Mechanics of Futures Markets

Chapter 2

Futures Contracts

- Available on a wide range of underlying assets
- Exchange traded
- Specifications need to be defined:
  - What can be delivered,
  - Where it can be delivered,
  - When it can be delivered
- Settled daily

Margins

- A margin is cash or marketable securities deposited by an investor with his or her broker
- The balance in the margin account is adjusted to reflect daily settlement
- Margins minimize the possibility of a loss through a default on a contract

Example of a Futures Trade

- An investor takes a long position in 2 December gold futures contracts on June 5
  - contract size is 100 oz.
  - futures price is US$400
  - margin requirement is US$2,000/contract (US$4,000 in total)
  - maintenance margin is US$1,500/contract (US$3,000 in total)

A Possible Outcome

Table 2.1, Page 25

Day	Futures Price (US$)	Daily Gain (Loss) (US$)	Cumulative Gain (Loss) (US$)	Margin Account Balance (US$)	Margin Call (US$)	
	400.00			4,000		
5-Jun	397.00	(600)	(600)	3,400	0	
:	:	:	:	:	:	
13-Jun	393.30	(420)	(1,340)	2,660	+ 1,340	= 4,000
:	:	:	:	:	:	< 3,000
19-Jun	387.00	(1,140)	(2,600)	2,740	+ 1,260	= 4,000
:	:	:	:	:	:	
26-Jun	392.30	260	(1,540)	5,060	0	

Other Key Points About Futures

- They are settled daily
- Closing out a futures position involves entering into an offsetting trade
- Most contracts are closed out before maturity

Delivery

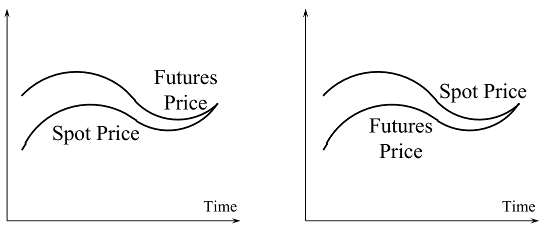
- If a contract is not closed out before maturity, it usually settled by delivering the assets underlying the contract. When there are alternatives about what is delivered, where it is delivered, and when it is delivered, the party with the short position chooses.
- A few contracts (for example, those on stock indices and Eurodollars) are settled in cash

Some Terminology

- Open interest: the total number of contracts outstanding
  - equal to number of long positions or number of short positions
- Settlement price: the price just before the final bell each day
  - used for the daily settlement process
- Volume of trading: the number of trades in 1 day

Convergence of Futures to Spot

(Figure 2.1, page 23)



(a) (b)

Questions

- When a new trade is completed what are the possible effects on the open interest?
- Can the volume of trading in a day be greater than the open interest?

Regulation of Futures

- Regulation is designed to protect the public interest
- Regulators try to prevent questionable trading practices by either individuals on the floor of the exchange or outside groups

Accounting & Tax

- If a contract is used for
  - Hedging: it is logical to recognize profits (losses) at the same time as on the item being hedged
  - Speculation: it is logical to recognize profits (losses) on a mark to market basis
- Roughly speaking, this is what the treatment of futures in the U.S.and many other countries attempts to achieve

Forward Contracts vs Futures Contracts

TABLE 2.3 (p. 36)

FORWARDS	FUTURES
Private contract between 2 parties	Exchange traded
Non-standard contract	Standard contract
Usually 1 specified delivery date	Range of delivery dates
Settled at maturity	Settled daily
Delivery or final cash settlement usually occurs	Contract usually closed out prior to maturity

Foreign Exchange Quotes

- Futures exchange rates are quoted as the number of USD per unit of the foreign currency
- Forward exchange rates are quoted in the same way as spot exchange rates. This means that GBP, EUR, AUD, and NZD are USD per unit of foreign currency. Other currencies (e.g., CAD and JPY) are quoted as units of the foreign currency per USD.