Chapter 1

The Securities Industry[1]

1.01 The securities industry plays an important role in the growth of global business by providing accessible markets for initial and secondary offerings, as well as subsequent purchases and sales of securities. Investments have broadened public access to securities investing and enhanced the diversity of financial products. Through efficient financial markets, the industry makes it possible for business entities and governmental agencies that need to raise capital to connect with investors who have funds to invest.

1.02 The securities industry has accomplished its role through a variety of financial products, services, and institutions. Capital formation is achieved through public offerings, private placements, asset securitization, and merchant banking activities. Efficient secondary markets are maintained when securities firms act as agents for customers' securities transactions, trading, and arbitrage activities through a broker and dealer's (broker-dealer's) own accounts, market-making, and designated market maker (formerly known as specialist) activities. The securities industry also aids the risk mitigation process through a variety of transactions, products (such as futures, forwards, swaps, and options), and techniques.

1.03 Many different institutions facilitate the processing of the products and providing of services. The following are some of the key types of institutions the securities industry comprises:

- Broker-dealers
- The financial markets (exchange markets and over-the-counter [OTC] markets)
- Clearing organizations and depositories
- Transfer agents and registrars
- Qualified custodians
- Regulatory agencies

Broker-Dealers

1.04 Pursuant to the Securities Exchange Act of 1934 (1934 Act), the SEC developed a comprehensive system to regulate broker-dealers and the securities industry in general. As a result, all broker-dealers are subject to regulation by the SEC.

1.05 On July 30, 2013, the SEC amended Rule 17a-5, *Reports to Be Made by Certain Brokers and Dealers*, to require that audits of all broker-dealers' financial statements and supplemental information, as well as the auditor's

[1] The Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act), passed in July 2010, set in motion a multiyear rulemaking process that changes the structure of federal financial regulation and institutes new requirements for a number of industries and market participants. Rulemaking continues in a number of areas. Upon full implementation of its provisions, the act will have a significant impact on the securities industry. In February 2017, the president signed an executive order that sets in motion scaling back some of the provisions of the Dodd-Frank Act and in May 2018, the president signed a bill that further scales back some of the provisions of the Dodd-Frank Act. Readers should be alert for further developments.

examination of the compliance report or the auditor's review of the exemption report, be conducted in accordance with PCAOB standards, effective for fiscal years ending on or after June 1, 2014. In conjunction with these changes, the PCAOB issued AS 2701, *Auditing Supplemental Information Accompanying Audited Financial Statements*,[2] and two attestation standards, Attestation Standard No. 1, *Examination Engagements Regarding Compliance Reports of Brokers and Dealers* and Attestation Standard No. 2, *Review Engagements Regarding Exemption Reports of Brokers and Dealers*.[3] Additionally, the PCAOB has modified its existing standards to encompass broker-dealers.

1.06 Securities broker-dealers perform various functions within the securities industry. Brokers acting as agents facilitate their customers' purchase and sale of securities and related financial instruments and usually charge commissions. Dealers or traders acting as principals buy and sell for their own accounts from and to customers and other dealers. Dealers typically carry an inventory and make a profit or loss on the spread between bid and asked prices, markups from dealer prices, or the speculative profit or loss from market fluctuations. Many firms are known as broker-dealers because they act in both capacities. The range of their activities can extend far beyond those described previously. For example, many broker-dealers provide financial services including:

- Underwriting, or participating in the underwriting of, publicly offered securities
- Assisting in the private placement of securities
- Providing investment research and advice
- Developing new financial products, including derivative products
- Providing a source of market liquidity (market makers and designated market makers) and creating a secondary market for many products
- Providing loans and financings, including equity loans and mortgage loans
- Providing the means for companies to hedge foreign currency, interest rate, credit risk, and other risks
- Accommodating international investing, including U.S. investments in foreign markets and the investment activity of foreign investors in the U.S. markets
- Extending credit to customers who have bought securities on margin and to business entities that need financing for mergers, acquisitions, or leveraged buyouts
- Acting as a depository for securities owned by customers; disbursing to customers dividends and interest received; and informing customers about calls, tenders, and other reorganization activities pertaining to their securities
- Serving in an advisory capacity for public and corporate finance activities (such as mergers and acquisitions and leveraged buyouts) and providing investment and management advisory services to individual and institutional investors (for example, mutual funds, insurance companies, and pensions)

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[2] All AS sections can be found in *PCAOB Standards and Related Rules*.

[3] All Attestation Standards can be found in *PCAOB Standards and Related Rules*.

- Offering access to cash sweep products (such as money market funds or FDIC-insured bank deposit programs)
- Providing many other financial services (such as credit cards, checking accounts, and insurance products)

1.07 Many types of broker-dealers exist, and they may be distinguished by the range of activities they perform or the geographical area in which they operate. Full-service broker-dealers do not restrict themselves to particular activities or services. Regional broker-dealers are similar but generally concentrate their activities on a specific geographical area. Retail broker-dealers focus on individuals, whereas institutional broker-dealers are primarily concerned with nonnatural persons (for example, corporations). Introducing broker-dealers "introduce" their customers' business — on an omnibus or a fully disclosed basis — to a clearing broker-dealer. Broker-dealers may clear or carry their own customer trades or do so for an introducing broker. Boutiques or specialty firms, in contrast, engage in only one or a few activities, such as leveraged buyouts, arbitrage, direct private placements, mergers and acquisitions, customer discretionary accounts, or industry-specific research.

Discount Brokers

1.08 On May 1, 1975, fixed commission rates on securities transactions were abolished. With fully negotiated commissions, the discount broker assumed a role in the securities markets. Discount brokers generally charge lower commissions than full-service broker-dealers and provide fewer services. For example, they frequently provide no research support or little, if any, investment advice. Due to technological advances and the growth and popularity of the internet, the major discount broker-dealers typically have their customers place securities transactions or otherwise manage their brokerage accounts via websites, or mobile devices, rather than through a registered representative.

Investment Bankers

1.09 *Investment bankers* are broker-dealers who assist in bringing new securities to the investing public. The three major functions of investment bankers are origination, underwriting, and distribution. New securities are created during origination, bought by investment bankers during underwriting, and sold to investors during the distribution phase. Investment banking revenues are derived principally from fees for services and price spreads from underwriting securities issues.

1.10 Because new security issuances are complex, many security issuers look to the investment banker for investment advice, information, and assistance. Issuers depend heavily on investment bankers who are financial market specialists to create securities that meet most of the issuers' needs and, simultaneously, are acceptable to investors. For a new issue, the investment banker commonly does the following:

- Advises the issuer on the kind of security, timing of the issuance, pricing, and specific terms that are most acceptable during current financial market conditions
- Prepares and assists in filing a registration statement with the SEC
- Facilitates the investor roadshow to market the issuance

- Arranges for the efficient distribution of the new issue
- Arranges for a number of operational requirements, such as trustees, security indentures, and safekeeping

1.11 Investment banking firms often buy (or underwrite) a new issue or guarantee its sale at a specified price. If the securities are not sold to investors at the offering price, the investment banker may be required to buy the securities for its own account and be subject to market risk until the investment banker is able to distribute or sell the shares to the secondary market. To sell the issue quickly, a syndicate of many firms is often formed for each issue, and the securities are distributed through a large network, reaching many potential investors. Historically, large syndicates, comprising many firms, were formed to create networks for selling issues quickly. Although this process continues for initial public offerings of equity securities, the advent of the shelf registration process for certain debt securities has increased the speed with which these issues are brought to market. As a result, the underwriters that usually make up the underwriting group for distributing these securities are fewer and have larger capital bases.

1.12 Investment bankers also provide advice to institutions on sales, divestitures, mergers, acquisitions, tender offers, privatizations, restructurings, spin-offs, and joint ventures. Investment bankers earn fees for providing these services which are typically contingent upon the closing of a transaction.

1.13 The Jumpstart Our Business Startups Act (JOBS Act) was enacted on April 5, 2012, with the purpose of stimulating the growth of small to midsized companies by making it easier for startup and emerging growth companies to raise capital, by easing various securities regulations, and to meet regulatory reporting requirements, including extending the amount of time that certain new public companies have to begin complying with certain requirements under the Sarbanes-Oxley Act of 2002. Specifically, Section 401 of the JOBS Act adopted amendments to Regulation A which provides an exemption from the registration requirements of the Securities Act of 1933 (the 1933 Act) offerings of up to $50 million of securities annually. See chapter 3, "Regulatory Considerations," for additional information.

1.14 In recent years, the equity underwriting market has experienced fewer issuances because many start-up companies receive multiple rounds of funding prior to a public offering. There are fewer public companies today compared to the last several decades which, is largely due to costs associated with regulatory compliance, market volatility, the availability of cheaper funding alternatives, and complex reporting requirements.

Government Securities Dealers

1.15 *U.S. government securities dealers* are a group of dealer firms that underwrite and trade U.S. government and federal agency securities. Certain of these firms are designated by the Federal Reserve Bank of New York as primary dealers in U.S. government securities, and they deal directly with U.S. government fiscal agents (the Federal Reserve Banks) in acquiring new securities issues. These primary dealers serve as a counterparty to the Federal Reserve Bank of New York by participating in auctions of U.S. government debt. Additionally, they make a market in most U.S. government and federal agency securities and, as such, quote bid and ask prices. Primary dealers also provide the Federal Reserve Bank of New York's trading desk with market information and analysis helpful in the formulation and implementation of monetary policy. In addition to complying with the rules and regulations promulgated by the SEC pursuant to federal securities laws, these broker-dealers are also subject to certain rules and regulations of the Department of the Treasury. See chapter 3 for specific rule provisions relating to government securities dealers.

Designated Market Maker

1.16 A *designated market maker* (formerly known as *specialists*) is a broker-dealer authorized by an exchange to be a party through which all trading on the floor of the exchange in a particular security is transacted. A designated market maker provides for a fair and orderly market for the selected list of securities it is authorized to trade. The designated market maker must generally be ready to take the other side of a transaction if other buyers or sellers are not available. The designated market maker also maintains a book of limit orders and acts as a broker's broker in executing these limit orders against incoming market orders. With the proliferation of electronic trading, the designated market maker's role has diminished in recent years.

Clearing Brokers

1.17 A *clearing broker* is a broker-dealer who receives and executes customers' instructions, prepares trade confirmations, settles the money related to the trades, arranges for the book entry (or physical movement) of the securities, and shares responsibility with the introducing brokers for compliance with regulatory requirements. See paragraph 1.54 for a discussion of the delivery of securities.

Carrying Brokers

1.18 A *carrying broker* is a broker-dealer that holds customer accounts for introducing broker-dealers. Typically, this type of firm is also a clearing firm for those introducing firms. A carrying broker-dealer is responsible for performing the customer reserve computation and possession and control requirements of SEC Rule 15c3-3. A carrying broker-dealer may carry customer accounts on an omnibus or a fully-disclosed basis.

Prime Brokers

1.19 *Prime brokerage* is a system developed by full-service broker-dealers to facilitate the clearance and settlement of securities trades for substantial retail and institutional customers who are active market participants. Prime brokerage involves three distinct parties: the prime broker, the executing broker, and the customer. The *prime broker* is the broker-dealer that clears and finances the customer trades executed by one or more executing broker-dealers at the behest of the customer. Prime brokers typically provide services such as securities lending, financing, customized technology, and operational support to hedge funds and other sophisticated investors. In addition, a prime broker may also offer other value-added services such as capital introduction and risk management. Most prime brokerage agreements are executed with hedge funds and separately managed accounts.

Swap Dealers

1.20 Swap dealers act as a counterparty in a swap agreement. Swap dealers are the market makers in the swap market. Swaps are derivative contracts through which two parties exchange financial instruments typically involving cash based on notional amounts. Each cash flow comprises one leg of the swap. One cash flow is typically fixed while the other is variable. There are various types of swaps including interest rate swaps and credit default swaps. Historically, swaps have been traded in the OTC market between financial institutions in largely unregulated transactions.

1.21 The SEC and Commodity Futures Trading Commission (CFTC) jointly adopted final rules under the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) defining, among other things, the terms *swap dealer* and *security-based swap dealer*. The term *swap dealer* is defined in CFTC Regulation 1.3(ggg) under the Commodity Exchange Act and the SEC defines the term *security-based swap dealer* in SEC Rule 3a71-1 under the 1934 Act. The designation as a swap dealer or a security-based swap dealer within the meaning of the Dodd-Frank Act depends on the types of swap or security-based swap activities in which an institution engages. An institution is considered a swap dealer or a security-based swap dealer, as applicable, if it engages in one or more of the following activities:

- Holding itself out as a swap dealer or security-based swap dealer;
- Making markets in swaps or security-based swaps;
- Regularly entering into swaps or security-based swaps with counterparties in the ordinary course of business for its own account; or
- Engaging in activities that cause oneself to be commonly known in the trade as a dealer or market maker in swaps or security-based swaps.

Introducing Brokers

1.22 An *introducing broker* is a broker-dealer firm that accepts customer orders but elects to clear the orders through a clearing broker. In this arrangement, the introducing broker accepts the customers' orders and the clearing brokers or other parties clear the trades. Either party may initiate the execution of a trade. The clearing broker-dealer processes and settles the customer transactions for the introducing broker and usually maintains detailed customer records. Essentially, the introducing broker is using the back-office processing of the clearing broker-dealer. The commissions received from the transactions are collected by the clearing broker and divided in any manner agreed to by the introducing and clearing broker-dealers and stipulated in written contracts (for example, clearing agreements).

Brokers' Brokers

1.23 A *broker's broker* is a broker-dealer firm that acts as an agent for an undisclosed principal (another broker-dealer) for the purchase and sale of treasury, municipal, and corporate debt securities. These firms do not maintain securities inventories. Brokers' brokers play a significant role in the secondary market as intermediaries for trades between broker-dealers. Brokers' brokers typically provide the bid and ask prices for securities of their client on an undisclosed basis on trading screens of the brokers' broker and then match buyers and sellers. Brokers' brokers commonly deal in U.S. treasury, municipal, and corporate bond trading businesses for which no exchanges are available. Some brokers' brokers concentrate in certain kinds of securities and act as intermediaries for registered dealers and receive commissions that are usually determined by the size of the transaction.

Bank-Owned Brokers (Section 4k4(e) and Section 20 Brokers)

1.24 A Section 20 broker was established by a bank pursuant to Section 20 of the Glass-Steagall Act of 1933. The Gramm-Leach-Bliley Act of 1999, also known as the Financial Services Modernization Act, repealed Section 20 of the Glass-Steagall Act of 1933 and changed the types of activities that are permissible for bank holding company affiliates and subsidiaries of banks, creating so-called "financial holding companies" that may engage in a broad array of activities. Financial holding company affiliates, as well as direct subsidiaries of banks, may now engage in underwriting, dealing in, or making a market in securities. Broker-dealers of financial holding companies are now subject to the rules pursuant to Section 4k4(e) of the Gramm-Leach-Bliley Act of 1999. The Gramm-Leach-Bliley Act of 1999 affirmed the concept of functional regulation. Federal banking regulators will continue to be primary supervisors of the banking affiliates of financial holding companies, and the SEC and securities self-regulatory organizations will supervise the securities businesses of those entities.

Independent Broker-Dealers

1.25 Independent broker-dealers provide independent financial advisers with front, middle, and back office support in technology, clearing and settlement, compliance services, training, and research. Independent broker-dealers offer its services to financial advisers operating as self-employed business owners and are classified for tax purposes as independent contractors. Independent broker-dealers primarily engage in the sale of packaged products, such as mutual funds, exchange traded funds, variable and fixed insurance products, and real estate investment trusts. In addition to commission-based business, independent broker-dealers also provide a fee-based business under their registered investment advisory platforms.

The Financial Markets

1.26 Financial markets comprise many types of participants, both domestic and foreign, in which securities are bought and sold. International financial markets continue to grow and gain sophistication. Many financial organizations are involved with international trading strategies to gain the advantages of the global marketplace, as well as different tax policies and trading activities. International trading markets vary depending on the country or community in which the market exists, and international settlement procedures vary depending on the exchange or local country rules. Some exchanges exhibit more sophisticated or faster trade and settlement characteristics than U.S. exchanges; others trade securities in a negotiated fashion with lengthy settlement periods.

1.27 Financial markets can be categorized according to the kinds of instruments traded (such as futures, options, municipals, equities, and government and corporate debt). Financial markets have primary and secondary market operations. Primary markets provide for the original distribution of new securities. Secondary markets, which consist of exchanges and OTC markets, provide for the resale of securities. In addition, the characteristics of the securities traded may be used to categorize the financial markets. For example, the markets for U.S. Treasury bills, certificates of deposit, federal funds, bankers' acceptances, and commercial paper are commonly referred to as money markets. Money market securities[4] generally have maturities of one year or less, have less credit risk than equivalent long-term securities, and trade in large denominations.

1.28 Financial markets may also be characterized according to whether a party must find the counterparty and directly negotiate a trade or whether the counterparty is approached through an intermediary. The intermediary may be an agent who conducts a search for a counterparty (either an individual or institution) to buy or sell a particular security, may complete the transaction by trading with dealers who hold themselves out as willing to buy and sell (such as in OTC markets), or may transact directly against the orders of other potential counterparties by communicating through a single centralized location (exchange markets).

Exchange Market

Floor-Based Exchange

1.29 An *exchange market* is a central meeting place established to facilitate trading of securities or commodities. A *securities exchange* is an exchange market that provides trading facilities for stocks, bonds, or options. Exchange markets are generally characterized as auction places where bids and offers are directed and executed by brokers or designated market makers.

1.30 Transactions in securities executed on an exchange are normally initiated by a customer communicating with a registered representative (salesperson or account executive) of a broker-dealer to request a specified number of shares of a particular security be bought or sold at a stated price or the current market price. The order is usually communicated to the order room of the broker-dealer and then to its floor clerk, who is stationed at the exchange that trades the security. Securities transactions executed on an exchange may be in round lots (units of trading, normally 100 shares as specified by the exchange that lists the security) or in odd lots (quantities of less than 1 unit of trading).

1.31 Once the order is conveyed to the floor of the exchange, it is given by the floor clerk to a floor trader, who will attempt to execute it. If the broker-dealer is not a member of the particular exchange, the order is relayed to a correspondent broker who executes the trade on the exchange. Once executed, the details of the transaction (price, quantity, other broker with whom the transaction was consummated, and so forth) are reported back to the order room of the broker-dealer for transmission to the purchase and sales department. A confirmation of the trade is then prepared and sent to the customer.

1.32 With the advent of advanced technology, certain exchanges have provided their members with the facility of direct order entry to designated market makers, in addition to other electronic enhancements to trading.

1.33 In recent years, equities markets have become increasingly fragmented where shares trade on multiple exchanges and alternative trading

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[4] On July 23, 2014, the SEC issued Final Rule Release No. 33-9616, "Money Market Fund Reform; Amendments to Form PF." The rules are aimed at reducing the potential for money market fund "runs" by requiring funds that cater to large institutional investors to abandon their fixed $1 per share price and to float in value like other mutual funds. The rules also allow funds to restrict redemptions during periods of market stress through gating features or penalties. Readers should consult the full text of SEC Final Rule Release No. 33-9616, which can be accessed on the Final Rules page at www.sec.gov.

venues. For example, the New York Stock Exchange's (NYSE) share of trading in its listed stocks has declined over the last several years. There are advantages and disadvantages to market fragmentation. The May 2010 "flash crash" demonstrates issues with fragmentation as high frequency traders and complex computer algorithms caused a severe market drop in seconds. There are also advantages, as demonstrated by an outage in July 2015, of more than four hours on the NYSE where orders seamlessly routed to other trading venues with no discernable negative impact to the market.

Electronic-Based Exchange

1.34 An exchange may also operate through electronic trading platforms and networks to create a virtual marketplace for the purpose of trading securities and other financial instruments. When using an electronic stock exchange for trading, computer networks match buyers and sellers, thus providing an efficient method for executing trades. This may be especially important for those making a large volume of trades. One example of an electronic stock exchange is NASDAQ.

OTC Market

1.35 Many companies have insufficient shares outstanding, stockholders, or earnings to meet the listing requirements of an exchange or, for other reasons, choose not to be listed. Securities of these companies are traded in the OTC market between dealers who make markets acting as principals or brokers for customers.

1.36 The OTC market is not a location; rather, it is a communications network linking those dealers that make markets in securities generally not listed on exchanges. The OTC market is regulated by the Financial Industry Regulatory Authority (FINRA). An offer to buy or sell an unlisted security is executed by a broker-dealer entering into a transaction with a customer or another broker-dealer that makes a market in that security.

1.37 The broker-dealer may be an OTC market maker and act for its own account (dealer as principal) or for the account of a customer (broker as agent) in a purchase or sale transaction with a customer or another broker-dealer. Acting as a dealer, no commission is charged; instead, the broker-dealer realizes a profit or loss based on the spread between the cost and selling price of the securities. Acting as a broker (agent), a commission is charged.

1.38 The market makers publish quotes for security prices on a bid-and-ask basis (that is, they buy a security at the bid price and sell it at the ask price). The difference between the price for which the dealer is willing to purchase (bid for) the security and the price for which the dealer is willing to sell (ask for) the security is the spread.

1.39 Firm price quotations for OTC equity securities are available from the interdealer quotation systems, such as FINRA's OTC Bulletin Board and OTC Markets Group's OTC Pink.

Third Market

1.40 OTC trading of shares listed on an exchange takes place in the third market by broker-dealers and investors that are not exchange members. Members of an exchange are generally required to execute buy and sell orders in listed securities that are not SEC Rule 19c-3 eligible through that exchange during exchange hours. Rule 19c-3 includes those equity securities that were listed and registered on an exchange on or after April 26, 1979. However, a broker-dealer firm that is not a member of the exchange can make a market in a listed stock in the same way it would make a market in an unlisted stock.

Alternative Trading Venues

1.41 Direct trading of securities between two parties with no broker intermediary takes place in the fourth market. In many cases, both parties involved are institutions. For example, securities may trade on a private placement basis whereby the parties negotiate the terms of the placement. Because limited information may be publicly available, a small group of sophisticated investors generally hold privately placed securities.

Electronic Communication Network

1.42 An *electronic communication network (ECN)*, a type of alternative trading system, is an electronic system that brings buyers and sellers together for the electronic execution of trades. ECNs are required to be registered with the SEC and may be registered as either a dealer or an exchange. Those who subscribe to ECNs (generally, institutional investors, broker-dealers, and market-makers) can place trades directly on the ECN, typically using limit orders. ECNs post orders on their system for other subscribers to view. The ECN will then automatically match orders for execution. If a subscriber wants to buy a stock through an ECN, but there are no sell orders to match the buy order, the order cannot be executed until a matching sell order comes in. If the order is placed through an ECN during regular trading hours, an ECN that cannot find a match may send the order to another market center (for example, the NYSE or NASDAQ) for execution.

1.43 The benefits investors get from trading with an ECN include speed; trading after hours; real-time display of orders (whereas on the NYSE, most investors are limited to viewing the best bid and ask prices); ability to trade among themselves without having to go through a middleman (smaller spreads, lower commissions, better price executions); and anonymity (which is often important for large trades).

Dark Pools

1.44 A dark pool of liquidity is trading volume or liquidity that is not openly available to the public. The bulk of dark pool trades represent large trades by financial institutions that are offered away from public exchanges so that trades are anonymous. The fragmentation of financial trading venues and electronic trading has allowed dark pools to be created, and they are normally accessed through crossing networks or directly between market participants.

1.45 There are three major types of dark pools. The first is where independent companies set up to offer a unique differentiated basis for trading. The second is where the broker-dealer owns the dark pool and clients of the broker-dealer can interact, most commonly with other clients of the broker (possibly including its own proprietary traders) in conditions of anonymity. The third is where public exchanges, or consortiums of broker-dealers, create their own dark pools to allow their clients the benefits of anonymity and non-display of orders while offering an exchange's resources and infrastructure.

1.46 These systems and strategies typically seek liquidity among open and closed trading venues, such as other alternative trading systems. As such, they are particularly useful for computerized and quantitative strategies. Dark pools have been growing in importance, with dozens of different pools garnering a substantial portion of U.S. equity trading. Dark pools are of various types and can execute trades in multiple ways, such as through negotiation or automatically, throughout the day or at scheduled times.

Certain Rebates Received From Securities Exchanges and Other Broker Dealers

1.47 Broker-dealers perform various business activities in the primary and secondary securities markets, often interacting with securities exchanges and/or other broker dealers (for example, ECNs) to facilitate transactions on behalf of customers (agency trading), for their own accounts (proprietary trading), acting as a designated market maker and liquidity provider for certain specified securities.

1.48 Securities exchanges and other broker dealers (for example, ECNs) may charge fees or may offer financial incentives to certain participating broker-dealers. Rebates and fees are often based on specified conditions and criteria (for example, volume thresholds and tiered rebate rates). The following are the two main pricing model structures:

1. *Maker-taker model.* The maker-taker fee model is a pricing structure in which a market generally pays its members a per-share rebate to provide (that is, make) liquidity in securities and assesses its members a fee for removing (that is, taking) liquidity.[5]
2. *Payment for order flow model.* To attract orders from brokers, some exchanges or market-makers will charge a fee up to a certain volume threshold and, once the volume exceed that threshold, will pay a broker's firm for routing orders to them.[6]

Clearing Organizations and Depositories

1.49 After orders in securities are executed, whether on an exchange or in the OTC market, the transactions are compared, cleared, and settled. Comparison occurs when broker-dealers or their agents exchange their trade information (security, number of units, and price) to confirm the existence of a contract and match the buy and sell sides of the trade. *Clearance* is the process of accounting for compared trades in terms of the trading parties' obligations to pay money and deliver securities. *Settlement* is the process of exchanging the money for securities (that is, delivery and payment) that consummates the transaction. In the U.S. equity and corporate markets, settlement has historically occurred three business days after the trade. Under SEC Release No. 34-80295, "Amendment to Securities Transaction Settlement Cycle," the SEC amended Rule 15c6-1(a), *Settlement Cycle Rule*, to shorten the standard settlement cycle for most broker-dealer transactions from three business days after the trade date ("T+3") to two business days after the trade date ("T+2").[7] Trade comparison, clearance, and settlement are aspects of posttrade processing.

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[5] For more information, visit www.sec.gov/spotlight/emsac/memo-maker-taker-fees-on-equities-exchanges.pdf.

[6] For more information, visit www.sec.gov/fast-answers/answerspayordfhtm.html.

[7] The effective date of this release was May 30, 2017, and the compliance date was September 5, 2017. Readers are encouraged to consult the full text of the release, available at www.sec.gov/rules/final/2017/34-80295.pdf.

1.50 The exchange markets have sponsored central clearing agencies, known as clearing organizations, to assist in the comparison, clearance, and settlement functions. Deliveries and receipts of securities and the related cash settlements are made through these clearing organizations for broker-dealers. The National Securities Clearing Corporation (NSCC), a subsidiary of the Depository Trust & Clearing Corporation (DTCC), is one such U.S. clearing organization. In the OTC market, clearance may be accomplished by a variety of methods, including the buying and selling of broker-dealers' exchange-of-trade tickets directly with one another or through a clearing organization. Introducing broker-dealers operating through clearing brokers settle their transactions through those clearing brokers that in turn, settle the transactions through the clearing organizations. The Options Clearing Corporation and the clearing organizations of the commodity exchanges perform similar functions for options and futures trading. Clearance of securities traded on international markets is accomplished in a variety of ways, ranging from centralized clearing organizations (for example, Euroclear) to business entities whose securities are cleared by major banking organizations.

1.51 Most U.S. government and agency security transactions clear through the use of the book entry safekeeping system maintained by the Federal Reserve Bank of New York. The 12 district Federal Reserve Banks operate a securities transfer system that permits these securities to be transferred between the book entry safekeeping accounts.

1.52 The Fixed Income Clearing Corporation (FICC) provides clearing for fixed income securities, including U.S. Treasury securities and mortgage backed securities. FICC was created in 2003 to handle fixed income transaction processing, integrating the Government Securities Clearing Corporation and the Mortgage-Backed Securities Clearing Corporation. Securities transactions processed by the FICC include U.S. Treasury bills, bonds, notes, zero-coupon securities, government agency securities, mortgage-backed securities, and inflation-indexed securities. Participants in this market include mortgage originators, government-sponsored enterprises, registered broker-dealers, institutional investors, investment managers, mutual funds, commercial banks, insurance companies, and other financial institutions.

1.53 Settlement of securities transactions can be complex, especially when there is a large volume of transactions in many securities. To avoid duplicated receipt and delivery of securities, the NSCC uses an electronic netting system known as continuous net settlement (CNS). In CNS, a broker-dealer's purchases and sales in the same security are netted, thus leaving the broker-dealer with one daily net settlement obligation per security. The broker-dealer then settles that obligation with the clearing organization. Unique to CNS, the clearing agency interposes itself between the trading broker-dealers on each trade and guarantees the settlement obligations of each broker-dealer's countertrading party. Thus, the broker-dealer's settlement is with the clearing organization, not the other broker-dealer. Other clearing mechanisms may or may not guarantee settlement. A broker-dealer can settle each day or carry open commitments forward to net against the next day's settlement (hence the continuous nature of CNS).

1.54 Security deliveries in the current U.S. environment are generally by book entry (that is, by electronic debits and credits to a broker-dealer's account) at a securities depository where the securities certificates are immobilized and where broker-dealers hold the certificates in the street name for their customers. Thus, delivery is accomplished without the physical movement of the securities certificates. The securities depositories, which are similar to banks, pursue the business of custodian operations, including holding securities certificates in physical form or maintaining electronic records of book entry securities holdings for their customers, mainly financial institutions.

1.55 One of the major depositories for equities, corporate debt securities, certain eligible mortgage-backed securities, and municipal debt securities is the DTCC and its subsidiaries.

Transfer Agents

1.56 Although many securities issuers use a bank or trust company as their transfer agent, an issuer may use an independent transfer agent or may act as its own transfer agent. There are two basic functions of a transfer agent: the transfer function and the registrar function. A transfer agent may perform one or both of these functions.

1.57 The transfer function includes canceling old certificates properly presented and endorsed in good deliverable form (which usually includes a signature guarantee), making appropriate adjustments in the issuer's shareholder records, establishing a new account in the name of the new owner, and issuing new certificates in the name of the new owner. Transfer agents also review legal documents to ensure they are complete and in perfect order before transferring the securities. If the legal documents are incomplete, the transfer agent either will notify the presenter the documents are incomplete and hold the old certificate and accompanying documentation until the presenter sends the transfer agent the proper documents or will reject the transfer and return the securities.

1.58 For mutual funds, transfer agents enter the amount of securities purchased by a shareholder on the issuer's books and redeem (liquidate) shares upon receipt of the customer's written or wire request. Transfer agents, as part of their transfer function, maintain records of the name and address of each security holder, the amount of securities owned by each security holder, the certificate numbers corresponding to a security holder's position, the issue date of the security certificate, and the cancellation date of the security certificate. Many transfer agents also act as paying agents for cash dividends and the distribution of stock dividends and stock splits.

1.59 A transfer agent performing the registrar function monitors the issuance of securities in an issue with a view toward preventing the unauthorized issuance of securities. The registrar checks to ensure the issuance of securities will not exceed the authorized number of shares in an issue and that the number of shares represented by the new certificate or certificates corresponds to the number of shares on the canceled ones. After the registrar performs these functions, the registrar countersigns the certificate.

Regulatory Overview

1.60 Regulatory environments differ from country to country, and the freedom of entry into the marketplace likewise varies depending on local regulation. In the United States, the 1934 Act provides for the regulation of securities transactions after the securities are initially distributed to public investors in an underwriting. The 1934 Act established the SEC that, among other things, is authorized to promulgate and enforce rules governing the regulation of broker-dealers in securities. The SEC developed, pursuant to the 1934 Act, a comprehensive system to regulate broker-dealers. Under the 1934 Act, all broker-dealers are required to be members of self-regulatory organizations, such as FINRA, which performs routine surveillance and monitoring of its members. A similar regulatory framework was established for commodity broker-dealers (that is, futures commission merchants) under the Commodity Futures Trading Commission Act of 1974, which established the CFTC and gave it exclusive jurisdiction over commodity futures matters. The Commodity Futures Modernization Act of 2000 (CFMA) authorized joint regulation by the CFTC and the SEC of security futures products on individual equity issues and on narrow-based indexes of securities. The CFMA created a flexible structure for the regulation of futures trading, codified an agreement between the CFTC and the SEC to repeal the ban on trading single-stock futures, and provided legal certainty for OTC derivatives markets. The CFMA amended the definition of *security* in the 1933 Act and the definitions of *security* and *equity security* in the 1934 Act to include a security future. In April 2002, the SEC amended the definition of *equity security* in rules under the 1933 Act and the 1934 Act to conform them to the statutory definitions with respect to security futures. The Commodity Futures Trading Commission Act of 1974 also authorized the creation of registered futures associations, giving the futures industry the opportunity to create a nationwide, self-regulatory organization. The National Futures Association (NFA), which began operations in 1982, is the self-regulatory organization for the U.S. derivatives industry, including exchange-traded futures, retail off-exchange foreign currency, and OTC derivatives.

1.61 Since its adoption, the 1934 Act has been amended to include virtually all participants in the securities markets and an ever-increasing range of securities-related activities. Originally, the scope of the 1934 Act was limited to the regulation of exchanges, members of exchanges, and trading in securities listed on exchanges. The Maloney Act of 1938 amended the 1934 Act to cover the OTC markets. The Maloney Act of 1938 also established the National Association of Securities Dealers (NASD) (that was subsequently consolidated with NYSE Regulation, Inc. into a single self-regulatory organization: FINRA), which is an independent, non-governmental regulator for all securities firms doing business with the public in the United States.

1.62 In 1975, the 1934 Act was amended to extend the authority of the SEC to include securities transfer agents, clearing organizations, and securities depositories. This amendment also established the Municipal Securities Rulemaking Board that was authorized to prescribe rules regulating the activities of municipal securities broker-dealers. In 1986, the 1934 Act was amended by the Government Securities Act of 1986 to require U.S. government securities broker-dealers to register with the SEC. Under the Government Securities Act of 1986, the SEC has the authority to enforce rules promulgated by the Department of the Treasury that concern U.S. government securities broker-dealers. Thus, the 1934 Act today provides a comprehensive scheme of regulation for virtually all broker-dealers in securities, the exchanges, and the OTC markets, as well as the facilities for clearing and settling transactions among broker-dealers, depositories, transfer agents, and registrars.

1.63 The Securities Investors Protection Corporation (SIPC) was established when Congress enacted the Securities Investor Protection Act of 1970 (SIPA). SIPC is a nonprofit membership corporation designed to protect, up to a specific maximum amount, customers' cash and securities in the custody of a broker-dealer that fails and is liquidated under SIPA. Broker-dealers registered with the SEC, with some limited exceptions, are required to be members of SIPC. The money required to protect customers beyond that which is available from the customer property in the possession of the failed broker-dealer is advanced by SIPC from a fund maintained for that purpose. The sources of money for this fund are assessments collected from SIPC members and interest on the fund's investments in U.S. government securities made with the funds collected. See chapter 3 for more information on the SIPC assessment and related reporting.

Business Activities

Brokerage

1.64 Broker-dealers can earn commissions by buying or selling securities and commodities on their customers' behalf. Broker-dealers' handling of customers' funds and securities is subject to rules administered by the SEC, the Board of Governors of the Federal Reserve System (Federal Reserve), and the self-regulatory organizations. Although the specific definition of the term *customer* varies in the SEC's rules, SEC Rule 15c3-3 defines customer as "any person from whom or on whose behalf a broker or dealer has received or acquired or holds funds or securities for the account of that person." The rule excludes certain categories of persons from the definition, including broker-dealers, municipal securities dealers, and government securities broker-dealers. It also excludes general partners, directors, and principal officers of the broker-dealer and any other person to the extent that person has a claim for property or funds which by contract, agreement or understanding, or by operation of law, is part of the capital of the broker-dealer or is subordinated to the claims of creditors of the broker-dealer.

1.65 Broker-dealers regularly finance the transactions of their customers. The initial extension of credit by broker-dealers is governed by Federal Reserve Regulation T (Regulation T) of the Federal Reserve System. Regulation T classifies transactions into specifically defined accounts. Most transactions with customers are done in cash or margin accounts.

1.66 *Cash account*. In a cash account, the customer pays in full within a specified settlement period for any security purchased. Regulation T generally requires cash payment by the customer for the purchase of securities within two business days after settlement date; however, a self-regulatory organization or national securities association may grant an extension of time before payment is required. If the customer does not make timely payment for the securities, Regulation T requires the broker-dealer to promptly cancel or liquidate the transaction. In general, the broker-dealer will hold the customer responsible for any resulting loss.

1.67 If a customer sells securities, the customer must promptly deliver the certificates to the broker-dealer. Either the proceeds of a sale will be credited to the customer's account on the settlement date, or if requested, a check will be mailed to the customer. In general, under SEC Rule 15c3-3, if the broker-dealer does not receive the securities sold within 10 business days of the settlement date, the broker-dealer is required to close the transaction with the customer by purchasing securities of like kind and quantity. Again, the broker-dealer will hold the customer responsible for any resulting loss.

1.68 *Margin accounts*. Under Regulation T, the broker-dealer is required to record the purchase or sale of securities by customers on other-than-immediate cash settlement terms in a margin account. A purchase on margin contemplates a prolonged extension of credit to the customer by the broker-dealer. The maximum amount of initial credit is prescribed by Regulation T. The maximum amount of credit the broker-dealer can extend beyond the initial transaction is prescribed by the rules of the appropriate self-regulatory organization. Customer margin requirements relating to securities futures are prescribed by joint final rules issued by the SEC and the CFTC in August 2002.

1.69 If the amount of equity in the customer's account is below the amount required to cover the initial margin, Regulation T requires the broker-dealer to eliminate the margin deficiency within five calendar days after it was created or increased. When a deficiency arises, the broker-dealer will normally issue a call for margin from the customer.

1.70 The customer can satisfy the margin call by making additional margin deposits of cash or securities. If the customer does not make the deposits within the specified time, including approved extensions of time by a self-regulatory organization or national securities association, Regulation T requires the broker-dealer to liquidate securities sufficient to satisfy the required margin. Broker-dealers also have self-imposed margin requirements that are generally more stringent than the Federal Reserve System or self-regulatory organization requirements.

1.71 *Accounts carried for other brokers*. Clearing brokers maintain the customer accounts of introducing brokers. *Fully disclosed accounts* are accounts of the introducing broker's customers that are carried on the books of a clearing broker. In a fully disclosed account, the introducing broker's customers are treated as if they were the clearing broker's own customers, except that correspondence to customers usually refers to the introducing broker by including a phrase such as "through the courtesy of [*the introducing broker's name*]." The clearing broker maintains the customers' accounts and is usually responsible for collecting the purchase price, the commission, and other fees from the customers. However, the introducing broker generally indemnifies the clearing broker for uncollected amounts from any resulting unsecured accounts of the introducing broker's customers. The clearing broker and the introducing broker enter into a contract that describes the distribution of commissions between brokers.

1.72 In contrast, an *omnibus account* is an account of the introducing broker that is carried on the books of the clearing broker and that represents the sum of the activity of customers of the introducing broker. The introducing broker's customer accounts are carried separately on the books of the introducing broker. For an omnibus account, the introducing broker prepares and sends confirmations and monthly statements to customers, maintains customers' accounts and margin records, and retains most of the responsibility for compliance with regulatory matters.

Firm Trading

1.73 Firm trading (also referred to as proprietary trading) involves a full range of activities whereby broker-dealers may take principal positions for their own accounts. Certain broker-dealers make markets in particular OTC securities by standing ready to buy or sell securities to their customers or other broker-dealers. These broker-dealers often carry an inventory of securities in which they make a market and are exposed to the market risks inherent in such positions. In addition, these broker-dealers may sell securities short in anticipation of decreases in the price of the securities.

1.74 *Riskless arbitrage*. *Riskless arbitrage* is the simultaneous purchase and sale of the same or an equivalent security in order to profit from price discrepancies. *Convertible arbitrage* is a form of riskless arbitrage that uses convertible securities or warrants versus the underlying equity securities. Broker-dealers can profit from the temporary price differences that exist from the same or similar securities traded in different financial markets. Another kind of basic arbitrage involves purchasing and selling similar securities in like markets.

1.75 *Risk arbitrage*. *Risk arbitrage* is a term used to describe special situations (such as mergers, reorganizations, recapitalizations, tenders for cash, and tenders for securities) in which the arbitrage trader buys or sells securities without fully hedging or offsetting risk, with the intention of realizing a profit at some future period based on the anticipated market movement when the special situation is completed.

1.76 *Program trading*. *Program trading* is a term used to describe the simultaneous buying and selling of a large number of different stocks based on their perceived correlation. Program trading may encompass several index-related trading strategies, including hedging, index arbitrage, and portfolio insurance. Program trades are often accomplished through an exchange's high-speed order system. By using a high-speed order system, program trades can be carried out in a matter of minutes. Program trading enables institutions to make broad changes in their portfolios and thus facilitates index arbitrage. Index arbitrage combines the buying and selling of stocks with offsetting trades in stock index futures or options.

1.77 *Algorithmic trading*. Algorithmic trading, also called automated trading, black-box trading, or algo trading, is the use of electronic platforms for entering trading orders with an algorithm which executes pre-programmed trading instructions whose variables may include timing, price, or quantity of the order, or in many cases the order is initiated electronically, without human intervention. Algorithmic trading is widely used by investment banks, pension funds, mutual funds, and other buy-side (investor-driven) institutional traders, to divide large trades into several smaller trades to manage market impact and risk. Broker-dealers and some hedge funds, provide liquidity to the market by generating and executing orders automatically. A special class of algorithmic trading is high-frequency trading, which is often most profitable during periods of high market volatility.

1.78 *Block trading*. *Block trading* is the acquisition or disposition of large quantities of securities by a broker-dealer to facilitate the execution of buy or sell orders of customers, usually institutions. Block traders locate suitable trading partners and assist the buyer and seller in negotiating the terms of the trade. The broker-dealer's assistance is needed because the inflow of orders to the exchange floor is generally too small to execute the trade in a reasonable period of time, and designated market makers typically do not have sufficient capital to execute such transactions. In addition, designated market makers are not allowed to communicate directly with public buyers and sellers, whereas block traders may communicate with them. If the broker-dealer has negotiated a trade, it is crossed on the exchange (that is, the broker executes two or more matched orders on the exchange).

1.79 *When-issued transactions*. *When-issued transactions* are contracts to purchase or sell securities only when, as, and if new securities are issued. Broker-dealers enter into such purchase or sale transactions on pending issues of new securities. Trading in when-issued securities normally begins when the U.S. Treasury, a municipality, a state, or some other issuer of securities announces a forthcoming issue. Such transactions are contingent upon the issuance of the securities. Because the exact price and terms of the securities are unknown before the issuance date, trading prior to that date is on a yield basis (that is, based on the yields that buyers expect). The exact terms and price of the security become known on the issuance date, and when-issued trading continues until the settlement date, at which time the securities are delivered and the issuer is paid. When-issued transactions may also arise as a result of underwritings, exchanges, and mergers after preliminary agreement to issue the securities is established but before a date for settlement has been set.

1.80 *To-be-announced (TBA) trades*. *TBA* is a term used to describe forward mortgage-backed securities trades. The term TBA is derived from the fact that the actual mortgage-backed security that will be delivered to fulfill a TBA trade is not designated at the time the trade is made. The securities are to be announced 48 hours prior to the established trade settlement date.

1.81 *Delayed delivery*. A *delayed delivery transaction* is a transaction in which both parties to the trade agree on a deferred settlement. Delayed delivery transactions are purchases or sales of securities similar in most respects to regular-way transactions (normal settlement) except that, by agreement, the date of consummation or settlement is extended.

1.82 *Hedging*. Hedging instruments and techniques have been developed by broker-dealers to offset or minimize the risk of losses that an enterprise may be exposed to because of the effect of price changes on its assets, liabilities, or future commitments. Hedging instruments and techniques were developed in response to the volatility of interest rates, securities and commodity prices, and foreign exchange rates. These instruments may be used for speculative purposes, as well as hedging. The more common hedging instruments used as risk management tools include futures contracts; forward contracts; options; interest rate caps, floors, and collars; and swaps.

1.83 *Futures and forward contracts*. *Futures contracts* are standardized contracts traded on organized exchanges to purchase or sell a specified financial instrument or commodity on a future date at a specified price. Financial futures include contracts for debt instruments (interest rate futures), foreign currencies, and stock indexes. Forward contracts are individually negotiated and have economic characteristics similar to those of futures contracts, but they are not traded on an organized exchange, and consequently, they are generally referred to as OTC. *Forward contracts* are contracts for forward placement or delayed delivery of financial instruments or commodities in which one party agrees to buy, and another to sell, a specified security or commodity at a specified price for future delivery.

1.84 Forward contracts and futures contracts both have substantial market risk. A buyer (long position) of a futures contract profits when the value of the underlying financial instrument or commodity increases, whereas a seller (short position) of the futures contract incurs a loss.

1.85 The credit risk associated with a futures contract is generally less than it is for forward contracts because of the protections afforded by the exchange clearing organization system. All futures contracts cleared through a clearing organization are subsequently measured at fair value (see the glossary of this guide), and the financial result is settled daily between the clearing organization and clearing member. Because of this daily settlement, the amount of unsettled credit exposures is limited to the amount owed the clearing member for any one day.

1.86 The clearing organization also has a guarantee fund consisting of cash, securities, and bank guarantees contributed by all clearing member firms. In the event the guarantee funds are insufficient to cover a failed member firm's obligations to the clearing organization system, the clearing organization has additional assessment authority over all the other member firms.

1.87 These protections are intended to permit the clearing organization to fulfill the obligations of any failed clearing member firm to other clearing member firms. However, the exchange clearing organization will not necessarily guarantee the performance or the money balances of the failed member firm with respect to the individual customer accounts of a failed member firm (that is, the clearing organization guarantee is generally limited to the commodities clearing obligations of the failed member firm to the other clearing member firms).

1.88 *Options*. An option contract conveys a right, but not an obligation, to buy or sell a specified number of units of a financial instrument at a specific price per unit within a specified time period. The instrument underlying the option may be a security; futures contract (for example, an interest rate option); commodity; currency; or cash instrument. Options may be bought or sold on organized exchanges or OTC on a principal-to-principal basis or may be individually negotiated. A call option gives the holder the right, but not the obligation, to buy the underlying instrument. A put option gives the holder the right, but not the obligation, to sell the underlying instrument. The price at which the underlying instrument may be bought or sold during the specified period is referred to as the *strike* or *exercise price*. The option buyer (holder) is the party that obtains the right, by paying a premium, to buy (call) or sell (put) an instrument. The option seller (writer) is the party that is obligated to perform if the option is exercised.

1.89 The option buyer's profit potential can be virtually unlimited. The option buyer's loss, however, is limited to the cost of the option (premium paid). Unlike the buyer of an option contract, an option seller may be exposed to large and sometimes unlimited market risk; however, the premiums received by the seller may provide a potentially attractive return.

1.90 After the initial exchange of the premium, the writer of the option is not at risk to a counterparty's default because the buyer is no longer obligated to perform. The buyer of the option, however, is exposed to the writer's ability to perform. The risk of counterparty default can be reduced by trading through an exchange because the clearing organization of the exchange acts as guarantor for the option contracts.

1.91 When an option is exercised depends on the market price versus the strike price, the outlook on how one option will perform in relation to the other before the expiration date, and the kind of option — European or American. A European option is exercisable only at the maturity date of the option, whereas an American option is exercisable at any time during the option period.

1.92 *Caps, floors, and collars*. An *interest rate cap* is a contractual agreement between two counterparties in which the buyer, in return for paying a fee, will receive cash payments from the seller at specified dates if rates go above a specified interest rate level known as the strike rate (cap). An *interest rate floor* is a contractual agreement between two counterparties in which the buyer, in return for paying a fee, will receive cash payments from the seller at specified dates if interest rates go below the strike rate. The cap or floor fee (premium) is generally paid in advance to the seller by the buyer, but it may be paid over the life of the cap or floor agreement. At each settlement date during the term of the cap or floor, the strike rate is compared with the market rate (index rate) to determine whether the seller must make a payment to the buyer. The timing of these payments varies depending on the agreement between the buyer and seller.

1.93 The economic characteristics of caps and floors are analogous to those of a series of European interest rate options. The risks associated with caps and floors are also similar to those of options (that is, they are asymmetrical). The buyer of a cap or floor is protected against adverse interest rate changes (the loss is limited to the premium) while having the ability to profit from favorable changes in interest rates.

1.94 As with an option, the writer of a cap or floor has no risk of counterparty default unless the cap or floor fee (premium) is paid over the life of the cap or floor arrangement. The buyer, in contrast, incurs counterparty credit risk because the third party may not fulfill its obligation.

1.95 The buyer of the interest rate cap can lower the fee paid in advance to the writer by writing a floor (minimum level of a floating rate) on the transaction. If the floating rate goes below the floor, the buyer of the interest rate cap (writer of the floor) has to compensate the counterparty for the difference. An interest rate contract that specifies both a cap and floor for interest rates is referred to as a *collar*.

1.96 *Swap transactions*.[8] *Swaps* are financial transactions in which two counterparties agree to exchange streams of payments over time according to a predetermined formula. Swaps are normally used to transform the market exposure associated with a loan or bond borrowing from one interest rate base (fixed term or floating rate) or currency denomination to another (across markets).

1.97 The typical interest rate swap is an agreement between two parties under which each party agrees to pay the other specified or determinable cash amounts on specified future dates. The cash amounts to be paid by each party are defined in terms of applying a specified interest rate (either fixed or variable) to a hypothetical principal amount, referred to as the notional principal amount. The interest rate swap does not modify preexisting debt instruments, and no securities actually change hands between the parties.

1.98 Currency swaps are similar to interest rate swaps in that interest streams are exchanged between two counterparties; however, unlike interest rate swaps, they are in two different currencies (either fixed for fixed, fixed

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[8] In July 2012, the SEC and Commodity Futures Trading Commission jointly adopted and published in the Federal Register new rules and interpretations further defining the terms *swap* and *security-based swap*. See 77 FR 48208, *Further Definition of "Swap," "Security-Based Swap," and "Security-Based Swap Agreement"; Mixed Swaps; Security-Based Swap Agreement Recordkeeping*.

for floating, or floating for floating). Further, unlike interest rate swaps, because two different currencies are involved, there is generally an exchange of principal at inception of the agreement and a re-exchange of like principal at maturity.

1.99 The term *currency swap*[9] is also used to describe arrangements in which spot and forward foreign exchange contracts are entered into with the same counterparty (foreign exchange swap). The forward amount exchanged is different from the spot amount because the forward amount includes an interest differential between a fixed rate in one currency and a fixed rate in the other currency. Unlike the currency swaps described in the preceding paragraph in which there is a series of forward exchanges (interest flows), a foreign exchange swap has only one forward exchange.

1.100 In interest rate swaps, there is unlimited market risk and reward to the extent interest rates fluctuate. The fixed-rate receiver loses if interest rates rise, and the fixed-rate payer loses if interest rates fall. There is no market risk in the principal amount of interest rate swaps. The counterparty to a currency swap is exposed to interest rate movements and to foreign exchange risk on the principal and interest.

1.101 The contractual or notional amounts related to interest rate and currency swaps do not indicate the risk of default of the counterparty. Risk of default varies with the financial strength of the counterparties. Further, the amount at risk at a point in time is limited to the unrealized gain and varies with market conditions. Additional credit protection may be provided through use of an intermediary who guarantees the payment streams by providing a backup letter of credit, collateral, or some other support arrangement. In addition, in 2016 the CFTC adopted final regulations requiring certain swap counterparties to exchange initial margin and variation margin for swap transactions that are not cleared by derivatives clearing organizations. Such exchanges of margin are intended to mitigate the risks resulting from a counterparty default.

1.102 *Asset securitization*. *Asset securitization* is the process of converting receivables and other assets that are not readily marketable into securities that can be placed and traded in capital markets. Assets that have been securitized include residential mortgages; commercial mortgages; agency securities (including those of Government National Mortgage Association [Ginnie Mae], Federal National Mortgage Association [Fannie Mae], and the Federal Home Loan Mortgage Corporation [Freddie Mac]); consumer receivables (credit card loans and home equity loans); retail installment loans (automobile, recreational vehicle, and mobile home); time-share mortgage loans; trade receivables; insurance-policy-related receivables; leases (equipment, operating, and automobile); student loans; high-yield corporate bonds; and federal assets.

1.103 Securitization transactions span a wide spectrum. At one extreme are outright sales of assets or interests in assets. At the other extreme are borrowings collateralized by assets. In between are sales of assets with varying degrees of recourse to the seller and nonrecourse borrowings collateralized by assets. Asset-backed securities may be issued through a variety of structures, including pay-through securities; pass-through securities; and commercial paper with multiple classes, differing degrees of subordination, and varying cash

[9] See footnote 8.

flow priorities. The securities are often backed by some form of credit enhancement. Credit enhancement can take the form of letters of credit, third-party guarantees, liquidity facilities, spread accounts, reserve funds, subordinate interests, and overcollateralization.

1.104 In a typical asset securitization transaction, an originator (transferor) transfers assets to a special-purpose entity (SPE), which may also be a variable interest entity (VIE). Beneficial interests in the SPE are sold to investors and the proceeds are used to pay the transferor for the assets transferred. The SPE or VIE might be organized in such a way that the likelihood of its bankruptcy is remote and that the transferred assets are protected from the estate of the transferor in the event of its bankruptcy.

1.105 One type of asset securitization is a *collateralized mortgage obligation*, a mortgage-backed bond that aggregates individual mortgages or mortgage-backed securities into mortgage pools that are separated into different maturity classes, called tranches. Each tranche has unique risk characteristics for paying interest, paying principal, or retaining residual ownership.

1.106 Securitization often allows the holder of assets to raise funds at a lower rate than the cost of general obligation borrowings, free up capital through off-balance sheet financing, reduce interest rate and credit risk, limit loss exposure, and gain access to nontraditional funding sources.

1.107 Mutual funds, insurance companies, pension funds, banks, thrifts, retail investors, and diverse other foreign and domestic investors participate in the mortgage- and asset-backed securities market. New investment instruments, flexible payment terms, investment-grade credit quality, various degrees of liquidity, and reduced event risk are among the benefits offered by these securities. The market risks affecting these securities include interest rate risk, prepayment risk, and varying degrees of credit risk. Given the multitude of assets and the complexity of securitization structures, an investor must understand both the investment profile and the risks specific to each investment.

1.108 *Credit derivatives. Credit derivative* refers to various instruments and techniques designed to separate and then transfer the credit risk, or the risk of an event of default of a corporate or sovereign borrower, transferring it to an entity other than the lender or debt holder. An unfunded credit derivative is one where credit protection is bought and sold between bilateral counterparties without the buyer having to put up money up front or at any given time during the life of the deal unless an event of default occurs. Usually these contracts are traded pursuant to an International Swaps Dealers Association master agreement. Most credit derivatives of this sort are credit default swaps. When the credit derivative is entered into by a financial institution or a SPE and payments under the credit derivative are funded using securitization techniques, such that a debt obligation is issued by the financial institution or SPE to support these obligations, it is known as a funded credit derivative.

1.109 *International trading*. A number of major broker-dealers have the capabilities for executing purchase and sale orders in securities traded abroad. The recent admission of U.S. broker-dealers to foreign financial markets offers the possibility of 24-hour trading. In addition, many foreign securities are traded by market makers in the United States. Many broker-dealers trade equity securities in the form of American depository receipts (ADRs). An *ADR* is a registered negotiable receipt for shares of a foreign corporation held in custody in the foreign location. Some ADRs are listed on the NYSE, and many others trade in the OTC market.

Investment Banking

1.110 Many broker-dealers are engaged in providing investment banking services to their customers. These services typically include raising capital through the public offering or private placement of securities. In addition, these broker-dealers counsel companies in the management of their money and advise companies about corporate structuring opportunities.

1.111 *Public offerings*. Business entities and governmental entities that desire to raise funds through the public sale of securities normally engage securities broker-dealers to underwrite their securities issues. *Underwriting* is the act of distributing a new issue of securities (primary offering) or a large block of issued securities (secondary offering). Underwritings are accomplished on either a firm-commitment or best-efforts basis. The underwriting group for a transaction on a firm-commitment basis agrees to buy the entire security issue from the issuer for a specified price, with the intent to resell the securities to the public at a slightly higher price. The underwriting group for a best-efforts underwriting agrees to sell the issue at a price to be determined, normally with a minimum requirement to complete the underwriting. An underwriting group may also be formed on a standby basis in which there is a commitment to buy the securities if called on.

1.112 Underwriting subjects the broker-dealer to substantial risks. A broker-dealer underwriting securities on a firm-commitment basis is required to buy a portion of the positions offered. This results in the need to finance the unsold portions and assume the market risk of ownership. In addition, the broker-dealer may be held liable to the purchasers of the securities under the 1933 Act. The statute holds all persons (including underwriters) connected with a registration statement responsible for any material misstatements contained in the registration statement. An underwriting also exposes the broker-dealer to the risk that its customers or other group members who had committed to buy the securities being underwritten may refuse to honor the transactions.

1.113 Because the value of a new issue of securities and the liability for successful marketing may be too great for any one dealer, group accounts or syndicates may be formed to spread the risk. In addition, selling groups, which may include broker-dealers other than members of the underwriting group, are sometimes formed to obtain wider distribution of the new issue.

1.114 The liability of the underwriting group may be divided or undivided. If it is divided, each member of the group has a specified maximum liability to buy a certain number of shares of stock or principal amount of bonds. If it is undivided, each member of the underwriting group has a designated percentage liability for unsold securities.

1.115 *Advisory services*. Broker-dealers provide advisory services for which they receive fee income. These may include consulting on mergers and acquisitions, reorganizations, tender offers, leveraged buyouts, conversions, swaps, and the pricing of securities to be issued. Fees for these services are generally determined by the transaction size and are often contingent upon results, which may not be final until after the services are completed. In addition, broker-dealers may earn fees by advising investment company asset managers about mutual fund assets and the distribution and maintenance of mutual fund shares.

1.116 *Private placements*. Broker-dealers may also arrange the private placement of securities by business or government entities. Private placements are usually conducted on a best-efforts, agency basis and, therefore, expose the placement agent to less risk than that associated with the underwriting liability of a public offering. *Private placements* are distributions of securities that do not involve public offerings. Typically, private placements are sold to sophisticated institutional investors and, hence, do not require a registration statement to be filed with the SEC. The securities involved in private placements can be either an initial issuance or a resale of previously issued securities and are generally restricted regarding subsequent resale. For example, they may require registration under state and federal securities laws prior to resale or an opinion of counsel providing an exemption from registration requirements. The company's history, size, stability, and cash needs are factors in determining when the use of a private placement of debt or equity securities might be preferable to registering securities for sale to the public. In many instances, the expertise of the broker-dealer may be essential in analyzing the company's activities and requirements in order to determine the kind of securities to be offered and to assist in structuring the placement to enhance marketability. Because private placements are usually conducted on a best-efforts, agency basis by a broker-dealer, maximum consideration is normally given to locating an investor or a relatively small group of investors whose investment objectives closely parallel the expectations of the issuer.

1.117 The SEC adopted Rule 144A[10] to provide a safe-harbor exemption from the registration requirements of the 1933 Act for the resale of private placements when the resale is made to a qualified institutional buyer. Broker-dealers can qualify as institutional buyers if they own and invest on a discretionary basis at least $10 million in the securities of unaffiliated issuers. Broker-dealers with less than $10 million may buy securities as riskless principals for clients that are themselves qualified institutional buyers.

Financing

1.118 Broker-dealers may finance their activities through the use of bank loans, stock loans, and repurchase agreements (repos). In recent years, stock lending and repos have also evolved into firm trading strategies whereby broker-dealers earn interest spreads on the simultaneous borrowing and lending of funds collateralized by securities. A discussion of some of the activities described as broker-dealer financing activities follows.

1.119 *Bank loans*. One source of financing in the securities industry is bank loans. These loans are callable by the bank and are often collateralized (secured) by securities owned by the broker-dealer or, if used to finance loans to the customer, by customer securities that are not fully paid for. The interest rate charged by banks on these loans is called the *brokers' call rate*. Commercial banks typically provide bank loan financings to broker-dealers on a committed

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[10] In July 2013, the SEC issued a final rule which amends SEC Rule 144A. See Release No. 33-9415, *Eliminating the Prohibition Against General Solicitation and General Advertising in Rule 506 and Rule 144A Offerings*. Simultaneously, the SEC issued a proposed rule to further amend the related rules. See Release No. 33-9416, *Amendments to Regulation D, Form D and Rule 156 under the Securities Act*, because of the publication date of this guide this rule has not been finalized. See chapter 3, "Regulatory Considerations," for more information.

or uncommitted basis depending on the credit strength of the broker-dealer. Bank loans can also be provided on an unsecured basis.

1.120 In addition to the risks faced by all businesses concerning collateralized bank loans, broker-dealers are subject to a unique requirement resulting from regulations governing collateral. SEC Rule 15c3-3 prohibits broker-dealers from utilizing their customers' fully paid or excess margin securities as collateral for bank loans. Federal Reserve Regulations G, T, U, and X of the Federal Reserve system establish the ratio of collateral value to the amount of loans that must be maintained for loans used to finance customer-related activity and firm-related activity. Thus, firms must maintain separate records for customer and firm loans and related collateral.

1.121 *Securities lending agreements*. A *stock loan* is an arrangement in which securities are loaned from one broker-dealer to another in exchange for collateral. Broker-dealers may lend securities to enable a borrowing broker-dealer to make deliveries of securities sold that the borrowing broker-dealer does not have available to deliver on the settlement date. Securities lending can be an effective and efficient means of generating funds for financing broker-dealers' operations. Securities lending is usually conducted through open-ended "loan" agreements that may be terminated on short notice by the lender or borrower. Securities lending is generally collateralized by cash, although securities or letters of credit may also be used as collateral. The nature of these transactions is generally governed by Regulation T.

1.122 Each stock loan is initially collateralized at a predetermined margin that is slightly in excess of the value of the securities loaned. If the fair value of the security falls below an acceptable level during the time a loan is outstanding, the borrower of the security requests the return of the excess cash collateral. If the value of the security rises, the lender of the security generally requests additional cash collateral to cover potential exposure to credit risk.

1.123 When a stock loan is terminated, the securities are returned to the lender and the collateral or cash to the borrower. Fees (often referred to as rebates) are paid to the cash lender based on the principal amounts outstanding. Such fees are generally calculated at a rate lower than the broker-dealer's call rate, and they fluctuate based on the availability of the particular securities loaned. Some broker-dealers participate in the securities-lending and securities-borrowing market as intermediaries. They conduct a finder or conduit business in which securities are borrowed from one broker-dealer (or other institution) and loaned to another.

1.124 *Repos or reverse repos*. According to the FASB *Accounting Standards Codification* (ASC) Master Glossary, a *repurchase agreement accounted for as a collateralized borrowing (repo agreement)* refers to a transaction in which a seller-borrower of securities sells those securities to a buyer-lender with an agreement to repurchase them at a stated price plus interest at a specified date or in specified circumstances. A repurchase agreement accounted for as a collateralized borrowing is a repo that does not qualify for sale accounting under FASB ASC 860, *Transfers and Servicing*. The payable under a repurchase agreement accounted for as a collateralized borrowing refers to the amount of the seller-borrower's obligation recognized for the future repurchase of the securities from the buyer-lender.

1.125 A repo may be made on an overnight or a fixed-maturity basis or with an agreement for the seller to buy back the same securities at an open date to be decided by the buyer and seller. Dollar repurchase agreements (also called dollar rolls) are agreements to sell and repurchase substantially the same but not identical securities.

1.126 As defined in the FASB ASC Master Glossary, a *reverse repurchase agreement accounted for as a collateralized borrowing* (also known as a reverse repo) refers to a transaction that is accounted for as a collateralized lending in which a buyer-lender buys securities with an agreement to resell them to the seller-borrower at a stated price plus interest at a specified date or in specified circumstances. The receivable under a reverse repurchase agreement accounted for as a collateralized borrowing refers to the amount due from the seller-borrower for the repurchase of the securities from the buyer-lender.

1.127 The buyer is said to enter into a reverse repo transaction (receiving securities, giving up cash) while the seller enters into a repo transaction (receiving cash, giving up securities). This reciprocal procedure enables the seller to obtain short-term financing while the buyer is able to earn interest on its excess cash and hold securities as collateral. For the buyer, the transaction represents another form of secured lending.

1.128 Government bond dealers that have large inventories to be financed find it advantageous to execute repos with institutional investors because a repurchase transaction usually has a lower interest rate than the interest rate charged by a bank, and they can finance a greater percentage of their collateral. By using repos, buyers are able, with negligible market risk, to earn interest on their balances. The principal risk to the buyer is the creditworthiness of the seller but only if the collateral is in the possession of the seller or if its value has declined substantially. The possession of the collateral is an important determinant of the credit risk of a repo transaction. There are three kinds of custodial arrangements relating to repo transactions: triparty repos, deliver-out repos, and hold-in-custody repos.

1.129 In a triparty repo, an independent institution acting in a custodial capacity enters into a tripartite agreement with the two counterparties to the transaction. This third-party custodian assumes certain responsibilities for safeguarding the interests of both counterparties and is involved in transferring funds and securities between those two parties. In a deliver-out repo, the securities are delivered to the investor or its designated custodial agent, who has no relationship with the repo seller. A hold-in-custody repo is characterized by the repo seller retaining control of the securities and serving simultaneously throughout the transaction not only as principal but also as the investor's custodial agent.

1.130 Some commonly used terms that describe various kinds of repurchase transactions include *overnight repos*, *term repos*, and *repos to maturity*. Paragraphs 19–21 of FASB ASC 860-10-05 discuss the nature of these terms. Broker-dealers make their profits on the differences between the interest charged on the repos and the interest earned on the reverse repos. See chapter 5, "Accounting Standards," and chapter 6, "Financial Statement Presentation and Classification," for additional information.

Other Activities

1.131 *Commodities*. A commodity may be bought for current delivery or future delivery. Broker-dealers buy and sell commodity contracts for future delivery on the request of their customers or for their own account. In a purchase contract (long position), the buyer agrees to accept a specific commodity that meets a specified quality in a specified month. In a sale contract (short position), the seller agrees to deliver the specified commodity during the designated month.

1.132 Growers, processors, warehouse operators, and other dealers often buy and sell commodity futures for hedging purposes (that is, they transfer the price risk to speculators). Speculators buy and sell commodity futures because of the potential for a large return that could result from the leverage inherent in commodity futures trading. This leverage exists because a commodity contract controls a substantial amount of the commodity, and only a small money payment (margin deposit) is made.

1.133 *Investment company shares*. Established under the Investment Company Act of 1940, *investment companies* are institutions that issue shares representing a portfolio of assets. The sale and redemption of investment company shares are often handled by broker-dealers. The AICPA Audit and Accounting Guide *Investment Companies* provides accounting and auditing guidance relevant to these institutions.

1.134 Broker-dealers may act as agents to offer their customers the opportunity to invest in investment company shares. Brokers act as agents for their customers by placing or redeeming orders with mutual funds. Orders with mutual funds are placed in the customers' names through the shareholders' servicing agent that keeps records of individual share ownership, including additions for the reinvestment of dividends and capital gains. The broker-dealer's financial involvement with mutual funds may be limited to the receipt of commission checks if orders are placed with funds that charge commissions.

1.135 *Unit investment trusts*. A *unit investment trust* (UIT) registered under the Investment Company Act of 1940 is a pool of securities fixed at the date of origination in which an investor holds an interest. Because it is not a managed investment vehicle, a UIT appeals to investors who, though desiring diversification, do not seek active professional investment advice. A UIT differs from a mutual fund in that it has a fixed termination date, roughly corresponding to the maturities of the securities in its portfolio. In addition, a UIT does not have a board of directors and an investment adviser. Rather, it has a trustee (or custodian) who holds the UIT's assets; a sponsor who establishes, promotes, sells, and makes a secondary market in the UIT's units; and an evaluator who periodically values the UIT's portfolio.

1.136 *Exchange traded funds*. An exchange traded fund (ETF) is an investment fund traded on stock exchanges, much like stocks. An ETF holds assets such as stocks, commodities, or bonds, and trades close to its net asset value over the course of the trading day. Most ETFs track an index, such as a stock index or bond index. ETFs may be attractive as investments because of their low costs, tax efficiency, and stock-like features. An ETF combines the valuation feature of a mutual fund or unit investment trust, which can be bought or sold at the end of each trading day for its net asset value, with the tradability feature of a closed-end fund, which trades throughout the trading day at prices that may be more or less than its net asset value. Closed-end funds are not considered to be ETFs, even though they are funds and are traded on an exchange.

1.137 *Foreign exchange*. The trading of currencies and bank deposits denominated in various currencies takes place in the foreign exchange market.

The largest dealers in foreign exchange are money center banks. These dealers either arrange transactions between each other (in the interbank market) or place bids and offers through a brokerage system wherein brokers (including a number of securities broker-dealers) will attempt to bring buyers and sellers together for a commission. Currencies are traded in either the spot or forward markets and the futures markets. Spot transactions call for the immediate exchange of currencies (typically a two-day settlement), whereas forward transactions settle at a predetermined future date. The spot and forward markets are utilized primarily by large commercial users and institutional traders, whereas the futures market serves smaller commercial users and speculators.

1.138 *Soft-dollar arrangements*. The FASB ASC Master Glossary defines a *soft-dollar arrangement* as one in which a broker-dealer provides research to a customer in return for trade order flow (a certain volume of trades) from that customer.

1.139 Most soft-dollar arrangements are triangular. In the first corner of the triangle is a money manager who wants to buy research data without writing a check. In the second corner is a broker with whom the money manager, or the money manager's client, trades. The broker uses a part of the commission (soft-dollars) to pay the research firm on behalf of the money manager. In the third corner is the researcher who is paid by the broker and sends the data to the money manager. Since the 1970s, when soft-dollars were first used, some brokers and money managers have used soft-dollars to cover transactions not associated with research. These types of transactions are governed by Section 28(e) of the 1934 Act that allows the paying of a brokerage commission if the manager determines in good faith that the commission is reasonable in relation to the value of the brokerage and research services received.

1.140 *Financial technology*. Also known as "fintech," financial technology is an economic industry composed of companies that use technology to make financial services more efficient. Financial technology companies are generally startups trying to disintermediate incumbent financial systems and challenge traditional corporations that are less reliant on software. Fintech refers to new applications, processes, products or business models in the financial services industry.

1.141 The fintech revolution has also led to the advent of "robo-advisers." Robo-advisers are a class of financial advisers that provide financial advice or portfolio management online with minimal human intervention. They provide digital financial advice based on mathematical rules or algorithms. These algorithms are executed by software and thus financial advice does not require a human adviser. The software utilizes its algorithms to automatically allocate, manage and optimize clients' assets.

1.142 *Equity crowdfunding.* The online offering of private company securities to a group of people for investment is referred to as "equity crowdfunding, crowdinvesting, investment crowdfunding, or crowd equity." Because equity crowdfunding involves investment into a commercial enterprise, it is often subject to securities and financial regulation. Equity crowdfunding is a mechanism that enables broad groups of investors to fund startup companies and small businesses in return for equity. Investors give money to a business and receive ownership of a small piece of that business.

1.143 The advance of blockchain technology has facilitated the emergence of a new kind of asset — digital assets, assets in digitized form that are recorded and stored on a distributed ledger.[11] Blockchain technology utilizes a combination of cryptography and various incentive mechanisms to secure transactions and data, control and delineate the creation of additional units, and to verify a complete audit trail of all digital asset movements. It provides the ability for individuals or entities to maintain control of digital assets in a decentralized manner that lacks a central point of failure or attack.

1.144 Digital assets are also referred to as cryptocurrencies, such as Bitcoin, which constitute the first use-case of blockchain technology by decentralizing the transfer of value. The technology has continued to grow at a rapid pace to provide many more compelling enterprise, government, and retail use-cases. Digital assets are stored on the blockchain, but compatible digital wallets provide the access rights to move digital assets across a blockchain. Common wallets include web or mobile wallets, paper wallets, and hardware wallets that can be used with an online or offline computer, depending on the desired security and liquidity.[12]

[11] FINRA Regulatory Notice 18-20 encourages firms to notify FINRA if they engage in activities related to digital assets. The full notice is available at www.finra.org/industry/notices/18-20.

[12] The Stockbrokerage and Investment Banking Expert Panel is monitoring activities related to digital currencies. See the "Expert Panel Projects" section of the web page located at https://www.aicpa.org/interestareas/frc/industryinsights/expert-panel-stockbrokerage-and-investment-banking.html.