FE570 Financial Markets and Trading

Lecture 2. Modern Financial Markets and Trading Mechanism (Ref. Larry Harris - *Trading and Exchanges*)

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Outline

- **Traders** are people who trade. They may arrange their own trades, they may have others arrange trades for them, or they may arrange trades for others. *Proprietary traders* trade for their own accounts, and *brokers* arrange trades as agents for their clients. Brokers are also called *agency traders, commission traders, or commission merchants*.
- **The Buy Side** of the trading industry includes individuals, funds, firms, and governments that use the markets to help solve various problems they face.
- **The Sell Side** of the trading industry includes dealers and brokers who provide exchange services to the buy side.
  - *Dealers* accommodate trades that their clients want to make by trading with them when their clients want to trade.
  - *Brokers* trade on behalf of their clients. They arrange trades that their clients want to make by finding traders who will trade with their clients.

Example

Wirehouse: Traders often call large broker-dealers wirehouses. The word "*wire*" in wirehouse once referred to the telegraph. Following its invention, broker-dealers used the telegraph to collect orders from branch offices in distant cities. Those who quickly adopted it were able to expand their businesses substantially and thereby greatly increase their profits. The ability to communicate quickly was - and remains - very important in the trading industry.

TRADER TYPE	GENERIC EXAMPLES	WHY THEY TRADE	TYPICAL INSTRUMENTS
Investors	Individuals Corporate pension funds Insurance Charitable and legal trusts Endowments Money managers	To move wealth from the present to the future for themselves or for their clients	Stocks Bonds

TRADER TYPE	GENERIC EXAMPLES	WHY THEY TRADE	TYPICAL INSTRUMENTS
Borrowers	Homeowners Students Corporations . .	To move wealth from the future to the present .	Mortgage Bonds Notes . . .
Hedgers	Farmers Manufacturers Miners Shippers Financial institutions	To reduce business operating risk	Futures contracts Forward contracts Swaps .

TRADER TYPE	GENERIC EXAMPLES	WHY THEY TRADE	TYPICAL INSTRUMENTS
Asset exchangers	International corporations Manufacturers Travelers	To acquire an asset that they value more than the asset that they tender	Currencies Commodities
.	.	.	.
Gamblers	Individuals	To entertain themselves	Various

TRADER TYPE	GENERIC EXAMPLES	WHY THEY TRADE	WELL-KNOWN U.S. EXAMPLES
Dealers	Market makers Specialists Floor traders Locals Day traders Scalpers	To earn trading profits by supplying liquidity	Spear Leads & Kellog LaBranche & Co. Bernard L. Madoff Investment Securities Knight Trading Group TimberHill LLC

TRADER TYPE	GENERIC EXAMPLES	WHY THEY TRADE	WELL-KNOWN U.S. EXAMPLES
Brokers	Retail brokers Discount brokers Full-service brokers Institutional brokers Block brokers Futures commission merchants	To earn commissions by arranging trades for clients	Charles Schwab & Co. TDA Trade Dreyfus Brokerage Services Abel/Noser Corp. XpressTrade Cargill Financial Markets Group

TRADER TYPE	GENERIC EXAMPLES	WHY THEY TRADE	WELL-KNOWN U.S. EXAMPLES
Broker-dealers	Wirehouses	To earn trading profits and commissions	Goldman Sachs Merrill Lynch Salomon Smith Barney Morgan Stanley Dean Witter Credit Suisse First Boston

- **Topics: Many institutions help traders trade. We introduce exchanges, clearing and settlement agents, depositories, and custodians**

  Exchanges: provide forums where traders meet to arrange trades.

  Clearing Agents: match the buyer and seller records and confirms that both traders agreed to the same terms.

  Settlement Agents: help traders settle their trades. When both sides have performed, the settlement agent gives the cash to the seller and the securities to the buyer.

  Clearinghouses: clear and settle all trades in these derivative contracts. They also usually guarantee that both parties will perform on their contracts.

  Depositories and custodians: hold cash and securities on behalf of their clients. They help settle trades by quickly delivering cash and certificates to settlement agents.

- **Trading Instruments:** The securities, contracts, commodities, and currencies that raders trade are collectively known as *trading instrument*. Trading instruments vary by type. They include: real assets, financial assets, derivative contracts, insurance contracts, and gambling contracts. *Financial instruments* include financial assets, derivative contracts, and insurance contracts.
    - Real assets
    - Financial assets
    - Derivative contracts
    - Insurance contracts
    - Hybrid instruments
    - Gambling contracts

Real assets: include physical commodities, real estate, machines, patents, and other intelectual properties. Real assets also include pollution credits, which are rights to emit a specified quantity of a given type of pollution. Real assets are instruments that would appear only on the asset side of a balance sheet.

CLASS	INSTRUMENT	CREATOR
Real assets	Spot commodities	Farmers, miners, manufactures
	Intellectual properties	Inventors and artists
	Real estate	Builders
	Pollution emission rights	Governments

Financial assets: are instruments that represent ownership of real assets and the cash flows that they produce. Stocks and bonds are financial assets because they represent ownership of the assets of a corporation. Other financial assets include currencies, warehouse receipts that represent ownership of physical commodities, and trust units that represent ownership of the assets of a trust.

CLASS	INSTRUMENT	CREATOR
Financial assets	Stocks and warrants	Corporate issuers
	Bonds	Corporate issuers, governments
	Trust units	Trusts
	Currencies	Governments, banks

Derivative contracts: are instruments that derive their value from the values of the underlying instruments upon which they are based. They are contractual agreements between buyers and sellers that specify the exchange of certain privileges and liabilities. Derivative contracts include forward contracts, futures contracts, options, and swaps.

CLASS	INSTRUMENT	CREATOR
Derivative contracts	Futures contracts	Sellers
	Forward contracts	Sellers
	Options	Sellers
	Swaps	Sellers

Insurance contracts and gambling contracts are instruments that derive their value from the outcomes of future events. For example, the value of a fire insurance contract on a building depends on whether the building burns down. The value of point spread bet on the Lakers depends on whether they win their basketball game by more than the specified point spread. The distinction between an insurance contract and a gambling contract depends on the reasons why people buy them.

CLASS	INSTRUMENT	CREATOR
Insurance contracts	Insurance policies Reinsurance contracts	Corporations Corporations
Gambling contracts	Numerous types	Individuals Bookies Casinos Racetracks

Hybrid instruments defy easy classification because they embody elements of more than one type of instrument. For example, some oil companies issue oil-linked bonds. The interest that they pay depends on the price of oil. These bonds are financial assets because they represent ownership of the assets of the firm in the event of bankruptcy. They also are derivative contracts because they derive at least part of their value from the price of oil.

CLASS	INSTRUMENT	CREATOR
Hybrid instruments	Warrants	Corporate issuers
	Index linked bonds	Corporate issuers
	Convertible bonds	Corporate issuers

Contingent Convertible Bonds

CoCos is a convertible bond issued by banks; like all convertible bonds, CoCos generate a yield and have a strike price at which the bonds are convertible to company stock.

- Unlike a normal convertible, a CoCo only converts to a company's stock when its capital ratio trigger is hit, which is explained below.
- It's also important to note the relative margin of safety a CoCo investment provides as compared to its associated stock, which is based on its superior position in the capital structure.

Bitcoin - Cryptocurrency

Bitcoin is a digital currency created in 2009. It follows the ideas set out in a white paper by the mysterious Satoshi Nakamoto, whose true identity has yet to be verified. Bitcoin offers the promise of lower transaction fees than traditional online payment mechanisms and is operated by a decentralized authority, unlike government-issued currencies.

- There are no physical bitcoins, only balances kept on a public ledger in the cloud, that - along with all Bitcoin transactions - is verified by a massive amount of computing power.
- In the U.S., Bitcoin is treated as a commodity like Gold. Many investor alerts have been issued by the Commodity Futures and Trading Commission (CFTC), the Securities and Exchange Commission (SEC), the Financial Industry Regulatory Authority (FINRA), and other agencies.

- **Regulators** create and enforce rules that facilitate trading. Good regulations help ensure that traders communicate effectively with each other, that people do not defraud others, and that all things generally are as they appear. Legislatures enact laws that directly regulate markets. They generally delegate enforcement of these laws to various public and private regulatory agencies.
    - Government Agencies
    - Self-regulatory Organizations
    - Other Private Regulators
- **International Regulatory Organizations** Although they cannot easily impose standards upon their members, they provide useful forums for sharing information about market structure and for exploring solutions to common regulatory and operational problems. (Exp. the *International Organization of Securities Commissions (IOSCO)*, the *World Federation of Exchanges (WFE)*, and the *International Councils of Securities (ICSA)*)

- **Governmental regulatory agencies** Most countries have created governmental regulatory agencies to oversee traders and trading practices. These agencies generally are independent commissions. The main U.S. governmental agencies that regulate trading are the securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC).
  - The SEC regulates securities markets (stocks, bonds, warrants, investment company shares, and trust units), equity options markets, and cash-settled equity index options markets.
  - The CFTC regulates commodity spot, forward, and futures markets.
- In addition to their regulatory functions, the SEC and CFTC collect and disseminate information useful to traders, investors, speculators, and legislators.
- Several other governmental organizations also regulate securities trading in the United States. The Federal Reserve Board sets speculative margins - *Reg T margins*.

- **Self-regulatory Organizations or SROs:** Private regulatory agencies include exchanges, clearinghouses, and trader associations. These organizations regulate their members to lower their costs of doing business together, to improve their business prospects, to ensure that no member hurts another member, and to provide quality assurances to their members' clients.
  - *Exchanges* primarily regulate their members' trading practices. Their rules specify how their members arrange trades and how they should relate to their clients.
  - *Clearinghouses* primarily establish capital adequacy standards and trade reporting practices for their members. They design their regulations to ensure that their members and their members' clients will honor their trading contracts.
  - *Trader associations* regulate how traders relate to each other and to their clients.
  - The primary SROs that regulate brokers and dealers in the United States are Financial Industry Regulatory Authority (FINRA) and the National Futures Association (NFA).

- **Other Private Regulators:** Several private agencies regulate traders, issuers, and investment managers in the United States.
  - *The Financial Accounting Standard Board - FASB* sets accounting standards by which firms must report their accounts. The SEC, which has ultimate authority for specifying reporting standards for public firms, has recognized the FASB standards as authoritative since 1973.
  - *The Association for Investment Management and Research - AIMR* sets performance reporting standards that many investment managers use to report their results. Although the standards are voluntary, many firms choose to comply in order to satisfy their clients.
  - Brokers commonly purchase insurance policies on behalf of their clients to ensure that their clients will not lose if the brokerage goes bankrupt.The insurance companies that write these policies regulate the brokers who purchase these policies in order to minimize the probability that the brokers will fail. and thus impose costs on their funds.