Finance 6470 - Derivatives Markets

Chapter 1 - Introduction to Derivatives

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What is a Derivative?

- **Definition:** a financial instrument that has a value determined by the price of something else
- An agreement where you pay \$1 if the price of corn is greater than \$3 and receive \$1 if the price of corn is less than \$1 is a derivative
  - This contract can be used to speculate on the price of corn or it can be used to reduce risk. It is not the contract itself, but how it used, and who uses it, that determines whether or not it is risk-reducing.

An Overview of Financial Markets

The trading of a financial asset involves at least four discrete steps:

- A buyer and a sellter must locate one another and agree on a price
- The trade must be *cleared* (the obligations of each party are specified)
- The trade must be *settled* (the buyer and the seller must deliver the cash or securities necessary to satisfy their obligations in the required period of time)
- Ownership records are updated

NB: notice that well-defined property rights are an assumption of properly functioning capital markets.

An Overview of Financial Markets (Continued)

- Much trading of financial claims takes place on organized exchanges. In the past, the exchange was solely a physical location where traders would buy and sell. Such in-person venues have largely been replaced by electronic networks that provide a virtual trading venue.
- After a trade has taken place, a **clearinghouse** matches the buyers and sellers, keeping track of their obligations and payments. To facilitate these payments and to help manage credit risk, a derivatives clearinghouse typically imposes itself in the transaction, becoming the buyer to all sellers and the seller to all buyers.

An Overview of Financial Markets (Continued)

- It is possible for large traders to trade many financial claims directly with a dealer bypassing organized exchanges. Such trading is said to occur in the **over-the-counter** (OTC) market
- Exchange activity is public and highly regulated
- OTC trading is not easy to observe or measure and is generally less regulated
- For many categories of financial claims, the value of OTC trading is greater than the value traded on exchanges.

An Overview of Financial Markets (Continued)

There are at least four different measures of a market and its activity

- **Trading volume**. This measure counts the number of financial claims that change hands
- **Market value**. The market value is the sum of the market value of the claims that *could* be traded, without regard to whether they have traded
- **Notional value**. Notional value measure the *scale* of a position, usually with reference to some underlying asset
- **Open Interest**. Open interest measures the total number of contracts for which counterparties have a future obligation to perform

Table of Contents