Mechanics of Options Markets

Chapter 7

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Types of Options

- A call is an option to buy
- A put is an option to sell
- A European option can be exercised only at the end of its life
- An American option can be exercised at any time

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Assets Underlying Exchange-Traded Options

Page 151-152

- Stocks
- Foreign Currency
- Stock Indices
- Futures

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Specification of Exchange-Traded Options

- Expiration date
- Strike price
- European or American
- Call or Put (option class)

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Terminology

Moneyness:

- -At-the-money option
- -In-the-money option
- -Out-of-the-money option

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Terminology (continued)

- Option class
- Option series
- Intrinsic value
- Time value

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Dividends & Stock Splits

(Page 154-155)

- Suppose you own N options with a strike price of K:
 - No adjustments are made to the option terms for cash dividends
 - When there is an *n*-for-*m* stock split,
 - the strike price is reduced to mK/n
 - the no. of options is increased to nN/m
 - Stock dividends are handled in a manner similar to stock splits

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Dividends & Stock Splits (continued)

- Consider a call option to buy 100 shares for \$20/share
- How should terms be adjusted:
 - -for a 2-for-1 stock split?
 - -for a 5% stock dividend?

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Market Makers

- Most exchanges use market makers to facilitate options trading
- A market maker quotes both bid and ask prices when requested
- The market maker does not know whether the individual requesting the quotes wants to buy or sell

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Margins (Page 158-159)

- · Margins are required when options are sold
- When a naked option is written the margin is the greater of:
 - $1\,$ A total of 100% of the proceeds of the sale plus 20% of the underlying share price less the amount (if any) by which the option is out of the money
 - 2 A total of 100% of the proceeds of the sale plus 10% of the underlying share price
- For other trading strategies there are special rules

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Warrants

- Warrants are options that are issued (or written) by a corporation or a financial institution
- The number of warrants outstanding is determined by the size of the original issue and changes only when they are exercised or when they expire

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Warrants (continued)

• Warrants are traded in the same way as stocks

- The issuer settles up with the holder when a warrant is exercised
- When call warrants are issued by a corporation on its own stock, exercise will lead to new treasury stock being issued

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Executive Stock Options

- Option issued by a company to executives
- When the option is exercised the company issues more stock
- Usually at-the-money when issued

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Executive Stock Options

- They become vested after a period of time
- They cannot be sold
- They often last for as long as 10 or 15 years

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Convertible Bonds

 Convertible bonds are regular bonds that can be exchanged for equity at certain times in the future according to a predetermined exchange ratio

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Convertible Bonds (continued)

• Very often a convertible is callable

• The call provision is a way in which the issuer can force conversion at a time earlier than the holder might otherwise choose

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