

## Mechanics of Futures Markets

### § 2.0 Review

- Recall forwards/futures are contracts to buy/sell at a future time at a predetermined time.
- Forwards - OTC markets      Futures - on exchange
- This chapter focuses on how these markets function.

### § 2.1 Background

- Basics: brokers match buyers (long future holders) with sellers (short futures price)
- Most futures contracts are rarely delivered. Instead the sale happens at the spot price.

### § 2.2 Specification of a Futures Contract

- Futures contracts must specify many things; the asset (quality), contract size, delivery date/arrangement, price quotes, and the price/position limits

### § 2.3 Convergence of Future Price to Spot Price

$$\lim_{t \rightarrow T} S_t = S(T)$$

Future price      spot price

- Can be shown via arbitrage opportunities as  $t \rightarrow T$

### § 2.4 Operation of Margin Accounts

- A buyer of a contract must deposit an initial margin to the broker
- At the end of each day the margin is updated to reflect the investor's gain/losses.
- The clearing house is an intermediary that guarantees the performance of both parties
- The purpose is to make funds available to traders who are ordered.
- This provides consistency in the market.

## § 2.5 OTC Markets

- No exchange: trades done company to company (A/B)
- To protect firm A against firm B defaulting, certain measures have been adopted from exchange markets
- Central Counterparties (CCPs) on a futures contract agree to
  - (a) Buy asset from A (b) Sell to B
 and in doing so assume the credit risk.
- Members must provide initial margin and are valued daily.
- Trades without CCPs usually require both parties to post collateral (bilateral clearing).

## § 2.11 Forward & Future Contracts

### Forward

- Private contract between parties

### Futures

- Traded on Exchange

- Not Standardized
- One specified delivery date
- Settled at end of contract
- Delivery usually takes place
- Credit Risk

- Standardized
- Range of dates
- Settled Daily
- Usually closed out
- (Virtually) no credit risks