FN312 Investment Lecture 2
How Securities are Traded

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Reading:
Chapter 3

Outline

- **How firms issue securities**
  - Primary vs. secondary market
  - Privately held vs. publicly traded companies
  - Initial public offerings
- **Market transactions**
  - Short selling and buying on margin
- *Rise of electronic trading and globalization of stock markets**
- *Market regulation**

How Firms Issue Securities

How Firms Issue Securities

- *Primary Market*
  - Market for newly-issued securities
  - Firms issue new securities through underwriter to public
- *Secondary Market*
  - Investors trade previously issued securities among themselves

ThaiBMA

Issue Outstanding : 2.1 Long-term Corporate Bond

Export to Excel

ThaiBMA Symbol	Local Issue Rating		International Issue Rating				Coupon Type	Coupon Rate (%)	Issue Date	Maturity Date	TTM (Yrs.)	Outstar Value (TH
	TRIS	Fitch (Thaila...	Moody's	S&P	Fitch Ratings	R&I						
A201A							Fixed Coupon	5.250000	31-Jan-2017	31-Jan-2020	0.42	
A204A							Fixed Coupon	5.950000	05-Apr-2017	05-Apr-2020	0.60	
A20OA							Fixed Coupon	5.400000	05-Oct-2016	01-Oct-2020	1.09	
A214A							Fixed Coupon	5.950000	31-Oct-2017	30-Apr-2021	1.67	
A214B							Fixed Coupon	5.950000	31-Oct-2017	30-Apr-2021	1.67	
A21OA							Fixed Coupon	6.050000	19-Oct-2018	19-Oct-2021	2.14	
A21OB							Fixed Coupon	6.750000	01-Apr-2019	08-Oct-2021	2.11	
A222A							Fixed Coupon	6.050000	22-Nov-2018	22-Feb-2022	2.49	
ABPSPV204A	A-						Fixed Coupon	2.680000	21-Apr-2017	21-Apr-2020	0.65	
ABPSPV214A	A-						Fixed Coupon	3.000000	21-Apr-2017	21-Apr-2021	1.65	

1 2 3 4 5 ... 10 items per page 1 - 10 of 1629 items

How Firms Issue Securities

- Publicly Traded Companies
  - Public offerings are marketed by *underwriters*
    - *Initial Public Offering:*
      First issue of shares sold to the general public
    - *Seasoned equity offering:*
      The sale of additional shares in firms that already are publicly traded
  - Registration must be filed with the SEC

Relationship Among a Firm Issuing Securities, the Underwriters, and the Public

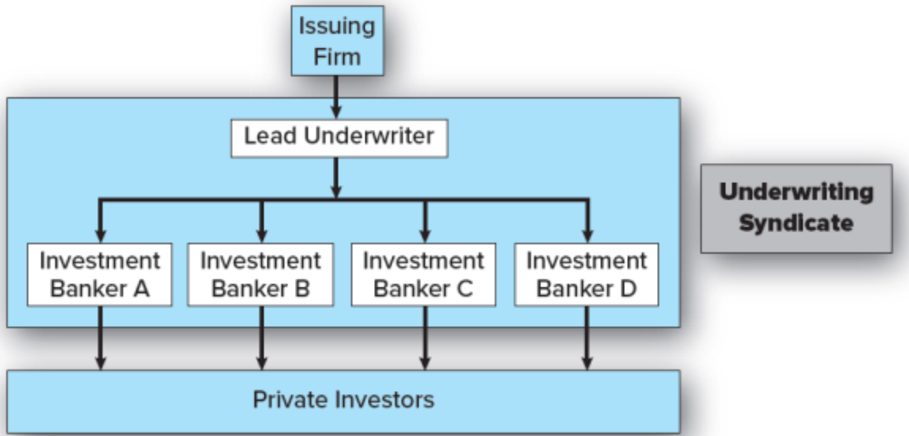


Figure 3.1 Relationships among a firm issuing securities, the underwriters, and the public

A214B : AMORTIZED DEBENTURES OF AREEYA PROPERTY PUBLIC COMPANY LIMITED NO. 3/2560 SERIES 2 DUE B.E.

Symbol	A214B	**Registration Date**	31 October 2017
Issuer	AREEYA PROPERTY PUBLIC COMPANY LIMITED	**Name (Thai)**	หุ้นกู้ชนิดทยอยชำระคืนเงินต้นของบริษัท อารียา พรอพเพอร์ตี้ จำกัด (มหาชน) ครั้งที่ 3/2560 ชุดที่ 2 ครบกำหนดไถ่ถอนปี พ.ศ. 2564
ISIN Code (Local)	TH0770A31401	**Put/ Call Option**	-
ISIN Code (Foreign)		**Collateral**	-
Bond Type	[Senior][Unsecured][Amortizing Issue]	**Payment Frequency**	Quarterly
Initial Par	THB 1,000.0000	**Calculation Method**	Actual/365
Current Par	THB 850.0000	**Issue Term (Year)**	3.5 Yrs.
Issue Size	THB 208.10 mln.	**Issue Date**	31 October 2017
Outstanding Size	THB 176.88 mln.	**Maturity Date**	30 April 2021
Distribution	Private Placement to 13 types of institutional investors plus high net worth investors	**Prospectus**	

Issue Rating

Rating Agency	Issue Rating	Rating Date

Issuer Rating

Issuer Name	Rating Agency		Issuer Rating	Rating Date
A	Local	TRIS	BB	9 Jan 2019

Guarantor Rating

Guarantor Name	Rating Agency	Guarantor Rating	Rating Date

Coupon Payment

Reference	Max.	Min.	From	To
Fixed: 5.950000%			31 Oct 2017	30 Apr 2021

Amortized Schedule

Coupon Date	Principal Amount
31-Oct-2018	150.000000
31-Oct-2019	150.000000
31-Oct-2020	150.000000
30-Apr-2021	550.000000

Registrar	CIMB THAI BANK PUBLIC COMPANY LIMITED	**Debenture Holder Representatives**	-
Lead Underwriter(s)	CAPITAL NOMURA SECURITIES PUBLIC COMPANY LIMITED	**Financial Advisor(s)**	-

ThaiBMA

How Firms Issue Securities

- **Initial Public Offerings**
  - Road shows to publicize new offering
  - Bookbuilding to determine demand
  - Degree of investor interest provides valuable pricing information
  - Underwriter bears price risk:
    - IPOs are commonly underpriced compared to the price they could be marketed
      - Example: : Groupon
    - Some IPOs are well overpriced
      - Example: Facebook
    - Others cannot even fully be sold

How Securities are Traded

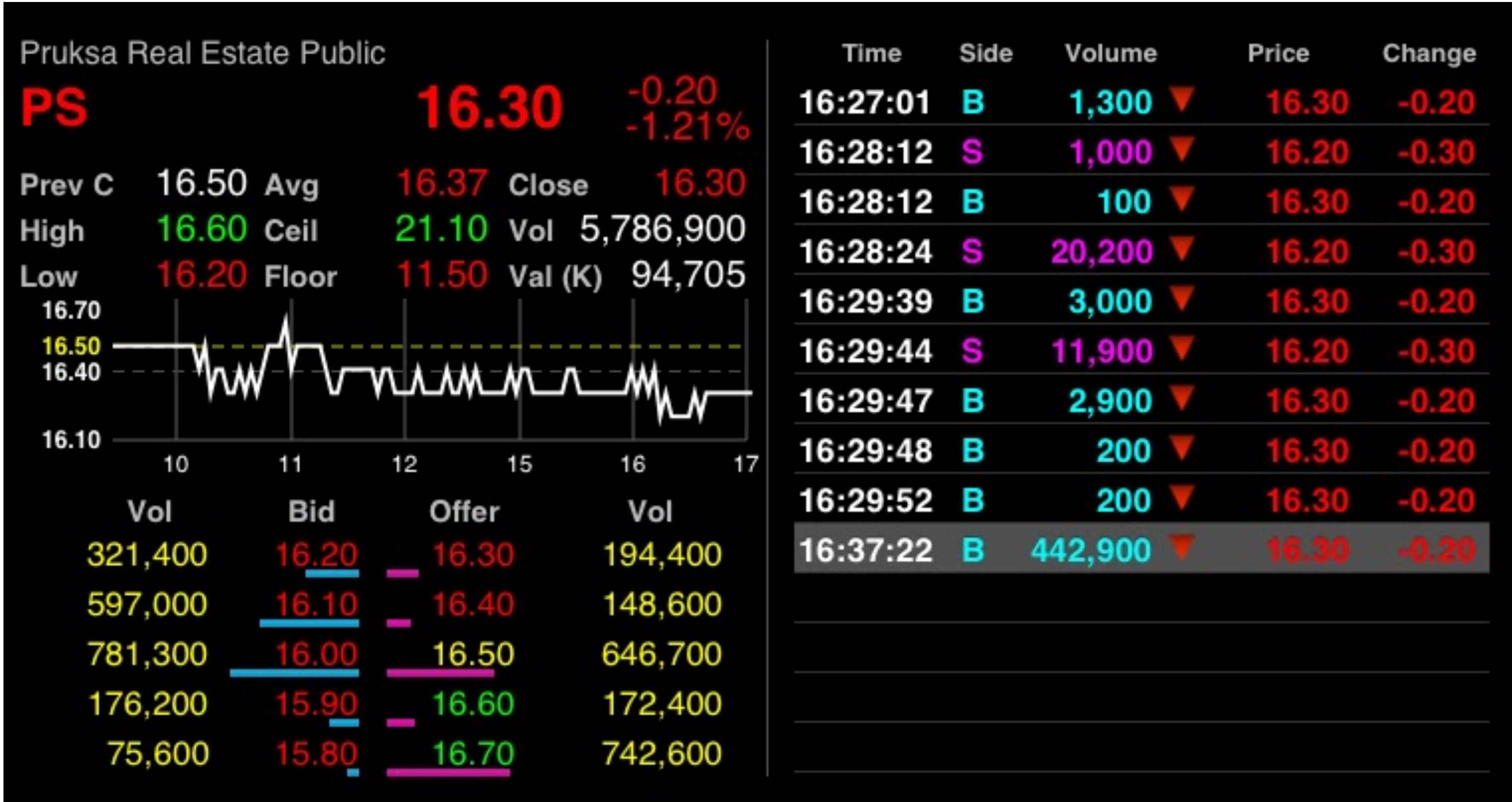
Types of Markets

- Direct search: Buyers and sellers seek each other
- Brokered markets: Brokers search out buyers and sellers
- Dealer markets: Dealers have inventories of assets from which they buy and sell
- Auction markets: Traders converge at one place to trade

Bid and Asked Prices

Bid Price	Ask Price
• Bids are offers to buy	• Asked prices are sell offers
• In dealer markets, the bid price is the price at which the dealer is willing to buy	• In dealer markets, the asked price is the price at which the dealer is willing to sell
• Investors "sell to the bid"	• Investors must pay the asked price to buy the security

Bid-asked spread is the profit for making a market in a security


Pruksa Real Estate Public
PS
16.30
-0.20
-1.21%
Prev C 16.50 Avg 16.37 Close 16.30
High 16.60 Ceil 21.10 Vol 5,786,900
Low 16.20 Floor 11.50 Val (K) 94,705
16.70
16.50
16.40
16.10
10 11 12 15 16 17
Vol Bid Offer Vol
321,400 16.20 16.30 194,400
597,000 16.10 16.40 148,600
781,300 16.00 16.50 646,700
176,200 15.90 16.60 172,400
75,600 15.80 16.70 742,600
Time Side Volume Price Change
16:27:01 B 1,300 16.30 -0.20
16:28:12 S 1,000 16.20 -0.30
16:28:12 B 100 16.30 -0.20
16:28:24 S 20,200 16.20 -0.30
16:29:39 B 3,000 16.30 -0.20
16:29:44 S 11,900 16.20 -0.30
16:29:47 B 2,900 16.30 -0.20
16:29:48 B 200 16.30 -0.20
16:29:52 B 200 16.30 -0.20
16:37:22 B 442,900 16.30 -0.20

Example

8. Consider the following limit-order book for a share of stock. The last trade in the stock occurred at a price of $50.

Limit Buy Orders		Limit Sell Orders	
Price	Shares	Price	Shares
$49.75	500	$50.25	100
49.50	800	51.50	100
49.25	500	54.75	300
49.00	200	58.25	100
48.50	600		

a. If a market buy order for 100 shares comes in, at what price will it be filled?
b. At what price would the next market buy order be filled?
c. If you were a security dealer, would you want to increase or decrease your inventory of this stock?

Example

13. Here is some price information on Marriott:

	Bid	Ask
Marriott	69.95	70.05

You have placed a stop-loss order to sell at $70. What are you telling your broker? Given market prices, will your order be executed?

14. Here is some price information on FinCorp stock. Suppose that FinCorp trades in a dealer market.

Bid	Ask
55.25	55.50

a. Suppose you have submitted an order to your broker to buy at market. At what price will your trade be executed?
b. Suppose you have submitted an order to sell at market. At what price will your trade be executed?
c. Suppose you have submitted a limit order to sell at $55.62. What will happen?
d. Suppose you have submitted a limit order to buy at $55.37. What will happen?

Market transactions

Trading Costs

- ***Brokerage Commission***: Fee paid to broker for making the transaction
  - Explicit cost of trading
  - Full service vs. discount brokerage

- ***Spread***: Difference between the bid and asked prices
  - Implicit cost of trading

Buying on Margin

- Borrowing part of the total purchase price of a position using a loan from a broker
- Investor contributes the remaining portion
- Margin refers to the percentage or amount contributed by the investor
- You profit when the stock rises

Buying on Margin

- Initial margin is set by the Fed
  - Currently 50%
- Maintenance margin
  - Minimum equity that must be kept in the margin account
  - Margin call if value of securities falls too much

Margin Trading: Initial Conditions

Share price $100

Initial Margin: **60%**

Maintenance Margin: **40%**

Shares Purchased: 100

<u>Initial Position</u>

Stock	Borrowed
	Equity

Margin Trading: Margin Call

Stock price falls to $70 per share

<u>New Position</u>

Stock	Borrowed
	Equity

Margin% =

Margin Trading: Maintenance Margin

How far can the stock price fall before a margin call? Let maintenance margin = 30%

Equity =

Percentage margin =

Solve to find:

Example

15. You've borrowed \$20,000 on margin to buy shares in Ixnay, which is now selling at \$40 per share. Your account starts at the initial margin requirement of 50%. The maintenance margin is 35%. Two days later, the stock price falls to \$35 per share.

    a. Will you receive a margin call?

    b. How low can the price of Ixnay shares fall before you receive a margin call?

6. Dée Trader opens a brokerage account and purchases 300 shares of Internet Dreams at \$40 per share. She borrows \$4,000 from her broker to help pay for the purchase. The interest rate on the loan is 8%.

    a. What is the margin in Dée's account when she first purchases the stock?

    b. If the share price falls to \$30 per share by the end of the year, what is the remaining margin in her account? If the maintenance margin requirement is 30%, will she receive a margin call?

    c. What is the rate of return on her investment?

Example

9. You are bullish on Telecom stock. The current market price is $50 per share, and you have $5,000 of your own to invest. You borrow an additional $5,000 from your broker at an interest rate of 8% per year and invest $10,000 in the stock.

   a. What will be your rate of return if the price of Telecom stock goes up by 10% during the next year? The stock currently pays no dividends.

   b. How far does the price of Telecom stock have to fall for you to get a margin call if the maintenance margin is 30%? Assume the price fall happens immediately.

Short Sales

- *Purpose*
  - To profit from a decline in the price of a stock or security
- *Mechanics*
  - Borrow stock through a dealer
  - Sell it and deposit proceeds and margin in an account
  - Closing out the position: Buy the stock and return to the party from which it was borrowed

Short Sale Mechanics

Purchase of Stock		
Time	**Action**	**Cash Flow***
0	Buy share	− Initial price
1	Receive dividend, sell share	Ending price + Dividend
Profit = (Ending price + Dividend) − Initial price		

Short Sale of Stock		
Time	**Action**	**Cash Flow***
0	Borrow share; sell it	+ Initial price
1	Repay dividend and buy share to replace the share originally borrowed	− (Ending price + Dividend)
Profit = Initial price − (Ending price + Dividend)		

*A negative cash flow implies a cash *outflow.*

Table 3.2

Cash flows from purchasing versus short-selling shares of stock

Short Sale: Initial Conditions

Dot Bomb	1000 Shares	
	Initial Margin	50%
	Maintenance Margin	30%
	Initial Price	$100

Sale Proceeds

Margin & Equity

Stock Owed

Short Sale:

Dot Bomb falls to $70 per share

Assets

Liabilities

Equity

Profit ?

Short Sale: Margin Call

How much can the stock price rise before a margin call?

* Initial margin plus sale proceeds

Example

7. Old Economy Traders opened an account to short sell 1,000 shares of Internet Dreams from the previous problem. The initial margin requirement was 50%. (The margin account pays no interest.) A year later, the price of Internet Dreams has risen from \$40 to \$50, and the stock has paid a dividend of \$2 per share.

   a. What is the remaining margin in the account?
   b. If the maintenance margin requirement is 30%, will Old Economy receive a margin call?
   c. What is the rate of return on the investment?

16. On January 1, you sold short one round lot (i.e., 100 shares) of Four Sisters stock at \$21 per share. On March 1, a dividend of \$2 per share was paid. On April 1, you covered the short sale by buying the stock at a price of \$15 per share. You paid 50 cents per share in commissions for each transaction. What is the value of your account on April 1?

Insider Trading

- Officers, directors, major stockholders must report all transactions in firm's stock
- Insiders *do* exploit their knowledge
  - Jaffe study:
    - Inside buyers > Inside sellers = Stock does well
    - Inside sellers > Inside buyers = Stock does poorly

Question?