transaction resulting in a change in control of a member firm. FINRA defines control as ownership of 25% or more of the firm's equity by a single entity or person and would include a change in control of a parent company. IBC, IBUK, IBEU, IBKRFS and IBHK are subject to similar change in control regulations promulgated by the IIROC in Canada, the FCA in the United Kingdom, the CSSF in Luxembourg, FINMA in Switzerland and the SFC in Hong Kong, respectively. As a result of these regulations, our future efforts to sell shares or raise additional capital may be delayed or prohibited. We may be subject to similar restrictions in other jurisdictions in which we operate.

Regulatory and legal uncertainties could harm our business.

The securities and derivatives businesses are heavily regulated. Firms in financial service industries have been subject to an increasingly regulated environment over recent years, and penalties and fines sought by regulatory authorities have increased accordingly. This regulatory and enforcement environment has created uncertainty with respect to various types of transactions that historically had been entered into by financial services firms and that were generally believed to be permissible and appropriate. Our broker-dealer subsidiaries are subject to regulations in the U.S. and abroad covering all aspects of their business. Regulatory bodies include, in the U.S., the SEC, FINRA, the Board of Governors of the Federal Reserve System, the Chicago Board Options Exchange, the Chicago Mercantile Exchange, the CFTC, and the NFA; in Canada, the IIROC and various Canadian securities commissions; in the United Kingdom, the FCA; in Luxembourg, the CSSF; in Switzerland, FINMA; in India, the Securities and Exchange Board of India; in Hong Kong, the SFC; in Japan, the FSA and the Japan Securities Dealers Association; and in Australia, the Australian Securities and Investment Commission. Our mode of operation and profitability may be directly affected by additional legislation changes in rules promulgated by various domestic and foreign government agencies and self-regulatory organizations that oversee our businesses, and changes in the interpretation or enforcement of existing laws and rules, including the potential imposition of transaction taxes. Noncompliance with applicable laws or regulations could result in sanctions being levied against us, including fines and censures, suspension or expulsion from a certain jurisdiction or market or the revocation or limitation of licenses. Noncompliance with applicable laws or regulations could adversely affect our reputation, prospects, revenues and earnings. In addition, changes in current laws or regulations or in governmental policies could adversely affect our business, financial condition and results of operations.

We are subject to regulatory oversight and examination by numerous governmental and self-regulatory authorities. We are currently providing information to certain of such authorities, including FINRA, the SEC, the CFTC and the United States Department of Justice, and cooperating with those authorities. The regulators are focused on compliance practices, including anti money laundering and Bank Secrecy Act practices. We periodically review these practices to make them more robust and to keep pace with changing regulatory standards, and we have been enhancing and augmenting our procedures and personnel in these areas over the past several years. While the outcome of the examinations and inquiries currently in progress cannot be predicted, we do not believe that they are likely to have a materially adverse effect on our financial results.

Domestic and foreign stock exchanges, other self-regulatory organizations and state and foreign securities commissions can censure, fine, issue cease-and-desist orders, suspend or expel a broker-dealer or any of its officers or employees. Our ability to comply with all applicable laws and rules is largely dependent on our internal system to ensure compliance, as well as our ability to attract and retain qualified compliance personnel. We could be subject to disciplinary or other actions in the future due to claimed noncompliance, which could have a material adverse effect on our business, financial condition and results of operations. To continue to operate and to expand our services internationally, we may have to comply with the regulatory controls of each country in which we conduct, or intend to conduct business, the requirements of which may not be clearly defined. The varying compliance requirements of these different regulatory jurisdictions, which are often unclear, may limit our ability to continue existing international operations and further expand internationally.

Our direct market access clearing and non-clearing brokerage operations face intense competition.

With respect to our direct market access brokerage business, the market for electronic and interactive bidding, offering and trading services in connection with equities, options and futures is rapidly evolving and intensely competitive. We expect competition to continue and intensify in the future. Our current and potential future competition principally comes from five categories of competitors:

- prime brokers who, in an effort to satisfy the demands of their customers for hands-on electronic trading facilities, universal access to markets, smart routing, better trading tools, lower commissions and financing rates, have embarked upon building such facilities and product enhancements;
- direct market access and online options and futures firms;
- direct market access and online equity brokers;
- software development firms and vendors who create global trading networks and analytical tools and make them available to brokers; and
- traditional brokers.

In addition, we compete with financial institutions, mutual fund sponsors and other organizations, many of which provide online, direct market access or other investing services. A number of brokers provide our technology and execution services to their customers, and these brokers will become our competitors if they develop their own technology. Some of our competitors in this area have greater name recognition, longer operating histories and significantly greater financial, technical, marketing and other resources than we have and offer a wider range of services and financial products than we do. Some of our competitors may also have an ability to charge lower or zero commissions. We cannot assure you that we will be able to compete effectively or efficiently with current or future competitors. These increasing levels of competition in the online trading industry could significantly harm this aspect of our business.

We are subject to potential losses as a result of our clearing and execution activities.

As a clearing member firm providing financing services to certain of our brokerage customers, we are ultimately responsible for their financial performance in connection with various securities and derivatives transactions. Our clearing operations require a commitment of our capital and, despite safeguards implemented by our software, involve risks of losses due to the potential failure of our customers to perform their obligations under these transactions. If our customers default on their obligations, we remain financially liable for such obligations, and although these obligations are collateralized, we are subject to market risk in the liquidation of customer collateral to satisfy those obligations. There can be no assurance that our risk management procedures will be adequate. Any liability arising from clearing operations could have a material adverse effect on our business, financial condition and results of operations.

As a clearing member firm of securities and derivatives clearing houses in the U.S. and abroad, we are also exposed to clearing member credit risk. Securities and derivatives clearing houses require member firms to deposit cash, stock and/or government securities for margin requirements and to clearing funds. If a clearing member defaults in its obligations to the clearing house in an amount larger than its own margin and clearing fund deposits, the shortfall is absorbed pro rata from the deposits of the other clearing members. Many clearing houses of which we are members also have the authority to assess their members for additional funds if the clearing fund is depleted. A large clearing member default could result in a substantial cost to us if we are required to pay such assessments.

We are exposed to risks associated with our international operations.

During 2019, approximately 21% of our net revenues were generated by our operating subsidiaries outside the U.S. We are exposed to risks and uncertainties inherent in doing business in international markets, particularly in the heavily regulated brokerage industry. Such risks and uncertainties include political, economic and financial instability; unexpected changes in regulatory requirements, tariffs and other trade barriers; exchange rate fluctuations; applicable currency controls; and difficulties in staffing, including reliance on newly hired local experts, and managing foreign operations. These risks could cause a material adverse effect on our business, financial condition and results of operations.

We do not have fully redundant systems. System failures could harm our business.

If our systems fail to perform, we could experience unanticipated disruptions in operations, slower response times or decreased customer service and customer satisfaction. Our ability to facilitate transactions successfully and provide high quality customer service also depends on the efficient and uninterrupted operation of our computer and communications hardware and software systems. Our service has experienced periodic system interruptions, which we believe will continue to occur from time to time. Our systems and operations also are potentially vulnerable to damage or interruption from human error, cyber-attacks, natural disasters, power loss, telecommunication failures, break-ins, sabotage, computer viruses, intentional acts of vandalism and similar events. While we currently maintain redundant servers to provide limited service during system disruptions, we do not have fully redundant systems, and our formal disaster recovery plan does not include restoration of all services. For example, we have backup facilities at our disaster recovery site that enable us, in the case of complete failure of our main North America data center, to recover and complete all pending transactions, provide customers with access to their accounts to deposit or withdraw money, transfer positions to other brokers and manage their risk by continuing trading through the use of marketable orders. These backup services are currently limited to U.S. markets. We do not currently have separate backup facilities dedicated to our non-U.S. operations. It is our intention to provide for and progressively deploy backup facilities for our global facilities over time. In addition, we do not carry business interruption insurance to compensate for losses that could occur to the extent not required. Any system failure that causes an interruption in our service or decreases the responsiveness of our service could impair our reputation, damage our brand name and materially adversely affect our business, financial condition and results of operations.

Failure of third-party systems on which we rely could adversely affect our business.

We rely on certain third-party computer systems or third-party service providers, including clearing systems, banking systems, exchange systems, Internet service, co-location facilities, communications facilities and other facilities. Any interruption in these third-party services, or deterioration in their performance, could be disruptive to our business. If our arrangement with any third-party is terminated, we may not be able to find an alternative source of systems support on a timely basis or on commercially reasonable terms. This could have a material adverse effect on our business, financial condition and results of operations.

Internet-related issues may reduce or slow the growth in the use of our services in the future.

Critical issues concerning the commercial use of the Internet, such as ease of access, security, privacy, reliability, cost, and quality of service, remain unresolved and may adversely impact the growth of Internet use. If Internet usage continues to increase rapidly, the Internet infrastructure may not be able to support the demands placed on it by this growth, and its performance and reliability may decline. Although our larger institutional customers use leased data lines to communicate with us, our ability to increase the speed with which we provide services to consumers and to increase the scope and quality of such services is limited by and dependent upon the speed and reliability of our customers' access to the Internet, which is beyond our control. If periods of decreased performance, outages or delays on the Internet occur frequently or other critical issues concerning the Internet are not resolved, overall Internet usage or usage of our web based products could increase more slowly or decline, which could have a material adverse effect on our business, financial condition and results of operations.

Our computer infrastructure may be vulnerable to security breaches. Any such problems could jeopardize confidential information transmitted over the Internet, cause interruptions in our operations or cause us to have liability to third persons.

Our computer infrastructure is potentially vulnerable to physical or electronic computer break-ins, cyber-attacks, viruses and similar disruptive problems and security breaches. Any such problems or security breaches could cause us to have liability to one or more third parties, including our customers, and disrupt our operations. A party able to circumvent our security measures could misappropriate proprietary information or customer information, jeopardize the confidential nature of information transmitted over the Internet or cause interruptions in our operations. Concerns over the security of Internet transactions and the privacy of users could also inhibit the growth of the Internet or the electronic brokerage industry in general, particularly as a means of conducting commercial transactions. To the extent that our activities involve the storage and transmission of proprietary information such as personal financial information, security breaches could expose us to a risk of financial loss, litigation and other liabilities. Our estimated annual losses from reimbursements to customers whose accounts have been negatively affected by unauthorized access have historically been less than $500,000 annually and were significantly reduced since the widespread introduction of our Secure Login System. Our current insurance program may protect us against some, but not all, of such losses. Any of these events, particularly if they (individually or in the aggregate) result in a loss of confidence in our company or electronic brokerage firms in general, could have a material adverse effect on our business, financial condition and results of operations.

We may not be able to protect our intellectual property rights or may be prevented from using intellectual property necessary for our business.

We rely primarily on trade secret, contract, copyright, patent and trademark laws to protect our proprietary technology. It is possible that third parties may copy or otherwise obtain and use our proprietary technology without authorization or otherwise infringe on our rights. We may also face claims of infringement that could interfere with our ability to use technology that is material to our business operations.

In the future, we may have to rely on litigation to enforce our intellectual property rights, protect our trade secrets, determine the validity and scope of the proprietary rights of others or defend against claims of infringement or invalidity. Any such litigation, whether successful or unsuccessful, could result in substantial costs and the diversion of resources and the attention of management, any of which could negatively affect our business.

We are subject to risks relating to litigation and potential securities laws liability.

We are exposed to substantial risks of liability under federal and state securities laws, other federal and state laws and court decisions, as well as rules and regulations promulgated by the SEC, the CFTC, the Federal Reserve, state securities regulators, self-regulatory organizations and foreign regulatory agencies. We are also subject to the risk of litigation and claims that may be without merit. We could incur significant legal expenses in defending ourselves against and resolving lawsuits or claims. An adverse resolution of any future lawsuits or claims against us could result in a negative perception of the Company and have a material adverse effect on our business, financial condition and results of operations. See "Legal Proceedings and Regulatory Matters" in Part I, Item 3 of this Annual Report on Form 10-K.

We are subject to counterparty risk whereby defaults by parties with whom we do business can have an adverse effect on our business, financial condition and results of operations.

In our electronic brokerage business, our customer margin credit exposure is to a great extent mitigated by our policy of automatically evaluating each account throughout the trading day and closing out positions automatically for accounts that are found to be under-margined. While this methodology is effective in most situations, it may not be effective in situations in which no liquid market exists for the relevant securities or commodities or in which, for any reason, automatic liquidation for certain accounts has been disabled. If no liquid market exists or automatic liquidation has been disabled, we are subject to risks inherent in extending credit, especially during periods of rapidly declining markets. Any loss or expense incurred due to defaults by our customers in failing to repay margin loans or to maintain adequate collateral for these loans would cause harm to our business, financial condition and results of operations.

Any future acquisitions may result in significant transaction expenses, integration and consolidation risks and risks associated with entering new markets, and we may be unable to profitably operate our consolidated company.

Although our growth strategy has not focused historically on acquisitions, we may in the future engage in evaluations of potential acquisitions and new businesses. We may not have the financial resources necessary to consummate any acquisitions in the future or the ability to obtain the necessary funds on satisfactory terms. Any future acquisitions may result in significant transaction expenses and risks associated with entering new markets in addition to integration and consolidation risks. Because acquisitions historically have not been a core part of our growth strategy, we have little experience in successfully utilizing acquisitions. We may not have sufficient management, financial and other resources to integrate any such future acquisitions or to successfully operate new businesses and we may be unable to profitably operate our expanded company.

Because our revenues and profitability depend on trading volume, they are prone to significant fluctuations and are difficult to predict.

Our revenues are dependent on the level of trading activity on securities and derivatives exchanges in the U.S. and abroad. In the past, our revenues and operating results have varied significantly from period to period primarily due to movements and trends in the underlying markets and to fluctuations in trading levels. As a result, period to period comparisons of our revenues and operating results may not be meaningful, and future revenues and profitability may be subject to significant fluctuations or declines.

We may incur material trading losses from our market making activities.

A portion of our revenues and operating profits is derived from our trading as principal in our role as a market maker. We may incur trading losses relating to these activities since each primarily involves the purchase or sale of securities for our own account. In any period, we may incur trading losses in a significant number of securities for a variety of reasons including:

- price changes in securities;
- lack of liquidity in securities in which we have positions; and
- the required performance of our market making obligations.

These risks may limit or restrict our ability to either resell securities we purchased or to repurchase securities we sold. In addition, we may experience difficulty borrowing securities to make delivery to purchasers to whom we sold short, or lenders from whom we have borrowed. From time to time, we have large position concentrations in securities of a single issuer or issuers engaged in a specific industry or traded in a particular market. Such a concentration could result in higher trading losses than would occur if our positions and activities were less concentrated.

In our role as a market maker, we attempt to derive a profit from the difference between the prices at which we buy and sell, or sell and buy, securities. However, competitive forces often require us to match the quotes other market makers display and to hold varying amounts of securities in inventory. By having to maintain inventory positions, we are subjected to a high degree of risk. We cannot assure you that we will be able to manage such risk successfully or that we will not experience significant losses from such activities, which could have a material adverse effect on our business, financial condition and results of operations.

Reduced spreads in securities pricing, levels of trading activity and trading through market makers could harm our business.

Computer-generated buy/sell programs and other technological advances and regulatory changes in the marketplace may continue to tighten spreads on securities transactions. Tighter spreads and increased competition could make market making activities less profitable.

We may incur losses in our market making activities in the event of failures of our proprietary pricing model.

Our market making business is substantially dependent on the accuracy of our proprietary pricing mathematical model, which continuously evaluates and monitors the risks inherent in our portfolio, assimilates market data and reevaluates our outstanding quotes many times per second. Our model is designed to automatically rebalance our positions throughout the trading day to manage risk exposures on our positions in options, futures and the underlying securities. In the event of a flaw in our pricing model and/or a failure in the related software, our pricing model may lead to unexpected and/or unprofitable trades, which may result in material trading losses.

The valuation of the financial instruments we hold may result in large and occasionally anomalous swings in the value of our positions and in our earnings in any period.

The market prices of our long and short positions are reflected on our books at closing prices which are typically the last trade price before the official close of the primary exchange on which each such security trades. If prices of derivatives and their underlying securities close out of alignment, there may be large and occasionally anomalous swings in the value of our positions daily and, accordingly, in our earnings in any period. This is especially true on the last business day of each calendar quarter.

We are exposed to losses due to lack of perfect information.

As market makers, we provide liquidity by buying from sellers and selling to buyers. Quite often, we trade with others who have different information than we do, and as a result, we may accumulate unfavorable positions preceding large price movements in companies. Should the frequency or magnitude of these events increase, our losses will likely increase correspondingly.

Rules governing designated market makers may require us to make unprofitable trades or prevent us from making profitable trades.

Designated market makers are granted certain rights and have certain obligations to ''make a market'' in a particular security. They agree to specific obligations to maintain a fair and orderly market. In acting as a designated market maker, we are subjected to a high degree of risk by having to support an orderly market. In this role, we may at times be required to make trades that adversely affect our profitability. In addition, we may at times be unable to trade for our own account in circumstances in which it may be to our advantage to trade, and we may be obligated to act as a principal when buyers or sellers outnumber each other. In those instances, we may take a position counter to the market, buying or selling securities to support an orderly market. Additionally, the rules of the markets which govern our activities as a designated market maker are subject to change. If these rules are made more stringent, our trading revenues and profits as a designated market maker could be adversely affected.

We face competition in our market making activities.

In our market making activities, we compete with other firms based on our ability to provide liquidity at competitive prices and to attract order flow. These firms include registered market makers as well as HFTs that act as market makers. Both types of competitors range from sole proprietors with very limited resources to a few highly sophisticated groups which have substantially greater financial and other resources, including research and development personnel, than we do. These larger and better capitalized competitors may be better able to respond to changes in the market making industry, to compete for skilled professionals, to finance acquisitions, to fund internal growth and to compete for market share generally. HFTs that are not registered market makers have certain advantages over registered market making firms that may allow them to bypass regulatory restrictions and trade more quickly and cheaply than registered market makers at some exchanges. We may not be able to compete effectively against HFTs or market makers with greater financial resources, and our failure to do so could materially and adversely affect our business, financial condition and results of operations. As in the past, we may in the future face enhanced competition, resulting in narrowing bid/offer spreads in the marketplace that may adversely impact our financial performance. This is especially likely if HFTs continue to receive advantages in capturing order flow or if others can acquire systems that enable them to predict markets or process trades more efficiently than we can.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Our headquarters are located in Greenwich, Connecticut. We lease office and data center facilities in 24 cities throughout the world where we conduct our operations as set forth below. Unless otherwise indicated, all properties are used by both our electronic brokerage and market making segments. We believe our present facilities, together with our current options to extend lease terms, are adequate for our current needs.

The table below presents certain information with respect to our leased facilities as of December 31, 2019.

Location	Space (sq. feet)	Principal Usage
North America		
Greenwich, CT	163,510	Headquarters
Chicago, IL	60,276	Office space and data center
Other (7 locations)	28,662	Office space and data center
Europe		
Zug, Switzerland	25,009	Office space
London, United Kingdom	12,969	Office space
Tallinn, Estonia	11,010	Office space
Other (4 locations)	19,980	Office space
Asia - Pacific		
Mumbai, India	54,275	Office space
Hong Kong	17,565	Office space and data center
Other (4 locations)	19,741	Office space

ITEM 3. LEGAL PROCEEDINGS AND REGULATORY MATTERS

The securities and commodities industry is highly regulated and many aspects of our business involve substantial risk of liability. In past years, there has been an increasing incidence of litigation involving the brokerage industry, including class action suits that generally seek substantial damages, including in some cases punitive damages. Compliance and trading problems that are reported to federal, state and provincial regulators, exchanges or other self-regulatory organizations by dissatisfied customers are investigated by such regulatory bodies, and, if pursued by such regulatory body or such customers, may rise to the level of arbitration or disciplinary action. We are also subject to periodic regulatory audits and inspections.

Like other brokerage firms, we have been named as a defendant in lawsuits and from time to time we have been threatened with, or named as a defendant in arbitrations and administrative proceedings. The following contains information regarding potentially material pending litigation and pending regulatory inquiries. We may in the future become involved in additional litigation or regulatory proceedings in the ordinary course of our business, including litigation or regulatory proceedings that could be material to our business.

Trading Technologies Matter

On February 3, 2010, Trading Technologies International, Inc. (“Trading Technologies”) filed a complaint in the U.S. District Court for the Northern District of Illinois, Eastern Division, against IBG LLC and IB LLC (“Defendants”). The complaint, as amended, alleges that the Defendants have infringed and continue to infringe twelve U.S. patents held by Trading Technologies. Trading Technologies is seeking, among other things, unspecified damages and injunctive relief. The Defendants filed an answer to Trading Technologies’ amended complaint, as well as related counterclaims. The Defendants deny Trading Technologies’ claims, assert that the asserted patents are not infringed and are invalid, and assert several other defenses as well.

The asserted patents were the subject of petitions before the United States Patent and Trademark Office (“USPTO”) seeking Covered Business Method Review (“CBM Review”). The USPTO Patent Trial Appeal Board (“PTAB”) found all claims of ten of the twelve asserted patents to be invalid. Of the remaining two patents, 53 of the 56 claims of one patent were held invalid and the other patent survived CBM Review proceedings. Appeals were filed by either Defendants or Trading Technologies on all PTAB determinations.

The United States Court of Appeals for the Federal Circuit vacated the CBM Review determinations of invalidity for four patents, concluding that these patents were not eligible for CBM Review. The District Court trial with respect to these four patents is scheduled for May 2020; however, the parties have filed a motion with the District Court to move the trial to November 2020.

While it is difficult to predict the outcome of the matter, the Company believes it has meritorious defenses to the allegations made in the complaint and intends to defend itself vigorously against them. However, litigation is inherently uncertain and there can be no guarantee that the Company will prevail or that the litigation can be settled on favorable terms.

Class Action Matter

On December 18, 2015, a former individual customer filed a purported class action complaint against IB LLC, IBG, Inc., and Thomas Frank, PhD, the Company's Executive Vice President and Chief Information Officer, in the U.S. District Court for the District of Connecticut. The complaint alleges that the purported class of IB LLC's customers were harmed by alleged ''flaws'' in the computerized system used to close out (i.e., liquidate) positions in customer brokerage accounts that have margin deficiencies. The complaint seeks, among other things, undefined compensatory damages and declaratory and injunctive relief.

On September 28, 2016, the District Court issued an order granting the Company's motion to dismiss the complaint in its entirety, and without providing plaintiff leave to amend. On September 28, 2017, plaintiff appealed to the United States Court of Appeals for the Second Circuit. On September 26, 2018, the Court of Appeals affirmed the dismissal of plaintiff's claims of breach of contract and commercially unreasonable liquidation but vacated and remanded back to the District Court plaintiff's claims for negligence.
On November 30, 2018, the plaintiff filed a second amended complaint. The Company filed a motion to dismiss the new complaint on January 15, 2019, which was denied on September 30, 2019. On December 9, 2019, the Company filed a motion requesting that the District Court certify to the Connecticut Supreme Court two questions of Connecticut law directly relevant to the motion to dismiss. Briefing has only recently been completed, and the District Court has not yet ruled on the motion. Regardless of the outcome of this motion, the Company does not believe that a purported class action is appropriate given the great differences in portfolios, markets and many other circumstances surrounding the liquidation of any particular customer's margin deficient account. IB LLC and the related defendants intend to continue to defend themselves vigorously against the case and, consistent with past practice in connection with this type of unwarranted action, any potential claims for counsel fees and expenses incurred in defending the case may be fully pursued against the plaintiff.

Regulatory Matters

The Company is currently providing information to the Financial Industry Regulatory Authority (''FINRA''), the SEC, the Commodities and Futures Trading Commission (''CFTC'') and the United States Department of Justice focused on anti-money laundering and Bank Secrecy Act practices. The Company periodically reviews these practices to make them more robust and to keep pace with changing regulatory standards, and the Company has been enhancing and augmenting its procedures and personnel in these areas over the past several years.
While the outcome of the examinations and inquiries currently in progress cannot be predicted, the Company does not believe that they are likely to have a materially adverse effect on its results of operations.

Pending Regulatory Inquiries

Our businesses are heavily regulated by state, federal and foreign regulatory agencies as well as numerous exchanges and self-regulatory organizations. Most of our companies are regulated under some or all of the following: state securities laws, U.S. and foreign securities, commodities and financial services laws and the rules of the more than 120 exchanges, market centers and self-regulatory organizations of which one or more of our companies may be members. In the current era of dramatically heightened regulatory scrutiny of financial institutions, we have incurred increased compliance costs, along with the industry as a whole.
Increased regulation also creates increased barriers to entry. We have built and continue to build human and automated infrastructure in light of increasing regulatory scrutiny, which provides us with a possible advantage over potential newcomers to the business.

We receive thousands of regulatory inquiries each year in addition to being subject to frequent regulatory examinations. The great majority of these inquiries do not lead to fines or any further action against us.

Most often, regulators do not inform us as to when and if an inquiry has been concluded. We are currently the subject of active or dormant regulatory inquiries regarding subjects including, but not limited to: audit trail reporting, trade reporting, best execution and order execution procedures, short sales, margin lending, anti-money laundering or potentially manipulative trading by customers, procedures for transfers and trading of U.S. Micro-Cap securities, procedures for accounts managed by independent financial advisors or referred by third parties, technology development practices, business continuity planning and other topics of recent regulatory interest. The Company has procedures for evaluating whether potential regulatory fines are probable, estimable and material and for updating its contingency reserves and disclosures accordingly. In the current climate, we expect to pay significant and increasing regulatory fines on various topics on an ongoing basis, as other regulated financial services businesses do. The amount of any fines, and when and if they will be incurred, typically is impossible to predict given the nature of the regulatory process.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY; RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Common Stock Information

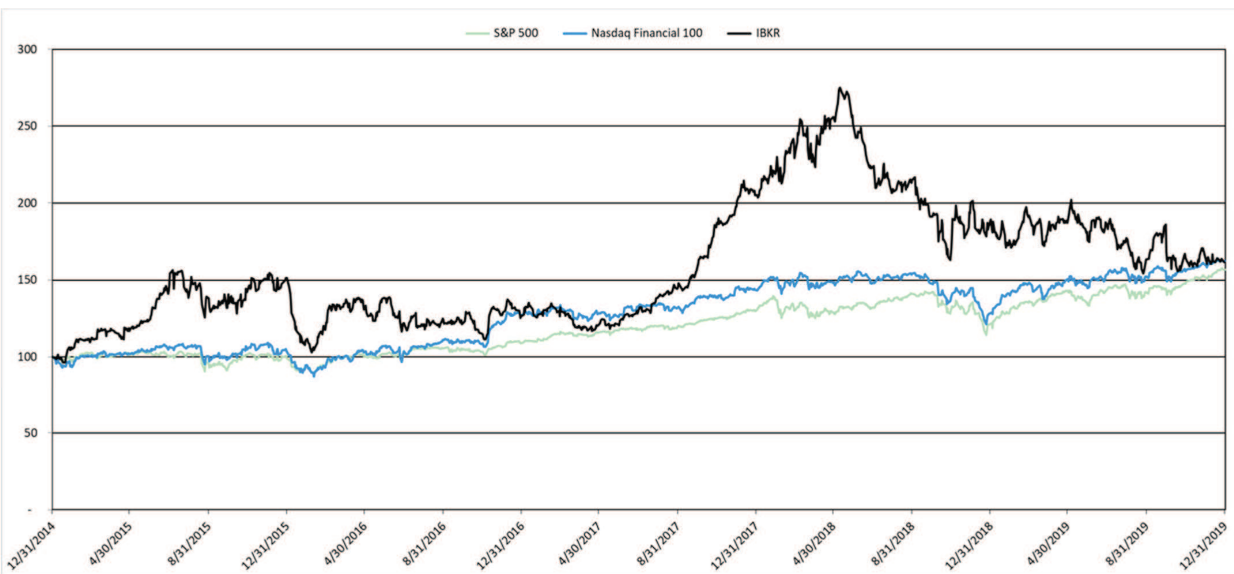
Interactive Brokers Group Inc.'s Class A common stock trades under the symbol ''IBKR'' on the Nasdaq Stock Market LLC. As of February 24, 2020, there were seventeen holders of record, which does not reflect those shares held beneficially or those shares held in ''street'' name. Accordingly, the number of beneficial owners of our common stock exceeds this number.

Dividends and Other Restrictions

We currently intend to pay quarterly dividends of $0.10 per share to our common stockholders for the foreseeable future.

Stockholder Return Performance Graph

The graph below compares cumulative total stockholder return on our common stock, the S&P 500 Index and the Nasdaq Financial-100 Index from December 31, 2014 to December 31, 2019. The comparison assumes $100 was invested on December 31, 2014 in our common stock and each of the foregoing indices and assumes reinvestment of dividends before consideration of income taxes.



(1) The Nasdaq Financial-100 Index includes 100 of the largest domestic and international financial securities listed on The Nasdaq Stock Market based on market capitalization. They include companies classified according to the Industry Classification Benchmark as Financials, which are included within the Nasdaq Bank, Nasdaq Insurance, and Nasdaq Other Finance Indexes.

(2) The S&P 500 Index includes 500 large cap common stocks actively traded in the U.S. The stocks included in the S&P 500 are those of large publicly held companies that trade on either of the two largest American stock markets, the New York Stock Exchange and Nasdaq.

The stock performance depicted in the graph above is not to be relied upon as indicative of future performance. The stock performance graph shall not be deemed to be incorporated by reference into any of our filings under the Securities Act or the Exchange Act, except to the extent that we specifically incorporate the same by reference, nor shall it be deemed to be ''soliciting material'' or to be ''filed'' with the SEC or subject to Regulations 14A or 14C or to the liabilities of Section 18 of the Exchange Act.

Use of Proceeds

On October 7, 2019, the Company filed a Prospectus Supplement on Form 424B (File Number 333-219552) with the SEC to register up to 1,000,000 shares of common stock, offering the opportunity for eligible persons to receive awards in the form of such shares by participating in one or more promotions that are designed to attract new customers to the Company's brokerage platform, increase assets held with the Company's brokerage subsidiaries and enhance customer loyalty. As of December 31, 2019, the Company has issued 10,000 shares to IBG LLC for distribution to eligible customers of certain of its subsidiaries. Assuming all shares were issued, IBG, Inc.'s interest in IBG LLC would increase from 18.5% to 18.7%.

Securities Authorized for Issuance under Equity Compensation Plans

The table below presents information about shares of common stock available for future awards under all the Company's equity compensation plans as of December 31, 2019. The Company has not made grants of common stock outside of its equity compensation plans.

	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options warrants and rights	Number of securities remaining available for future awards under equity compensation plans(1)
Equity compensation plans approved by security holders	N/A	N/A	4,659,381
Total	—	—	4,659,381

(1) Amount represents restricted stock units available for future issuance of grants under the Company's amended 2007 Stock Incentive Plan.

ITEM 6. SELECTED FINANCIAL DATA

The tables below present selected historical consolidated financial and other data of the Company for the periods indicated.

	Year-Ended December 31,				
	2019	2018	2017	2016	2015
	(in millions, except share and per share amounts)				
Consolidated Statement of Comprehensive Income Data					
Revenues					
Commissions	$ 706	$ 777	$ 647	$ 612	$ 617
Interest income	1,726	1,392	908	606	492
Trading gains	27	39	40	163	269
Other (loss) income[1]	121	158	332	94	(122)
Total revenues	2,580	2,366	1,927	1,475	1,256
Interest expense	643	463	225	79	67
Total net revenues	1,937	1,903	1,702	1,396	1,189
Non-interest expenses					
Execution, clearing and distribution fees	251	269	241	244	231
Fixed expenses	485	434	410	385	354
Customer bad debt[2]	44	4	2	6	146
Total non-interest expenses	780	707	653	635	731
Income before income taxes	1,157	1,196	1,049	761	458
Income tax expense [1]	68	71	256	62	43
Net income	1,089	1,125	793	699	415
Less net income attributable to noncontrolling interests	928	956	717	615	366
Net income available for common stockholders	$ 161	$ 169	$ 76	$ 84	$ 49
Earnings per share					
Basic	$ 2.11	$ 2.30	$ 1.09	$ 1.28	$ 0.80
Diluted	$ 2.10	$ 2.28	$ 1.07	$ 1.25	$ 0.78
Comprehensive income available for common stockholders	$ 165	$ 156	$ 87	$ 80	$ 39
Comprehensive income attributable to noncontrolling interests	$ 948	$ 890	$ 771	$ 594	$ 313
Comprehensive earnings per share					
Basic	$ 2.18	$ 2.12	$ 1.24	$ 1.21	$ 0.64
Diluted	$ 2.16	$ 2.09	$ 1.22	$ 1.19	$ 0.62
Weighted average common shares outstanding					
Basic	76,121,570	73,438,209	69,926,933	66,013,247	61,043,071
Diluted	76,825,863	74,266,370	70,904,921	67,299,413	62,509,796

(1) The results for 2017 include the impact of the Tax Cuts and Job Act ("Tax Act") which was enacted on December 22, 2017. The Tax Act resulted in additional income tax expense of $62 million for the one-time transition tax on deemed repatriation of earnings of some of our foreign subsidiaries and $115 million from the remeasurement of the Company's deferred tax assets at the reduced corporate income tax rate of 21%. Other income includes a $93 million gain from the remeasurement of Tax Receivable Agreement liability, payable to Holdings, which is associated with and offsetting to the expense on remeasurement of deferred tax assets. See Note 4 – "Equity and Earnings per Share" and Note 11 – "Income Taxes" to the audited consolidated financial statements, in Part II, Item 8 of this Annual Report on Form 10-K.

(2) The results for 2019 include an unusual loss of $42 million recorded as customer bad debt which reflects losses recognized on margin lending to a small number of our brokerage customers that had taken relatively large positions in a security listed on a major U.S. exchange, which lost a substantial amount of its value in a very short timeframe. See Note 14 – "Commitments, Contingencies and Guarantees" to the audited consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K for additional details.

The results for 2015 include an unusual loss of $137 million recorded as customer bad debt. On January 15, 2015, in an unprecedented action, the Swiss National Bank removed a previously instituted and repeatedly confirmed cap of the currency relative to the euro, causing a sudden move in the value of the Swiss franc. Several of our customers holding currency futures and spot positions suffered losses in excess of their deposits with us. We took immediate action to hedge our exposure to the foreign currency receivables from these customers. As of December 31, 2019, we have incurred cumulative losses, net of hedging activity and debt collection efforts, of $115 million. We continue to actively pursue collection of the debts. The ultimate effect of this incident on our results will depend upon the outcome of our debt collection efforts.

	December 31,				
	2019	**2018**	**2017**	**2016**	**2015**
			(in millions)		
Consolidated Statement of Financial Condition Data					
Cash, cash equivalents and short-term investments[1]	$33,217	$26,937	$23,999	$26,053	$23,105
Total assets[2],[3]	$71,676	$60,547	$61,162	$54,673	$48,734
Total liabilities[3]	$63,736	$53,391	$54,729	$48,853	$43,390
Stockholders' equity	$ 1,452	$ 1,282	$ 1,090	$ 974	$ 863
Noncontrolling interests	$ 6,488	$ 5,874	$ 5,343	$ 4,846	$ 4,481

(1) Cash, cash equivalents and short-term investments represent cash and cash equivalents, cash and securities segregated under federal and other regulations, short-term investments and securities purchased under agreements to resell.

(2) As of December 31, 2019, approximately $71.1 billion, or 99.2%, of total assets were considered liquid and consisted primarily of cash, marketable securities and collateralized receivables.

(3) As a result of the Company's acquisition from Holdings of IBG LLC membership interests, the Company received not only an interest in IBG LLC but also, for federal income tax purposes, a step-up to the federal income tax basis of the assets of IBG LLC underlying such additional interest. This increased tax basis is expected to result in tax benefits as a result of increased amortization deductions. The Company will retain 15% of the tax benefits actually realized. As set forth in the Tax Receivable Agreement the Company entered into with Holdings, the Company will pay the remaining 85% of the realized tax benefits relating to any applicable tax year to Holdings. The deferred tax asset was $116 million, $140 million, $146 million, $273 million, and $288 million and the corresponding payable to Holdings was $139 million, $171 million, $187 million, $285 million, and $291 million as of December 31, 2019, 2018, 2017, 2016, and 2015, respectively. See "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of this Annual Report on Form 10-K for additional details related to the impact of the Tax Act on the Company.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion should be read in conjunction with the audited consolidated financial statements and the related notes in Part II, Item 8, of this Annual Report on Form 10-K. In addition to historical information, the following discussion also contains forward-looking statements that include risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of certain factors, including those set forth under the heading ''Risk Factors'' in Part I, Item 1A of this Annual Report on Form 10-K.

Business Overview

We are an automated global electronic broker and market maker (although, we have substantially exited our options market making business - see Note 2 – ''Discontinued Operations and Costs Associated with Exit or Disposal Activities'' to the audited consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K). We custody and service accounts for hedge and mutual funds, registered investment advisers, proprietary trading groups, introducing brokers and individual investors. We specialize in routing orders and executing and processing trades in stocks, options, futures, forex, bonds, mutual funds and ETFs on more than 135 electronic exchanges and market centers around the world. Since our inception in 1977, we have focused on developing proprietary software to automate broker-dealer functions. The proliferation of electronic exchanges over nearly the last three decades has provided us with the opportunity to integrate our software with an increasing number of exchanges and market centers into one automatically functioning, computerized platform that requires minimal human intervention.

Our primary assets are our ownership of approximately 18.5% of the membership interests of IBG LLC, the current holding company for our businesses, and our controlling interest and related contractual rights as the sole managing member of IBG LLC. The remaining approximately 81.5% of IBG LLC membership interests are held by Holdings, a holding company that is owned by our founder and Chairman, Mr. Thomas Peterffy and his affiliates, management and other employees of IBG LLC, and certain other members. The IBG LLC membership interests held by Holdings will be subject to purchase by us over time in connection with offerings by us of shares of our common stock.

Business Segments

We report our results in two operating business segments, electronic brokerage and market making (being discontinued). These segments are analyzed separately as these are the two principal business activities from which we derive our revenues and to which we allocate resources.

Electronic Brokerage. As an electronic broker, we execute, clear and settle trades globally for both institutional and individual customers. Capitalizing on our proprietary technology, our systems provide our customers with the capability to monitor multiple markets around the world simultaneously and to execute trades electronically in these markets at a low cost, in multiple products and currencies from a single trading account. We offer our customers access to all classes of tradable, primarily exchange-listed products, including stocks, options, futures, forex, bonds, mutual funds and ETFs traded on more than 135 electronic exchanges and market centers in 33 countries and in 25 currencies seamlessly around the world. The emerging complexity of multiple market centers has provided us with the opportunity to build and continuously adapt our order routing software to secure excellent execution prices.

Our customer base is diverse with respect to geography and segments. Currently, approximately 70% of our customers reside outside the U.S. in over 200 countries and territories, and over 50% of new customers come from outside the U.S. Approximately 65% of our customers' equity is in institutional accounts such as hedge funds, financial advisors, proprietary trading desks and introducing brokers. Specialized products and services that we have developed are successfully attracting these accounts. For example, we offer prime brokerage services, including financing and securities lending to hedge funds; our model portfolio technology and automated share allocation and rebalancing tools are particularly attractive to financial advisors; and our trading platform, global access and low pricing attract introducing brokers.

Market Making. As previously announced, we transferred our U.S. options market making operations to Two Sigma Securities, LLC effective September 29, 2017 and also exited the majority of our options market making activities outside the U.S. by December 31, 2017. During 2019, we exited our Canadian market making operations. We intend to continue conducting certain proprietary trading activities in stocks and related instruments to facilitate our electronic brokerage customers' trading in products such as ETFs, ADRs, CFDs and other financial instruments, as well as exchange-traded market making activities in a few select markets outside of the U.S. However, we do not expect the remaining activity to be of sufficient size as to require reporting as a separate segment in the future.

Business Environment

During 2019, U.S. market volatility was generally lower than in the prior year, amid greater optimism about global economic growth and continued monetary easing by central banks. Equity market indices around the globe were predominantly up, led by the U.S., where the S&P 500 index rose 29%. U.S. interest rates were lowered three times by the Federal Reserve in 2019, nearly reversing all the rate hikes of the prior year, while trends in benchmark rates of other currencies were mixed.

Among our customer base, volatility is highly correlated with customer trading activity across product types. In 2019, lower volatility led to decreases in trading volume, notably in the U.S., as our customers' trading activity, which is sensitive to overall market trends, showed declines. In addition, lower benchmark interest rates, which can be beneficial by reducing the rate of interest paid on customer cash, can also give us fewer opportunities to earn more net interest income on fully interest-sensitive balances.

In an improving market environment, with mainly lower interest rates and rising asset values, customer account growth was robust, with total customer accounts increasing 15% from 2018 to 690 thousand. Healthy inflows from customers, combined with securities market increases that generally benefited customers' investment values, led to customer equity growth of 36% to $174.1 billion. Institutional customers, such as hedge funds, mutual funds, introducing brokers, proprietary trading groups and financial advisors, comprised approximately 50% of total accounts and approximately 65% of total customer equity at the end of 2019. We continue to attract large customers that seek our superior technology and execution capabilities, high interest rates on cash balances, and low costs, as well as our securities finance services, including margin lending and short sale support.

The following is a summary of the key profit drivers that affect our business and how they compared to 2018:

Global trading volumes. According to data received from exchanges, volumes in exchange-listed equity-based options decreased by approximately 13% in the U.S. for the year ended December 31, 2019, compared to 2018. Further, U.S. volumes decreased in exchange-listed futures by 19% and in equities by 20%, due to the decline in volatility among other factors. See the ''Trading Volumes and Brokerage Statistics'' section below in this Item 7 for additional details regarding our trade volumes, contract and share volumes, and brokerage statistics.

Volatility. Based on the Chicago Board Options Exchange Volatility Index (''VIX®''), average U.S. market volatility decreased to 15.4 in 2019, down 7% from the average of 16.6 in 2018. Lower volatility tends to curtail our electronic brokerage performance because it generally corresponds to lower trading volumes. In 2019, as the VIX decreased, we saw a negative impact on customer trading activity, which decreased 6%, and our commissions revenue, which decreased 9%.

Interest Rates. The U.S. Federal Reserve conducted a series of reductions in the target federal funds rate in 2019, with rate cuts in July, September and October, while rates in other currencies were mixed. Decreases in benchmark rates can lead to lower net interest income and a narrower net interest margin. As our margin balances are tied to benchmark rates, declining U.S. interest rates reduce the interest we receive on our U.S. dollar customer margin balances. Falling rates also reduce the interest we earn on our segregated cash, the majority of which is invested in U.S. government securities and related instruments. Lower rates also reduce our interest expense, as we pass along the reduced interest rate to our customers. Because we pay among the highest rates in the brokerage industry on qualified customer cash balances, and charge among the lowest rates on margin borrowings, we attract customers who seek to maximize their yields and minimize their costs. We believe our low rates on margin borrowings and high yields on qualified cash balances are important factors that attract customers to our platform.

While the interest we pay on customer cash balances and the interest we earn on customer margin loans is based on fixed spreads around benchmark rates, additional net interest income is earned on lower or non-interest-bearing customer balances, e.g., on securities accounts with less than $100,000 in equity, and on rising balances. Electronic brokerage net interest income grew 17%, compared to 2018. Higher net interest income was due to rising average customer credit balances, up 9% in 2019, in part due to an inflow of new accounts, along with expanded prime broker financing and strong securities lending activity. This was partly offset by average customer margin loan balances decreasing 9%, due to our customers' reduced appetite for leverage as compared to 2018.

Currency fluctuations. As a global electronic broker and market maker trading on exchanges around the world in multiple currencies, we are exposed to foreign currency risk. We actively manage this exposure by keeping our net worth in proportion to a defined basket of 14 currencies we call the "GLOBAL" to diversify our risk and to align our hedging strategy with the currencies that we use in our business. Because we report our financial results in U.S. dollars, the change in the value of the GLOBAL versus the U.S. dollar affects our earnings. During 2019 the value of the GLOBAL, as measured in U.S. dollars, decreased 0.06% compared to its value as of December 31, 2018, which had a negative impact on our comprehensive earnings for 2019.

A discussion of our approach for managing foreign currency exposure is contained in Part II, Item 7A of this Annual Report on Form 10-K entitled "Quantitative and Qualitative Disclosures about Market Risk."

Financial Overview

In the fourth quarter of this year, we introduced the reporting of non-GAAP financial measures, which exclude certain items that may not be indicative of our core operating results and business outlook and may be useful in evaluating the operating performance of our business and provide a better comparison of our results in the current period to those in prior and future periods. See the "Non-GAAP Financial Measures" section below in this Item 7 for additional details.

Diluted earnings per share were $2.10 for the year ended December 31, 2019 ("current year"), compared to diluted earnings per share of $2.28 for the year ended December 31, 2018 ("prior year"). Adjusted diluted earnings per share were $2.27 for the current year, compared to adjusted diluted earnings per share of $2.28 for the prior year. The calculation of diluted earnings per share is detailed in Note 4 to the audited consolidated financial statements, in Part II, Item 8 of this Annual Report on Form 10-K.

Consolidated: For the current year, our net revenues were $1,937 million and income before income taxes was $1,157 million, compared to net revenues of $1,903 million and income before income taxes of $1,196 million in the prior year. Adjusted net revenues were $1,984 million and adjusted income before income taxes was $1,246 million, compared to adjusted net revenues of $1,913 million and adjusted income before income taxes of $1,206 million in the prior year. The increase in income before income taxes in the current year was mainly driven by a 17% increase in net interest income partially offset by a 9% decrease in commissions revenue and a 23% decrease in other income. Our pre-tax profit margin was 60%, compared to 63% for the prior year.

Electronic Brokerage: For the current year, income before income taxes in our electronic brokerage segment increased $20 million, or 2%, compared to the prior year, driven by higher net interest income and lower execution, clearing and distribution fees, partially offset by lower commissions revenue and other income, and higher customer bad debt expense, general and administrative expenses, and employee compensation and benefits expense. Net revenues increased 4%, mainly from a 17% increase in net interest income, driven by higher average Federal Funds rates and higher average customer credit balances; partially offset by a 9% decrease in commissions, primarily driven by lower options and futures contract and stock share volumes and a 3% decrease in other income led by lower net mark-to-market gains on our U.S. government securities portfolio and lower risk exposure fees. Pre-tax profit margin was 62% for the current year and 64% for the prior year. Customer accounts grew 15% and customer equity increased 36% from the prior year. For the current year, total DARTs for cleared and execution-only customers decreased 3% to 833 thousand, compared to 862 thousand for the prior year.

As previously disclosed, over an extended period in 2018, a small number of our brokerage customers had taken relatively large positions in a security listed on a major U.S. exchange. We extended margin loans against the security at a conservatively high collateral requirement. In December 2018, within a very short timeframe, this security lost a substantial amount of its value. The customer accounts were well margined and at December 31, 2018 they had incurred losses but had not fallen into any deficits. During the quarter ended March 31, 2019, subsequent price declines in the stock caused these accounts to fall into deficits, despite our efforts to liquidate the customers' positions. During the year ended December 31, 2019, we recognized a net aggregate loss of approximately $42 million. The maximum aggregate loss, which would occur if the security's price fell to zero and none of the debts were collected, would be approximately $50 million. The ultimate effect of this incident on our results will depend upon market conditions and the outcome of our debt collection efforts.

Market Making: For the current year, income before income taxes in our market making segment decreased $4 million, or 12%, to $30 million compared to the prior year, driven by lower trading gains, partially offset by higher net interest income and lower operating costs on the remaining operations.

In the third quarter of 2017, we completed the transfer of our U.S. options market making business to Two Sigma Securities, LLC and by the end of 2017 we had exited the majority of our market making activities outside the U.S. Pursuant to the agreement with Two Sigma Securities, LLC, we have the opportunity for future income from an earn-out agreement, based on the performance of the options market making business under Two Sigma Securities, LLC's control. Under the agreement, we would earn a share of any U.S. profits after variable costs and other agreed-upon costs for three years; and a separate share of any non-U.S. profits after variable costs for four years. The agreement provides Two Sigma Securities, LLC the opportunity to enter non-U.S. parts of this business and, while it does not preclude us from participating in those markets, the earn-out would be effective only in markets where we did not compete.

Corporate: In connection with our currency diversification strategy (i.e., GLOBALs) as of December 31, 2019, approximately 30% of our equity was denominated in currencies other than the U.S. dollar. In the current year, our currency diversification strategy decreased our comprehensive earnings by $36 million (compared to a decrease of $99 million in the prior year), as the U.S. dollar value of the GLOBAL decreased by approximately 0.06%, compared to its value as of December 31, 2018. The effects of our currency diversification strategy are reported as (1) a component of other income (loss of $60 million) in the consolidated statement of comprehensive income and (2) other comprehensive income (''OCI'') (gain of $24 million) in the consolidated statement of financial condition and the consolidated statement of comprehensive income. The full effect of the GLOBAL is captured in comprehensive income.

In June 2018 we consummated a strategic investment in Up Fintech Holding Limited (''Tiger Brokers'') by purchasing preferred shares that represented a 7.4% beneficial ownership interest. On March 20, 2019, Tiger Brokers priced its initial public offering of American Depositary Shares listed on Nasdaq Global Select market and, concurrently with their initial public offering, we purchased unregistered ordinary shares in Tiger Brokers through a private placement offering which transactions resulted in a beneficial ownership interest of 7.6%. For the year ended December 31, 2019 we recognized a net mark-to-market gain of $9 million on this investment.

Net Revenues

Commissions

We earn commissions from our cleared customers for whom we act as an executing and clearing broker and from our non-cleared customers for whom we act as an execution-only broker. We have a commission structure that allows customers to choose between an all-inclusive fixed, or ''bundled'', rate and a tiered, or ''unbundled'', rate that offers lower commissions for high volume customers. For ''unbundled'' commissions, we pass through regulatory and exchange fees separately from our commissions, adding transparency to our fee structure. Commissions accounted for 36%, 41%, and 38% of our total net revenues for the years ended December 31, 2019, 2018, and 2017, respectively.

Our commissions are geographically diversified. In 2019, 2018, and 2017 we generated 33%, 32%, and 32%, respectively, of commissions from operations conducted internationally.

Interest Income and Interest Expense

We earn interest on customer funds segregated in safekeeping accounts; on customer borrowings on margin, secured by marketable securities these customers hold with us; from our investments in U.S. and foreign government securities; from borrowing and lending securities; and on deposits with banks. Interest income accounted for 89%, 73%, and 53% of our total net revenues for the years ended December 31, 2019, 2018, and 2017, respectively. Interest income is partially offset by interest expense.

We pay interest on cash balances customers hold with us; for borrowing and lending securities; and on our borrowings. Interest expense accounted for 33%, 24%, and 13% of our total net revenues for the years ended December 31, 2019, 2018, and 2017, respectively.

Net interest income accounted for approximately 56%, 49%, and 40% of our total net revenues for the years ended December 31, 2019, 2018, and 2017, respectively.

Trading Gains

Trading gains are generated in the normal course of our remaining market making business. Trading gains are, in general, proportional to the trading activity in the markets. Trading gains accounted for approximately 1%, 2%, and 2% of our total net revenues for the years ended December 31, 2019, 2018, and 2017, respectively.

Trading gains also include revenues from net dividends. Market making activities require us to hold an inventory of equity securities. We derive revenues in the form of dividend income from these equity securities. This dividend income is largely offset by dividend expense incurred when we make payments in lieu of dividends on short positions in securities in our portfolio. Dividend income and expense arise from holding market making positions over dates on which dividends are paid to shareholders of record. When a stock pays a dividend, its market price is generally adjusted downward to reflect the value paid to the shareholders of record, which will not be received by those who purchase the stock on or after the ex-dividend date. Hence, the apparent gains and losses due to these price changes must be taken together with the dividends paid and received, respectively, to accurately reflect the results of our market making activities.

Other Income

A primary component of other income is foreign currency gains and losses from our currency diversification strategy. A discussion of our approach to managing foreign currency exposure is contained in Part II, Item 7A of this Annual Report on Form 10-K entitled "Quantitative and Qualitative Disclosures about Market Risk."

Other income also consists of mark-to-market gains and losses on our U.S. government securities portfolio; income from market data fees, account activity fees, risk exposure fees, payments for order flow from exchange mandated programs and IBKR Lite^{SM} liquidity providers, and other brokerage related fees; and gains and losses on financial instruments that are not held for our market making activities. Other income accounted for approximately 6%, 8%, and 20% of our total net revenues for the years ended December 31, 2019, 2018, and 2017, respectively.

Non-Interest Expenses

Execution, Clearing and Distribution Fees

Execution, clearing and distribution fees include the costs of executing and clearing our electronic brokerage and market making trades, as well as liquidity rebates received from various exchanges and market centers, regulatory fees and market data fees. Execution fees are paid primarily to electronic exchanges and market centers on which we trade. Clearing fees are paid to clearing houses and clearing agents. Market data fees are paid to third parties to receive streaming price quotes and related information.

Employee Compensation and Benefits

Employee compensation and benefits include salaries, bonuses and other incentive compensation plans, group insurance, contributions to benefit programs and other related employee costs.

Occupancy, Depreciation and Amortization

Occupancy expenses consist primarily of rental payments on office and data center leases and related occupancy costs, such as utilities. Depreciation and amortization expenses result from the depreciation of fixed assets, such as computing and communications hardware, as well as amortization of leasehold improvements and capitalized in-house software development.

Communications

Communications expenses consist primarily of the cost of voice and data telecommunications lines supporting our business, including connectivity to exchanges and market centers around the world.

General and Administrative

General and administrative expenses consist primarily of advertising; professional services expenses, such as legal and audit work; legal and regulatory matters; and other operating expenses.

Customer Bad Debt

Customer bad debt expenses consist primarily of losses incurred by customers in excess of their assets with us, net of amounts recovered by us.

Income Tax Expense

We pay U.S. federal, state and local income taxes on our taxable income, which is proportional to the percentage we own of IBG LLC. Also, our operating subsidiaries are subject to income tax in the respective jurisdictions in which they operate.

Noncontrolling Interest

We are the sole managing member of IBG LLC and, as such, operate and control all of the business and affairs of IBG LLC and its subsidiaries and consolidate IBG LLC's financial results into our financial statements. As of December 31, 2019, we held approximately 18.5% ownership interest in IBG LLC. Holdings holds approximately 81.5% ownership interest in IBG LLC. We reflect Holdings' ownership as a noncontrolling interest in our consolidated statement of financial condition, consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows. Our share of IBG LLC's net income, excluding Holdings' noncontrolling interest, for the current year was approximately 18.4%, compared to approximately 17.8% for the prior year.

Certain Trends and Uncertainties

We believe that our current operations may be favorably or unfavorably impacted by the following trends that may affect our financial condition and results of operations:

- Retail participation in the equity markets has fluctuated over the past few years due to investor sentiment, market conditions and a variety of other factors. Retail transaction volumes may not be sustainable and are not predictable.
- Additional consolidation among market centers may adversely affect the value of our IB SmartRouting^{SM} software.
- Benchmark interest rates have fluctuated over the past years due to economic conditions. Changes in interest rates may not be predictable.
- Price competition in commissions and other fees among broker-dealers may continue to intensify.
- Scrutiny of equity and options market makers, hedge funds and soft dollar practices by regulatory and legislative authorities has increased. New legislation or modifications to existing regulations and rules could occur in the future.
- Our market making activities will continue to be impacted by the following trends until we complete its wind-down.
  - The effects of market structure changes, competition (in particular, from high frequency traders) and market conditions have, during certain periods, exerted downward pressure on bid/offer spreads realized by market makers.
  - In an effort to improve the quality of their executions as well as to increase efficiencies, market makers have increased the level of automation within their operations, which may allow them to compete more effectively with us.
  - A driver of our market making profits is the relationship between actual and implied volatility in the equities markets. The cost of maintaining our conservative risk profile is based on implied volatility, while our profitability, in part, is based on actual volatility. Hence, our profitability is increased when actual volatility runs above implied volatility and it is decreased when actual volatility falls below implied volatility. Implied volatility tends to lag actual volatility.

See "Risk Factors" in Part I, Item 1A of this Annual Report on Form 10-K for a discussion of other risks that may affect our financial condition and results of operations.

Results of Operations

The table below presents our consolidated results of operations for the periods indicated. The period-to-period comparisons below of financial results are not necessarily indicative of future results.

	Year-Ended December 31,		
	2019	2018	2017
	(in millions, except share and per share amounts)		
Revenues			
Commissions	$ 706	$ 777	$ 647
Interest income	1,726	1,392	908
Trading gains	27	39	40
Other income	121	158	332
Total revenues	2,580	2,366	1,927
Interest expense	643	463	225
Total net revenues	1,937	1,903	1,702
Non-interest expenses			
Execution, clearing and distribution fees	251	269	241
Employee compensation and benefits	288	264	249
Occupancy, depreciation and amortization	60	49	47
Communications	25	25	28
General and administrative	112	96	86
Customer bad debt	44	4	2
Total non-interest expenses	780	707	653
Income before income taxes	1,157	1,196	1,049
Income tax expense	68	71	256
Net income	1,089	1,125	793
Less net income attributable to noncontrolling interests	928	956	717
Net income available for common stockholders	$ 161	$ 169	$ 76
Earnings per share			
Basic	$ 2.11	$ 2.30	$ 1.09
Diluted	$ 2.10	$ 2.28	$ 1.07
Weighted average common shares outstanding			
Basic	76,121,570	73,438,209	69,926,933
Diluted	76,825,863	74,266,370	70,904,921
Comprehensive income			
Net income available for common stockholders	$ 161	$ 169	$ 76
Other comprehensive income			
Cumulative translation adjustment, before income taxes	4	(14)	11
Income taxes related to items of other comprehensive income	—	(1)	—
Other comprehensive income (loss), net of tax	4	(13)	11
Comprehensive income available for common stockholders	$ 165	$ 156	$ 87
Comprehensive income attributable to noncontrolling interests			
Net income attributable to noncontrolling interests	$ 928	$ 956	$ 717
Other comprehensive income - cumulative translation adjustment	20	(66)	54
Comprehensive income attributable to noncontrolling interests	$ 948	$ 890	$ 771

The table below presents our consolidated results of operations as a percent of our total net revenues for the periods indicated.

	Year-Ended December 31,		
	2019	2018	2017
Revenues			
Commissions	36%	41%	38%
Interest income	89%	73%	53%
Trading gains	1%	2%	2%
Other income	6%	8%	20%
Total revenues	133%	124%	113%
Interest expense	33%	24%	13%
Total net revenues	100%	100%	100%
Non-interest expenses			
Execution, clearing and distribution fees	13%	14%	14%
Employee compensation and benefits	15%	14%	15%
Occupancy, depreciation and amortization	3%	3%	3%
Communications	1%	1%	2%
General and administrative	6%	5%	5%
Customer bad debt	2%	0%	0%
Total non-interest expenses	40%	37%	38%
Income before income taxes	60%	63%	62%
Income tax expense	4%	4%	15%
Net Income	56%	59%	47%
Less net income attributable to noncontrolling interests	48%	50%	42%
Net income available for common stockholders	8%	9%	4%

Year Ended December 31, 2019 ("current year") compared to the Year Ended December 31, 2018 ("prior year")

Net Revenues

Total net revenues, for the current year, increased $34 million, or 2%, compared to the prior year, to $1,937 million. The increase in net revenues was primarily due to higher net interest income, partially offset by lower commissions and other income.

Commissions

Commissions, for the current year, decreased $71 million, or 9%, compared to the prior year, to $706 million, driven by lower customer trading volumes in options, futures and stocks. Total customer options and futures contract and stock share volumes decreased 3%, 15% and 16%, respectively, compared to the prior year. The declines were in line with lower volatility and lower overall industry volumes. Total DARTs for cleared and execution-only customers, for the current year, decreased 3% to 833 thousand, compared to 862 thousand for the prior year. DARTs for cleared customers, i.e., customers for whom we execute trades, as well as, clear and carry positions, for the current year, decreased 5% to 748 thousand, compared to 791 thousand for the prior year. Average commission per commissionable order for cleared customers, for the current year, decreased 5% to $3.67, compared to $3.87 for the prior year, reflecting smaller trade sizes across all product types.

Interest Income and Interest Expense

Net interest income (interest income less interest expense), for the current year, increased $154 million, or 17%, compared to the prior year, to $1,083 million. The increase in net interest income was driven by higher customer credit balances and higher average benchmark rates.

Net interest income on customer balances, for the current year, increased $87 million, compared to the prior year, driven by a $4.4 billion increase in average customer credit balances, a portion of which were invested in interest-bearing U.S. government securities and a 0.33% increase in the average Federal Funds effective rate to 2.16%, compared to the prior year.

We earn income on securities loaned and borrowed to support customer long and short stock holdings in margin accounts. In addition, our Stock Yield Enhancement Program provides an opportunity for customers with fully-paid stock to allow us to lend it out. We pay customers a rebate on the cash collateral generally equal to 50% of the income we earn from lending the shares. We place cash collateral securing the loans in the customer's account.

In the current year, average securities borrowed increased 19%, to $3.9 billion and average securities loaned increased 3%, to $4.1 billion, compared to the prior year. Securities borrowed and loaned balances were both impacted by increased activity in the electronic brokerage segment. Net interest earned from securities lending is also affected by the level of demand for securities positions held by our customers. During the current year, net interest earned from securities lending transactions increased $41 million, or 19%, compared to the prior year. It should be noted that securities lending transactions entered into to support customer activity may produce interest income (expense) that is offset by interest expense (income) related to customer balances.

The Company measures return on interest-earning assets using net interest margin (''NIM''). NIM is computed by dividing the annualized net interest income by the average interest-earning assets for the period. Interest-earning assets consist of cash and securities segregated for regulatory purposes (including U.S. government securities and securities purchased under agreements to resell), customer margin loans, securities borrowed, other interest-earning assets (solely firm assets) and customer cash balances swept into FDIC-insured banks as part of our Insured Bank Deposit Sweep Program. Interest-bearing liabilities consist of customer credit balances, securities loaned, and other interest-bearing liabilities.

Yields are generally a reflection of benchmark interest rates in each currency in which the Company and its customers hold cash balances. Because a substantial portion of customer cash and margin loans are denominated in currencies other than the U.S. dollar, changes in U.S. benchmark interest rates do not impact the total amount of segregated cash and securities, customer margin loans and customer credit balances. Furthermore, because interest is paid only on eligible cash credit balances (i.e., balances over $10 thousand or equivalent, in securities accounts with over $100 thousand in equity, and in smaller accounts at reduced rates), changes in benchmark interest rates are not passed through to the total amount of customer credit balances. Finally, the Company's policies with respect to currencies with negative interest rates impact the yields on segregated cash and customer credit balances as effective interest rates in those currencies fluctuate.

Generally, as benchmark interest rates rise a larger portion of the interest earned on securities lending transactions is reported as net interest income on ''Segregated cash and securities, net'' instead of ''Securities borrowed and loaned, net'' because interest earned on cash collateral held in specially designated bank accounts for the benefit of customers, in accordance with the U.S. customer protection rules, increases.

The table below presents net interest income information corresponding to interest-earning assets and interest-bearing liabilities for the periods indicated.

	Year-Ended December 31,		
	2019	2018	2017
		(in millions)	
Average interest-earning assets			
Segregated cash and securities	$27,812	$20,911	$23,824
Customer margin loans	26,483	29,253	23,289
Securities borrowed	3,930	3,310	3,964
Other interest-earning assets	5,407	4,362	2,930
FDIC sweeps(1)	2,046	1,259	124
	$65,678	$59,095	$54,131
Average interest-bearing liabilities			
Customer credit balances	$52,625	$48,179	$45,515
Securities loaned	4,088	3,982	3,917
Other interest-bearing liabilities	196	241	101
	$56,909	$52,402	$49,533
Net Interest income			
Segregated cash and securities, net	$ 560	$ 337	$ 201
Customer margin loans(2)	694	677	392
Securities borrowed and loaned, net	257	216	192
Customer credit balances, net(2)	(515)	(362)	(137)
Other net interest income(1/3)	121	90	40
Net interest income(3)	$ 1,117	$ 958	$ 688
Net interest margin (“NIM”)	1.70%	1.62%	1.27%
Annualized Yields			
Segregated cash and securities	2.01%	1.61%	0.84%
Customer margin loans	2.62%	2.31%	1.68%
Customer credit balances	0.98%	0.75%	0.30%

(1) Represents the average amount of customer cash swept into FDIC-insured banks as part of our Insured Bank Deposit Sweep Program. This item is not recorded in the Company’s consolidated statements of financial condition. Income derived from program deposits is reported in other net interest income in the table above.

(2) Interest income and interest expense on customer margin loans and customer credit balances, respectively, are calculated on daily cash balances within each customer’s account on a net basis, which may result in an offset of balances across multiple account segments (e.g., between securities and commodities segments).

(3) Includes income from financial instruments which has the same characteristics as interest, but is reported in other income in the Company’s consolidated statements of comprehensive income, of $34 million, $29 million and $5 million for the years ended December 31, 2019, 2018 and 2017, respectively.

Trading Gains

Trading gains, for the current year, decreased $12 million, or 31%, compared to the prior year, to $27 million, on the remaining market making operations. Our market making operations executed 17.1 million trades compared to 18.7 million trades executed in the prior year, reflecting the continuing wind-down of our market making activities. In addition, market making options and futures contract and stock share volumes decreased 16%, 27% and 21%, respectively.

Included in trading gains are net dividends. Dividend income and expense arise from holding market making positions over dates on which dividends are paid to shareholders of record. When a stock pays a dividend, its market price is generally adjusted downward to reflect the value paid, which will not be received by those who purchase stock on or after the ex-dividend date. Hence, the apparent gains and losses due to these price changes, reflecting the value of dividends paid to shareholders, must be taken together with the dividends paid and received, respectively, to accurately reflect the results of our market making activities.

Other Income

Other income, for the current year, decreased $37 million, or 23%, compared to the prior year, to $121 million. Other income from core items decreased $5 million, or 4%, compared to the prior year, to $136 million, mainly driven by a $10 million decrease in risk exposure fee income, partially offset by a $5 million increase in FDIC sweep fee income. Other income from non-core items decreased $32 million, to a $15 million loss, mainly driven by a $41 million decrease due to our currency diversification strategy, partially offset by net mark-to-market gains of $16 million on our investments, including $9 million on Tiger Brokers. A discussion of our approach to managing foreign currency exposure is contained in Part II, Item 7A of this Annual Report on Form 10-K entitled "Quantitative and Qualitative Disclosures about Market Risk."

Non-Interest Expenses

Non-interest expenses, for the current year, increased $73 million, or 10%, compared to the prior year, to $780 million, mainly due to a $40 million increase in customer bad debt expense, as described above in the Financial Overview section; a $24 million increase in employee compensation and benefits expenses; a $16 million increase in general and administrative expenses; and an $11 million increase in occupancy, depreciation and amortization; partially offset by an $18 million decrease in execution, clearing and distribution fees, compared to the prior year. As a percentage of total net revenues, non-interest expenses were 40% for the current year and 37% for the prior year.

Execution, Clearing and Distribution Fees

Execution, clearing and distribution fees, for the current year, decreased $18 million, or 7%, compared to the prior year, to $251 million, driven by lower trade volumes as customer options and futures contract and stock share volumes decreased 3%, 15% and 16%, respectively, compared to the prior year.

Employee Compensation and Benefits

Employee compensation and benefits expenses, for the current year, increased $24 million, or 9%, compared to the prior year, to $288 million, associated with a 16% increase in the average number of employees to 1,523, for the current year, compared to 1,317 for the prior year. Within the operating business segments, we continued to add staff in customer service, legal and compliance, and software development to support electronic brokerage and to reduce staff in market making. As we continue to grow, our focus on automation has allowed us to maintain a relatively small staff. As a percentage of total net revenues, employee compensation and benefits expenses were 15% for the current year and 14% for the prior year.

Occupancy, Depreciation and Amortization

Occupancy, depreciation and amortization expenses, for the current year, increased $11 million, or 22%, compared to the prior year, to $60 million, mainly due to higher office rent and related expenses as we expand our physical space for both offices and data centers. As a percentage of total net revenues, occupancy, depreciation and amortization expenses were 3% for both the current year and the prior year.

Communications

Communications expenses, for the current year, were unchanged, compared to the prior year.

General and Administrative

General and administrative expenses, for the current year, increased $16 million, or 17%, compared to the prior year, to $112 million, mainly due to higher professional services fees and expenses related to legal and regulatory matters. As a percentage of total net revenues, general and administrative expenses were 6% for the current year and 5% for the prior year.

Customer Bad Debt

Customer bad debt expense, for the current year, increased $40 million, compared to the prior year, to $44 million, due to net margin lending losses, as described in the Financial Overview section above in Item 7.

Income Tax Expense

Income tax expense, for the current year, decreased $3 million, or 4%, to $68 million, compared to the prior year due to lower income taxes at some of our foreign subsidiaries.

In 2017, the Tax Act significantly revised U.S. corporate income tax law by, among other things, reducing the corporate income tax rate from 35% to 21% and implementing a modified territorial tax system that includes a one-time transition tax on deemed repatriated earnings of foreign subsidiaries. As a result of the Tax Act, the prior year results include a net reduction of approximately $84 million related to the following: (1) the one-time transition tax on deemed repatriation of earnings on some of our foreign subsidiaries resulted in an additional income tax expense of $62 million, to be paid over an eight-year period, (2) the remeasurement of deferred tax assets and liabilities at the reduced corporate income tax rate of 21% resulted in additional income tax expense of $115 million, and (3) in connection with the remeasurement of our deferred tax asset arising from the acquisition of interests in IBG LLC, we also remeasured the related Tax Receivable Agreement liability, payable to Holdings, resulting in the recognition of a $93 million gain, which is reported in other income in the consolidated statements of comprehensive income. See Note 9 – "Other Income" and Note 11 – "Income Taxes" to the audited consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K.

The table below presents information about our income tax expense for the periods indicated.

	Year-Ended December 31, 2019	2018	2017
	(in millions, except %)		
Consolidated			
Consolidated income before income taxes	$1,157	$1,196	$1,049
IBG, Inc. stand-alone income before income taxes	(1)	2	92[(1)]
Operating subsidiaries income before income taxes	$1,158	$1,194	$ 957
Operating subsidiaries			
Income before income taxes	$1,158	$1,194	$ 957
Income tax expense	23	32	31
Income tax expense - effect of the Tax Act	—	—	62
Net income available to members	$1,135	$1,162	$ 864
IBG, Inc.			
Average ownership percentage in IBG LLC	18.4%	17.8%	17.0%
Net income available to IBG, Inc. from operating subsidiaries	$ 207	$ 206	$ 147
IBG, Inc. stand-alone income before income taxes	(1)	2	92[(1)]
Income before income taxes	206	208	239
Income tax expense	45	39	48
Income tax expense - effect of the Tax Act	—	—	115
Net income available to common stockholders	$ 161	$ 169	$ 76
Consolidated income tax expense			
Income tax expense attributable to operating subsidiaries	$ 23	$ 32	$ 93
Income tax expense attributable IBG, Inc.	45	39	163
Consolidated income tax expense	$ 68	$ 71	$ 256
Consolidated effects of the Tax Act			
One-time repatriation tax expense	$ —	$ —	$ 62
Remeasurement of U.S. deferred tax assets	—	—	115
Remeasurement of liability under the Tax Receivable Agreement	—	—	(93)
Total decrease in earnings resulting from the Tax Act	$ —	$ —	$ 84

(1) Includes a $93 million gain from the remeasurement of the Tax Receivable Agreement liability as a result of the Tax Act, included in other income.

Operating Results

Income before income taxes, for the current year, decreased $39 million, or 3%, to $1,157 million, compared to the prior year. Pretax profit margin was 60% for the current year and 63% for the prior year.

Comparing our operating results for the current year to the prior year, excluding the effects of our currency diversification strategy, our net mark-to-market on investments and unusual bad debt expense: adjusted net revenues were $1,984 million, up 4%; adjusted income before income taxes was $1,246 million, up 3%; and adjusted pre-tax profit margin was 63% for both the current year and the prior year. See the ''Non-GAAP Financial Measures'' section below in this Item 7 for additional details.

Year Ended December 31, 2018 compared to the Year Ended December 31, 2017

For a discussion of changes for the year ended December 31, 2018 compared to the Year Ended December 31, 2017 refer to the Annual Report on Form 10-K filed with the SEC on February 28, 2019.

Trading Volumes and Brokerage Statistics

The tables below present historical trading volumes and brokerage statistics for our business. However, volumes are not the only drivers in our business.

TRADE VOLUMES:

(in 000's, except %)

Period	Brokerage Cleared Trades	% Change	Brokerage Non Cleared Trades	% Change	Market Making Trades	% Change	Total Trades	% Change	Avg. Trades per U.S. Trading Day
2015	242,846		18,769		65,937		327,553		1,305
2016	259,932	7%	16,515	(12%)	64,038	(3%)	340,485	4%	1,354
2017	265,501	2%	14,835	(10%)	31,282	(51%)	311,618	(8%)	1,246
2018	328,099	24%	21,880	47%	18,663	(40%)	368,642	18%	1,478
2019	302,289	(8%)	26,346	20%	17,136	(8%)	345,771	(6%)	1,380

CONTRACT AND SHARE VOLUMES:

(in 000's, except %)

TOTAL

Period	Options (contracts)	% Change	Futures[1] (contracts)	% Change	Stocks (shares)	% Change
2015	634,388		140,668		172,742,520	
2016	572,834	(10%)	143,287	2%	155,439,227	(10%)
2017	395,885	(31%)	124,123	(13%)	220,247,921	42%
2018	408,406	3%	151,762	22%	210,257,186	(5%)
2019	390,739	(4%)	128,770	(15%)	176,752,967	(16%)

BROKERAGE TOTAL

Period	Options (contracts)	% Change	Futures[1] (contracts)	% Change	Stocks (shares)	% Change
2015	298,982		125,693		157,366,444	
2016	265,457	(11%)	129,082	3%	142,356,340	(10%)
2017	293,860	11%	118,427	(8%)	213,108,299	50%
2018	358,852	22%	148,485	25%	198,909,375	(7%)
2019	349,287	(3%)	126,363	(15%)	167,826,490	(16%)

BROKERAGE CLEARED

Period	Options (contracts)	% Change	Futures[1] (contracts)	% Change	Stocks (shares)	% Change
2015	244,356		124,206		153,443,988	
2016	227,413	(7%)	128,021	3%	138,523,932	(10%)
2017	253,304	11%	116,858	(9%)	209,435,662	51%
2018	313,795	24%	146,806	26%	194,012,882	(7%)
2019	302,068	(4%)	125,225	(15%)	163,030,500	(16%)

(1) Futures contract volume includes options on futures.

MARKET MAKING

Period	Options (contracts)	% Change	Futures[1] (contracts)	% Change	Stocks (shares)	% Change
2015	335,406		14,975		15,376,076	
2016	307,377	(8%)	14,205	(5%)	13,082,887	(15%)
2017	102,025	(67%)	5,696	(60%)	7,139,622	(45%)
2018	49,554	(51%)	3,277	(42%)	11,347,811	59%
2019	41,452	(16%)	2,407	(27%)	8,926,477	(21%)

(1) Futures contract volume includes options on futures.

BROKERAGE STATISTICS:

(in 000's, except % and where noted)

	4Q2019	4Q2018	% Change
Year over Year			
Total Accounts	690	598	15%
Customer Equity (in billions)[1]	$174.1	$128.4	36%
Cleared DARTs	719	856	(16%)
Total Customer DARTs	797	951	(16%)
Cleared Customers (in $'s, except DART per account)			
Commission per Cleared Commissionable Order[2]	$ 3.63	$ 3.79	(4%)
Cleared Avg. DART per Account (Annualized)	266	364	(27%)
Net Revenue per Avg. Account (Annualized)	$2,801	$3,225	(13%)

(1) Excludes non-customers.

(2) Commissionable order – a customer order that generates commissions

Business Segments

The following sections discuss the results of our operations by business segment, excluding a discussion of corporate segment income and expense. In the following tables, revenues and expenses directly associated with each business segment are included in determining income before income taxes. Due to the integrated nature of the business segments, estimates and judgments have been made in allocating certain revenue and expense items. Transactions between business segments generally result from one subsidiary facilitating the business of another subsidiary through the use of its existing trading memberships and clearing arrangements. In such cases, certain revenue and expense items are eliminated to accurately reflect the external business conducted in each business segment. Rates on transactions between business segments are designed to approximate full costs. In addition to execution, clearing and distribution fees, each business segment's operating expenses include: (i) employee compensation and benefits expenses that are incurred directly in support of each business segment, (ii) general and administrative expenses, which include directly incurred expenses for property leases, professional fees, travel and entertainment, communications and information services, equipment, and (iii) indirect support costs (including compensation and other related operating expenses) for administrative services provided by corporate segment subsidiaries. Such administrative services include, but are not limited to, computer software development and support, accounting, tax, legal and facilities management.

Electronic Brokerage

The table below presents the results of our electronic brokerage operations for the periods indicated.

	Year-Ended December 31,		
	2019	2018	2017
		(in millions)	
Revenues			
Commissions	$ 706	$ 777	$ 648
Interest income	1,738	1,386	829
Other income	164	169	108
Total revenues	2,608	2,332	1,585
Interest expense	687	490	180
Total net revenues	1,921	1,842	1,405
Non-interest expenses			
Execution, clearing and distribution fees	238	254	210
Employee compensation and benefits	142	131	122
Occupancy, depreciation and amortization	21	17	18
Communications	16	16	15
General and administrative	263	243	178
Customer bad debt	44	4	2
Total non-interest expenses	724	665	545
Income before income taxes	$1,197	$1,177	$ 860

Year Ended December 31, 2019 ("current year") compared to the Year Ended December 31, 2018 ("prior year")

Electronic brokerage total net revenues, for the current year, increased $79 million, or 4%, compared to the prior year, to $1,921 million, due to higher net interest income, partially offset by lower commissions and other income.

Commissions, for the current year, decreased $71 million, or 9%, compared to the prior year, to $706 million, driven by lower customer trading volumes in options, futures and stocks. Total customer options and futures contract and stock share volumes decreased 3%, 15% and 16%, respectively, compared to the prior year. The decline was in line with lower volatility and lower industry trade volumes. Total DARTs for cleared and execution-only customers, for the current year, decreased 3% to 833 thousand, compared to 862 thousand for the prior year. DARTs for cleared customers, i.e., customers for whom we execute trades, as well as, clear and carry positions, for the current year, decreased 5% to 748 thousand, compared to 791 thousand for the prior year. Average commission per commissionable order for cleared customers, for the current year, decreased 5% to $3.67, compared to $3.87 for the prior year, reflecting smaller trade sizes across all product types.

Net interest income, for the current year, increased $155 million, or 17%, compared to the prior year, to $1,051 million driven by a $4.4 billion increase in average customer credit balances, a portion of which were invested in interest-bearing U.S. government securities and an 0.33% increase in the average Federal Funds effective rate to 2.16%, partially offset by a $2.8 billion decrease in average customer margin loans. As a result of the increase in the average Federal Funds effective rate, interest expense on customer credit balances denominated in U.S. dollars increased from the prior year, in part, as we passed along more interest to our customers. Increased customer activity impacted securities borrowed and loaned balances. During the current year, net interest earned from securities lending transactions increased $33 million, or 16%, compared to the prior year. Note that securities lending transactions that support customer activity may produce interest income (expense) that is offset by interest expense (income) related to customer balances.

Other income, for the current year, decreased $5 million, or 3%, compared to the prior year, to $164 million, mainly driven by a $10 million decrease in risk exposure fees, and a $7 million net mark-to-market gain on our U.S. government securities portfolio in the current year compared to a $9 million net mark-to-market gain in the prior year, partially offset by a $5 million increase in FDIC sweep fee income and a $4 million increase in account activity fee income, compared to the prior year.

Non-interest expenses, for the current year, increased $59 million, or 9%, compared to the prior year, to $724 million. The increase is driven by a $40 million increase in customer bad debt expense, as described in the Financial Overview section above; a $20 million increase in general and administrative expenses, mainly due to higher expenses related to legal and regulatory matters; and an $11 million increase in employee compensation and benefits expenses driven by a 13% increase in the average number of employees providing services to the electronic brokerage segment. Within non-interest expenses, execution, clearing and distribution fees decreased $16 million, reflecting the decline in trade volumes in the current year. As a percentage of total net revenues, non-interest expenses were 38% for the current year and 36% for the prior year.

Operating Results

Income before income taxes, for the current year, increased $20 million, or 2%, compared to the prior year, to $1,197 million. As a percentage of total net revenues for the electronic brokerage segment, income before income taxes was 62% for the current year and 64% for the prior year.

Comparing electronic brokerage operating results for the current year to the prior year: excluding the net mark-to-market gains and losses from our U.S. government securities portfolio, and the unusual bad debt expense described in the Financial Overview above, adjusted net revenues were $1,914 million, up 4%; adjusted income before income taxes was $1,232 million, up 5%; and adjusted pre-tax profit margin was 64% for both the current year and the prior year. See the "Non-GAAP Financial Measures" section below in this Item 7 for additional details.

Year Ended December 31, 2018 compared to the Year Ended December 31, 2017

For a discussion of changes for the year ended December 31, 2018 compared to the Year Ended December 31, 2017 refer to the Annual Report on Form 10-K filed with the SEC on February 28, 2019.

Market Making

The table below presents the results of our market making operations for the periods indicated.

	Year-Ended December 31,		
	2019	2018	2017
	(in millions)		
Revenues			
Trading gains	$27	$39	$ 40
Interest income	48	49	89
Other income	7	9	16
Total revenues	82	97	145
Interest expense	15	21	59
Total net revenues	67	76	86
Non-interest expenses			
Execution, clearing and distribution fees	14	16	32
Employee compensation and benefits	11	10	25
Occupancy, depreciation and amortization	—	—	3
Communications	1	1	7
General and administrative	11	15	46
Total non-interest expenses	37	42	113
Income (loss) before income taxes	$30	$34	$ (27)

Year Ended December 31, 2019 ("current year") compared to the Year Ended December 31, 2018 ("prior year")

As previously described, since 2017 we have been winding down our options market making operations and the market making results described below reflect this pull back.

Market making total net revenues, for the current year, decreased $9 million, or 12%, compared to the prior year, to $67 million, due to lower trading gains and other income, partially offset by higher net interest income.

Trading gains, for the current year, decreased $12 million, or 31%, compared to the prior year, to $27 million, on the remaining market making operations. Our market making operations executed 17.1 million trades compared to 18.7 million trades executed in the prior year, reflecting the continuing wind-down of our market making activities. In addition, market making options and futures contract and stock share volumes decreased 16%, 27% and 21%, respectively.

Net interest income, for the current year, increased $5 million, or 18%, compared to the prior year, to $33 million.

Other income, for the current year, decreased $2 million, or 22%, compared to the prior year, to $7 million, mainly due to a decrease in consulting fee income and the non-recurrence of an $2 million recovery of costs related to the sale of our U.S. options market making operations to Two Sigma Securities, LLC in the prior year, partially offset by an increase in dividend income from investments.

Non-interest expenses, for the current year, decreased $5 million, or 12%, compared to the prior year, to $37 million. Within non-interest expenses, execution, clearing and distribution fees decreased $2 million, or 13%, on lower trading volumes in options, futures and stocks, and general and administrative expenses decreased $4 million, or 27%, compared to the prior year. As a percentage of total net revenues, non-interest expenses were 55% for both the current year and for the prior year.

Income before income taxes, for the current year, decreased $4 million, compared to the prior year, to $30 million.

Year Ended December 31, 2018 compared to the Year Ended December 31, 2017

For a discussion of changes for the year ended December 31, 2018 compared to the Year Ended December 31, 2017 refer to our Annual Report on form 10-K filed with the SEC on February 28, 2019.

Non-GAAP Financial Measures

We use certain non-GAAP financial measures as additional measures to enhance the understanding of our financial results. These non-GAAP financial measures include adjusted net revenues, adjusted income before income taxes, adjusted net income available for common stockholders and adjusted diluted earnings per share (“EPS”). We believe that these non-GAAP financial measures are important measures of our financial performance because they exclude certain items that may not be indicative of our core operating results and business outlook and may be useful to investors and analysts in evaluating the operating performance of the business and facilitating a meaningful comparison of our results in the current period to those in prior and future periods.

Adjusted net revenues, adjusted income before income taxes, adjusted net income available for common stockholders and adjusted EPS are non-GAAP financial measures as defined by SEC Regulation G.

- We define adjusted net revenues as net revenues adjusted to remove the effect of our currency diversification strategy and net mark-to-market on investments.
- We define adjusted income before income taxes as income before income taxes adjusted to remove the effect of our currency diversification strategy, net mark-to-market on investments and unusual bad debt expense.
- We define adjusted net income available to common stockholders as net income available for common stockholders adjusted to remove the after-tax effects of our currency diversification strategy, net mark-to-market on investments, and unusual bad debt expense attributable to IBG, Inc.

Mark-to-market on investments represents the net mark-to-market gains (losses) on our U.S. government securities portfolio, which are typically held to maturity, investments in equity securities that do not qualify for equity method accounting which are measured at fair value, and equity securities taken over by the Company from customers related to losses on margin loans described below.

Unusual bad debt expense includes material losses on margin loans resulting from unusual events that occur in the marketplace. For the twelve months ending December 31, 2019, unusual bad debt expense reflects losses recognized on margin lending to a small number of our brokerage customers that had taken relatively large positions in a security listed on a major U.S. exchange, which lost a substantial amount of its value in a very short timeframe. (See Note 14 – ''Commitments, Contingencies and Guarantees'' to the audited consolidated financial statements in Part II, Item 8 of this Annual report on Form 10-K.)

The effect of our currency diversification strategy, net mark-to-market on investments and unusual bad debt expense are excluded because management does not believe they are indicative of our underlying core business performance.

These non-GAAP measures should be considered in addition to, rather than as a substitute for, measures of financial performance prepared in accordance with GAAP[2].

The table below presents a reconciliation of consolidated GAAP to non-GAAP financial measures for the periods indicated.

	Year-Ended December 31,	
	2019	2018
	(in millions, except share and per share amounts)	
Adjusted net revenues		
Net revenues - GAAP	$1,937	$1,903
Non-GAAP adjustments		
Currency diversification strategy, net	60	19
Mark-to-market on investments	(13)	(9)
Total non-GAAP adjustments	47	10
Adjusted net revenues	$1,984	$1,913
Adjusted income before income taxes		
Income before income taxes - GAAP	$1,157	$1,196
Non-GAAP adjustments		
Currency diversification strategy, net	60	19
Mark-to-market on investments	(13)	(9)
Unusual bad debt expense	42	—
Total non-GAAP adjustments	89	10
Adjusted income before income taxes	$1,246	$1,206
Adjusted pre-tax profit margin	63%	63%
Adjusted net income available for common stockholders		
Net income available for common stockholders - GAAP	$ 161	$ 169
Non-GAAP adjustments		
Currency diversification strategy, net	11	3
Mark-to-market on investments	(2)	(2)
Unusual bad debt expense	8	—
Income tax effect of above adjustments(1)	(3)	(1)
Total non-GAAP adjustments	13	1
Adjusted net income available for common stockholders	$ 174	$ 170

2 Refers to generally accepted accounting principles in the United States.

	Year-Ended December 31, 2019	Year-Ended December 31, 2018
	(in millions, except share and per share amounts)	
Adjusted diluted EPS		
Diluted EPS - GAAP	$ 2.10	$ 2.28
Non-GAAP adjustments		
Currency diversification strategy, net	0.14	0.05
Mark-to-market on investments	(0.03)	(0.02)
Unusual bad debt expense	0.10	0.00
Income tax effect of above adjustments(1)	(0.04)	(0.02)
Total non-GAAP adjustments	0.17	0.01
Adjusted diluted EPS	$ 2.27	$ 2.28
Diluted weighted average common shares outstanding	76,825,863	74,266,370

(1) The income tax effect is estimated using the corporate income tax rates applicable to the Company.

The table below presents a reconciliation of GAAP to non-GAAP financial measures for the electronic brokerage segment for the periods indicated.

	Year-Ended December 31, 2019	Year-Ended December 31, 2018
	(in millions)	
Adjusted net revenues		
Net revenues - GAAP	$1,921	$1,842
Non-GAAP adjustments		
Mark-to-market on U.S. government securities portfolio	(7)	(9)
Total non-GAAP adjustments	(7)	(9)
Adjusted net revenues	$1,914	$1,833
Adjusted income before income taxes		
Income before income taxes - GAAP	$1,197	$1,177
Non-GAAP adjustments		
Mark-to-market on U.S. government securities portfolio	(7)	(9)
Unusual bad debt expense	42	—
Total non-GAAP adjustments	35	(9)
Adjusted income before income taxes	$1,232	$1,168
Adjusted pre-tax profit margin	64%	64%

Liquidity and Capital Resources

We maintain a highly liquid balance sheet. The majority of our assets consist of investments of customer funds, collateralized receivables arising from customer-related and proprietary securities transactions, and exchange-listed marketable securities, which are marked-to-market daily. Collateralized receivables consist primarily of customer margin loans, securities borrowed, and securities purchased under agreements to resell. As of December 31, 2019, total assets were $71.7 billion of which approximately $71.1 billion, or 99.2%, were considered liquid.

Daily monitoring of liquidity needs and available collateral levels is undertaken to help ensure that an appropriate liquidity cushion, in the form of unpledged collateral, is maintained at all times. We actively manage our excess liquidity and we maintain significant borrowing facilities through the securities lending markets and with banks. As a general practice, we maintain sufficient levels of cash on hand to provide us with a buffer should we need immediately available funds for any reason. Based on our current level of operations, we believe our cash flows from operations, available cash and available borrowings will be adequate to meet our future liquidity needs for more than the next twelve months.

Liability balances, as of December 31, 2019, in connection with securities loaned and payable to customers were higher than their respective average monthly balances during the current year and our short-term borrowings were lower than the average monthly balance during the current year.

Cash and cash equivalents held by our non-U.S. operating subsidiaries as of December 31, 2019 were $1,121 million ($769 million as of December 31, 2018). These funds are primarily intended to finance each individual operating subsidiary's local operations, and thus would not be available to fund U.S. domestic operations unless repatriated through payment of dividends to IBG LLC. In 2018 a dividend of $54 million was paid to IBG LLC from one of our non-U.S. subsidiaries. As of December 31, 2019, we had no intention to repatriate further amounts from non-U.S. operating subsidiaries, except for Timber Hill Canada Company, which discontinued its market making activities in Canada this year. With the enactment of the Tax Act, we recognized a $62 million liability for the one-time transition tax on deemed repatriation of earnings of some of our foreign subsidiaries for the year ended December 31, 2017. As a result, in the event dividends were to be paid to the Company in the future by a non-U.S. operating subsidiaries, the Company would not be required to accrue and pay income taxes on such dividends, except for foreign taxes in the form of dividend withholding tax, if any, imposed on the recipient of the distribution or dividend distribution tax imposed on the payor of the distribution.

Historically, our consolidated equity has consisted primarily of accumulated retained earnings, which to date have been sufficient to fund our operations and growth. Our consolidated equity increased 11% to $7.9 billion as of December 31, 2019 from $7.2 billion as of December 31, 2018. This increase is attributable to total comprehensive income, partially offset by distributions and dividends paid during 2019.

Cash Flows

The table below presents our cash flows from operating activities, investing activities and financing activities for the periods indicated.

	Year-Ended December 31,		
	2019	2018	2017
	(in millions)		
Net cash provided by operating activities	$2,666	$2,356	$1,065
Net cash used in investing activities	(89)	(57)	(26)
Net cash used in financing activities	(419)	(399)	(374)
Effect of exchange rate changes on cash, cash equivalents, and restricted cash	24	(79)	65
Increase in cash, cash equivalents, and restricted cash	$2,182	$1,821	$ 730

Our cash flows from operating activities are largely a reflection of the changes in customer credit and margin loan balances in our electronic brokerage business. Our cash flows from investing activities are primarily related to other investments, capitalized internal software development, purchases and sales of memberships at exchanges where we trade, and strategic investments where such investments may enable us to offer better execution alternatives to our current and prospective customers, allow us to influence exchanges to provide competing products at better prices using sophisticated technology, or enable us to acquire either technology or customers faster than we could develop them on our own. Our cash flows from financing activities are comprised of short-term borrowings, capital transactions and payments made to Holdings under the Tax Receivable Agreement. Short-term borrowings from banks are part of our daily cash management in support of operating activities. Capital transactions consist primarily of quarterly dividends paid to common stockholders and related distributions paid to Holdings.

Year Ended December 31, 2019: Our cash, cash equivalents, and restricted cash (i.e., cash and cash equivalents that are subject to withdrawal or usage restrictions) increased by $2,182 million to $12.3 billion for the year ended December 31, 2019. We raised $2,666 million in net cash from operating activities. We used net cash of $508 million in our investing and financing activities, primarily for distributions to noncontrolling interests, dividends paid to our common stockholders and payments made under the Tax Receivable Agreement. Investing activities mainly consisted of purchases of other investments and property, equipment and intangible assets.

Year Ended December 31, 2018: For a discussion of changes in cash flows for the year ended December 31, 2018 refer to our Annual Report on Form 10-K filed with the SEC on February 28, 2019.

Year Ended December 31, 2017: For a discussion of changes in cash flows for the year ended December 31, 2018 refer to our Annual Report on Form 10-K filed with the SEC on February 28, 2019.

Regulatory Capital Requirements

Our principal operating subsidiaries are subject to separate regulation and capital requirements in the U.S. and other jurisdictions. IB LLC, TH LLC and IB Corp are subject to the Uniform Net Capital Rule (Rule 15c3-1) under the Exchange Act, IB LLC is also subject to the CFTC's minimum financial requirements (Regulation 1.17). IBC is subject to the Investment Industry Regulatory Organization of Canada risk adjusted capital requirement, IBUK is subject to the United Kingdom Financial Conduct Authority Capital Requirements Directive, IBEU is subject to the Luxembourg Commission de Surveillance du Secteur Financier financial resources requirement, IBKRFS is subject to the Swiss Financial Market Supervisory Authority eligible equity requirement, IBI is subject to the National Stock Exchange of India net capital requirements, IBHK is subject to the Hong Kong Securities Futures Commission liquid capital requirement, IBSJ is subject to the Japanese Financial Supervisory Agency capital requirements and IBA is subject to the Australian Securities Exchange liquid capital requirement.

As of December 31, 2019, aggregate excess regulatory capital for all of the operating subsidiaries was $6.4 billion, and all of the operating subsidiaries were in compliance with their respective regulatory capital requirements.

The table below summarizes the capital, capital requirements and excess regulatory capital as of December 31, 2019.

	Net Capital/ Eligible Equity	Requirement	Excess
	(in millions)		
IB LLC	$5,381	$549	$4,832
IBKRFS	584	91	493
IBHK	360	145	215
Other regulated operating subsidiaries	867	44	823
	$7,192	$829	$6,363

Capital Expenditures

Our capital expenditures are comprised of compensation costs of our software engineering staff for development of software for internal use and expenditures for computer, networking and communications hardware, and leasehold improvements. These expenditure items are reported as property, equipment, and intangible assets. Capital expenditures for property, equipment, and intangible assets were approximately $74 million, $36 million, and $28 million for the three years ended December 31, 2019, 2018, and 2017, respectively. The increase during 2019 is mainly driven by the renovation of our U.S. headquarters and the relocation of our primary data center. In the future, we plan to meet capital expenditure needs with cash from operations and cash on hand, as we continue our focus on technology infrastructure initiatives to further enhance our competitive position. In response to changing economic conditions, we believe we have the flexibility to modify our capital expenditures by adjusting them (either upward or downward) to match our actual performance. If we pursue any additional strategic acquisitions, we may incur additional capital expenditures.

Contractual Obligations Summary

Our contractual obligations principally include obligations associated with our outstanding indebtedness and interest payments as of December 31, 2019.

	Payments Due by Year			
	Total	2020-2021	2022-2023	Thereafter
	(in millions)			
Payable to Holdings under Tax Receivable Agreement[1]	$139	$33	$39	$ 67
Operating leases	150	36	32	82
Transition Tax liability[2]	56	10	10	36
Total contractual cash obligations	$345	$79	$81	$185

(1) As of December 31, 2019, contractual amounts owed under the Tax Receivable Agreement of $139 million have been recorded in payable to affiliate in the consolidated financial statements representing management's best estimate of the amounts currently expected to be owed under the Tax Receivable Agreement. Through December 31, 2019, approximately $188 million of cumulative cash payments have been made.

(2) The Tax Act implemented a modified territorial tax system that includes a one-time transition tax on deemed repatriated earnings of foreign subsidiaries to be paid over an eight-year period starting in 2018. We believe this tax will not have a material impact on our liquidity.

Seasonality

Our businesses are subject to seasonal fluctuations, reflecting varying numbers of market participants at times during the year, varying numbers of trading days from quarter-to-quarter, and declines in trading activity due to holidays. Typical seasonal trends may be superseded by market or world events, which can have a significant impact on prices and trading volume.

Inflation

Although we cannot accurately anticipate the effects of inflation on our operations, we believe that, for the three most recent years, inflation has not had a material impact on our results of operations and will not likely have a material impact in the foreseeable future.

Investments in U.S. Government Securities

We invest in U.S. government securities for the purpose of satisfying U.S. regulatory requirements. As a broker-dealer, unlike banks, we are required to mark these investments to market even though we intend to hold them to maturity. Sudden increases (decreases) in interest rates will cause mark-to-market losses (gains) on these securities, which are recovered (eliminated) if we hold them to maturity, as currently intended. The impact of changes in interest rates is further described in Part II, Item 7A of this Annual Report on Form 10-K entitled "Quantitative and Qualitative Disclosures about Market Risk."

Strategic Investments and Acquisitions

We regularly evaluate potential strategic investments and acquisitions. We hold strategic investments in electronic trading exchanges including BOX Options Exchange, LLC and OneChicago LLC. In addition, in June 2018, we consummated a strategic investment in Tiger Brokers, an online stock brokerage established for Chinese retail and institutional customers. On March 20, 2019, Tiger Brokers priced its initial public offering ("IPO") of American Depositary Shares listed on Nasdaq Global Select market and, concurrently with the IPO, we purchased unregistered ordinary shares in Tiger Brokers through a private placement offering which transactions resulted in a beneficial ownership interest of 7.6%.

We intend to continue making acquisitions on an opportunistic basis, generally only when the acquisition candidate will, in our opinion, enable us to offer better execution alternatives to our current and prospective customers, allow us to influence exchanges to provide competing products at better prices using sophisticated technology, or enable us to acquire either technology or customers faster than we could develop them on our own. As of December 31, 2019, there were no other definitive agreements with respect to any material acquisition.

Certain Information Concerning Off-Balance-Sheet Arrangements

We may be exposed to a risk of loss not reflected in our consolidated financial statements for futures products, which represent our obligations to settle at contracted prices, and which may require us to repurchase or sell in the market at prevailing prices. Accordingly, these transactions result in off-balance sheet risk, as our cost to liquidate such futures contracts may exceed the amounts reported in our consolidated statements of financial condition.

Critical Accounting Policies and Estimates

Our consolidated financial statements have been prepared in accordance with U.S. GAAP, which requires management to make estimates and assumptions that affect the reported amounts and disclosures in the consolidated financial statements and accompanying notes. These estimates and assumptions are based on judgment and the best available information at the time. Therefore, actual results could differ materially from those estimates. We believe that the critical policies listed below represent the most significant estimates used in the preparation of our consolidated financial statements. See Note 2 – ''Significant Accounting Policies'' to the audited consolidated financial statements for a summary of our significant accounting policies in Part II, Item 8 of this Annual Report on Form 10-K.

Contingencies

Our policy is to estimate and accrue for potential losses that may arise out of litigation and regulatory proceedings, to the extent that such losses are probable and can be estimated. Significant judgment is required in making these estimates and our final liabilities may ultimately be materially different. Our total liability accrued with respect to litigation and regulatory proceedings is determined on a case-by-case basis and represents an estimate of probable losses based on, among other factors, the progress of each case, our experience with and industry experience with similar cases and the opinions and views of internal and external legal counsel. Given the inherent difficulty of predicting the outcome of our litigation and regulatory matters, particularly in cases or proceedings in which substantial or indeterminate damages or fines are sought, or where cases or proceedings are in the early stages, we cannot estimate losses or ranges of losses for cases or proceedings where there is only a reasonable possibility that a loss may be incurred.

Income Taxes

Our income tax expense, deferred tax assets and liabilities, and reserves for unrecognized tax benefits are based on enacted tax laws and reflect management's best assessment of estimated future taxes to be paid. We are subject to income taxes in both the U.S. and numerous foreign jurisdictions. Determining income tax expense requires significant judgment and estimates.

Deferred income tax assets and liabilities arise from temporary differences between the tax and financial statement recognition of the underlying assets and liabilities. In evaluating our ability to recover our deferred tax assets within the jurisdictions from which they arise, we consider all available positive and negative evidence, including scheduled reversals of deferred tax liabilities, projected future taxable income, tax-planning strategies, and results of recent operations. In projecting future taxable income, historical results are adjusted for changes in accounting policies and incorporate assumptions including the amount of future state, federal and foreign pre-tax operating income, the reversal of temporary differences, and the implementation of feasible and prudent tax-planning strategies. These assumptions require significant judgment about the forecasts of future taxable income and are consistent with the plans and estimates we are using to manage the underlying businesses. In evaluating the objective evidence that historical results provide, three years of cumulative operating income (loss) are considered. Deferred income taxes have not been provided for U.S. tax liabilities or for additional foreign taxes on the unremitted earnings of foreign subsidiaries that have been indefinitely reinvested.

The calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax laws and regulations in a multitude of jurisdictions across our global operations. Changes in tax laws and rates could also affect recorded deferred tax assets and liabilities in the future. The enactment of the Tax Act on December 22, 2017 significantly revised the U.S corporate income tax law by, among other things, reducing the corporate income tax rate from 35% to 21% and implementing a modified territorial tax system that includes a one-time transition tax on deemed repatriated earnings of foreign subsidiaries. See Note 11 – ''Income Taxes'' to the audited consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K. We record tax liabilities in accordance with Financial Accounting Standards Board (''FASB'') ASC Topic 740 and adjust these liabilities when management's judgment changes as a result of the evaluation of new information not previously available. Because of the complexity of some of these uncertainties, the ultimate resolution may result in payments that are different from the current estimates of these tax liabilities. These differences will be reflected as increases or decreases to income tax expense in the period in which new information becomes available.

We recognize that a tax benefit from an uncertain tax position may be recognized only when it is more likely than not that the position will be sustained upon examination, including resolutions of any related appeals or litigation processes, on the basis of the technical merits. A tax position that meets this standard is measured at the largest amount of benefit that will more likely than not be realized on settlement.

Accounting Pronouncements Issued But Not Yet Adopted

For additional information regarding FASB Accounting Standards Updates (''ASU''s) that have been issued but not yet adopted and that may impact the Company, refer to Note 2 – ''Significant Accounting Policies'' to the audited consolidated financial statements in Part II, Item 8 of this annual Report on form 10-K.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to various market risks. Our exposures to market risks arise from assumptions built into our pricing models, equity price risk, foreign currency exchange rate fluctuations related to our international operations, changes in interest rates and risks relating to the extension of margin credit to our customers.

Market risk refers to the risk that a change in the level of one or more market prices, rates, indices, implied volatilities (the price volatility of the underlying instrument imputed from option prices), correlations or other market factors, such as market liquidity, will result in losses for a position or portfolio. Generally, we incur trading-related market risk as a result of activities in the market making segment, where the substantial majority of our Value-at-Risk (''VaR'') for market risk exposures is generated. In addition, we incur non-trading-related market risk primarily from investment activities and from foreign currency exposure held in the equity of our foreign subsidiaries, i.e., our non-U.S. brokerage subsidiaries and information technology subsidiaries, and held to meet target balances in our currency diversification strategy.

We use various risk management tools in managing our market risk, which are embedded in our real-time market making systems. We employ certain hedging and risk management techniques to protect us from a severe market dislocation. Our risk management policies are developed and implemented by our Chairman and our steering committee, which is comprised of senior executives of our various companies. Our market making strategy is to calculate quotes a few seconds ahead of the market and execute small trades at a tiny but favorable differential as a result. This is made possible by our proprietary pricing model, which evaluates and monitors the risks inherent in our portfolio, assimilates external market data and reevaluates the outstanding quotes in our portfolio many times per second. Our model automatically rebalances our positions throughout each trading day to manage risk exposures on our options and futures positions and the underlying securities, and will price the increased risk that a position would add to the overall portfolio into the bid and offer prices we post. Under risk management policies implemented and monitored primarily through our computer systems, reports to management, including risk profiles, profit and loss analysis and trading performance, are prepared on a real-time basis as well as daily and periodical bases. Although our market making is completely automated, the trading process and our risk are monitored by a team of individuals who, in real time, observe various risk parameters of our consolidated positions. Our assets and liabilities are marked-to-market daily for financial reporting purposes and re-valued continuously throughout the trading day for risk management and asset/liability management purposes.

We use a covariant VaR methodology to measure, monitor and review the market risk of our market making portfolios, with the exception of fixed income products, and our currency exposures. The risk of fixed income products, which comprise primarily U.S. government securities, is measured using a stress test.

Pricing Model Exposure

As described above, our proprietary pricing model, which continuously evaluates and monitors the risks inherent in our portfolio, assimilates external market data and reevaluates the outstanding quotes in our entire portfolio many times per second. Certain aspects of the model rely on historical prices of securities. If the behavior of price movements of individual securities diverges substantially from what their historical behavior would predict, we might incur trading losses. We attempt to limit such risks by diversifying our portfolio across many different options, futures and underlying securities and avoiding concentrations of positions based on the same underlying security. Historically, our losses from these events have been immaterial in comparison to our annual trading profits.

Foreign Currency Exposure

As a result of our international activities and accumulated earnings in our foreign subsidiaries, our income and net worth is exposed to fluctuations in foreign exchange rates. For example, our European operations and some of our Asian operations are conducted by our Swiss subsidiary, IBKRFS. IBKRFS is regulated by the Swiss Financial Market Supervisory Authority as a securities dealer and its financial statements are presented in Swiss francs. Accordingly, IBKRFS is exposed to certain foreign exchange risks as described below:

- IBKRFS buys and sells securities denominated in various currencies and carries bank balances and borrows and lends such currencies in its regular course of business. At the end of each accounting period, IBKRFS' assets and liabilities are revalued into Swiss francs for presentation in its financial statements. The resulting foreign currency gains or losses are reported in IBKRFS' income statement and, as translated into U.S. dollars for U.S. GAAP purposes, in our consolidated statement of comprehensive income as a component of other income.
- IBKRFS' financial statements are presented in Swiss francs (i.e., its functional currency) as noted above. At the end of each accounting period, IBKRFS' net worth is translated at the then prevailing exchange rate into U.S. dollars and the resulting translation gain or loss is reported as OCI in our consolidated statement of financial condition and consolidated statement of comprehensive income. OCI is also produced by our other non-U.S. subsidiaries.

Historically, we have taken the approach of not hedging the above exposures, based on the notion that the cost of constantly hedging over the years would amount to more than the random impact of rate changes on our non-U.S. dollar balances. For instance, an increase in the value of the Swiss franc would be unfavorable to the earnings of IBKRFS but would be counterbalanced to some extent by the fact that the translation gain or loss into U.S. dollars is likely to move in the opposite direction.

Our risk management systems incorporate cash forex to hedge our currency exposure at little or no cost throughout each day on a continuous basis. The majority of currency spot positions held as part of our currency diversification strategy are regularly transferred to the parent holding company, IBG LLC, where they are held and reported in the corporate segment. In connection with the development of our currency diversification strategy, we determined to base our net worth in GLOBALs, a basket of currencies.

Because we conduct business in many countries and many currencies and because we consider ourselves a global enterprise based in a diversified basket of currencies rather than a U.S. dollar based company, we actively manage our global currency exposure by maintaining our equity in GLOBALs. The U.S. dollar value of the GLOBAL decreased 0.06% as of December 31, 2019 compared to December 31, 2018. As of December 31, 2019, approximately 30% of our equity was denominated in currencies other than the U.S. dollar.

The table below presents a comparison of the U.S. dollar equivalent of the GLOBAL for the periods indicated.

		As of 12/31/2018				As of 12/31/2019				
Currency	**Composition**	**FX Rate**	**GLOBAL in USD Equiv.**	**% of Comp.**	**Net Equity (in USD millions)**	**FX Rate**	**GLOBAL in USD Equiv.**	**% of Comp.**	**Net Equity (in USD millions)**	**CHANGE in % of Comp.**
USD	**0.68**	1.0000	0.680	70.3%	$5,031	1.0000	0.680	70.3%	$5,586	0.0%
EUR	**0.09**	1.1467	0.103	10.7%	763	1.1213	0.101	10.4%	829	-0.2%
JPY	**4.41**	0.0091	0.040	4.2%	298	0.0092	0.041	4.2%	333	0.0%
GBP	**0.02**	1.2760	0.026	2.6%	189	1.3261	0.027	2.7%	218	0.1%
HKD	**0.14**	0.1277	0.018	1.8%	132	0.1284	0.018	1.9%	147	0.0%
INR	**1.10**	0.0144	0.016	1.6%	117	0.0140	0.015	1.6%	126	0.0%
CHF	**0.02**	1.0190	0.020	2.1%	151	1.0334	0.021	2.1%	170	0.0%
CAD	**0.02**	0.7332	0.015	1.5%	108	0.7699	0.015	1.6%	127	0.1%
CNH	**0.10**	0.1456	0.015	1.5%	108	0.1437	0.014	1.5%	118	0.0%
AUD	**0.02**	0.7052	0.014	1.5%	104	0.7017	0.014	1.5%	115	0.0%
MXN	**0.17**	0.0509	0.009	0.9%	64	0.0528	0.009	0.9%	74	0.0%
SEK	**0.05**	0.1129	0.006	0.6%	42	0.1068	0.005	0.6%	44	0.0%
NOK	**0.03**	0.1157	0.003	0.4%	26	0.1139	0.003	0.4%	28	0.0%
DKK	**0.02**	0.1536	0.003	0.3%	23	0.1501	0.003	0.3%	25	0.0%
			0.967	**100.0%**	**$7,156**		**0.967**	**100.0%**	**$7,940**	**0.0%**

The effects of our currency diversification strategy appear in two places in the consolidated financial statements: (1) as a component of other income in the consolidated statement of comprehensive income and (2) as OCI in the consolidated statement of financial condition and the consolidated statement of comprehensive income. The full effect of the GLOBAL is captured in the consolidated statement of comprehensive income.

Reported results on a comprehensive basis reflect the U.S. GAAP convention that requires the reporting of currency translation results contained in OCI as part of reportable earnings.

Interest Rate Risk

We had no variable-rate debt outstanding as of December 31, 2019.

We pay our electronic brokerage customers interest based on benchmark overnight interest rates in various currencies, on cash balances above $10 thousand (or equivalent) in securities accounts holding more than $100 thousand and at lower, tiered rates for accounts holding less than $100 thousand (or equivalent) net asset value. In a normal rate environment, we typically invest a portion of these funds in U.S. government securities with maturities of up to two years. If interest rates were to increase rapidly and substantially, our net interest income would not increase proportionally with the interest rates for the portion of the funds invested in the U.S. government securities with fixed yields. In addition, the mark-to-market changes in the value of these fixed rate securities will be reflected in other income, instead of net interest income. Based on customer balances and investments outstanding as of December 31, 2019, and assuming reinvestment of maturing instruments in instruments of short-term duration, an unexpected increase of 0.25% over current U.S. dollar interest rate levels would increase our net interest income by approximately $20 million over the first year and $22 million on an annualized basis, assuming the full effect of reinvestment at higher rates. Our interest rate sensitivity estimate contains separate assumptions for U.S. dollar rates from other currencies' rates and it isolates the effects of a rate increase on reinvestments. We do not approximate mark-to-market impact from interest rate changes; if U.S. government securities whose prices were to fall under these scenarios were held to maturity, as intended, then the reduction in other income would be temporary, as the securities would mature at par value.

We also face the potential for reduced net interest income from customer deposits due to interest rate spread compression in a low rate environment. Based on customer balances and investments outstanding as of December 31, 2019, and assuming reinvestment of maturing instruments in instruments of short-term duration, an unexpected decrease in U.S. dollar interest rates of 0.25% would decrease our net interest income by approximately $17 million over the first year and $22 million on an annualized basis, assuming the full effect of reinvestment at lower rates.

We also face interest rate risk due to positions carried in our market making business to the extent that long or short stock positions may have been established for future or forward dates on options or futures contracts and the value of such positions are impacted by interest rates. The amount of such risk cannot be quantified, however, the reduction of market making positions has substantially reduced this exposure.

Dividend Risk

We face dividend risk in our market making business as we derive revenues and incur expenses in the form of dividend income and expense, respectively, from our inventory of equity securities, and must make payments in lieu of dividends on short positions in equity securities within our portfolio. Projected future dividends are an important component of pricing equity options and other derivatives, and incorrect projections may lead to trading losses. The amount of such risk cannot be quantified, however, the reduction of market making positions has substantially reduced this exposure.

Margin Loans

We extend margin loans to our customers, which are subject to various regulatory requirements. Margin loans are collateralized by cash and securities in the customers' accounts. The risks associated with margin credit increase during periods of fast market movements or in cases where collateral is concentrated and market movements occur. During such times, customers who utilize margin loans and who have collateralized their obligations with securities may find that the securities have a rapidly depreciating value and may not be sufficient to cover their obligations in the event of a liquidation. We are also exposed to credit risk when our customers execute transactions, such as short sales of options and equities that can expose them to risk beyond their invested capital.

We expect this kind of exposure to increase with the growth of our overall business. Because we indemnify and hold harmless our clearing houses and counterparties from certain liabilities or claims, the use of margin loans and short sales may expose us to significant off-balance-sheet risk in the event that collateral requirements are not sufficient to fully cover losses that customers may incur and those customers fail to satisfy their obligations. As of December 31, 2019, we had $31.3 billion in margin loans extended to our customers. The amount of risk to which we are exposed from the margin loans we extend to our customers and from short sale transactions by our customers is unlimited and not quantifiable as the risk is dependent upon analysis of a potential significant and undeterminable rise or fall in stock prices. Our account level margin requirements meet or exceed those required by Regulation T of the Board of Governors of the Federal Reserve and FINRA portfolio margin rules, as applicable. As a matter of practice, we enforce real-time margin compliance monitoring and liquidate customers' positions if their equity falls below required margin requirements.

We have a comprehensive policy implemented in accordance with regulatory standards to assess and monitor the suitability of investors to engage in various trading activities. To mitigate our risk, we also continuously monitor customer accounts to detect excessive concentration, large orders or positions, patterns of day trading and other activities that indicate increased risk to us.

Our credit exposure is to a great extent mitigated by our policy of automatically evaluating each account throughout the trading day and closing out positions automatically for accounts that are found to be under-margined. While this methodology is effective in most situations, it may not be effective in situations where no liquid market exists for the relevant securities or commodities or where, for any reason, automatic liquidation for certain accounts has been disabled. Our Risk Management Committee continuously monitors and evaluates our risk management policies, including the implementation of policies and procedures to enhance the detection and prevention of theoretical events to mitigate margin loan losses.

Value-at-Risk

We estimate VaR using an historical approach, which uses the historical daily price returns of underlying assets as well as estimates of the end of day implied volatility for options. Our one-day VaR is defined as the unrealized loss in portfolio value that, based on historically observed market risk factors, would have been exceeded with a frequency of one percent, based on a calculation with a confidence interval of 99%.

Our VaR model generally takes into account exposures to equity and commodity price risk and foreign exchange rates.

We use VaR as one of a range of risk management tools. Among their benefits, VaR models permit estimation of a portfolio's aggregate market risk exposure, incorporating a range of varied market risks and portfolio assets. One key element of the VaR model is that it reflects risk reduction due to portfolio diversification or hedging activities. However, VaR has various strengths and limitations, which include, but are not limited to: use of historical changes in market risk factors, which may not be accurate predictors of future market conditions, and may not fully incorporate the risk of extreme market events that are outsized relative to observed historical market behavior or reflect the historical distribution of results beyond the confidence interval; and reporting of losses in a single day, which does not reflect the risk of positions that cannot be liquidated or hedged in one day. A small proportion of market risk generated by trading positions is not included in VaR. The modeling of the risk characteristics of some positions relies on approximations that, under certain circumstances, could produce significantly different results from those produced using more precise measures. VaR is most appropriate as a risk measure for trading positions in liquid financial markets and will understate the risk associated with severe events, such as periods of extreme illiquidity.

The VaR calculation simulates the performance of the portfolio based on several years of the daily price changes of the underlying assets and determines the VaR as the calculated loss that occurs at the 99^{th} percentile.

Since the reported VaR statistics are estimates based on historical data, VaR should not be viewed as predictive of our future revenues or financial performance or of our ability to monitor and manage risk. There can be no assurance that our actual losses on a particular day will not exceed the indicated VaR or that such losses will not occur more than one time in 100 trading days. VaR does not predict the magnitude of losses which, should they occur, may be significantly greater than the VaR amount.

Stress Test

We estimate the market risk of our fixed income portfolio using a risk analysis model provided by a leading external vendor. For corporate bonds, this stress test is configured to calculate the change in value of each fixed income security in the portfolio over one day in seven scenarios each of which represents a parallel shift of the U.S. Treasury yield curve. The scenarios are shifts of +/−100, +/−200 and +/−300 basis points. For U.S. government securities, the stress test is configured to calculate the change in value of each fixed income security in the portfolio over one day in three scenarios each of which represents a parallel shift of the U.S. Treasury yield curve. The scenarios are shifts of +/−25 basis points.

VaR and Stress Test Measures

Market Risk Category	At December 31, 2019	At December 31, 2018	Average 2019	High 2019
		(in millions)		
Trading[1]				
Equities and Currencies[2]	$ 7	$ 7	$ 7	$ 8
Fixed Income[3]	—	—	—	—
Trading Total	$ 7	$ 7	$ 7	$ 8
Non-Trading[1]				
Equities and Currencies	$17	$15	$15	$18
Fixed Income, Other[4]	2	4	4	6
Non-Trading Total	$19	$19	$19	$24

(1) The product categories displayed in the table as ‘‘Trading’’ reflect activities undertaken in the Company’s market making segment.

The ‘‘Non-trading’’ category reflects investment activities and foreign currency exposures held in the equity of the Company’s non-market making subsidiaries, i.e., its brokerage subsidiaries and information technology subsidiaries. This category also includes corporate segment activities in foreign exchange designed to achieve the Company’s currency diversification strategy.

The average and high VaR amounts for equities and currencies are based on end of day calculations performed in 2019. The fixed income stress amounts are based on the four quarter ending calculations performed in 2019.

(2) Equities and currencies held for market making purposes are combined because these products are part of an integrated, hedged market making portfolio, on which the risk is measured using VaR.

(3) The Trading – Fixed Income category contains primarily foreign government securities held in connection with market making activities. The risks on these products were managed separately and measured using the stress test analysis.

(4) The Non-Trading – Fixed Income, Other category contains primarily U.S. government securities held in segregated safekeeping accounts for the exclusive benefit of our brokerage customers, on which the risk is measured using a stress test analysis.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Index to Consolidated Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of
Interactive Brokers Group, Inc.
Greenwich, CT

Opinion on the Financial Statements

We have audited the accompanying consolidated statements of financial condition of Interactive Brokers Group, Inc. and subsidiaries (the ‘‘Company’’) as of December 31, 2019 and 2018, the related consolidated statements of comprehensive income, changes in equity, and cash flows, for each of the three years in the period ended December 31, 2019, and the related notes (collectively referred to as the ‘‘financial statements’’). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company’s internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 28, 2020, expressed an unqualified opinion on the Company’s internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Income taxes — Refer to Notes 2 and 11 to the consolidated financial statements

Critical Audit Matter Description

The Company’s income tax expense, deferred tax assets and liabilities (net of valuation allowance, if any), and reserves for unrecognized tax benefits are based on enacted tax laws and reflects management’s best assessment of estimated future taxes to be paid. The Company is subject to income taxes in both the U.S. and numerous foreign jurisdictions. The Company has deferred tax assets resulting from the tax basis step-up received in connection with the Company’s public equity offerings. Determining income tax expense requires significant management judgments and estimates.

We identified management's calculation of income tax expense, deferred tax assets and liabilities (net of valuation allowance, if any), and reserves for unrecognized tax benefits as a critical audit matter because of the significant judgments and estimates management makes to determine these amounts. This required a high degree of audit judgment and an increased effort, including the need to involve our income tax specialists when performing audit procedures to evaluate the reasonableness of management's interpretation of tax law in multiple countries, and its estimate of the associated provisions, tax charges, and uncertain tax positions.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to income taxes included, among others, the following:

- We tested the design and operating effectiveness of controls over income tax balances, including the provision for income taxes, deferred tax assets and liabilities (including valuation allowance) and unrecognized tax benefits.
- With the assistance of our income tax specialists, we assessed the Company's income tax expense by:
    - Evaluating the Company's income tax provision calculation, including testing the appropriateness of income tax rates applied and of income allocations among the taxing jurisdictions, application of the provisions in the Tax Act, and the mathematical accuracy of the calculation.
    - Evaluating the Company's analyses supporting its conclusions as to the recognition and measurement of deferred tax assets and liabilities, including the calculation of the deferred tax asset related to the tax basis step-up received in connection with the Company's public equity offering.
    - Evaluating management's assessment of the Company's ability to utilize the net deferred tax assets in future years.
    - Evaluating the appropriateness of the Company having no significant unrecognized tax benefits.

/s/ Deloitte & Touche LLP
New York, New York
February 28, 2020

We have served as the Company's auditor since 1990.

Interactive Brokers Group, Inc. and Subsidiaries
Consolidated Statements of Financial Condition

(in millions, except share amounts)	December 31, 2019	December 31, 2018
Assets		
Cash and cash equivalents	$ 2,882	$ 2,597
Cash - segregated for regulatory purposes	9,400	7,503
Securities - segregated for regulatory purposes	17,824	15,595
Securities borrowed	3,916	3,331
Securities purchased under agreements to resell	3,111	1,242
Financial instruments owned, at fair value		
Financial instruments owned	1,755	1,931
Financial instruments owned and pledged as collateral	161	188
Total financial instruments owned, at fair value	1,916	2,119
Receivables		
Customers, less allowance for doubtful accounts of $86 and $42 as of December 31, 2019 and 2018	31,304	27,017
Brokers, dealers and clearing organizations	685	706
Interest	158	141
Total receivables	32,147	27,864
Other assets	480	296
Total assets	$71,676	$60,547
Liabilities and equity		
Short-term borrowings	$ 16	$ 17
Securities loaned	4,410	4,037
Securities sold under agreements to repurchase	1,909	—
Financial instruments sold, but not yet purchased, at fair value	457	681
Payables		
Customers	56,248	47,993
Brokers, dealers and clearing organizations	220	298
Affiliate	152	171
Accounts payable, accrued expenses and other liabilities	295	153
Interest	29	41
Total payables	56,944	48,656
Total liabilities	63,736	53,391
Commitments, contingencies and guarantees (see Note 14)		
Equity		
Stockholders' equity		
Common stock, $0.01 par value per share		
Class A – Authorized - 1,000,000,000, Issued - 76,889,040 and 75,230,400 shares, Outstanding – 76,750,110 and 75,100,952 shares as of December 31, 2019 and 2018	1	1
Class B – Authorized, Issued and Outstanding – 100 shares as of December 31, 2019 and 2018	—	—
Additional paid-in capital	934	898
Retained earnings	520	390
Accumulated other comprehensive income, net of income taxes of $0 and $0 as of December 31, 2019 and 2018	—	(4)
Treasury stock, at cost, 138,930 and 129,448 shares as of December 31, 2019 and 2018	(3)	(3)
Total stockholders' equity	1,452	1,282
Noncontrolling interests	6,488	5,874
Total equity	7,940	7,156
Total liabilities and equity	$71,676	$60,547

See accompanying notes to the consolidated financial statements.

Interactive Brokers Group, Inc. and Subsidiaries
Consolidated Statements of Comprehensive Income

(in millions, except share or per share amounts)	Year-Ended December 31, 2019	2018	2017
Revenues			
Commissions	$ 706	$ 777	$ 647
Interest income	1,726	1,392	908
Trading gains	27	39	40
Other income	121	158	332
Total revenues	2,580	2,366	1,927
Interest expense	643	463	225
Total net revenues	1,937	1,903	1,702
Non-interest expenses			
Execution, clearing and distribution fees	251	269	241
Employee compensation and benefits	288	264	249
Occupancy, depreciation and amortization	60	49	47
Communications	25	25	28
General and administrative	112	96	86
Customer bad debt	44	4	2
Total non-interest expenses	780	707	653
Income before income taxes	1,157	1,196	1,049
Income tax expense	68	71	256
Net income	1,089	1,125	793
Less net income attributable to noncontrolling interests	928	956	717
Net income available for common stockholders	$ 161	$ 169	$ 76
Earnings per share			
Basic	$ 2.11	$ 2.30	$ 1.09
Diluted	$ 2.10	$ 2.28	$ 1.07
Weighted average common shares outstanding			
Basic	76,121,570	73,438,209	69,926,933
Diluted	76,825,863	74,266,370	70,904,921
Comprehensive income			
Net income available for common stockholders	$ 161	$ 169	$ 76
Other comprehensive income			
Cumulative translation adjustment, before income taxes	4	(14)	11
Income taxes related to items of other comprehensive income	—	(1)	—
Other comprehensive income (loss), net of tax	4	(13)	11
Comprehensive income available for common stockholders	$ 165	$ 156	$ 87
Comprehensive income attributable to noncontrolling interests			
Net income attributable to noncontrolling interests	$ 928	$ 956	$ 717
Other comprehensive income - cumulative translation adjustment	20	(66)	54
Comprehensive income attributable to noncontrolling interests	$ 948	$ 890	$ 771

See accompanying notes to the consolidated financial statements.

Interactive Brokers Group, Inc. and Subsidiaries
Consolidated Statements of Cash Flows

(in millions)	Year-Ended December 31, 2019	2018	2017
Cash flows from operating activities			
Net income	$ 1,089	$ 1,125	$ 793
Adjustments to reconcile net income to net cash from operating activities			
Deferred income taxes	24	21	147
Depreciation and amortization	31	26	25
Amortization of right-of-use assets	21	—	—
Employee stock plan compensation	60	58	53
Unrealized (gain) loss on other investments, net	(8)	2	(4)
Gain on remeasurement of Tax Receivable Agreement liability	—	(3)	(93)
Bad debt expense	44	4	2
Impairment loss	1	1	21
Change in operating assets and liabilities			
Securities - segregated for regulatory purposes	(2,229)	(1,910)	4,708
Securities borrowed	(585)	(374)	672
Securities purchased under agreements to resell	(1,869)	793	(1,924)
Financial instruments owned, at fair value	210	1,034	886
Receivables from customers	(4,332)	2,800	(10,414)
Other receivables	4	92	158
Other assets	(169)	11	(3)
Securities loaned	373	(407)	151
Securities sold under agreement to repurchase	1,909	(1,316)	1,316
Financial instruments sold, but not yet purchased, at fair value	(224)	(86)	(1,378)
Payable to customers	8,255	445	5,817
Other payables	61	40	132
Net cash provided by operating activities	2,666	2,356	1,065
Cash flows from investing activities			
Purchases of other investments	(19)	(22)	—
Distributions received and proceeds from sales of other investments	4	1	2
Purchase of property, equipment and intangible assets	(74)	(36)	(28)
Net cash used in investing activities	(89)	(57)	(26)
Cash flows from financing activities			
Short-term borrowings, net	(1)	2	(59)
Dividends paid to stockholders	(31)	(29)	(28)
Distributions from IBG LLC to noncontrolling interests	(357)	(339)	(272)
Repurchases of common stock for employee tax withholdings under stock incentive plans	(27)	(45)	(21)
Proceeds from the sale of treasury stock	26	40	21
Payments made under the Tax Receivable Agreement	(29)	(28)	(15)
Net cash used in financing activities	(419)	(399)	(374)
Effect of exchange rate changes on cash, cash equivalents, and restricted cash	24	(79)	65
Net increase in cash, cash equivalents, and restricted cash	2,182	1,821	730
Cash, cash equivalents, and restricted cash at beginning of period	10,100	8,279	7,549
Cash, cash equivalents, and restricted cash at end of period	$12,282	$10,100	$ 8,279
Cash, cash equivalents, and restricted cash			
Cash and cash equivalents	2,882	2,597	1,732
Cash segregated for regulatory purposes	9,400	7,503	6,547
Cash, cash equivalents, and restricted cash at end of period	$12,282	$10,100	$ 8,279
Supplemental disclosures of cash flow information			
Cash paid for interest	$ 654	$ 444	$ 209
Cash paid for taxes, net	$ 51	$ 50	$ 47
Cash paid for amounts included in lease liabilities	$ 20	$ —	$ —
Non-cash financing activities			
Issuance of common stock in exchange of member interests in IBG LLC	$ 1	$ 94	$ 49
Redemption of member interests from IBG Holdings LLC	$ (1)	$ (94)	$ (49)
Adjustments to additional paid-in capital for changes in proportionate ownership in IBG LLC	$ 24	$ 28	$ 28
Adjustments to noncontrolling interests for changes in proportionate ownership in IBG LLC	$ (24)	$ (28)	$ (28)
Non-cash distributions to noncontrolling interests	$ —	$ (11)	$ —

See accompanying notes to the consolidated financial statements.

Interactive Brokers Group, Inc. and Subsidiaries
Consolidated Statements of Changes in Equity
Three Years Ended December 31, 2019, 2018, and 2017

(in millions, except share amounts)	Class A Common Stock Issued Shares	Class A Common Stock Par Value	Additional Paid-In Capital	Treasury Stock	Retained Earnings	Accumulated Other Comprehensive Income	Total Stockholders' Equity	Non-controlling Interests	Total Equity
Balance, December 31, 2016	68,119,412	$1	$775	$ (3)	$203	$ (2)	$ 974	$4,846	$5,820
Issuance of common stock in follow-on offering	1,214,860		18				18	(18)	—
Common stock distributed pursuant to stock incentive plans	2,274,777						—		—
Compensation for stock grants vesting in the future			9				9	44	53
Deferred tax benefit retained - follow-on offering			2				2		2
Repurchases of common stock for employee tax withholdings under stock incentive plans				(21)			(21)		(21)
Sales of treasury stock				21			21		21
Dividends paid to stockholders					(28)		(28)		(28)
Distributions from IBG LLC to noncontrolling interests							—	(272)	(272)
Adjustments for changes in proportionate ownership in IBG LLC			28				28	(28)	—
Comprehensive income					76	11	87	771	858
Balance, December 31, 2017	71,609,049	$1	$832	$ (3)	$251	$ 9	$1,090	$5,343	$6,433
Issuance of common stock in follow-on offering	1,537,727		25				25	(25)	—
Common stock distributed pursuant to stock incentive plans	2,083,624						—		—
Compensation for stock grants vesting in the future			10				10	48	58
Deferred tax benefit retained - follow-on offering			3				3		3
Repurchases of common stock for employee tax withholdings under stock incentive plans				(45)			(45)		(45)
Sales of treasury stock				45	(1)		44	(4)	40
Dividends paid to stockholders					(29)		(29)		(29)
Distributions from IBG LLC to noncontrolling interests							—	(350)	(350)
Adjustments for changes in proportionate ownership in IBG LLC			28				28	(28)	—
Comprehensive income					169	(13)	156	890	1,046
Balance, December 31, 2018	75,230,400	$1	$898	$ (3)	$390	$ (4)	$1,282	$5,874	$7,156
Issuance of common stock in follow-on offering	21,075		1				1	(1)	—
Common stock distributed pursuant to stock incentive plans	1,627,565						—		—
Issuance of common stock - Promotions	10,000						—		—
Compensation for stock grants vesting in the future			11				11	49	60
Repurchases of common stock for employee tax withholdings under stock incentive plans				(27)			(27)		(27)
Sales of treasury stock				27			27	(1)	26
Dividends paid to stockholders					(31)		(31)		(31)
Distributions from IBG LLC to noncontrolling interests							—	(357)	(357)
Adjustments for changes in proportionate ownership in IBG LLC			24				24	(24)	—
Comprehensive income					161	4	165	948	1,113
Balance, December 31, 2019	76,889,040	$1	$934	$ (3)	$520	$ —	$1,452	$6,488	$7,940

See accompanying notes to the consolidated financial statements.

1. Organization of Business

Interactive Brokers Group, Inc. (“IBG, Inc.”) is a Delaware holding company whose primary asset is its ownership of approximately 18.5% of the membership interests of IBG LLC, which, in turn, owns operating subsidiaries (collectively, “IBG LLC”). IBG, Inc. together with IBG LLC and its consolidated subsidiaries (collectively, “the Company”), is an automated global electronic broker specializing in executing and clearing trades in securities, futures, foreign exchange instruments, bonds and mutual funds on more than 135 electronic exchanges and market centers around the world and offering custody, prime brokerage, securities and margin lending services to customers. In the United States of America (“U.S.”), the Company conducts its business primarily from its headquarters in Greenwich, Connecticut and from Chicago, Illinois. Abroad, the Company conducts its business through offices located in Canada, the United Kingdom, Luxembourg, Switzerland, India, China (Hong Kong and Shanghai), Japan and Australia. As of December 31, 2019, the Company had 1,643 employees worldwide.

IBG LLC is a Connecticut limited liability company that conducts its business through its significant operating subsidiaries: Interactive Brokers LLC (“IB LLC”); Interactive Brokers Canada Inc. (“IBC”); Interactive Brokers (U.K.) Limited (“IBUK”); IBKR Europe S.a.r.l. (“IBEU”); IBKR Financial Services AG (“IBKRFS”); Interactive Brokers (India) Private Limited (“IBI”), Interactive Brokers Hong Kong Limited (“IBHK”), Interactive Brokers Securities Japan, Inc. (“IBSJ”) and Interactive Brokers Australia Pty Limited (“IBA”).

The Company operates in two business segments: electronic brokerage and market making, both supported by corporate. The electronic brokerage business provides electronic execution and clearing services to customers worldwide. The market making business currently consists of customer facilitation in products such as CFDs, ETFs and single stock futures, as well as exchange traded market making activities in a few select markets outside the U.S. (See Note 2 – Discontinued Operations and Costs Associated with Exit or Disposal Activities). Corporate enables the Company to operate cohesively and effectively by providing support via development services and control functions to the business segments and also by executing the Company’s currency diversification strategy.

Certain of the operating subsidiaries are members of various securities and commodities exchanges in North America, Europe and the Asia/Pacific region and are subject to regulatory capital and other requirements (see Note 16). IB LLC, IBC, IBUK, IBEU, IBI, IBHK, IBSJ and IBA carry securities accounts for customers or perform custodial functions relating to customer securities.

2. Significant Accounting Policies

Basis of Presentation

These consolidated financial statements are presented in U.S. dollars and have been prepared in accordance with accounting principles generally accepted in the U.S. (“U.S. GAAP”) and pursuant to the rules and regulations of the U.S. Securities and Exchange Commission (“SEC”) regarding financial reporting with respect to Form 10-K.

These consolidated financial statements include the accounts of the Company and its consolidated subsidiaries and reflect all adjustments of a normal and recurring nature that are, in the opinion of management, necessary for the fair presentation of the results for the periods presented.

Principles of Consolidation, including Noncontrolling Interests

These consolidated financial statements include the accounts of IBG, Inc. and its majority and wholly owned subsidiaries. As sole managing member of IBG LLC, IBG, Inc. exerts control over IBG LLC’s operations. In accordance with Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) Topic 810, “Consolidation,” the Company consolidates IBG LLC’s financial statements and records the interests in IBG LLC that it does not own as noncontrolling interests.

The Company’s policy is to consolidate all other entities in which it owns more than 50% unless it does not have control. All inter-company balances and transactions have been eliminated.

2. Significant Accounting Policies (Continued)

Discontinued Operations and Costs Associated with Exit or Disposal Activities

On March 8, 2017, the Company announced its intention to discontinue its options market making activities globally. Additionally, as previously announced, on September 29, 2017 the Company completed the transfer of its U.S. options market making operations to Two Sigma Securities, LLC and recognized a gain on sale of $11 million, reflecting the recovery of exit costs, recorded in other income in the consolidated statements of comprehensive income. The Company also exited the majority of its market making activities outside of the U.S. by December 31, 2017 and will report discontinued operations if it meets the criteria under FASB Topic ASC 205-20, ''Discontinued Operations.''

The Company recognized approximately $25 million in one-time restructuring costs during the year ended December 31, 2017. The one-time restructuring costs included approximately $22 million of non-cash expenditures, consisting of impairment of the carrying value of certain exchange trading rights and stock-based compensation, included in general and administrative expenses and employee compensation and benefits, respectively, and $3 million of cash expenditures primarily related to severance costs for employee terminations, included employee compensation and benefits, in the consolidated statements of comprehensive income. During the years ended December 31, 2019 and 2018, the Company did not incur any additional restructuring costs.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts and disclosures in these consolidated financial statements and accompanying notes. These estimates and assumptions are based on judgment and the best available information at the time. Therefore, actual results could differ materially from those estimates. Such estimates include the allowance for doubtful accounts, valuation of certain investments, compensation accruals, current and deferred income taxes, costs associated with exit or disposal activities, and contingency reserves.

Fair Value

Substantially all of the Company's assets and liabilities, including financial instruments are carried at fair value based on published market prices and are marked to market, or are assets and liabilities which are short-term in nature and are carried at amounts that approximate fair value.

The Company applies the fair value hierarchy in accordance with FASB ASC Topic 820, ''Fair Value Measurement'' (''ASC Topic 820''), to prioritize the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets and liabilities and the lowest priority to unobservable inputs. The three levels of the fair value hierarchy are:

Level 1	Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.
Level 2	Quoted prices for similar assets in an active market, quoted prices in markets that are not considered to be active or financial instruments for which all significant inputs are observable, either directly or indirectly.
Level 3	Prices or valuations that require inputs that are both significant to fair value measurement and unobservable.

Financial instruments owned, at fair value and financial instruments sold, but not yet purchased, at fair value are generally classified as Level 1 of the fair value hierarchy. The Company's Level 1 financial instruments, which are valued using quoted market prices as published by exchanges and clearing houses or otherwise broadly distributed in active markets, include active listed stocks, options, warrants, and U.S. and foreign government securities. The Company does not adjust quoted prices for financial instruments classified as Level 1 of the fair value hierarchy, even in the event that the Company may hold a large position whereby a purchase or sale could reasonably impact quoted prices.

2. Significant Accounting Policies (Continued)

Currency forward contracts are valued using broadly distributed bank and broker prices, and are classified as Level 2 of the fair value hierarchy since inputs to their valuation can be generally corroborated by market data. Other securities that are not traded in active markets are also classified as Level 2 of the fair value hierarchy. Level 3 financial instruments are comprised of securities that have been delisted or otherwise are no longer tradable in active markets and have been valued by the Company based on internal estimates.

Earnings per Share

Earnings per share (''EPS'') is computed in accordance with FASB ASC Topic 260, ''Earnings per Share.'' Basic EPS is computed by dividing the net income available for common stockholders by the weighted average number of shares outstanding for that period. Diluted EPS is calculated by dividing the net income available for common stockholders by the diluted weighted average shares outstanding for that period. Diluted EPS includes the determinants of the basic EPS and, in addition, reflects the dilutive effect of shares of common stock estimated to be distributed in the future under the Company's stock-based compensation plans, with no adjustments to net income available for common stockholders for potentially dilutive common shares.

Cash and Cash Equivalents

Cash and cash equivalents consist of deposits with banks and all highly liquid investments, with maturities of three months or less, that are not segregated and deposited for regulatory purposes or to meet margin requirements at clearing houses.

Cash and Securities - Segregated for Regulatory Purposes

As a result of customer activities, certain operating subsidiaries are obligated by rules mandated by their primary regulators to segregate or set aside cash or qualified securities to satisfy such regulations, which have been promulgated to protect customer assets. Restricted cash represents cash and cash equivalents that are subject to withdrawal or usage restrictions. Cash segregated for regulatory purposes meets the definition of restricted cash and is included in ''cash, cash equivalents and restricted cash'' in the consolidated statements of cash flows.

The table below presents the composition of the Company's securities segregated for regulatory purposes for the periods indicated.

	December 31,	
	2019	2018
	(in billions)	
U.S. government securities	$ 3.8	$ 4.2
Securities purchased under agreements to resell(1)	14.0	11.4
	$17.8	$15.6

(1) These balances are collateralized by U.S. government securities.

Securities Borrowed and Securities Loaned

Securities borrowed and securities loaned are recorded at the amount of the cash collateral advanced or received. Securities borrowed transactions require the Company to provide counterparties with collateral, which may be in the form of cash, letters of credit or other securities. With respect to securities loaned, the Company receives collateral, which may be in the form of cash or other securities in an amount generally in excess of the fair value of the securities loaned. The Company monitors the market value of securities borrowed and loaned on a daily basis, with additional collateral obtained or refunded as permitted contractually. The Company's policy is to net, in the consolidated statements of financial condition, securities borrowed and securities loaned entered into with the same counterparty that meet the offsetting requirements prescribed in FASB ASC Topic 210-20, ''Balance Sheet – Offsetting'' (''ASC Topic 210-20'').

2. Significant Accounting Policies (Continued)

Securities lending fees received and paid by the Company are included in interest income and interest expense, respectively, in the consolidated statements of comprehensive income.

Securities Purchased Under Agreements to Resell and Securities Sold Under Agreements to Repurchase

Securities purchased under agreements to resell and securities sold under agreements to repurchase, which are reported as collateralized financing transactions, are recorded at contract value, which approximates fair value. To ensure that the fair value of the underlying collateral remains sufficient, the collateral is valued daily with additional collateral obtained or excess collateral returned, as permitted under contractual provisions.
The Company's policy is to net, in the consolidated statements of financial condition, securities purchased under agreements to resell transactions and securities sold under agreements to repurchase transactions entered into with the same counterparty that meet the offsetting requirements prescribed in ASC Topic 210-20.

Financial Instruments Owned and Financial Instruments Sold, But Not Yet Purchased, at Fair Value

Financial instrument transactions are accounted for on a trade date basis. Financial instruments owned and financial instruments sold, but not yet purchased are stated at fair value based upon quoted market prices, or if not available, are valued by the Company based on internal estimates (see Fair Value above). The Company's financial instruments pledged to counterparties where the counterparty has the right, by contract or custom, to sell or repledge the financial instruments are reported as financial instruments owned and pledged as collateral in the consolidated statements of financial condition.

Customer Receivables and Payables

Customer securities transactions are recorded on a settlement date basis and customer commodities transactions are recorded on a trade date basis. Receivables from and payables to customers include amounts due on cash and margin transactions, including futures contracts transacted on behalf of customers. Securities owned by customers, including those that collateralize margin loans or other similar transactions, are not reported in the consolidated statements of financial condition. Amounts receivable from customers that are determined by management to be uncollectible are recorded as customer bad debt expense in the consolidated statements of comprehensive income.

Receivables from and Payables to Brokers, Dealers and Clearing Organizations

Receivables from and payables to brokers, dealers and clearing organizations include net receivables and payables from unsettled trades, including amounts related to futures and options on futures contracts executed on behalf of customers, amounts receivable for securities not delivered by the Company to the purchaser by the settlement date (''fails to deliver'') and cash deposits. Payables to brokers, dealers and clearing organizations also include amounts payable for securities not received by the Company from a seller by the settlement date (''fails to receive'').

Investments

The Company makes certain strategic investments related to its business which are included in other assets in the consolidated statements of financial condition. The Company accounts for these investments as follows:

- Under the equity method of accounting as required under FASB ASC Topic 323, ''Investments - Equity Method and Joint Ventures.'' These investments, including where the investee is a limited partnership or limited liability company, are recorded at the fair value amount of the Company's initial investment and are adjusted each period for the Company's share of the investee's income or loss. Contributions paid to and distributions received from equity method investees are recorded as additions or reductions, respectively, to the respective investment balance.
- At fair value if the investment in equity securities has a readily determinable fair value.

2. Significant Accounting Policies (Continued)

- At adjusted cost if the investment does not have a readily determinable fair value. Adjusted cost represents the historical cost, less impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer in accordance with FASB ASC Topic 321, ''Investments in Equity Securities.

A judgmental aspect of accounting for investments is evaluating whether a decline in the value of an investment has occurred. The evaluation of an impairment is dependent on specific quantitative and qualitative factors and circumstances surrounding an investment, including recurring operating losses, credit defaults and subsequent rounds of financing. Most of the Company's equity investments do not have readily determinable market values. All investments are reviewed for changes in circumstances or occurrence of events that suggest the Company's investment may not be recoverable. An impairment loss, if any, is recognized in the period the determination is made.

The table below presents the composition of the Company's investments for the periods indicated.

	December 31,	
	2019	2018
	(in millions)	
Equity method investments(1)	$22	$23
Investments in equity securities at adjusted cost(2)	5	25
Investments in equity securities at fair value(2)	36	—
Investments in exchange memberships and equity securities of certain exchanges(2)	3	5
	$66	$53

(1) The Company's share of income or losses is included in other income in the consolidated statements of comprehensive income.

(2) These investments do not qualify for equity method of accounting and the dividends received are included in other income in the consolidated statements of comprehensive income.

Property, Equipment, and Intangible Assets

Property, equipment, and intangible assets, which are included in other assets in the consolidated statements of financial condition, consist of leasehold improvements, computer equipment, software developed for the Company's internal use, office furniture and equipment.

Property and equipment are recorded at historical cost, less accumulated depreciation and amortization. Additions and improvements that extend the lives of assets are capitalized, while expenditures for repairs and maintenance are expensed as incurred. Depreciation and amortization are computed using the straight-line method. Equipment is depreciated over the estimated useful lives of the assets, while leasehold improvements are amortized over the lesser of the estimated economic useful life of the asset or the term of the lease. Computer equipment is depreciated over three to five years and office furniture and equipment are depreciated over five to seven years. Intangible assets with a finite life are amortized on a straight line basis over their estimated useful lives of three years, and tested for recoverability whenever events indicate that the carrying amounts may not be recoverable. Qualifying costs for internally developed software are capitalized and amortized over the expected useful life of the developed software, not to exceed three years. Upon retirement or disposition of property and equipment, the cost and related accumulated depreciation are removed from the consolidated statements of financial condition and any resulting gain or loss is recorded in other income in the consolidated statements of comprehensive income. Fully depreciated (or amortized) assets are retired periodically throughout the year.

Leases

On January 1, 2019, the Company adopted FASB ASC Topic 842, ''Leases,'' (''ASC Topic 842'') which requires that a lessee recognize in the statement of financial condition a lease liability and a corresponding right-of-use asset, including for those leases that the Company had classified as operating leases. The right-of-use asset and

2. Significant Accounting Policies (Continued)

the lease liability were initially measured using the present value of the remaining lease payments. ASC Topic 842 was implemented using a modified retrospective approach which resulted in no cumulative-effect adjustment in the opening balance of retained earnings as of January 1, 2019. As a result, the consolidated statement of financial condition prior to January 1, 2019 was not restated and continues to be reported under FASB ASC Topic 840, "Leases," ("ASC Topic 840"), which did not require the recognition of a right-of-use asset or lease liability for operating leases. As permitted under ASC Topic 842, the Company adopted the following practical expedients: (1) not to reassess whether an expired or non-lease contract that commenced before January 1, 2019 contained an embedded lease, (2) not to reassess the classification of existing leases, (3) not to determine whether initial direct costs related to existing leases should be capitalized under ASC Topic 842, and (4) not to separate lease and non-lease components.

The Company reviews all relevant contracts to determine if the contract contains a lease at its inception date. A contract contains a lease if the contract conveys to the company the right to control the use of an underlying asset for a period of time in exchange for consideration. If the Company determines that a contract contains a lease, it recognizes, in the consolidated statements of financial condition, a lease liability and a corresponding right-of-use asset on the commencement date of the lease. The lease liability is initially measured at the present value of the future lease payments over the lease term using the rate implicit in the lease or, if not readily determinable, the Company's secured incremental borrowing rate. An operating lease right-of-use asset is initially measured at the value of the lease liability minus any lease incentives and initial direct costs incurred plus any prepaid rent.

The Company's leases are classified as operating leases and consist of real estate leases for office space, data centers and other facilities. Each lease liability is measured using the Company's secured incremental borrowing rate, which is based on an internally developed yield curve using interest rates of third parties' corporate debt issued with a similar risk profile as the Company and a duration similar to the lease term. The Company's leases have remaining terms of one to twelve years, some of which include options to extend the lease term, and some of which include options to terminate the lease upon notice. The Company considers these options when determining the lease term used to calculate the right-of-use asset and the lease liability when the Company is reasonably certain it will exercise such option.

The Company's operating leases contain both lease components and non-lease components. Non-lease components are distinct elements of a contract that are not related to securing the use of the underlying assets, such as common area maintenance and other management costs. The Company elected to measure the lease liability by combining the lease and non-lease components as a single lease component. As such, the Company includes the fixed payments and any payments that depend on a rate or index that relate to the lease and non-lease components in the measurement of the lease liability. Some of the non-lease components are variable in nature and not based on an index or rate, and as a result, are not included in the measurement of the right-of-use asset or lease liability.

Operating lease expense is recognized on a straight-line basis over the lease term and is included in occupancy, depreciation and amortization expense in the Company's consolidated statements of comprehensive income.

Comprehensive Income and Foreign Currency Translation

The Company's operating results are reported in the consolidated statements of comprehensive income pursuant to FASB ASC Topic 220, "Comprehensive Income."

Comprehensive income consists of two components: net income and other comprehensive income ("OCI"). The Company's OCI is comprised of gains and losses resulting from translating foreign currency financial statements of non-U.S. subsidiaries, net of related income taxes, where applicable. In general, the practice and intention of the Company is to reinvest the earnings of its non-U.S. subsidiaries in those operations, therefore tax is usually not accrued on OCI.

The Company's non-U.S. domiciled subsidiaries have a functional currency that is other than the U.S. dollar. Such subsidiaries' assets and liabilities are translated into U.S. dollars at period-end exchange rates, and revenues and

2. Significant Accounting Policies (Continued)

expenses are translated at average exchange rates prevailing during the period. Adjustments that result from translating amounts from a subsidiary's functional currency to the U.S. dollar (as described above) are reported net of tax, where applicable, in accumulated OCI in the consolidated statements of financial condition. In June of 2018, the Company liquidated its Australian subsidiary, Timber Hill Australia Pty Limited, and accordingly reclassified the accumulated OCI of $32 million to other income and the related accumulated tax effect of $1 million to income tax expense in the consolidated statements of comprehensive income.

Revenue Recognition

Commissions

Commissions earned for executing and/or clearing transactions are accrued on a trade date basis and are reported as commissions in the consolidated statements of comprehensive income. See Note 8 for further information on revenue from contracts with customers.

Interest Income and Expense

The Company earns interest income and incurs interest expense primarily in connection with its electronic brokerage customer business and its securities lending activities, which are recorded on an accrual basis and are included in interest income and interest expense, respectively, in the consolidated statements of comprehensive income.

Trading Gains

Trading gains and losses are recorded on trade date and are reported on a net basis. Trading gains and losses are comprised of changes in the fair value of financial instruments owned, at fair value and financial instruments sold, but not yet purchased, at fair value (i.e., unrealized gains and losses) and realized gains and losses related to the Company's market making business segment. Included in trading gains are net gains and losses on stocks, options, futures, foreign exchange and other derivative instruments. Dividends are integral to the valuation of stocks. Accordingly, dividend income and expense attributable to financial instruments owned, at fair value and financial instruments sold, but not yet purchased, at fair value, held for market making purposes, are reported on a net basis in trading gains in the consolidated statements of comprehensive income.

Foreign Currency Gains and Losses

Foreign currency balances are assets and liabilities in currencies other than the Company's functional currency. At every reporting date, the Company revalues its foreign currency balances to its functional currency at the spot exchange rate and records the associated foreign currency gains and losses. These foreign currency gains and losses are reported in the consolidated statements of comprehensive income, as follows: (a) foreign currency gains and losses related to the Company's currency diversification strategy are reported in other income; (b) foreign currency gains and losses related to the market making core-business activities are reported in trading gains; (c) foreign currency gains and losses arising from currency swap transactions in the electronic brokerage business are reported in interest income or interest expense; and (d) all other foreign currency gains and losses are reported in other income.

Rebates

Rebates consist of volume discounts, credits or payments received from exchanges or other market centers related to the placement and/or removal of liquidity from the order flow in the marketplace and are recorded on an accrual basis. Rebates are recorded net within execution, clearing and distribution fees in the consolidated statements of comprehensive income. Rebates received for trades executed on behalf of customers that elect tiered pricing are passed, in whole or part, to these customers; and such pass-through amounts are recorded net within commissions in the consolidated statements of comprehensive income.

2. Significant Accounting Policies (Continued)

Stock-Based Compensation

The Company follows FASB ASC Topic 718, ‘‘Compensation - Stock Compensation’’ (‘‘ASC Topic 718’’), to account for its stock-based compensation plans. ASC Topic 718 requires all share-based payments to employees to be recognized in the consolidated financial statements using a fair value-based method. Grants, which are denominated in U.S. dollars, are communicated to employees in the year of grant, thereby establishing the fair value of each grant. The fair value of awards granted to employees are generally expensed as follows: 50% in the year of grant in recognition of the plans’ post-employment provisions (as described below) and the remaining 50% over the related vesting period utilizing the ‘‘graded vesting’’ method permitted under ASC Topic 718. In the case of ‘‘retirement eligible’’ employees (those employees older than 59), 100% of awards are expensed when granted.

Awards granted under stock-based compensation plans are subject to the plans’ post-employment provisions in the event an employee ceases employment with the Company. The plans provide that employees who discontinue employment with the Company without cause and continue to meet the terms of the plans’ post-employment provisions will be eligible to earn 50% of previously granted but not yet earned awards, unless the employee is over the age of 59, in which case the employee would be eligible to receive 100% of previously granted but not yet earned awards.

Income Taxes

The Company accounts for income taxes in accordance with FASB ASC Topic 740, ‘‘Income Taxes’’ (‘‘ASC Topic 740’’). The Company’s income tax expense, deferred tax assets and liabilities, and reserves for unrecognized tax benefits are based on enacted tax laws (see Note 11) and reflect management’s best assessment of estimated future taxes to be paid. The Company is subject to income taxes in the U.S. and numerous foreign jurisdictions. Determining income tax expense requires significant judgment and estimates.

Deferred income tax assets and liabilities arise from temporary differences between the tax and financial statement recognition of underlying assets and liabilities. In evaluating the ability to recover deferred tax assets within the jurisdictions from which they arise, the Company considers all available positive and negative evidence, including scheduled reversals of deferred tax liabilities, projected future taxable income, tax-planning strategies, and results of recent operations. In projecting future taxable income, historical results are adjusted for changes in accounting policies and incorporate assumptions including the amount of future state, federal and foreign pre-tax operating income, the reversal of temporary differences, and the implementation of feasible and prudent tax-planning strategies. These assumptions require significant judgment about the forecasts of future taxable income and are consistent with the plans and estimates the Company is using to manage the underlying businesses. In evaluating the objective evidence that historical results provide, three years of cumulative operating income (loss) are considered. Deferred income taxes have not been provided for U.S. tax liabilities or for additional foreign taxes on the unremitted earnings of foreign subsidiaries that have been indefinitely reinvested.

The calculation of the Company’s tax liabilities involves dealing with uncertainties in the application of complex tax laws and regulations in a multitude of jurisdictions across the Company’s global operations. Changes in tax laws and rates could also affect recorded deferred tax assets and liabilities in the future. On December 22, 2017, the Tax Cuts and Jobs Act (the ‘‘Tax Act’’) was enacted, significantly revising the U.S corporate income tax law by, among other things, reducing the corporate income tax rate from 35% to 21% and implementing a modified territorial tax system that includes a one-time transition tax on deemed repatriated earnings of foreign subsidiaries (see Note 11).

The Company records tax liabilities in accordance with ASC Topic 740 and adjusts these liabilities when management’s judgment changes as a result of the evaluation of new information not previously available. Because of the complexity of some of these uncertainties, the ultimate resolution may result in payments that are different from the current estimates of these tax liabilities. These differences will be reflected as increases or decreases to income tax expense in the period in which new information becomes available.

2. Significant Accounting Policies (Continued)

The Company recognizes a tax benefit from an uncertain tax position only when it is more likely than not that the position will be sustained upon examination, including resolutions of any related appeals or litigation processes, on the basis of the technical merits. A tax position that meets this standard is measured at the largest amount of benefit that will more likely than not be realized on settlement.

The Company recognizes interest related to income tax matters as interest income or interest expense and penalties related to income tax matters as income tax expense in the consolidated statements of comprehensive income.

FASB Standards Adopted During 2019

Standard	Summary of Guidance	Effect on Financial Statements
Leases (Topic 842) *Issued February 2016*	• All leases greater than one year must be recognized on the statements of financial condition by recording a lease right-of-use asset and a corresponding lease liability. • Additional qualitative and quantitative leasing disclosures required.	• Adopted January 1, 2019. • For further information, refer to Note 12 – Leases.

FASB Standards issued but not adopted as of December 31, 2019

Standard	Summary of Guidance	Effect on Financial Statements
Financial instruments – credit losses (Topic 326) *Issued June 2016*	• Replaces the current incurred loss impairment guidance and establishes a single allowance framework for financial assets carried at amortized cost. • The allowance must reflect managements' estimate of credit losses over the life of the asset taking future economic changes into consideration. • As of the beginning of the reporting period of adoption, a cumulative-effect adjustment to retained earnings should be recognized.	• Effective date: January 1, 2020. • The changes will not have a material impact on the Company's consolidated financial statements, as the Company will apply the practical expedient relating to financial assets subject to collateral maintenance provisions.
Fair Value Measurement (Topic 820) *Issued August 2018*	• Eliminates the requirement to disclose: (a) the amount and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy; (b) an entity's policy for timing of transfers between levels; (c) and, an entity's valuation processes for Level 3 fair value measurements.	• Effective date: January 1, 2020. • Changes relating to Level 3 fair value measurements may be applied prospectively. All other changes should be applied retrospectively. • The adoption of the changes will not have a material impact on the Company's consolidated financial statements.

2. Significant Accounting Policies (Continued)

Standard	Summary of Guidance	Effect on Financial Statements
Compensation – Stock Compensation (Topic 718) and Revenue from Contracts with Customers (Topic 606) *Issued August 2019*	• Requires that share-based payments granted to customers as part of a revenue arrangement and are not in exchange for a distinct good or service, be recorded as a reduction in transaction price using the grant date fair value. • Share-based payments are measured and classified under ASC 718 unless they are subsequently modified and the grantee is no longer a customer, in which case they are classified under other U.S. GAAP.	• Effective date: January 1, 2020. • The guidance may be applied using a modified retrospective approach. • The changes will not have a material impact on the Company's consolidated financial statements.
Income Taxes (Topic 740) *Issued December 2019*	• Simplifies the accounting for income taxes by removing certain exceptions to the general principles in Topic 740.	• Effective date: January 1, 2021. Early adoption is permitted. • The guidance is being evaluated for impact.

3. Trading Activities and Related Risks

The Company's trading activities include providing securities brokerage and market making services. Trading activities expose the Company to market and credit risks. These risks are managed in accordance with established risk management policies and procedures. To accomplish this, management has established a risk management process that includes:

- a regular review of the risk management process by executive management as part of its oversight role;
- defined risk management policies and procedures supported by a rigorous analytic framework; and
- articulated risk tolerance levels as defined by executive management that are regularly reviewed to ensure that the Company's risk-taking is consistent with its business strategy, its capital structure, and current and anticipated market conditions.

Market Risk

The Company is exposed to various market risks. Exposures to market risks arise from equity price risk, foreign currency exchange rate fluctuations and changes in interest rates. The Company seeks to mitigate market risk associated with trading inventories by employing hedging strategies that correlate rate, price and spread movements of trading inventories and related financing and hedging activities. The Company uses a combination of cash instruments and exchange traded derivatives to hedge its market exposures. The Company does not apply hedge accounting. The following discussion describes the types of market risk faced:

Equity Price Risk

Equity price risk arises from the possibility that equity security prices will fluctuate, affecting the value of equity securities and other instruments that derive their value from a particular stock, a defined basket of stocks, or a stock index. The Company is subject to equity price risk primarily in financial instruments owned, at fair value and financial instruments sold, but not yet purchased, at fair value. The Company attempts to limit such risks by continuously reevaluating prices and by diversifying its portfolio across many different options, futures and underlying securities and avoiding concentrations of positions based on the same underlying security.

3. Trading Activities and Related Risks (Continued)

Currency Risk

Currency risk arises from the possibility that fluctuations in foreign exchange rates will impact the value of financial instruments. The Company manages this risk using spot (i.e., cash) currency transactions, currency futures contracts and currency forward contracts. As a global electronic broker and market maker trading on exchanges around the world in multiple currencies, the Company is exposed to foreign currency risk. The Company actively manages its currency exposure using a currency diversification strategy that is based on a defined basket of 14 currencies internally referred to as the "GLOBAL." These strategies minimize the fluctuation of the Company's net worth as expressed in GLOBALs, thereby diversifying its risk in alignment with these global currencies, weighted by the Company's view of their importance. As the Company's financial results are reported in U.S. dollars, the change in the value of the GLOBAL as expressed in U.S. dollars affects the Company's earnings. The impact of this currency diversification strategy in the Company's earnings is included in other income in the consolidated statements of comprehensive income.

Interest Rate Risk

Interest rate risk arises from the possibility that changes in interest rates will affect the value of financial instruments. The Company is exposed to interest rate risk on cash and margin balances, positions carried in equity and fixed income securities, options, futures and on its borrowings. These risks are managed through investment policies and by entering into interest rate futures contracts.

Credit Risk

The Company is exposed to risk of loss if a customer, counterparty or issuer fails to perform its obligations under contractual terms ("default risk"). Both cash instruments and derivatives expose the Company to default risk. The Company has established policies and procedures for mitigating credit risk on principal transactions, including reviewing and establishing limits for credit exposure, maintaining collateral, and continually assessing the creditworthiness of counterparties.

The Company's credit risk is limited as contracts entered into are settled directly at securities and commodities clearing houses or are settled through member firms and banks with substantial financial and operational resources. Over-the-counter transactions, such as securities lending and contracts for differences ("CFDs"), are marked to market daily and are conducted with counterparties that have undergone a thorough credit review. The Company seeks to control the risks associated with its customer margin activities by requiring customers to maintain collateral in compliance with regulatory and internal guidelines.

In the normal course of business, the Company executes, settles, and finances various customer securities transactions. Execution of these transactions includes the purchase and sale of securities which exposes the Company to default risk arising from the potential that customers or counterparties may fail to satisfy their obligations. In these situations, the Company may be required to purchase or sell financial instruments at unfavorable market prices to satisfy obligations to customers or counterparties. Liabilities to other brokers and dealers related to unsettled transactions (i.e., securities fails to receive) are recorded at the amount for which the securities were purchased, and are paid upon receipt of the securities from other brokers or dealers. In the case of aged securities fails to receive, the Company may purchase the underlying security in the market and seek reimbursement for any losses from the counterparty.

For cash management purposes, the Company enters into short-term securities purchased under agreements to resell and securities sold under agreements to repurchase transactions ("repos") in addition to securities borrowing and lending arrangements, all of which may result in credit exposure in the event the counterparty to a transaction is unable to fulfill its contractual obligations. Repos are collateralized by securities with a market value in excess of the obligation under the contract. Similarly, securities lending agreements are collateralized by deposits of cash or securities. The Company attempts to minimize credit risk associated with these activities by monitoring collateral values on a daily basis and requiring additional collateral to be deposited with or returned to the Company as permitted under contractual provisions.

3. Trading Activities and Related Risks (Continued)

Concentrations of Credit Risk

The Company's exposure to credit risk associated with its trading and other activities is measured on an individual counterparty basis, as well as by groups of counterparties that share similar attributes. Concentrations of credit risk can be affected by changes in political, industry, or economic factors. To reduce the potential for risk concentration, credit limits are established and exposure is monitored in light of changing counterparty and market conditions. As of December 31, 2019, the Company did not have any material concentrations of credit risk outside the ordinary course of business.

Off-Balance Sheet Risks

The Company may be exposed to a risk of loss not reflected in the consolidated financial statements to settle futures and certain over-the-counter contracts at contracted prices, which may require repurchase or sale of the underlying products in the market at prevailing prices. Accordingly, these transactions result in off-balance sheet risk as the Company's cost to liquidate such contracts may exceed the amounts reported in the Company's consolidated statements of financial condition.

4. Equity and Earnings per Share

In connection with IBG, Inc.'s initial public offering of Class A common stock (''IPO'') in May 2007, it purchased 10.0% of the membership interests in IBG LLC from IBG Holdings LLC (''Holdings''), became the sole managing member of IBG LLC and began to consolidate IBG LLC's financial results into its financial statements. Holdings owns all of IBG, Inc.'s Class B common stock, which has voting rights in proportion to its ownership interests in IBG LLC. The table below presents the amount of IBG LLC membership interests held by IBG, Inc. and Holdings as of December 31, 2019.

	IBG, Inc.	Holdings	Total
Ownership %	18.5%	81.5%	100.0%
Membership interests	76,759,595	338,670,642	415,430,237

These consolidated financial statements reflect the results of operations and financial position of IBG, Inc., including consolidation of its investment in IBG LLC and its subsidiaries. The noncontrolling interests in IBG LLC attributable to Holdings are reported as a component of total equity in the consolidated statements of financial condition.

Recapitalization and Post-IPO Capital Structure

Immediately prior to and immediately following the consummation of the IPO, IBG, Inc., Holdings, IBG LLC and the members of IBG LLC consummated a series of transactions collectively referred to herein as the ''Recapitalization.'' In connection with the Recapitalization, IBG, Inc., Holdings and the historical members of IBG LLC entered into an exchange agreement, dated as of May 3, 2007 (the ''Exchange Agreement''), pursuant to which the historical members of IBG LLC received membership interests in Holdings in exchange for their membership interests in IBG LLC. Additionally, IBG, Inc. became the sole managing member of IBG LLC.

In connection with the consummation of the IPO, Holdings used the net proceeds to redeem 10.0% of members' interests in Holdings in proportion to their interests. Immediately following the Recapitalization and IPO, Holdings owned approximately 90% of IBG LLC and 100% of IBG, Inc.'s Class B common stock.

Since consummation of the IPO and Recapitalization, IBG, Inc.'s equity capital structure has been comprised of Class A and Class B common stock. All shares of common stock have a par value of $0.01 per share and have identical rights to earnings and dividends and in liquidation. As of December 31, 2019 and December 31, 2018, 1,000,000,000 shares of Class A common stock were authorized, of which 76,889,040 and 75,230,400 shares have been issued; and 76,750,110 and 75,100,952 shares were outstanding, respectively. Class B common stock is comprised of 100 authorized shares, of which 100 shares were issued and outstanding as of December 31, 2019 and December 31, 2018, respectively. In addition, 10,000 shares of preferred stock have been authorized, of which no shares are issued or outstanding as of December 31, 2019 and December 31, 2018, respectively.

4. Equity and Earnings per Share (Continued)

As a result of a federal income tax election made by IBG LLC applicable to the acquisition of IBG LLC member interests by IBG, Inc., the income tax basis of the assets of IBG LLC acquired by IBG, Inc. have been adjusted based on the amount paid for such interests. Deferred tax assets were recorded as of the IPO date and in connection with subsequent redemptions of Holdings member interests in exchange for common stock. These deferred tax assets are included in other assets in the Company's consolidated statements of financial condition and are being amortized as additional deferred income tax expense over 15 years from the IPO date and from the additional redemption dates, respectively, as allowable under current tax law. As of December 31, 2019 and December 31, 2018, the unamortized balance of these deferred tax assets was $116 million and $140 million, respectively.

IBG, Inc. also entered into an agreement (the ''Tax Receivable Agreement'') with Holdings to pay Holdings (for the benefit of the former members of IBG LLC) 85% of the tax savings that IBG, Inc. actually realizes as the result of tax basis increases. These payables to Holdings are reported as payable to affiliate in the Company's consolidated statements of financial condition. The remaining 15% is accounted for as a permanent increase to additional paid-in capital in the Company's consolidated statements of financial condition. In 2017, as a result of the reduction of the corporate rate from 35% to 21% under the Tax Act, the Company remeasured the Tax Receivable Agreement liability, payable to Holdings, resulting in the recognition of a $93 million gain which is reported in other income in the consolidated statements of comprehensive income.

The cumulative amounts of deferred tax assets, payables to Holdings and additional paid-in capital arising from stock offerings from the date of the IPO through December 31, 2019 were $499 million, $424 million, and $75 million, respectively. Amounts payable under the Tax Receivable Agreement are payable to Holdings annually following the filing of IBG, Inc.'s federal income tax return. The Company has paid Holdings a cumulative total of $188 million through December 31, 2019 pursuant to the terms of the Tax Receivable Agreement.

The Exchange Agreement, as amended, provides for future redemptions of member interests and for the purchase of member interests in IBG LLC by IBG, Inc. from Holdings, which could result in IBG, Inc. acquiring the remaining member interests in IBG LLC that it does not own. On an annual basis, members of Holdings are able to request redemption of their interests.

At the time of IBG, Inc.'s IPO in 2007, three hundred sixty (360) million shares of authorized common stock were reserved for future sales and redemptions. From 2008 through 2010, Holdings redeemed 5,013,259 IBG LLC interests with a total value of $114 million, which redemptions were funded using cash on hand at IBG LLC. Upon cash redemption these IBG LLC interests were retired. From 2011 through 2018, IBG, Inc. issued 15,396,082 shares of common stock (with a fair value of $505 million) directly to Holdings in exchange for an equivalent number of member interests in IBG LLC. On July 26, 2019, the Company filed a Prospectus Supplement on Form 424B5 (File Number 333-219552) with the SEC to issue 21,075 shares of common stock (with a fair value of $1 million) in exchange for an equivalent number of shares of member interests in IBG LLC. This issuance of shares slightly increased the Company's ownership in IBG LLC.

As a consequence of these redemption transactions, and distribution of shares to employees (see Note 10), IBG, Inc.'s interest in IBG LLC has increased to approximately 18.5%, with Holdings owning the remaining 81.5% as of December 31, 2019. The redemptions also resulted in an increase in the Holdings interest held by Mr. Thomas Peterffy and his affiliates from approximately 84.6% at the IPO to approximately 89.6% as of December 31, 2019.

On October 7, 2019, the Company filed a Prospectus Supplement on Form 424B (File Number 333-219552) with the SEC to register up to 1,000,000 shares of common stock, offering the opportunity for eligible persons to receive awards in the form of such shares by participating in one or more promotions that are designed to attract new customers to the Company's brokerage platform, increase assets held with the Company's brokerage subsidiaries and enhance customer loyalty. Assuming all shares were issued, IBG, Inc.'s interest in IBG LLC would increase from 18.5% to 18.7%.

4. Equity and Earnings per Share (Continued)

Earnings per Share

Basic earnings per share is calculated utilizing net income available for common stockholders divided by the weighted average number of shares of Class A and Class B common stock outstanding for that period.

	Year-Ended December 31,		
	2019	2018	2017
	(in millions, except share or per share amounts)		
Basic earnings per share			
Net income available for common stockholders	$ 161	$ 169	$ 76
Weighted average shares of common stock outstanding			
Class A	76,121,470	73,438,109	69,926,833
Class B	100	100	100
	76,121,570	73,438,209	69,926,933
Basic earnings per share	$ 2.11	$ 2.30	$ 1.09

Diluted earnings per share are calculated utilizing the Company's basic net income available for common stockholders divided by diluted weighted average shares outstanding with no adjustments to net income available to common stockholders for potentially dilutive common shares.

	Year-Ended December 31,		
	2019	2018	2017
	(in millions, except share or per share amounts)		
Diluted earnings per share			
Net income available for common stockholders	$ 161	$ 169	$ 76
Weighted average shares of common stock outstanding			
Class A			
Issued and outstanding	76,121,470	73,438,109	69,926,833
Potentially dilutive common shares			
Issuable pursuant to employee stock incentive plans	704,293	828,161	977,988
Class B	100	100	100
	76,825,863	74,266,370	70,904,921
Diluted earnings per share	$ 2.10	$ 2.28	$ 1.07

Member Distributions and Stockholder Dividends

During the three years ended December 31, 2019, 2018, and 2017, IBG LLC made distributions totaling $438 million, $426 million, and $328 million, to its members, of which IBG, Inc.'s proportionate share was $81 million, $76 million, and $56 million, respectively. The Company paid quarterly cash dividends of $0.10 per share of common stock, totaling $31 million, $29 million, and $28 million during 2019, 2018, and 2017, respectively.

On January 21, 2020, the Company declared a cash dividend of $0.10 per common share, payable on March 13, 2020 to stockholders of record as of February 28, 2020.

5. Comprehensive Income

The table below presents comprehensive income and earnings per share on comprehensive income for the periods indicated.

	Year-Ended December 31,		
	2019	2018	2017
	(in millions, except share or per share amounts)		
Comprehensive income available for common stockholders	$ 165	$ 156	$ 87
Earnings per share on comprehensive income			
Basic	$ 2.18	$ 2.12	$ 1.24
Diluted	$ 2.16	$ 2.09	$ 1.22
Weighted average common shares outstanding			
Basic	76,121,570	73,438,209	69,926,933
Diluted	76,825,863	74,266,370	70,904,921

6. Financial Assets and Financial Liabilities

Financial Assets and Liabilities Measured at Fair Value on a Recurring Basis

The tables below present, by level within the fair value hierarchy (see Note 2), financial assets and liabilities, measured at fair value on a recurring basis for the periods indicated. As required by ASC Topic 820, financial assets and financial liabilities are classified in their entirety based on the lowest level of input that is significant to the respective fair value measurement.

	Financial Assets at Fair Value as of December 31, 2019			
	Level 1	Level 2	Level 3	Total
	(in millions)			
Securities segregated for regulatory purposes	$3,797	$—	$—	$3,797
Financial instruments owned, at fair value				
Stocks	540	—	—	540
Options	1,333	—	—	1,333
Warrants	—	—	—	—
U.S. and foreign government securities	34	—	—	34
Corporate bonds	—	—	3	3
Currency forward contracts	—	6	—	6
Total financial instruments owned, at fair value	1,907	6	3	1,916
Other assets - other investments at fair value	36	—	—	36
Total financial assets at fair value	$5,740	$ 6	$ 3	$5,749

	Financial Liabilities at Fair Value as of December 31, 2019			
	Level 1	Level 2	Level 3	Total
	(in millions)			
Financial instruments sold, but not yet purchased, at fair value				
Stocks	$183	$—	$—	$183
Options	273	—	—	273
Currency forward contracts	—	1	—	1
Total financial instruments sold, but not yet purchased, at fair value	456	1	—	457
Total financial liabilities at fair value	$456	$ 1	$—	$457

6. Financial Assets and Financial Liabilities (Continued)

	Financial Assets at Fair Value as of December 31, 2018			
	Level 1	Level 2	Level 3	Total
	(in millions)			
Securities segregated for regulatory purposes	$4,213	$—	$—	$4,213
Financial instruments owned, at fair value				
Stocks	494	—	—	494
Options	1,479	—	—	1,479
Warrants	1	—	—	1
U.S. and foreign government securities	113	—	—	113
Corporate and municipal bonds	—	1	3	4
Currency forward contracts	—	28	—	28
Total financial instruments owned, at fair value	2,087	29	3	2,119
Total financial assets at fair value	$6,300	$29	$ 3	$6,332

	Financial Liabilities at Fair Value as of December 31, 2018			
	Level 1	Level 2	Level 3	Total
	(in millions)			
Financial instruments sold, but not yet purchased, at fair value				
Stocks	$273	$—	$—	$273
Options	404	—	—	404
Currency forward contracts	—	4	—	4
Total financial instruments sold, but not yet purchased, at fair value	677	4	—	681
Total financial liabilities at fair value	$677	$ 4	$—	$681

Transfers between Level 1 and Level 2

Transfers of financial assets and financial liabilities at fair value to or from Levels 1 and 2 arise where the market for a specific financial instrument has become active or inactive during the period. The fair values transferred are ascribed as if the financial assets or financial liabilities had been transferred as of the end of the period.

Level 3 Financial Assets and Financial Liabilities

The Company's Level 3 financial assets are comprised of delisted and illiquid securities reported within financial instruments owned, at fair value in the consolidated statements of financial condition. As of December 31, 2019 Level 3 financial assets included $3 million in corporate bonds, which were not traded in active markets and were valued by the Company based on internal estimates. During the year ended December 31, 2018, the Company recognized a $1 million unrealized loss related to stocks classified as Level 3.

During the years ended December 31, 2019 and 2018, no transfers occurred between levels for financial assets and liabilities, at fair value.

6. Financial Assets and Financial Liabilities (Continued)

Trading Gains from Market Making Transactions

The table below presents trading gains and losses from market making transactions, reported in the consolidated statements of comprehensive income, by major product types for the periods indicated.

	Year-Ended December 31,		
	2019	2018	2017
		(in millions)	
Equities	$27	$39	$42
Foreign exchange	—	—	(2)
Total trading gains, net	$27	$39	$40

These transactions are related to the Company's financial instruments owned and financial instruments sold, but not yet purchased, at fair value and include both derivative and non-derivative financial instruments, including exchange traded options and futures. These gains and losses also include market making related dividend income and expense.

Financial Assets and Liabilities Not Measured at Fair Value

The tables below represent the carrying value, fair value, and fair value hierarchy category of certain financial assets and liabilities that are not recorded at fair value in the Company's consolidated statements of financial condition for the periods indicated. The tables below exclude certain financial instruments such as equity investments and all non-financial assets and liabilities.

	December 31, 2019				
	Carrying Value	Fair Value	Level 1	Level 2	Level 3
			(in millions)		
Financial assets, not measured at fair value					
Cash and cash equivalents	$ 2,882	$ 2,882	$ 2,882	$ —	$—
Cash - segregated for regulatory purposes	9,400	9,400	9,400	—	—
Securities - segregated for regulatory purposes	14,027	14,027	—	14,027	—
Securities borrowed	3,916	3,916	—	3,916	—
Securities purchased under agreements to resell	3,111	3,111	—	3,111	—
Receivables from customer	31,304	31,304	—	31,304	—
Receivables from broker, dealers, and clearing organizations	685	685	—	685	—
Interest receivable	158	158	—	158	—
Other assets	9	9	—	3	6
Total financial assets, not measured at fair value	$65,492	$65,492	$12,282	$53,204	$ 6
Financial liabilities, not measured at fair value					
Short-term borrowings	$ 16	$ 16	$ —	$ 16	$—
Securities loaned	4,410	4,410	—	4,410	—
Securities sold under agreements to repurchase	1,909	1,909	—	1,909	—
Payables to customer	56,248	56,248	—	56,248	—
Payables to brokers, dealers and clearing organizations	220	220	—	220	—
Interest payable	29	29	—	29	—
Total financial liabilities, not measured at fair value	$62,832	$62,832	$ —	$62,832	$—

6. Financial Assets and Financial Liabilities (Continued)

	December 31, 2018				
	Carrying Value	Fair Value	Level 1	Level 2	Level 3
			(in millions)		
Financial assets, not measured at fair value					
Cash and cash equivalents	$ 2,597	$ 2,597	$ 2,597	$ —	$—
Cash - segregated for regulatory purposes	7,503	7,503	7,503	—	—
Securities - segregated for regulatory purposes	11,382	11,382	—	11,382	—
Securities borrowed	3,331	3,331	—	3,331	—
Securities purchased under agreements to resell	1,242	1,242	—	1,242	—
Receivables from customer	27,017	27,017	—	27,017	—
Receivables from broker, dealers, and clearing organizations	706	706	—	706	—
Interest receivable	141	141	—	141	—
Other assets	5	6	—	6	—
Total financial assets, not measured at fair value	$53,924	$53,925	$10,100	$43,825	$—
Financial liabilities, not measured at fair value					
Short-term borrowings	$ 17	$ 17	$ —	$ 17	$—
Securities loaned	4,037	4,037	—	4,037	—
Securities sold under agreements to repurchase	—	—	—	—	—
Payables to customer	47,993	47,993	—	47,993	—
Payables to brokers, dealers and clearing organizations	298	298	—	298	—
Interest payable	41	41	—	41	—
Total financial liabilities, not measured at fair value	$52,386	$52,386	$ —	$52,386	$—

Netting of Financial Assets and Financial Liabilities

The Company's policy is to net securities borrowed and securities loaned, and securities purchased under agreements to resell and securities sold under agreements to repurchase that meet the offsetting requirements prescribed in ASC Topic 210-20. In the tables below, the amounts of financial instruments that are not offset in the consolidated statements of financial condition, but could be netted against cash or financial instruments with specific counterparties under master netting agreements, according to the terms of the agreements, including clearing houses (exchange traded options, warrants and discount certificates) or over the counter currency forward contract counterparties, are presented to provide financial statement readers with the Company's net payable or receivable with counterparties for these financial instruments.

6. Financial Assets and Financial Liabilities (Continued)

The tables below present the netting of financial assets and of financial liabilities for the periods indicated.

	December 31, 2019				
				Amounts Not Offset in the Consolidated Statement of Financial Condition	
	Gross Amounts of Financial Assets and Liabilities Recognized	Amounts Offset in the Consolidated Statement of Financial Condition[2]	Net Amounts Presented in the Consolidated Statement of Financial Condition	Cash or Financial Instruments	Net Amount
	(in millions)				
Offsetting of financial assets					
Securities segregated for regulatory purposes - purchased under agreements to resell	$14,027[1]	$—	$14,027	$(14,027)	$ —
Securities borrowed	3,916	—	3,916	(3,765)	151
Securities purchased under agreements to resell	3,111	—	3,111	(3,111)	—
Financial instruments owned, at fair value					
Options	1,333	—	1,333	(267)	1,066
Warrants	—	—	—	—	—
Currency forward contracts	6	—	6	—	6
Total	$22,393	$—	$22,393	$(21,170)	$1,223
Offsetting of financial liabilities					
Securities loaned	$ 4,410	$—	$ 4,410	$ (4,186)	$ 224
Securities sold under agreements to repurchase	1,909	—	1,909	(1,909)	—
Financial instruments sold, but not yet purchased, at fair value					
Options	273	—	273	(267)	6
Warrants	—	—	—	—	—
Currency forward contracts	1	—	1	—	1
Total	$ 6,593	$—	$ 6,593	$ (6,362)	$ 231

6. Financial Assets and Financial Liabilities (Continued)

	December 31, 2018				
	Gross Amounts of Financial Assets and Liabilities Recognized	Amounts Offset in the Consolidated Statement of Financial Condition	Net Amounts Presented in the Consolidated Statement of Financial Condition	Amounts Not Offset in the Consolidated Statement of Financial Condition — Cash or Financial Instruments	Net Amount
	(in millions)				
Offsetting of financial assets					
Securities segregated for regulatory purposes - purchased under agreements to resell	$11,382[1]	$—	$11,382	$(11,382)	$ —
Securities borrowed	3,331	—	3,331	(3,199)	132
Securities purchased under agreements to resell	1,242	—	1,242	(1,242)	—
Financial instruments owned, at fair value					
Options	1,479	—	1,479	(398)	1,081
Warrants	1	—	1	—	1
Currency forward contracts	28	—	28	—	28
Total	$17,463	$—	$17,463	$(16,221)	$1,242
Offsetting of financial liabilities					
Securities loaned	$ 4,037	$—	$ 4,037	$ (3,838)	$ 199
Securities sold under agreements to repurchase	—	—	—	—	—
Financial instruments sold, but not yet purchased, at fair value					
Options	404	—	404	(398)	6
Warrants	—	—	—	—	—
Currency forward contracts	4	—	4	—	4
Total	$ 4,445	$—	$ 4,445	$ (4,236)	$ 209

(1) As of December 31, 2019 and December 31, 2018, the Company had $14.0 billion and $11.4 billion, respectively, of securities purchased under agreements to resell that were segregated to satisfy regulatory requirements. These securities are included in “Securities - segregated for regulatory purposes” in the consolidated statements of financial condition.

(2) The Company did not have any balances eligible for netting in accordance with ASC Topic 210-20 at December 31, 2019 and 2018.

6. Financial Assets and Financial Liabilities (Continued)

Secured Financing Transactions – Maturities and Collateral Pledged

The tables below present gross obligations for securities loaned transactions by remaining contractual maturity and class of collateral pledged for the periods indicated.

	December 31, 2019				
	Remaining Contractual Maturity				
	Overnight and Open	Less than 30 days	30 – 90 days	Over 90 days	Total
	(in millions)				
Securities loaned					
Stocks	$4,356	$—	$—	$—	$4,356
Corporate bonds	54	—	—	—	54
Foreign government securities	—	—	—	—	—
Total securities loaned	$4,410	$—	$—	$—	$4,410
Securities sold under agreements to repurchase					
U.S. government securities	1,909	—	—	—	1,909
Total	$6,319	$—	$—	$—	$6,319

	December 31, 2018				
	Remaining Contractual Maturity				
	Overnight and Open	Less than 30 days	30 – 90 days	Over 90 days	Total
	(in millions)				
Securities loaned					
Stocks	$3,970	$—	$—	$—	$3,970
Corporate bonds	65	—	—	—	65
Foreign government securities	2	—	—	—	2
Total securities loaned	$4,037	$—	$—	$—	$4,037

7. Collateralized Transactions

The Company enters into securities borrowing and lending transactions and agreements to repurchase and resell securities to finance trading inventory, to obtain securities for settlement and to earn residual interest rate spreads. In addition, the Company's customers pledge their securities owned to collateralize margin loans. Under these transactions, the Company either receives or provides collateral, including equity, corporate debt and U.S. government securities. Under typical agreements, the Company is permitted to sell or repledge securities received as collateral and use these securities to secure securities purchased under agreements to resell, enter into securities lending transactions or deliver these securities to counterparties to cover short positions.

The Company also engages in securities financing transactions with and for customers through margin lending. Customer receivables generated from margin lending activity are collateralized by customer-owned securities held by the Company. Customers' required margin levels and established credit limits are monitored continuously by risk management staff using automated systems. Pursuant to the Company's policy and as enforced by such systems, customers are required to deposit additional collateral or reduce positions, when necessary to avoid automatic liquidation of their positions.

7. Collateralized Transactions (Continued)

Margin loans are extended to customers on a demand basis and are not committed facilities. Factors considered in the acceptance or rejection of margin loans are the amount of the loan, the degree of leverage being employed in the customer account and an overall evaluation of the customer's portfolio to ensure proper diversification or, in the case of concentrated positions, appropriate liquidity of the underlying collateral. Additionally, transactions relating to concentrated or restricted positions are limited or prohibited by raising the level of required margin collateral (to 100% in the extreme case). Underlying collateral for margin loans is evaluated with respect to the liquidity of the collateral positions, valuation of securities, volatility analysis and an evaluation of industry concentrations. Adherence to the Company's collateral policies significantly limits the Company's credit exposure to margin loans in the event of a customer's default. Under margin lending agreements, the Company may request additional margin collateral from customers and may sell securities that have not been paid for or purchase securities sold but not delivered from customers, if necessary. As of December 31, 2019 and December 31, 2018, approximately $31.3 billion and $27.0 billion, respectively, of customer margin loans were outstanding.

The table below presents a summary of the amounts related to collateralized transactions for the periods indicated.

	December 31, 2019		December 31, 2018	
	Permitted to Repledge	Sold or Repledged	Permitted to Repledge	Sold or Repledged
	(in millions)			
Securities lending transactions	$31,994	$ 3,944	$21,412	$ 3,284
Securities purchased under agreements to resell transactions[(1)]	17,185	16,627	12,672	11,881
Customer margin assets	34,156	11,189	25,778	6,616
	$83,335	$31,760	$59,862	$21,781

(1) As of December 31, 2019, $14.0 billion or 84% (as of December 31, 2018, $11.4 billion or 96%) of securities acquired through agreements to resell that are shown as repledged have been deposited in a separate bank account for the exclusive benefit of customers in accordance with SEC Rule 15c3-3.

In the normal course of business, the Company pledges qualified securities with clearing organizations to satisfy daily margin and clearing fund requirements. As of December 31, 2019 and December 31, 2018, the majority of the Company's U.S. and foreign government securities owned were pledged to clearing organizations.

The table below presents financial instruments owned and pledged as collateral, including amounts pledged to affiliates, where the counterparty has the right to repledge, for the periods indicated.

	December 31,	
	2019	2018
	(in millions)	
Stocks	$128	$121
U.S. and foreign government securities	33	67
	$161	$188

8. Revenues from Contracts with Customers

On January 1, 2018, the Company adopted ASU No. 2014-09, ''Revenue from Contracts with Customers'' (''ASC Topic 606'') using the modified retrospective method (i.e., applied prospectively effective January 1, 2018 without revising prior periods), which had no impact on the Company's opening retained earnings.

Revenue from contracts with customers is recognized when, or as, the Company satisfies its performance obligations by transferring the promised services to the customers. A service is transferred to a customer when, or as, the customer obtains control of that service. A performance obligation may be satisfied at a point in time

8. Revenues from Contracts with Customers (Continued)

or over time. Revenue from a performance obligation satisfied at a point in time is recognized at the point in time that the Company determines the customer obtains control over the promised service. Revenue from a performance obligation satisfied over time is recognized by measuring the Company's progress in satisfying the performance obligation in a manner that depicts the transfer of the services to the customer. The amount of revenue recognized reflects the consideration the Company expects to receive in exchange for those promised services (i.e., the ''transaction price''). In determining the transaction price, the Company considers multiple factors, including the effects of variable consideration, if any.

The Company's revenues from contracts with customers are recognized when the performance obligations are satisfied at an amount that reflects the consideration expected to be received in exchange for such services. The majority of the Company's performance obligations are satisfied at a point in time and are typically collected from customers by debiting their brokerage account with the Company.

Nature of Services

The Company's services under contracts with customers are mainly related to its electronic brokerage business. The Company's main sources of revenues from contracts with customers are as follows:

- *Commissions* are charged to customers for order execution services and trade clearing and settlement services. These services represent a single performance obligation as the services are not separately identifiable in the context of the contract. The Company recognizes revenue at a point in time at the execution of the order (i.e., trade date). Commissions are generally collected from cleared customers on trade date and from non-cleared customers monthly.
- *Market data fees* are charged to customers for market data services to which they subscribe that the Company delivers. The Company recognizes revenue monthly as the performance obligation is satisfied over time by continually providing market data for the period. Market data fees are collected monthly, generally in advance.
- *Risk exposure fees* are charged to customers who carry positions with market risk that exceeds defined thresholds. The Company recognizes revenue daily as the performance obligation is satisfied at a point in time by the Company taking on additional risk of account liquidation and potential losses due to insufficient margin. Risk exposure fees are collected daily.
- *Payments for order flow* are earned from various options exchanges based upon options trading volume originated by the Company that meets certain criteria and from IBKR Lite[SM] liquidity providers. The Company recognizes revenue daily as the performance obligation is satisfied at a point in time on customer orders that qualify for payments subject to exchange-mandated programs. Payments for order flow are collected monthly, in arrears.
- *Minimum activity fees* are charged to customers that do not generate the required minimum monthly commission. The Company recognizes revenue monthly as the performance obligation is satisfied at a point in time by servicing customer accounts that do not generate the required minimum monthly commissions. Minimum activity fees are collected monthly, in arrears.

The Company's electronic brokerage business also earns revenues from other services, including order cancelation or modification fees, position transfer fees, telecommunications fees, withdrawal fees, and bank sweep program fees, among others.

8. Revenues from Contracts with Customers (Continued)

Disaggregation of Revenue

The tables below present revenue from contracts with customers by business segment, geographic location, and major types of services for the periods indicated.

	Year-Ended December 31, 2019			
	Electronic Brokerage	Market Making	Corporate	Total
	(in millions)			
Geographic location[1]				
United States	$599	$ 2	$ 2	$603
International	244	—	—	244
	$843	$ 2	$ 2	$847
Major types of services				
Commissions	$706	$—	$—	$706
Market data fees[2]	45	—	—	45
Risk exposure fees[2]	16	—	—	16
Payments for order flow[2]	21	—	—	21
Minimum activity fees[2]	27	—	—	27
Other[2]	28	2	2	32
	$843	$ 2	$ 2	$847

	Year-Ended December 31, 2018			
	Electronic Brokerage	Market Making	Corporate	Total
	(in millions)			
Geographic location[1]				
United States	$658	$ 5	$ 2	$665
International	260	—	—	260
	$918	$ 5	$ 2	$925
Major types of services				
Commissions	$777	$—	$—	$777
Market data fees[2]	46	—	—	46
Risk exposure fees[2]	26	—	—	26
Payments for order flow[2]	21	—	—	21
Minimum activity fees[2]	23	—	—	23
Other[2]	25	5	2	32
	$918	$ 5	$ 2	$925

(1) Based on the location of the subsidiaries in which the revenues are recorded.

(2) Included in other income in the consolidated statements of comprehensive income.

Receivables and Contract Balances

Receivables arise when the Company has an unconditional right to receive payment under a contract with a customer and are derecognized when the cash is received. Receivables of $10 million and $9 million, as of December 31, 2019 and December 31, 2018, respectively, are reported in other assets in the consolidated statements of financial condition.

8. Revenues from Contracts with Customers (Continued)

Contract assets arise when the revenue associated with the contract is recognized prior to the Company's unconditional right to receive payment under a contract with a customer (i.e., unbilled receivable) and are derecognized when either it becomes a receivable or the cash is received. Contract assets are reported in other assets in the consolidated statements of financial condition. As of December 31, 2019 and 2018, contract asset balances were not material.

Contract liabilities arise when customers remit contractual cash payments in advance of the Company satisfying its performance obligations under the contract and are derecognized when the revenue associated with the contract is recognized either when a milestone is met triggering the contractual right to bill the customer or when the performance obligation is satisfied. Contract liabilities are reported in accounts payable, accrued expenses and other liabilities in the consolidated statements of financial condition. As of December 31, 2019 and 2018, contract liability balances were not material.

9. Other Income

The table below presents the components of other income for the periods indicated.

	Year-Ended December 31,		
	2019	2018	2017
	(in millions)		
Market data fees[1]	$ 45	$ 46	$ 39
Risk exposure fees[1]	16	26	24
Payments for order flow[1]	21	21	15
Minimum activity fees[1]	27	23	20
Other brokerage related fees	27	25	13
Gains on financial instruments, at fair value and other investments, net	40	24	1
Gains (losses) from currency diversification strategy, net	(60)	(19)	110
Other, net	5	12	110
	$121	$158	$332

(1) See Note 8 for description of these revenues.

Other brokerage related fees include FDIC sweep fees, order routing fees, IPO concession fees and other miscellaneous fees charged to customers. Gains on financial instruments, at fair value and other investments, net include (1) realized and unrealized gains and losses on financial instruments that (a) are held for purposes other than the Company's market making activities, (b) are subject to restrictions, or (c) are accounted for under the equity method and (2) dividends on investments accounted at cost less impairment. For the year ended December 31, 2017, other, net includes a gain on the sale of the Company's U.S. options market making operations to Two Sigma Securities, LLC of $11 million, reflecting the recovery of exit costs, and a $93 million gain from the remeasurement of the Tax Receivable Agreement liability as a result of the Tax Act (see Note 4 and Note 11).

10. Employee Incentive Plans

Defined Contribution Plan

The Company offers substantially all employees of U.S.-based operating subsidiaries who have met minimum service requirements the opportunity to participate in defined contribution retirement plans qualifying under the provisions of Section 401(k) of the Internal Revenue Code. The general purpose of this plan is to provide employees with an incentive to make regular savings in order to provide additional financial security during retirement. This plan provides for the Company to match 50% of the employees' pre-tax contribution, up to a maximum of 10% of eligible earnings. The employee is vested in the matching contribution incrementally over six years of service. Included in employee compensation and benefits expenses in the consolidated statements of comprehensive income were $4 million, $4 million and $3 million of plan contributions for the years ended December 31, 2019, 2018 and 2017, respectively.

2007 ROI Unit Stock Plan

In connection with the IPO, the Company adopted the IBG, Inc. 2007 ROI Unit Stock Plan (''ROI Unit Stock Plan''). An aggregate of 1,271,009 shares of restricted common stock (consisting of 1,250,000 shares issued under the ROI Unit Stock Plan and 21,009 shares under the 2007 Stock Incentive Plan, as described below), with a fair value at the date of grant of $38 million were issued to IBG LLC and held as treasury stock.

As of December 31, 2018, the Company has distributed all shares of restricted common stock under the ROI Unit Stock Plan.

2007 Stock Incentive Plan

In 2017, the Company amended the 2007 Stock Incentive Plan (the ''Stock Incentive Plan'') to extend its term for a ten-year period through April 4, 2027, which was approved by the Company's stockholders at its 2018 Annual Meeting, held on April 19, 2018. Under the Company's Stock Incentive Plan, up to 30 million shares of the Company's Class A common stock may be issued to satisfy vested restricted stock units granted to directors, officers, employees, contractors and consultants of the Company. The purpose of the Stock Incentive Plan is to promote the Company's long-term financial success by attracting, retaining and rewarding eligible participants.

As a result of the Company's organizational structure, a description of which can be found in ''Business – Our Organizational Structure'' in Part I, Item 1 of the Company's Annual Report on Form 10-K, there is no dilutive effect upon ownership of common stockholders of issuing shares under the Stock Incentive Plan. The issuances do not dilute the book value of the ownership of common stockholders since the restricted stock units are granted at market value, and upon their vesting and the related issuance of shares of common stock, the ownership of IBG, Inc. in IBG LLC, increases proportionately to the shares issued. As a result of such proportionate increase in share ownership, the dilution upon issuance of common stock is borne by IBG LLC's majority member (i.e., noncontrolling interest), Holdings, and not by IBG, Inc. or its common stockholders. Additionally, dilution of earnings that may take place after issuance of common stock is reflected in EPS reported in the Company's financial statements. The EPS dilution can be neither estimated nor projected, but historically it has not been material.

The Stock Incentive Plan is administered by the Compensation Committee of the Company's Board of Directors. The Compensation Committee has discretionary authority to determine the eligibility to participate in the Stock Incentive Plan and establishes the terms and conditions of the awards, including the number of awards granted to each participant and all other terms and conditions applicable to such awards in individual grant agreements. Awards are expected to be made primarily through grants of restricted stock units. Stock Incentive Plan awards are subject to issuance over time. All previously granted but not yet earned awards may be cancelled by the Company upon the participant's termination of employment or violation of certain applicable covenants prior to issuance, unless determined otherwise by the Compensation Committee.

10. Employee Incentive Plans (Continued)

The Stock Incentive Plan provides that, upon a change in control, the Compensation Committee may, at its discretion, fully vest any granted but not yet earned awards under the Stock Incentive Plan, or provide that any such granted but not yet earned awards will be honored or assumed, or new rights substituted by the new employer on a substantially similar basis and on terms and conditions substantially comparable to those of the Stock Incentive Plan.

The Company expects to continue to grant awards on or about December 31 of each year to eligible participants as part of an overall plan of equity compensation. Restricted stock units vest and become distributable to participants in accordance with the following schedule:

- 10% on the first vesting date, which is on or about May 9 of each year; and
- an additional 15% on each of the following six anniversaries of the first vesting, assuming continued employment with the Company and compliance with non-competition and other applicable covenants.

Awards granted to external directors vest, and are distributed, over a five-year period (20% per year) commencing one year after the date of grant. A total of 27,245 restricted stock units have been granted to the external directors cumulatively since the plan's inception.

The table below presents Stock Incentive Plan awards granted and the related fair values since the plan's inception.

	Units	Fair Value at Date of Grant ($ millions)
Prior periods (since inception)	23,551,137	$504
December 31, 2017	946,489	57
December 31, 2018	1,146,267(1)	62
December 31, 2019	1,374,560	65
	27,018,453	$688

(1) Stock Incentive Plan number of granted restricted stock units related to 2018 was adjusted by 640 additional restricted stock units during the year ended December 31, 2019.

Estimated future grants under the Stock Incentive Plan are accrued for ratably during each year (see Note 2). In accordance with the vesting schedule, outstanding awards vest and are distributed to participants yearly on or about May 9 of each year. At the end of each year, no vested awards remain undistributed.

Compensation expense related to the Stock Incentive Plan recognized in the consolidated statements of comprehensive income was $60 million, $58 million, and $53 million for the years ended December 31, 2019, 2018, and 2017, respectively. Estimated future compensation costs for unvested awards, net of credits for cancelled awards, as of December 31, 2019 are $40 million.

10. Employee Incentive Plans (Continued)

The table below summarizes the Stock Incentive Plan and ROI Unit Stock Plan activities for the periods indicated.

	Stock Incentive Plan Units	Intrinsic Value of SIP Shares which Vested and were Distributed ($ millions)[1]	ROI Unit Stock Plan Shares
Balance, December 31, 2016	7,917,719		4,994
Granted	946,489		—
Cancelled	(115,711)		—
Distributed	(2,274,777)	$ 81	(1,145)
Balance, December 31, 2017	6,473,720		3,849
Granted	1,146,267[2]		—
Cancelled	(63,657)		—
Distributed	(2,083,624)	$164	(3,849)
Balance, December 31, 2018	5,472,706		—
Granted	1,374,560		—
Cancelled	(91,443)		—
Distributed	(1,627,565)	$ 91	—
Balance, December 31, 2019	5,128,258		—

(1) Intrinsic value of SIP units distributed represents the compensation value reported to the participants.

(2) Stock Incentive Plan number of granted restricted stock units related to 2018 was adjusted by 640 additional restricted stock units during the year ended December 31, 2019.

Awards previously granted but not yet earned under the stock plans are subject to the plans' post-employment provisions in the event a participant ceases employment with the Company. Through December 31, 2019, a total of 977,905 restricted stock units have been distributed under these post-employment provisions. These distributions are included in the table above.

11. Income Taxes

Income tax expense for the three years ended December 31, 2019, 2018, and 2017 differs from the U.S. federal statutory rate primarily due to the taxation treatment of income attributable to noncontrolling interests in IBG LLC and the enactment of the Tax Act, as discussed below. These noncontrolling interests are held directly through a U.S. partnership. Accordingly, the income attributable to these noncontrolling interests is reported in the consolidated statements of comprehensive income, but the related U.S. income tax expense attributable to these noncontrolling interests is not reported by the Company as it is generally the obligation of the noncontrolling interests. Income tax expense is also affected by the differing effective tax rates in foreign, state and local jurisdictions where certain of the Company's subsidiaries are subject to corporate taxation.

Deferred income taxes arise primarily due to the amortization of the deferred tax assets recognized in connection with the common stock offerings (see Note 4), differences in the valuation of financial assets and liabilities, and for other temporary differences arising from the deductibility of compensation and depreciation expenses in different time periods for accounting and income tax return purposes.

11. Income Taxes (Continued)

The Tax Act, as previously described (see Note 2), makes broad and complex changes to the U.S. tax code, including, but not limited to, (1) reducing the U.S. federal corporate tax rate to 21%, effective January 1, 2018; (2) requiring a one-time transition tax on certain undistributed earnings of foreign subsidiaries to be paid over eight years; (3) generally eliminating U.S. federal income taxes on dividends from foreign subsidiaries; (4) requiring a current inclusion in U.S. federal taxable income of certain earnings of controlled foreign corporations; (5) eliminating the corporate alternative minimum tax (''AMT'') and changing how existing AMT credits can be realized; (6) creating the base erosion anti-abuse tax, a new minimum tax; (7) creating a new limitation on deductible interest expense; (8) changing rules related to uses and limitations of net operating loss carryforwards created in tax years beginning after December 31, 2017; (9) repealing the Section 199 manufacturing deduction; and (10) full expensing of qualified property for tax return purposes.

The SEC staff issued Staff Accounting Bulletin 118 (''SAB 118''), now codified into ASC Topic 740, which provides guidance on accounting for the tax effects of the Tax Act. SAB 118 provides a measurement period that should not extend beyond one year from the enactment of the Tax Act for entities to complete the accounting under ASC Topic 740. In accordance with SAB 118, an entity must reflect the income tax effects of those aspects of the Tax Act for which the accounting under ASC Topic 740 is complete. To the extent that an entity's accounting for certain income tax effects of the Tax Act is incomplete but it is able to determine a reasonable estimate, the entity must record a provisional estimate on its financial statements. However, if an entity cannot determine a provisional estimate to be included on its financial statements, the entity should continue to apply ASC Topic 740 on the basis of the provisions of the tax laws that were in effect immediately before the enactment of the Tax Act.

The Company's accounting for the following elements of the Tax Act is complete. The Company has recorded the effects of the Tax Act as follows:

Reduction of U.S. federal corporate tax rate: The Tax Act reduces the corporate tax rate to 21%, effective January 1, 2018. For certain of the Company's deferred tax assets and liabilities, the Company recognized a provisional net decrease of $115 million with a corresponding adjustment to deferred income tax expense (or deferred tax benefit) for the year ended December 31, 2017. Through the year ended December 31, 2018, the Company made no significant adjustments to the provisional amount recorded as of December 31, 2017.

Deemed Repatriation Transition Tax: The Deemed Repatriation Transition Tax (''Transition Tax'') is a tax on previously untaxed accumulated and current earnings of certain foreign subsidiaries. To determine the amount of the Transition Tax, the Company must determine, in addition to other factors, the amount of post-1986 earnings of the relevant foreign subsidiaries, as well as the amount of non-U.S. income taxes paid on such earnings. As of December 31, 2017, the Company recognized a provisional Transition Tax obligation of $62 million and through the year ended December 31, 2018 made no significant adjustments to the provisional amount recorded.

The Tax Act creates a new requirement that global intangible low taxed income (''GILTI'') earned by controlled foreign corporations (''CFC''s) must be included currently in the gross income of the CFC's U.S. shareholder. GILTI is the excess of the shareholder's ''net CFC-tested income'' over the deemed tangible income return, which is currently defined as the excess of (1) 10 percent of the aggregate of the U.S shareholder's pro rata share of the qualified business asset investment in each CFC with respect to which it is a U.S shareholder over (2) the amount of certain interest expense taken into account in the determination of net CFC-tested income.

Under U.S. GAAP, the Company is allowed to make an accounting policy election of either (1) treating taxes due on future U.S. inclusions in taxable income related to GILTI as a current-period expense when incurred (the ''period cost method'') or (2) factoring such amounts into the Company's measurement of its deferred taxes (the ''deferred method''). The Company elected the period cost method.

11. Income Taxes (Continued)

The table below presents the components of the provision for income taxes for the periods indicated.

	Year-Ended December 31,		
	2019	2018	2017
		(in millions)	
Current			
Federal	$19	$15	$ 76[(1)]
State and local	3	3	1
Foreign	22	32	32
Total current	44	50	109
Deferred			
Federal	24	22	148[(2)]
State and local	—	—	—
Foreign	—	(1)	(1)
Total deferred	24	21	147
	$68	$71	$256

(1) Includes $62 million of Transition Tax under the Tax Act.

(2) Includes the remeasurement of deferred tax assets and liabilities of $115 million due to the Tax Act.

The table below presents a reconciliation of the statutory U.S. Federal income tax rate of 21% to the Company's effective tax rate for the two years ending December 31, 2019 and 2018, and 35% for the year ending December 31, 2017.

	Year-Ended December 31,		
	2019	2018	2017
U.S. Statutory Tax Rate	21.0%	21.0%	35.0%
Less: rate attributable to noncontrolling interests	(16.8%)	(16.8%)	(26.5%)
State, local and foreign taxes, net of federal benefit	1.7%	1.7%	2.1%
Subtotal	5.9%	5.9%	10.6%
Effects of the Tax Act	0.0%	0.0%	13.7%
	5.9%	5.9%	24.3%

The table below presents significant components of the Company's deferred tax assets and liabilities, which are reported in other assets and in accounts payable, accrued expenses and other liabilities, respectively, in the consolidated statements of financial condition for the periods indicated.

	December 31,		
	2019	2018	2017
		(in millions)	
Deferred tax assets			
Arising from the acquisition of interests in IBG LLC	$116	$140	$146
Deferred compensation	5	4	4
Other	11	10	7
Total deferred tax assets	132	154	157
Deferred tax liabilities			
Foreign	1	—	1
Other	3	1	—
Total deferred tax liabilities	4	1	1
Net deferred tax assets	$128	$153	$156

11. Income Taxes (Continued)

As of and for the years ended December 31, 2019, and 2018, the Company had no valuation allowances on its deferred tax assets.

The Company is subject to taxation in the U.S. and various states and foreign jurisdictions. As of December 31, 2019, the Company is no longer subject to U.S. Federal and State income tax examinations for tax years prior to 2014, and to non-U.S. income tax examinations for tax years prior to 2009.

As of December 31, 2019, accumulated earnings held by non-U.S. subsidiaries totaled $1.3 billion (as of December 31, 2018 $1.1 billion). Of this amount, approximately $0.2 billion (as of December 31, 2018 $0.2 billion) is attributable to earnings of the Company's foreign subsidiaries that are considered ''pass-through'' entities for U.S. income tax purposes. Since the Company accounts for U.S. income taxes on these earnings on a current basis, no additional U.S. tax consequences would result from the repatriation of these earnings other than that which would be due arising from currency fluctuations between the time the earnings are reported for U.S. tax purposes and when they are remitted. With respect to certain of these non-U.S. subsidiaries' accumulated earnings, approximately $0.2 billion and $0.2 billion as of December 31, 2019 and December 31, 2018, respectively would result in additional foreign taxes in the form of dividend withholding tax imposed on the recipient of the distribution or dividend distribution tax imposed on the payor of the distribution upon repatriation. The Company has not provided for its proportionate share of these additional foreign taxes as it does not intend to repatriate these earnings in the foreseeable future. For the same reason, the Company has not provided deferred U.S. tax on cumulative translation adjustments associated with these earnings.

12. Leases

All of the Company's leases are classified as operating leases and primarily consist of real estate leases for corporate offices, data centers, and other facilities. As of December 31, 2019, the weighted-average remaining lease term on these leases is approximately 9 years and the weighted-average discount rate used to measure the lease liabilities is approximately 4.06%. For the year ended December 31, 2019, right-of-use assets obtained under operating leases were $140 million. The Company's lease agreements do not contain any residual value guarantees, restrictions or covenants.

The table below presents balances reported in the consolidated statements of financial condition related to the Company's leases for the period indicated.

	December 31, 2019
	(in millions)
Right-of-use assets[(1)]	$118
Lease liabilities[(1)]	$124

(1) Right-of-use assets are included in other assets and lease liabilities are included in accounts payable, accrued expenses and other liabilities in the Company's consolidated statements of financial condition.

The table below presents balances reported in the consolidated statements of comprehensive income related to the Company's leases for the period indicated.

	Year-Ended December 31, 2019
	(in millions)
Operating lease cost	$25
Variable lease cost	4
Total lease cost	$29

12. Leases (Continued)

The table below reconciles the undiscounted cash flows of the Company's leases to the present value of its operating lease payments for the period indicated.

	December 31, 2019
	(in millions)
2020	$ 19
2021	17
2022	17
2023	15
2024	13
Thereafter	69
Total undiscounted operating lease payments	150
Less: imputed interest	(26)
Present value of operating lease liabilities	$124

The table below presents the Company's minimum annual lease commitments in accordance with ASC Topic 840 for the period indicated.

Year	December 31, 2018 (in millions)
2019	$ 18
2020	19
2021	16
2022	16
2023	15
Thereafter	83
	$167

13. Property, Equipment and Intangible Assets

Property, equipment and intangible assets, which are included in other assets in the consolidated statements of financial condition, consist of leasehold improvements, computer equipment, software developed for the Company's internal use, office furniture and equipment. The table below presents balances related to property, equipment and intangible assets for the periods indicated.

	December 31,	
	2019	2018
	(in millions)	
Leasehold improvements	$ 37	$ 9
Computer equipment	24	19
Office furniture and equipment	14	5
	75	33
Less - accumulated depreciation and amortization	(13)	(13)
Property and equipment, net	62	20
Internally developed software	68	61
Less - accumulated amortization	(34)	(28)
Intangible assets, net	34	33
Total property, equipment, and intangible assets, net	$ 96	$ 53

13. Property, Equipment and Intangible Assets (Continued)

Depreciation and amortization of $31 million, $26 million, and $25 million, for the three years ended December 31, 2019, 2018, and 2017, respectively, is included in occupancy, depreciation and amortization expenses in the consolidated statements of comprehensive income. Amortization expense related to the Company's intangible assets as of December 31, 2019 is expected to be approximately $19 million, $11 million, and $4 million, for years ended December 31, 2020, 2021, and 2022, respectively.

14. Commitments, Contingencies and Guarantees

Claims Against Customers

Over an extended period in 2018, a small number of the Company's brokerage customers had taken relatively large positions in a security listed on a major U.S. exchange. The Company extended margin loans against the security at a conservatively high collateral requirement. In December 2018, within a very short timeframe, this security lost a substantial amount of its value. During the quarter ended March 31, 2019, subsequent price declines in the stock caused these accounts to fall into deficits, despite the Company's efforts to liquidate the customers' positions. For the year ended December 31, 2019, the Company has recognized an aggregate loss of approximately $42 million. The maximum aggregate loss, which would occur if the security's price fell to zero and none of the debts were collected, would be approximately $50 million. The Company is currently evaluating pursuing the collection of the debts, although debt collection efforts are inherently difficult and uncertain. The ultimate effect of this incident on the Company's results will depend upon market conditions and the outcome of the Company's debt collection efforts.

Litigation

The Company is subject to certain pending and threatened legal actions that arise out of the normal course of business. Litigation is inherently unpredictable, particularly in proceedings where claimants seek substantial or indeterminate damages, or which are in their early stages. The Company has not been able to quantify the actual loss or range of loss related to such legal proceedings, the manner in which they will be resolved, the timing of final resolution or the ultimate settlement. Management believes that the resolution of these actions will not have a material effect, if any, on the Company's business or financial condition, but may have a material impact on the results of operations for a given period.

The Company accounts for potential losses related to litigation in accordance with FASB ASC Topic 450, ''Contingencies.'' As of December 31, 2019 and 2018, reserves provided for potential losses related to litigation matters were not material.

Trading Technologies Matter

On February 3, 2010, Trading Technologies International, Inc. (''Trading Technologies'') filed a complaint in the U.S. District Court for the Northern District of Illinois, Eastern Division, against IBG LLC and IB LLC (''Defendants''). The complaint, as amended, alleges that the Defendants have infringed and continue to infringe twelve U.S. patents held by Trading Technologies. Trading Technologies is seeking, among other things, unspecified damages and injunctive relief. The Defendants filed an answer to Trading Technologies' amended complaint, as well as related counterclaims. The Defendants deny Trading Technologies' claims, assert that the asserted patents are not infringed and are invalid, and assert several other defenses as well.

The asserted patents were the subject of petitions before the United States Patent and Trademark Office (''USPTO'') seeking Covered Business Method Review (''CBM Review''). The USPTO Patent Trial Appeal Board (''PTAB'') found all claims of ten of the twelve asserted patents to be invalid. Of the remaining two patents, 53 of the 56 claims of one patent were held invalid and the other patent survived CBM Review proceedings. Appeals were filed by either Defendants or Trading Technologies on all PTAB determinations.

The United States Court of Appeals for the Federal Circuit vacated the CBM Review determinations of invalidity for four patents, concluding that these patents were not eligible for CBM Review. The District Court trial with respect to these four patents is scheduled for May 2020; however, the parties have filed a motion with the District Court to move the trial to November 2020.

14. Commitments, Contingencies and Guarantees (Continued)

While it is difficult to predict the outcome of the matter, the Company believes it has meritorious defenses to the allegations made in the complaint and intends to defend itself vigorously against them. However, litigation is inherently uncertain and there can be no guarantee that the Company will prevail or that the litigation can be settled on favorable terms.

Class Action Matter

On December 18, 2015, a former individual customer filed a purported class action complaint against IB LLC, IBG, Inc., and Thomas Frank, PhD, the Company's Executive Vice President and Chief Information Officer, in the U.S. District Court for the District of Connecticut. The complaint alleges that the purported class of IB LLC's customers were harmed by alleged "flaws" in the computerized system used to close out (i.e., liquidate) positions in customer brokerage accounts that have margin deficiencies. The complaint seeks, among other things, undefined compensatory damages and declaratory and injunctive relief.

On September 28, 2016, the District Court issued an order granting the Company's motion to dismiss the complaint in its entirety, and without providing plaintiff leave to amend. On September 28, 2017, plaintiff appealed to the United States Court of Appeals for the Second Circuit. On September 26, 2018, the Court of Appeals affirmed the dismissal of plaintiff's claims of breach of contract and commercially unreasonable liquidation but vacated and remanded back to the District Court plaintiff's claims for negligence. On November 30, 2018, the plaintiff filed a second amended complaint. The Company filed a motion to dismiss the new complaint on January 15, 2019, which was denied on September 30, 2019. On December 9, 2019, the Company filed a motion requesting that the District Court certify to the Connecticut Supreme Court two questions of Connecticut law directly relevant to the motion to dismiss. Briefing has only recently been completed, and the District Court has not yet ruled on the motion. Regardless of the outcome of this motion, the Company does not believe that a purported class action is appropriate given the great differences in portfolios, markets and many other circumstances surrounding the liquidation of any particular customer's margin-deficient account. IB LLC and the related defendants intend to continue to defend themselves vigorously against the case and, consistent with past practice in connection with this type of unwarranted action, any potential claims for counsel fees and expenses incurred in defending the case may be fully pursued against the plaintiff.

Regulatory Matters

The Company is currently providing information to the Financial Industry Regulatory Authority, the SEC, the Commodities and Futures Trading Commission ("CFTC") and the United States Department of Justice focused on anti-money laundering and Bank Secrecy Act practices. The Company periodically reviews these practices to make them more robust and to keep pace with changing regulatory standards, and the Company has been enhancing and augmenting its procedures and personnel in these areas over the past several years. While the outcome of the examinations and inquiries currently in progress cannot be predicted, the Company does not believe that they are likely to have a materially adverse effect on its financial results.

Guarantees

Certain of the operating subsidiaries provide guarantees to securities and commodities clearing houses and exchanges which meet the accounting definition of a guarantee under FASB ASC Topic 460, "Guarantees." Under standard membership agreements, clearing house and exchange members are required to guarantee collectively the performance of other members. Under the agreements, if a member becomes unable to satisfy its obligations, other members would be required to meet shortfalls. In the opinion of management, the operating subsidiaries' liability under these arrangements is not quantifiable and could exceed the cash and securities they have posted as collateral. However, the potential for these operating subsidiaries to be required to make payments under these arrangements is remote. Accordingly, no contingent liability is carried in the consolidated statements of financial condition for these arrangements.

In connection with its retail brokerage business, IB LLC or other electronic brokerage operating subsidiaries perform securities and commodities execution, clearance and settlement on behalf of their customers for whom

14. Commitments, Contingencies and Guarantees (Continued)

they commit to settle trades submitted by such customers with the respective clearing houses. If a customer fails to fulfill its settlement obligations, the respective operating subsidiary must fulfill those settlement obligations. No contingent liability is carried on the consolidated statements of financial condition for such customer obligations.

Other Commitments

Certain clearing houses, clearing banks and firms used by certain operating subsidiaries are given a security interest in certain assets of those operating subsidiaries held by those clearing organizations. These assets may be applied to satisfy the obligations of those operating subsidiaries to the respective clearing organizations.

15. Segment and Geographic Information

The Company has two operating business segments: electronic brokerage and market making. These segments are supported by the corporate segment, which provides centralized services and executes the Company's currency diversification strategy.

The Company conducts its electronic brokerage business through certain Interactive Brokers subsidiaries, which provide electronic trade execution and clearing services to customers worldwide. The Company conducts its remaining market making business (see Note 2 – Discontinued Operations and Costs Associated with Exit or Disposal Cost) principally through its Timber Hill subsidiaries on some of the world's leading exchanges and market centers, primarily in exchange-traded equities, equity options and equity-index options and futures.

Significant transactions and balances between the operating subsidiaries occur, primarily as a result of certain operating subsidiaries holding exchange or clearing organization memberships, which are utilized to provide execution and clearing services to subsidiaries. Charges for transactions between segments are designed to approximate full costs. Intra-segment and intra-region income and expenses and related balances have been eliminated in this segment and geographic information to reflect the external business conducted in each segment or geographic region. Corporate items include non-allocated corporate income and expenses that are not attributed to segments for performance measurement, net gains and losses on positions held as part of the Company's overall currency diversification strategy, corporate assets and eliminations.

Management believes that the following information by business segment provides a reasonable representation of each segment's contribution to total net revenues and income before income taxes and total assets for the periods indicated.

	Year-Ended December 31,		
	2019	2018	2017
	(in millions)		
Net revenues			
Electronic brokerage	$1,921	$1,842	$1,405
Market making	67	76	86
Corporate	(51)	(15)	211
Total net revenues	$1,937	$1,903	$1,702
Income before income taxes			
Electronic brokerage	$1,197	$1,177	$ 860
Market making	30	34	(27)
Corporate	(70)	(15)	216
Total income before income taxes	$1,157	$1,196	$1,049

15. Segment and Geographic Information (Continued)

	December 31,		
	2019	2018	2017
		(in millions)	
Segment assets			
Electronic brokerage	$69,857	$58,631	$58,787
Market making	2,806	2,736	8,469
Corporate	(987)	(820)	(6,094)
Total assets	$71,676	$60,547	$61,162

The Company operates its automated global business in the U.S. and international markets on more than 135 electronic exchanges and market centers. A significant portion of the Company's net revenues is generated by subsidiaries operating outside the U.S. International operations are comprised of electronic brokerage and market making activities in 32 countries in Europe, Asia/Pacific and the Americas (outside the U.S.). The following table presents total net revenues and income before income taxes by geographic area for the periods indicated. The geographic analysis presented below is based on the location of the subsidiaries in which the transactions are recorded. This geographic information does not reflect the way the Company's business is managed.

	Year-Ended December 31,		
	2019	2018	2017
		(in millions)	
Net revenues			
United States	$1,524	$1,501	$1,393
International	413	402	309
Total net revenues	$1,937	$1,903	$1,702
Income before income taxes			
United States	$ 997	$1,029	$ 947
International	160	167	102
Total income before income taxes	$1,157	$1,196	$1,049

16. Regulatory Requirements

As of December 31, 2019, aggregate excess regulatory capital for all of the operating subsidiaries was $6.4 billion.

IB LLC, TH LLC and IB Corp are subject to the Uniform Net Capital Rule (Rule 15c3-1) under the Exchange Act, IB LLC is also subject to the CFTC's minimum financial requirements (Regulation 1.17), and IBKRFS is subject to the Swiss Financial Market Supervisory Authority eligible equity requirement. IBC is subject to the Investment Industry Regulatory Organization of Canada risk adjusted capital requirement, IBUK is subject to the United Kingdom Financial Conduct Authority Capital Requirements Directive, IBEU is subject to the Luxembourg Commission de Surveillance du Secteur Financier financial resources requirement, IBHK is subject to the Hong Kong Securities Futures Commission liquid capital requirement, IBI is subject to the National Stock Exchange of India net capital requirements, IBSJ is subject to the Japanese Financial Supervisory Agency capital requirements and IBA is subject to the Australian Securities Exchange liquid capital requirement. The table below summarizes capital, capital requirements and excess regulatory capital as of December 31. 2019.

	Net Capital/ Eligible Equity	Requirement	Excess
		(in millions)	
IB LLC	$5,381	$549	$4,832
IBKRFS	584	91	493
IBHK	360	145	215
Other regulated operating subsidiaries	867	44	823
	$7,192	$829	$6,363

Regulatory capital requirements could restrict the operating subsidiaries from expanding their business and declaring dividends if their net capital does not meet regulatory requirements. Also, certain operating subsidiaries are subject to other regulatory restrictions and requirements.

As of December 31, 2019, all of the regulated operating subsidiaries were in compliance with their respective regulatory capital requirements.

17. Related Party Transactions

Receivable from affiliate, reported in other assets in the consolidated statement of financial condition, represents amounts advanced to Holdings and payable to affiliate represents amounts payable to Holdings under the Tax Receivable Agreement (see Note 4).

Included in receivables from and payables to customers in the consolidated statements of financial condition as of December 31, 2019 and December 31, 2018 were accounts receivable from directors, officers and their affiliates of $23 million and $13 million, respectively, and payables of $939 million and $918 million, respectively. The Company may extend credit to these related parties in connection with margin and securities loans. Such loans are (i) made in the ordinary course of business, (ii) are made on substantially the same terms, including interest rates and collateral, as those prevailing at the time for comparable loans with persons not related to the company, and (iii) do not involve more than the normal risk of collectability or present other unfavorable features.

18. Subsequent Events

As required by FASB ASC Topic 855, "Subsequent Events," the Company has evaluated subsequent events for adjustment to or disclosure in its consolidated financial statements through the date the consolidated financial statements were issued.

Except as disclosed in Note 4 and Note 14, no other recordable or disclosable events occurred.

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SUPPLEMENTARY DATA

Unaudited Quarterly results

The tables below present the Company's unaudited quarterly results which reflect the condensed consolidated operating results for the periods indicated.

	2019 Quarterly Data			
	First	Second	Third	Fourth
	(in millions, except per share amounts)			
Revenues	$ 720	$ 586	$ 643	$ 631
Interest expense	162	173	177	131
Net revenues	558	413	466	500
Non-interest expenses				
Execution and clearing	61	63	68	59
Employee compensation and benefits	71	75	67	75
Other	87	50	50	54
Total non-interest expenses	219	188	185	188
Income before income taxes	339	225	281	312
Income tax expense	15	15	20	18
Less net income attributable to noncontrolling interests	275	178	225	250
Net income available for common stockholders	$ 49	$ 32	$ 36	$ 44
Basic earnings per share	$0.65	$0.43	$0.46	$0.58
Diluted earnings per share	$0.64	$0.43	$0.45	$0.57
Net income available for common stockholders	$ 49	$ 32	$ 36	$ 44
Other comprehensive income				
Cumulative translation adjustment, before income taxes	(1)	4	(6)	7
Income taxes related to items of other comprehensive income	—	—	—	—
Other comprehensive income (loss), net of tax	(1)	4	(6)	7
Comprehensive income available for common stockholders	$ 48	$ 36	$ 30	$ 51
Comprehensive income attributable to noncontrolling interests				
Net income attributable to noncontrolling interests	$ 275	$ 178	$ 225	$ 250
Other comprehensive income—cumulative translation adjustment	(1)	12	(22)	31
Comprehensive income attributable to noncontrolling interests	$ 274	$ 190	$ 203	$ 281

	2018 Quarterly Data			
	First	Second	Third	Fourth
	(in millions, except per share amounts)			
Revenues	$ 621	$ 553	$ 558	$ 634
Interest expense	94	108	119	142
Net revenues	527	445	439	492
Non-interest expenses				
Execution and clearing	73	66	57	73
Employee compensation and benefits	70	68	63	63
Other	44	40	43	47
Total non-interest expenses	187	174	163	183
Income before income taxes	340	271	276	309
Income tax expense	21	13	18	19
Less net income attributable to noncontrolling interests	273	217	219	247
Net income available for common stockholders	$ 46	$ 41	$ 39	$ 43
Basic earnings per share	$0.64	$0.57	$0.52	$0.58
Diluted earnings per share	$0.63	$0.57	$0.51	$0.57
Net income available for common stockholders	$ 46	$ 41	$ 39	$ 43
Other comprehensive income				
Cumulative translation adjustment, before income taxes	1	(14)	(1)	—
Income taxes related to items of other comprehensive income	—	(1)	—	—
Other comprehensive income (loss), net of tax	1	(13)	(1)	—
Comprehensive income available for common stockholders	$ 47	$ 28	$ 38	$ 43
Comprehensive income attributable to noncontrolling interests				
Net income attributable to noncontrolling interests	$ 273	$ 217	$ 219	$ 247
Other comprehensive income—cumulative translation adjustment	7	(65)	(2)	(6)
Comprehensive income attributable to noncontrolling interests	$ 280	$ 152	$ 217	$ 241

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

The Company maintains disclosure controls and procedures that are designed to provide reasonable assurance that information required to be disclosed in the reports it files or submits under the Securities Exchange Act of 1934 (the ''Exchange Act'') is recorded, processed, summarized and reported accurately and within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is accumulated and communicated to management, including the Chief Executive Officer (''CEO'') and Chief Financial Officer (''CFO''), as appropriate, to allow timely decisions regarding required disclosure.

Under the supervision and with the participation of our management, including our CEO and our CFO, we conducted an evaluation of our disclosure controls and procedures; as such term is defined under Exchange Act Rule 13a-15(e). Based on this evaluation, our CEO and our CFO concluded that our disclosure controls and procedures were effective as of the end of the period covered by this annual report.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. IBG, Inc.'s internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles.

Our internal control over financial reporting includes those policies and procedures that pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of IBG, Inc.; provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of IBG, Inc.'s management and directors; and provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

In 2012, the Company's management created the Accounting Policy Committee (the ''APC'') to provide a robust framework for the design and implementation of all relevant controls. The APC is comprised of eight (8) experienced subject matter experts from within the Company's accounting and regulatory disciplines, and includes the CFO and the Chief Accounting Officer. The APC is responsible for assessing the effects of complex transactions and related accounting guidance on the Company's financial statements and to report the results of its assessments to management and to the Audit Committee. The APC's mandate includes review and approval of the adoption and implementation of accounting guidance (new or newly applicable) by the Company.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management, including our CEO and our CFO, assessed the effectiveness of IBG, Inc.'s internal control over financial reporting as of December 31, 2019. In making this assessment, management used the criteria set forth in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (''COSO''). Based on management's assessment and those criteria, management concluded that IBG, Inc. maintained effective internal control over financial reporting as of December 31, 2019.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2019, has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which appears herein.

Changes to Internal Control over Financial Reporting

No changes to our internal control over financial reporting for the year ended December 31, 2019 have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of
Interactive Brokers Group, Inc.
Greenwich, CT

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Interactive Brokers Group, Inc. and subsidiaries (the ''Company'') as of December 31, 2019, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated statements of financial condition as of December 31, 2019 and 2018 and the related consolidated statements of comprehensive income, cash flows, and changes in equity for each of the three years in the period December 31, 2019 , of the Company and our report dated February 28, 2020, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Deloitte & Touche LLP
New York, New York
February 28, 2020

ITEM 9B. OTHER INFORMATION

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information related to the Company's directors and nominees under the following captions in the Company's Proxy Statement is incorporated by reference herein:

- ''Item 1 - Election of Directors''
- ''Item 1 - Election of Directors - Board Meetings and Committees''

Code of Ethics

IBG, Inc.'s Code of Ethics and Business Conduct applies to all directors, officers and employees, including its Chief Executive Officer, its Chief Financial Officer and its Chief Accounting Officer. Information relating to our Code of Business Conduct and Ethics is included in Part I, Item 1 of this Annual Report on Form 10-K. We will post any amendments to the Code of Ethics and Business Conduct, and any waivers that are required to be disclosed by the rules of either the SEC or Nasdaq on the investor relations section of our website located at www.interactivebrokers.com/ir.

ITEM 11. EXECUTIVE COMPENSATION

Information relating to director and executive officer compensation under the following captions in the Company's Proxy Statement is incorporated by reference herein:

- ''Compensation of Directors''
- ''Executive Compensation''

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Other information relating to security ownership of certain beneficial owners and management is set forth under the caption ''Beneficial Ownership of Directors, Executive Officers and Owners of More than Five Percent'' in the Company's Proxy Statement and such information is incorporated by reference herein.

ITEM 13. TRANSACTIONS WITH RELATED PERSONS, PROMOTERS AND CERTAIN CONTROL PERSONS

Information regarding certain relationships and related transactions under the following caption in the Company's Proxy Statement and such information is incorporated by reference herein:

- ''Certain Relationships and Related Transactions''

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information regarding principal accounting fees and under the following caption in the Company's Proxy Statement is incorporated by reference herein:

- ''Item 3 - Ratification of Appointment of Independent Registered Public Accounting Firm''

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

Documents filed as part of this report

1. Consolidated Financial Statements

The consolidated financial statements required to be filed in the Annual Report on Form 10-K are listed on page 65 hereof and in Part II, Item 8 hereof.

2. Financial Statement Schedule

The financial statement schedule required in the Annual Report on Form 10-K is listed on page 116 hereof. The required schedule appears on pages 116 through F-5 hereof.

3. Exhibits

Exhibit Number	Description
3.1	Amended and Restated Certificate of Incorporation of Interactive Brokers Group, Inc. (filed as Exhibit 3.1 to Amendment No. 2 to the Registration Statement on Form S-1 filed by the Company on April 4, 2007).**
3.2	Amended bylaws of Interactive Brokers Group, Inc. (filed as Exhibit 3.1 to the Form 8-K filed by the Company on February 24, 2016).**
4.1	Description of the Registrant's Securities.
10.1	Amended and Restated Operating Agreement of IBG LLC (filed as Exhibit 10.1 to the Quarterly Report on Form 10-Q for the Quarterly Period Ended March 31, 2007 filed by the Company on June 15, 2007).**
10.2	Form of Limited Liability Company Operating Agreement of IBG Holdings LLC (filed as Exhibit 10.5 to Amendment No. 1 to the Registration Statement on Form S-1 filed by the Company on February 12, 2007).**
10.3	Exchange Agreement by and among Interactive Brokers Group, Inc., IBG Holdings LLC, IBG LLC and the Members of IBG LLC (filed as Exhibit 10.3 to the Quarterly Report on Form 10-Q for the Quarterly Period Ended September 30, 2009 filed by the Company on November 11, 2009).**
10.4	Tax Receivable Agreement by and between Interactive Brokers Group, Inc. and IBG Holdings LLC (filed as Exhibit 10.3 to the Quarterly Report on Form 10-Q for the Quarterly Period Ended March 31, 2007 filed by the Company on June 15, 2007).**
10.5	Amended Interactive Brokers Group, Inc. 2007 Stock Incentive Plan. (filed as Exhibit 10.5 to Form 10-K for the Year Ended December 31, 2014 filed by the Company on March 2, 2015)**+
10.6	Interactive Brokers Group, Inc. 2007 ROI Unit Stock Plan. (filed as Exhibit 10.9 to Amendment No. 2 to the Registration Statement on Form S-1 filed by the Company on April 4, 2007).**+
10.7	Interactive Brokers Group, Inc. Amendment to the Exchange Agreement (filed as Exhibit 10.1 to the Form 8-K filed by the Company on June 6, 2012).**+
10.8	Second Amendment to Exchange Agreement by and among Interactive Brokers Group, Inc., IBG Holdings LLC, IBG (filed as Exhibit 10.1 to the Quarterly Report on Form 10-Q for the Quarterly Period Ended September 31, 2015 filed by the Company on November 9, 2015).**
10.9	First Amendment to Limited Liability Company Agreement of IBG Holdings LLC (filed as Exhibit 10.2 to the Quarterly Report on Form 10-Q for the Quarterly Period Ended September 31, 2015 filed by the Company on November 9, 2015).**
21.1	Subsidiaries of the registrant.
23.1	Consent of Independent Registered Public Accounting Firm.
31.1	Certification of Chief Executive Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Chief Financial Officer, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document*
101.SCH	XBRL Extension Schema*
101.CAL	XBRL Extension Calculation Linkbase*
101.DEF	XBRL Extension Definition Linkbase*
101.LAB	XBRL Extension Label Linkbase*
101.PRE	XBRL Extension Presentation Linkbase*
104	Cover Page Interactive Data File - the cover page XBRL tags are embedded within the Inline XBRL document.

** Previously filed; incorporated herein by reference.

† These exhibits relate to management contracts or compensatory plans or arrangements.

* Attached as Exhibit 101 to this Annual Report on Form 10-K for the annual period ended December 31, 2019, are the following materials formatted in iXBRL (Inline eXtensible Business Reporting Language) (i) the Consolidated Statements of Financial Condition, (ii) the Consolidated Statements of Comprehensive Income, (iii) the Consolidated Statements of Cash Flows, (iv) the Consolidated Statement of Changes in Stockholders' Equity and (v) Notes to the Consolidated Financial Statements tagged in detail levels 1-4.

ITEMS. 15 (a)(1) and 15 (a)(2) INDEX TO FINANCIAL STATEMENTS AND FINANCIAL STATEMENT SCHEDULE

Financial Statement Schedule

ITEM 16. 10-K SUMMARY

None.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of
Interactive Brokers Group, Inc.
Greenwich, CT

Opinion on the Financial Statement Schedules

We have audited the consolidated financial statements of Interactive Brokers Group, Inc. and subsidiaries (the ‘‘Company’’) as of December 31, 2019 and 2018, and for each of the three years in the period ended December 31, 2019, and the Company’s internal control over financial reporting as of December 31, 2019, and have issued our reports thereon dated February 28, 2020; such consolidated financial statements and reports are included elsewhere in this Form 10-K. Our audits also included the financial statement schedules of the Company listed in the Index at Item 15. These condensed financial statement schedules are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statement schedules based on our audits. In our opinion, such condensed financial statement schedules, when considered in relation to the consolidated financial statements taken as a whole, present fairly, in all material respects, the information set forth therein.

/s/ Deloitte & Touche LLP
New York, New York
February 28, 2020

We have served as the Company’s auditor since 1990

INTERACTIVE BROKERS GROUP, INC.
(Parent Company Only)
CONDENSED STATEMENTS OF FINANCIAL CONDITION

(in millions, except share amounts)	December 31, 2019	December 31, 2018
Assets		
Cash and cash equivalents	$ 1	$ 1
Investments in subsidiaries, equity basis	1,469	1,302
Other assets	143	152
Total assets	$1,613	$1,455
Liabilities and Equity		
Liabilities:		
Payable to affiliates	$ 152	$ 171
Accrued expenses and other liabilities	9	2
	161	173
Stockholders' equity:		
Common stock, $0.01 par value per share:		
Class A – Authorized - 1,000,000,000, Issued - 76,889,040 and 75,230,400 shares, Outstanding – 76,750,110 and 75,100,952 shares as of December 31, 2019 and 2018	1	1
Class B – Authorized, Issued and Outstanding – 100 shares as of December 31, 2019 and 2018	—	—
Additional paid-in capital	934	898
Retained earnings	520	390
Accumulated other comprehensive income, net of income taxes $0 and $0 as of December 31, 2019 and 2018	—	(4)
Treasury stock, at cost, 138,930 and 129,448 shares as of December 31, 2019 and 2018	(3)	(3)
Total equity	1,452	1,282
Total liabilities and equity	$1,613	$1,455

See accompanying notes to the condensed financial statements.

INTERACTIVE BROKERS GROUP, INC.
(Parent Company Only)
CONDENSED STATEMENTS OF COMPREHENSIVE INCOME

(in millions)	Year-Ended December 31, 2019	2018	2017
Income (loss) before income from subsidiaries	$ (2)	$ 2	$ 92
Undistributed gains of subsidiaries, net	208	206	147
Income tax expense	45	39	163
Net income	$161	$169	$ 76
Net income available for common stockholders	$161	$169	$ 76
Cumulative translation adjustment, net of tax	4	(13)	11
Comprehensive income available for common stockholders	$165	$156	$ 87

See accompanying notes to the condensed financial statements.

INTERACTIVE BROKERS GROUP, INC.
(Parent Company Only)
CONDENSED STATEMENTS OF CASH FLOWS

(in millions)	Year-Ended December 31, 2019	2018	2017
Cash flows from operating activities			
Net income	$ 161	$ 169	$ 76
Adjustments to reconcile net income to net cash provided by operating activities			
Undistributed gains of subsidiaries, net	(208)	(206)	(147)
Deferred income taxes	23	23	149
Gain on remeasurement of Tax Receivable Agreement liability	—	(3)	(93)
Changes in operating assets and liabilities	(1)	15	(9)
Net cash used in operating activities	(25)	(2)	(24)
Cash flows provided by investing activities	81	74	56
Cash flows used in financing activities	(60)	(58)	(43)
Effect of exchange rate changes on cash and cash equivalents	4	(13)	11
Net increase in cash and cash equivalents	—	1	—
Cash and cash equivalents at beginning of period	1	—	—
Cash and cash equivalents at end of period	$ 1	$ 1	$ —
Supplemental disclosures of cash flow information			
Cash paid for interest	$ 2	$ 1	$ —
Cash paid for taxes, net	$ 20	$ 14	$ 13
Non-cash investing activities:			
Non-cash distributions from subsidiaries	$ —	$ 2	$ —

See accompanying notes to the condensed financial statements.

INTERACTIVE BROKERS GROUP, INC.
(Parent Company Only)
NOTES TO CONDENSED FINANCIAL STATEMENTS

1. Basis of Presentation

The accompanying condensed financial statements (the ''Parent Company Financial Statements'') of Interactive Brokers Group, Inc. (''IBG, Inc.''), a Delaware holding company, including the notes thereto, should be read in conjunction with the consolidated financial statements of IBG, Inc. and its subsidiaries (the ''Company'') and the notes thereto. IBG, Inc.'s primary asset is its ownership interest in IBG LLC, an automated global electronic broker and market maker specializing in executing and clearing trades in securities, futures, foreign exchange instruments, bonds and mutual funds on more than 135 electronic exchanges and market centers around the world and offering custody, prime brokerage, securities and margin lending services to customers.

The preparation of the Parent Company Financial Statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts and disclosures in the condensed financial statements and accompanying notes.

Income Taxes

Refer to Note 2 to the consolidated financial statements.

2. Related Party Transactions

As of December 31, 2019, there were no receivables from affiliates. Dividends received from IBG LLC for the three years ended December 31, 2019, 2018, and 2017, were $83 million, $76 million and $56 million, respectively.

As of December 31, 2019, and 2018, respectively, payable to affiliates of $152 million and $171 million consisted primarily of amounts payable to Holdings under the Tax Receivable Agreement.

3. Stockholders' Equity

Refer to Note 4 to the consolidated financial statements.

4. Employee Incentive Plans

Refer to Note 10 to the consolidated financial statements.

5. Commitments, Contingencies and Guarantees

Refer to Note 14 to the consolidated financial statements.

6. Subsequent Events

As required by FASB ASC Topic, ''Subsequent Events,'' IBG, Inc. has evaluated subsequent events for adjustment to or disclosure in its condensed financial statements through the date the condensed financial statements were issued.

Except as disclosed in Note 4 and Note 14 to the consolidated financial statements, no other recordable or disclosable events occurred.

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

INTERACTIVE BROKERS GROUP, INC.

/s/ Paul J. Brody

Name: Paul J. Brody
Title: *Chief Financial Officer, Treasurer and Secretary*
(Signing both in his capacity as a duly authorized officer and as principal financial officer of the registrant)

Date: February 28, 2020

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

Signature	Title	Date
/s/ THOMAS PETERFY Thomas Peterffy	Chairman of the Board of Directors	February 28, 2020
/s/ MILAN GALIK Milan Galik	Chief Executive Officer and President (Principal Executive Officer)	February 28, 2020
/s/ DENIS MENDONCA Denis Mendonca	Chief Accounting Officer (Principal Accounting Officer)	February 28, 2020
/s/ LAWERENCE E. HARRIS Lawrence E. Harris	Director	February 28, 2020
/s/ GARY KATZ Gary Katz	Director	February 28, 2020
/s/ PHILIP UHDE Philip Uhde	Director	February 28, 2020

EXHIBIT 4.1

DESCRIPTION OF CAPITAL STOCK

The following is a summary of Interactive Brokers Group, Inc.'s capital stock and provisions of our certificate of incorporation and bylaws, as each is currently in effect. This summary does not purport to be complete and is qualified in its entirety by the provisions of our certificate of incorporation and bylaws, copies of which are incorporated by reference as exhibits to this Annual Report on Form 10-K. When we use the terms ''we,'' ''us,'' and ''our,'' we mean solely Interactive Brokers Group, Inc. and not our subsidiaries.

Our authorized capital stock consists of 1,000,000,000 shares of Class A common stock, par value $0.01 per share, 100 shares of Class B common stock, par value $0.01 per share and 10,000 shares of preferred stock. In this section, when we refer to ''common stock,'' we are referring to Class A common stock and Class B common stock, taken as a whole.

Common Stock

Except as otherwise provided in our organizational documents and applicable law, all shares of common stock are identical and entitle the holder to the same rights and privileges and subjects them to the same limitations and restrictions. The principle difference between the Class A and Class B common stock concerns relative voting rights.

Class A common stock

Voting rights

The holders of Class A common stock are entitled to one vote per share. Holders of shares of Class A common stock are not entitled to cumulate their votes in the election of directors. Generally, all matters to be voted on by stockholders must be approved by a majority (or, in the case of election of directors, by a plurality) of the votes entitled to be cast by all shares of Class A common stock and Class B common stock present in person or represented by proxy, voting together as a single class. Except as otherwise provided by law, amendments to our amended and restated certificate of incorporation must be approved by a majority of the combined voting power of all shares of Class A common stock and Class B common stock, voting together as a single class. However, amendments to the amended and restated certificate of incorporation that would alter or change the powers, preferences or special rights of the Class A common stock so as to affect them adversely also must be approved by a majority of the votes entitled to be cast by the holders of the shares affected by the amendment, voting as a separate class. Notwithstanding the foregoing, any amendment to our amended and restated certificate of incorporation to increase or decrease the authorized shares of any class of common stock shall be approved upon the affirmative vote of the holders of a majority of the shares of Class A common stock and Class B common stock, voting together as a single class.

Dividend rights

Holders of Class A common stock share ratably (based on the number of shares of common stock held) in any dividend declared by our board of directors. Dividends consisting of shares of Class A common stock may be paid only as follows: (i) shares of Class A common stock may be paid only to holders of shares of Class A common stock; and (ii) shares are paid proportionally with respect to each outstanding share of Class A common stock. We may not subdivide or combine shares of either class of common stock without at the same time proportionally subdividing or combining shares of the other class. Dividends payable to holders of Class B common stock can only be paid if dividends in the same amount per share are simultaneously paid to holders of Class A common stock.

Liquidation rights

On our liquidation, dissolution or winding up, all holders of Class A common stock are entitled to share ratably in any assets available for distribution to holders of shares of common stock.

Other matters

In accordance with the amended and restated limited liability company agreement pursuant to which IBG LLC is governed, we intend to keep the number of outstanding IBG LLC membership interests owned by us equal to the number of outstanding shares of our common stock at all times. This means that as we issue additional shares of our common stock we would expect to use the proceeds to acquire a corresponding number of shares in IBG LLC. To the extent this occurs, existing common stockholders experience no material dilution with regard to their equity interest in IBG LLC as a result of the issuance of additional shares of our common stock.

In the event of our merger or consolidation with or into another company in connection with which shares of either class of common stock are converted into or exchangeable for shares of stock, other securities or property (including cash), all holders of common stock, regardless of class, are entitled to receive the same kind and amount of shares of stock and other securities and property (including cash), provided that if shares of either class of common stock are exchanged for shares of capital stock, such shares exchanged for or changed into may differ to the extent that the Class A common stock and the Class B common stock differ.

No shares of either class of common stock are subject to redemption or have preemptive rights to purchase additional shares of either class of common stock. All outstanding shares of Class A common stock have been legally issued, fully paid and nonassessable.

Class B common stock

Voting rights

The holders of Class B common stock, in the aggregate, are entitled to the number of votes equal to the number of IBG LLC membership interests held by such holders. IBG Holdings LLC, as the sole holder of the Class B common stock, is entitled to approximately 338.7 million votes, as of December 31, 2019.

Holders of shares of Class B common stock are not entitled to cumulate their votes in the election of directors. Generally, all matters to be voted on by stockholders must be approved by a majority (or, in the case of election of directors, by a plurality) of the votes entitled to be cast by all shares of Class B common stock and Class A common stock present in person or represented by proxy, voting together as a single class. Except as otherwise provided by law, amendments to the amended and restated certificate of incorporation must be approved by a majority of the combined voting power of all shares of Class B common stock and Class A common stock, voting together as a single class. However, amendments to the certificate of incorporation that would alter or change the powers, preferences or special rights of the Class B common stock so as to affect them adversely also must be approved by a majority of the votes entitled to be cast by the holders of the shares affected by the amendment, voting as a separate class. Notwithstanding the foregoing, any amendment to our amended and restated certificate of incorporation to increase or decrease the authorized shares of any class of common stock shall be approved upon the affirmative vote of the holders of a majority of the shares of Class B common stock and Class A common stock, voting together as a single class.

Dividend rights

Holders of Class B common stock share ratably (based on the number of shares of common stock held) in any dividend declared by the board of directors. Dividends consisting of shares of Class B common stock may be paid only as follows: (i) shares of Class B common stock may be paid only to holders of shares of Class B common stock; and (ii) shares are paid proportionally with respect to each outstanding share of Class B common stock. We may not subdivide or combine shares of either class of common stock without at the same time proportionally subdividing or combining shares of the other class. Dividends payable to holders of Class B common stock can only be paid if dividends in the same amount per share are simultaneously paid to holders of Class A common stock.

Liquidation rights

On our liquidation, dissolution or winding up, all holders of Class B common stock are entitled to share ratably in any assets available for distribution to holders of shares of common stock.

Other matters

In the event of our merger or consolidation with or into another company in connection with which shares of either class of common stock are converted into or exchangeable for shares of stock, other securities or property (including cash), all holders of common stock, regardless of class, are entitled to receive the same kind and amount of shares of stock and other securities and property (including cash), provided that, if shares of either class of common stock are exchanged for shares of capital stock, such shares exchanged for or changed into may differ to the extent that the Class A common stock and the Class B common stock differ.

No shares of either class of common stock are subject to redemption or will have preemptive rights to purchase additional shares of either class of common stock. All outstanding shares of Class B common stock have been legally issued and are fully paid and nonassessable.

Preferred Stock

Our board of directors has the authority, without further action by our stockholders, to issue our preferred stock in one or more series and to fix the rights, preferences, privileges, and restrictions thereof. These rights, preferences, and privileges include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms, and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of our common stock. The issuance of our preferred stock could adversely affect the voting power of our holders of common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation. In addition, the issuance of our preferred stock could have the effect of delaying, deferring, or preventing a change in our control.

Anti-takeover Effects of the Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Certain provisions of our amended and restated certificate of incorporation and our bylaws could have anti-takeover effects. These provisions are intended to enhance the likelihood of continuity and stability in the composition of our corporate policies formulated by our board of directors. In addition, these provisions also are intended to ensure that our board of directors will have sufficient time to fulfill its fiduciary duties to us and our stockholders. These provisions also are designed to reduce our vulnerability to an unsolicited proposal for our takeover that does not contemplate the acquisition of all of our outstanding shares or an unsolicited proposal for the restructuring or sale of all or part of us. The provisions are also intended to discourage certain tactics that may be used in proxy fights. However, these provisions could delay or frustrate the removal of incumbent directors or the assumption of control of us by the holder of a large block of common stock, and could also discourage or make more difficult a merger, tender offer, or proxy contest, even if such event would be favorable to the interest of our stockholders.

Special meetings of stockholders. Our bylaws preclude our stockholders from calling special meetings of stockholders or requiring the board of directors or any officer to call such a meeting or from proposing business at such a meeting. Our bylaws provide that only a majority of our board of directors, the chairman of the board or the chief executive officer can call a special meeting of stockholders. Because our stockholders do not have the right to call a special meeting, a stockholder cannot force stockholder consideration of a proposal over the opposition of the board of directors by calling a special meeting of stockholders prior to the time a majority of the board of directors, the chairman of the board or the chief executive officer believes the matter should be considered or until the next annual meeting provided that the requestor met the notice requirements. The restriction on the ability of stockholders to call a special meeting means that a proposal to replace board members also can be delayed until the next annual meeting.

Other limitations on stockholder actions. Advance notice is required for stockholders to nominate directors or to submit proposals for consideration at meetings of stockholders. This provision may have the effect of precluding the conduct of certain business at a meeting if the proper notice is not provided and may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of our company. In addition, the ability of our stockholders to remove directors without cause is precluded.

Section 203 of the General Corporation Law of the State of Delaware

We are subject to Section 203 of the General Corporation Law of the State of Delaware, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that such stockholder became an interested stockholder, with the following exceptions:

- prior to such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested holder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation

outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding those shares owned by persons who are directors and also officers and by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; and

- on or subsequent to such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66⅔% of the outstanding voting stock that is not owned by the interested stockholder.

Section 203 defines business combination to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loss, advances, guarantees, pledges, or other financial benefits by or through the corporation.

In general, Section 203 defines an interested stockholder as an entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation or any entity or person affiliated with or controlling or controlled by such entity or person.

Transfer Agent and Registrar

The transfer agent and registrar for shares of our common stock is Computershare Shareholder Services, Inc.

Listing

Our common stock is listed on The Nasdaq Global Select Market under the symbol ''IBKR.''

EXHIBIT 21.1

SUBSIDIARIES OF THE COMPANY

Name	Jurisdiction of Organization
IBG LLC	Connecticut, U.S.A.

The following is a list of subsidiaries of IBG LLC:

Name	Jurisdiction of Organization
Interactive Brokers LLC(1)	Connecticut, U.S.A.
Timber Hill LLC(2)	Connecticut, U.S.A.
IB Exchange Corp.	Delaware, U.S.A.
IB Global Investments LLC(3)	Delaware, U.S.A.
Timber Hill Canada Company	Canada
Interactive Brokers (India) Private Limited(3)	India
IBKR Europe S.a.r.l.(3)	Luxembourg
Interactive Brokers Software Services (India) Private Limited	India
Interactive Brokers Singapore Pte. Ltd.	Singapore

(1) IBG LLC owns 99.9% and Mr. Thomas Peterffy owns 0.1%.

(2) IBG LLC owns 99.99% and Mr. Thomas Peterffy owns 0.01%.

(3) IBG LLC Owns 99.99% and IB Exchange Corp. owns 0.01%

The following is a list of subsidiaries of IB Exchange Corp:

Name	Jurisdiction of Organization
Interactive Brokers Canada Inc.	Canada
Interactive Brokers (U.K.) Limited	United Kingdom
Interactive Brokers Hong Kong Limited	Hong Kong
Interactive Brokers Australia Pty Limited	Australia
Interactive Brokers Securities Japan, Inc.	Japan
IB Business Services (Shanghai) Company Limited	China
IBKR Financial Services AG	Switzerland
Interactive Brokers Hungary Informatikai KFT	Hungary
Interactive Brokers Software Services Estonia OU	Estonia
Interactive Brokers Software Services Rus	Russia
Interactive Brokers Corp.	Delaware, U.S.A.
Covestor, Inc.	Massachusetts, U.S.A.
Greenwich Advisor Compliance Services Corp.	Delaware, U.S.A.

The following is a list of subsidiaries of IBKR Financial Services AG:

Name	Jurisdiction of Organization
THLI AG	Liechtenstein
Global Financial Information Services GmbH	Switzerland
Interactive Marketing LLC	Delaware, U.S.A.

The following is a list of subsidiaries of Interactive Brokers (U.K.) Limited:

Name	Jurisdiction of Organization
Interactive Brokers (U.K.) Nominee Limited	United Kingdom

The following is a list of subsidiaries of Interactive Brokers Australia Pty Limited:

Name	Jurisdiction of Organization
Interactive Brokers Australia Nominees Pty Limited	Australia

The following is a list of subsidiaries of Covestor, Inc.:

Name	Jurisdiction of Organization
Covestor Limited	United Kingdom

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-142686, 333-174913 and 333-203358 on Form S-8 and Registration No. 333-219552 on Form S-3 of our reports dated February 28, 2020 relating to the consolidated financial statements and financial statement schedules of Interactive Brokers Group, Inc. and subsidiaries, and the effectiveness of Interactive Brokers Group, Inc. and subsidiaries internal control over financial reporting, appearing in this Annual Report on Form 10-K of Interactive Brokers Group, Inc. and subsidiaries for the year ended December 31, 2019.

/s/ Deloitte & Touche LLP
New York, New York
February 28, 2020

EXHIBIT 31.1

CERTIFICATION

I, Milan Galik, certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2019 of Interactive Brokers Group, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the Audit Committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By: /s/ MILAN GALIK

Name: Milan Galik
Title: *Chief Executive Officer and President*

Date: February 28, 2020

EXHIBIT 31.2

CERTIFICATION

I, Paul J. Brody, certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2019 of Interactive Brokers Group, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) and have:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the Audit Committee of the registrant's board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By: /s/ PAUL J. BRODY

Name: Paul J. Brody
Title: *Chief Financial Officer, Treasurer and Secretary*

Date: February 28, 2020

EXHIBIT 32.1

CERTIFICATION

Pursuant to 18 U.S.C. § 1350, the undersigned officer of Interactive Brokers Group, Inc. (the "Company") hereby certifies that the Company's Annual Report on Form 10-K for the year ended December 31, 2019 (the "Report") fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: /s/ MILAN GALIK

Name: Milan Galik

Title: *Chief Executive Officer and President*

Date: February 28, 2020

The foregoing certification is being furnished solely pursuant to 18 U.S.C. § 1350 and is not being filed as part of the Report or as a separate disclosure document.

EXHIBIT 32.2

CERTIFICATION

Pursuant to 18 U.S.C. § 1350, the undersigned officer of Interactive Brokers Group, Inc. (the "Company") hereby certifies that the Company's Annual Report on Form 10-K for the year ended December 31, 2019 (the "Report") fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: /s/ PAUL J. BRODY

Name: Paul J. Brody
Title: *Chief Financial Officer, Treasurer and Secretary*

Date: February 28, 2020

The foregoing certification is being furnished solely pursuant to 18 U.S.C. § 1350 and is not being filed as part of the Report or as a separate disclosure document.

Corporate Information

Officers and Directors

Thomas Peterffy
Chairman of the Board of Directors

Earl H. Nemser
Vice Chairman and Director

Milan Galik
President, Chief Executive Officer and Director

Thomas A. Frank
Executive Vice President and Chief Information Officer

Paul J. Brody
Chief Financial Officer, Treasurer, Secretary and Director

Lawrence E. Harris
Lead Independent Director

Gary Katz
Director

John M. Damgard
Director

Philip Uhde
Director

Corporate Headquarters
One Pickwick Plaza, Greenwich, CT 06830
877-442-2757

Independent Registered Public Accounting Firm
Deloitte & Touche LLP

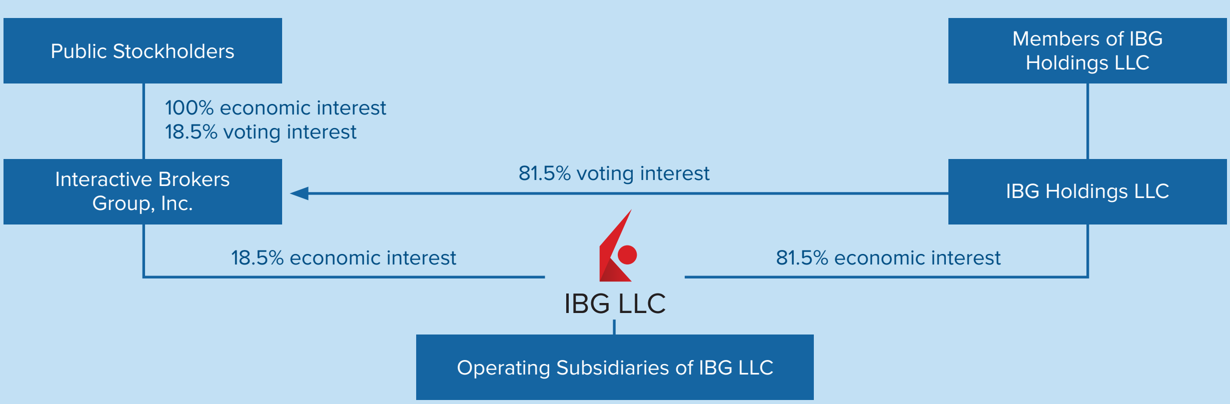
Common Stock
Our stock is listed on the Nasdaq Global Select Market under the symbol “IBKR”

Corporate Website
www.ibkr.com

Media
media@ibkr.com
203-913-1369

Investor Relations
investor-relations@ibkr.com
203-618-4070

Organizational Structure



InteractiveBrokers
www.ibkr.com

Interactive Brokers Group Sales Office Locations:

Greenwich, CT
Chicago, IL
San Francisco, CA
West Palm Beach, FL
855-861-6414

Montreal, Canada
877-745-4222

Toronto, Canada
647-621-8211

London, United Kingdom
44-207-710-5680

Zug, Switzerland
41-41-726-50-78

Mumbai, India
91-22-61289-836

Hong Kong
852-3410-7500

Tokyo, Japan
81-3-4588-9707

Sydney, Australia
61-2-8093-7301

Singapore
65-6694-7410

Member: NYSE, FINRA, SIPC.