(Chapter 7 of Mishkin)

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The Stock Market

Common Stock

- A *common stock* represents a share of ownership in a corporation. It is a security that claims on the earnings and assets of a corporation.

- Basic Principle of Finance

  Value of Investment = Present Value of Future Cash Flows

- One-Period Valuation Model

$$P_0 = \frac{Div_1}{(1+k_e)} + \frac{P_1}{(1+k_e)}$$

Generalized Dividend Valuation Model

- For a given holding period n, the value of stock is

$$P_0 = \frac{D_1}{(1+k_e)^1} + \frac{D_2}{(1+k_e)^2} + \ldots + \frac{D_n}{(1+k_e)^n} + \frac{P_n}{(1+k_e)^n}$$

- If P_n is far in the future, it will not affect P_0

$$P_0 = \sum_{t=1}^{\infty} \frac{D_t}{(1+k_e)^t}$$

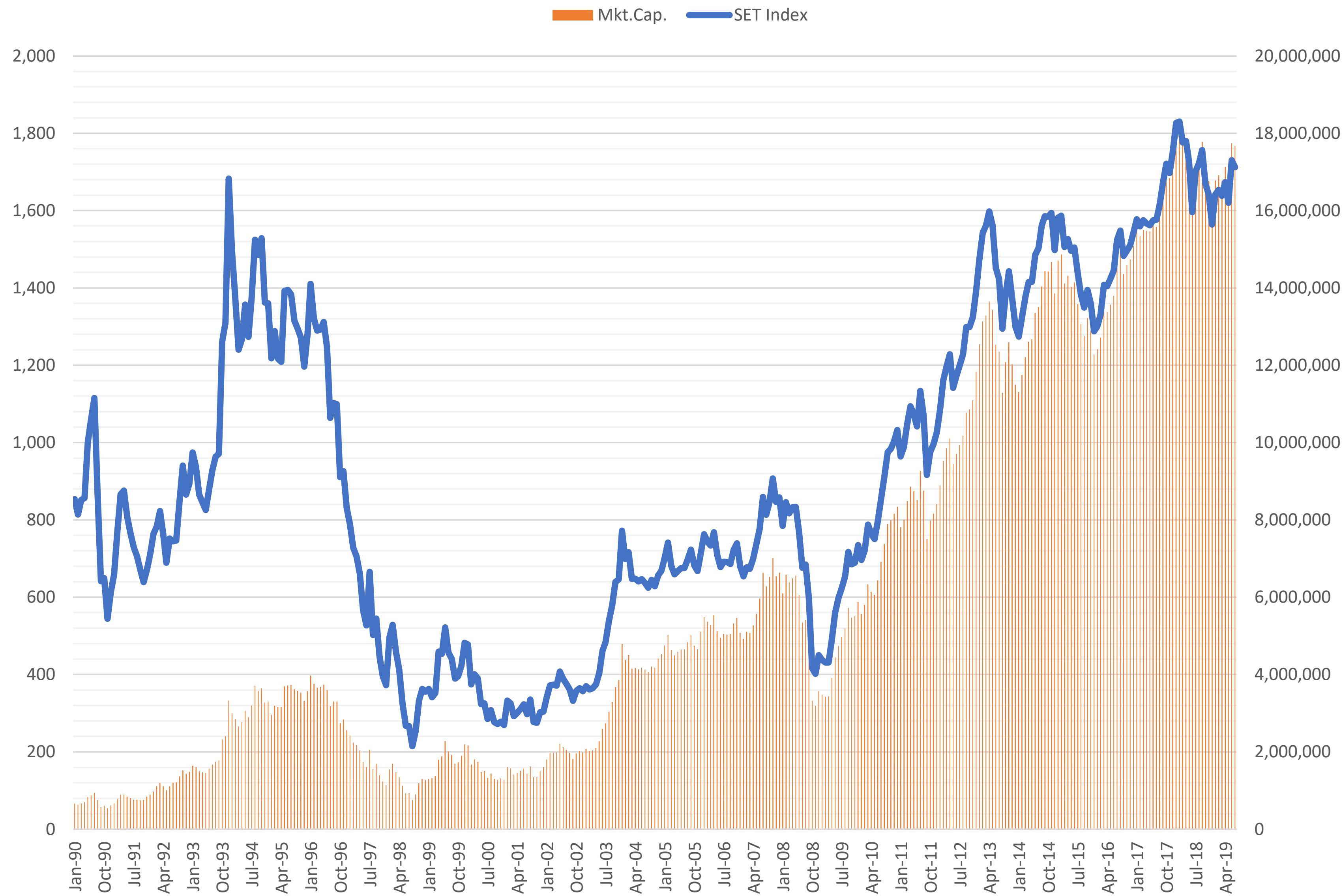
Gordon Growth Model

- Assuming dividend growth is constant, the previous equation can be written as

$$P_0 = \frac{D_0 \times (1+g)^1}{(1+k_e)^1} + \frac{D_0 \times (1+g)^2}{(1+k_e)^2} + \ldots + \frac{D_0 \times (1+g)^\infty}{(1+k_e)^\infty}$$

- Assuming the growth rate is less than the required return on equity, then

$$P_0 = \frac{D_0 \times (1+g)}{(k_e - g)} = \frac{D_1}{(k_e - g)}$$


Mkt.Cap.
SET Index
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Why stock price so fluctuated?

- What is the growth rate, g, of dividends from PTT stock?
- What is your expected return?

- With higher perceived risk on the growth rate, g, people require more expected return.
- The investor with the lowest perceived risk is willing to pay the most for the stock and sets its price.

Why stock price so fluctuated?

- When new information is released about firms (or, maybe, macroeconomic conditions), expectations change, and prices change.
- New information may cause changes in expectations about the level of future dividends or the risk of those dividends.

Balance Sheet

- A balance sheet is a financial statement that reports a company's assets, liabilities and shareholders' equity.
- The balance sheet is one of the three (income statement and statement of cash flows being the other two) core financial statements used to evaluate a business.
- The balance sheet is a snapshot, representing the state of a company's finances (what it owns and owes) as of the date of publication.
- Fundamental analysts use balance sheets, in conjunction with other financial statements, to calculate financial ratios.

$$Assets = Liabilities + Equity$$

Income Statement

- An income statement is one of the three (along with balance sheet and statement of cash flows) major financial statements that reports a company's financial performance over a specific accounting period.
- Total revenue is the sum of both operating and non-operating revenues while total expenses include those incurred by primary and secondary activities.
- Revenues are not receipts. Revenue is earned and reported on the income statement. Receipts (cash received or paid out) are not.
- An income statement provides valuable insights into a company’s operations, the efficiency of its management, under-performing sectors and its performance relative to industry peers.

$$\begin{aligned} Net\ Income = {} & (Total\ Revenue + Gains) \\ & - (Total\ Expenses + Losses) \end{aligned}$$

Cashflow Statement

- A cash flow statement is a financial statement that summarizes the amount of cash and cash equivalents entering and leaving a company.
- The cash flow statement measures how well a company manages its cash position, meaning how well the company generates cash to pay its debt obligations and fund its operating expenses.
- The cash flow statement complements the balance sheet and income statement and is a mandatory part of a company's financial reports.
- The main components of the cash flow statement are:
  - Cash from operating activities
  - Cash from investing activities
  - Cash from financing activities

AOT - AIRPORTS OF THAILAND PUBLIC COMPANY LIMITED

Stock Quotes | Historical Quotes | Company Highlight | Board of Directors | Major Shareholders

Financial Stmt. | Right & Benefits | Sector Comparison | Company News | Factsheet | IAA Consensus

5 Years Company Highlights | Financial Statement

(Unit: M.Baht)

Period as of	Y/E '15 30/09/2015	Y/E '16 30/09/2016	Y/E '17 30/09/2017	Y/E '18 30/09/2018	Q3 '19 30/06/2019
Financial Data					
Assets	159,623.66	172,216.39	178,409.94	187,708.55	185,835.14
Liabilities	50,811.52	50,637.84	46,721.24	43,439.43	36,386.20
Equity	108,587.57	121,321.87	131,376.25	143,902.78	148,834.73
Paid-up Capital	14,285.70	14,285.70	14,285.70	14,285.70	14,285.70
Revenue	45,773.37	52,783.34	56,744.27	62,135.93	48,920.21
Net Profit	18,728.65	19,571.46	20,683.60	25,170.76	19,905.19

Earning Per Share

- Earnings per share is a company's profit divided by the number of common stock shares it has outstanding.
- EPS shows how much money a company makes for each share of its stock.
- A higher EPS indicates more value because investors will pay more for a company with higher profits.
- EPS can be calculated in various ways, such as excluding extraordinary items or discontinued operations, or on a diluted basis.

$$EPS = \frac{Net\ Income\ -\ Preferred\ Dividends}{Number\ of\ common\ share\ outstanding}$$

Price-to-Earnings Ratio – P/E Ratio

- The price-to-earnings ratio (P/E ratio) is the ratio for valuing a company that measures its current share price relative to its per-share earnings (EPS).
- P/E ratios are used by investors and analysts to determine the relative value of a company's shares in an apples-to-apples comparison.
- It can also be used to compare a company against its own historical record or to compare aggregate markets against one another or over time.
- To determine the P/E value, one simply must divide the current stock price by the earnings per share (EPS).

$$P/E\ Ratio = \frac{Market\ value\ per\ share}{Earnings\ per\ share}$$

Book Value Per Common Share - BVPS Definition

- Book value per common share (or, simply book value per share - BVPS) is a method to calculate the per-share value of a company based on common shareholders' equity in the company.
- Should the company dissolve, the book value per common share indicates the dollar value remaining for common shareholders after all assets are liquidated and all debtors are paid.
- Since preferred stockholders have a higher claim on assets and earnings than common shareholders, preferred equity is subtracted from shareholder's equity to derive the equity available to common shareholders.

$$BVPS = \frac{Total\ Shareholder\ Equity - Preferred\ Equity}{Total\ Outstanding\ Shares}$$

- If a company's BVPS is higher than its market value per share, then its stock may be considered to be undervalued.

Price-To-Book – P/B Ratio

- The P/B ratio measures the market's valuation of a company relative to its book value.
- P/B ratio is used by value investors to identify potential investments.
- P/B ratio can be used to compare companies with one another.

$$P/B\ Ratio = \frac{Market\ Price\ per\ Share}{Book\ Value\ per\ Share}$$

Dividend Yield

- The dividend yield is the ratio of a company's annual dividend compared to its share price.
- Depending on the source, the annual dividend used in the calculation could be the total dividends paid during the most recent fiscal year, the total dividend paid over the past four quarters or the most recent dividend multiplied by four.

$$Dividend\ Yield = \frac{Annual\ Dividend}{Market\ Price}$$

Return on Assets – ROA

- Return on Assets (ROA) is an indicator of how well a company utilizes its assets, by determining how profitable a company is relative to its total assets.
- ROA is best used when comparing similar companies or comparing a company to its previous performance.
- ROA takes into account a company's debt, unlike other metrics, such as Return on Equity (ROE)

$$ROA = \frac{Net\ Income}{Total\ Assets}$$

Return on Equity – ROE

- Return on equity measures how effectively management is using a company's assets to create profits.
- A good or bad ROE will depend on what's normal for the industry or company peers.
- As a shortcut, investors can consider a return on equity near the long-term average of the S&P 500 (14%) as an acceptable ratio and anything less than 10% as poor.

$$ROE = \frac{Net\ Income}{Average\ Shareholders'\ Equity}$$

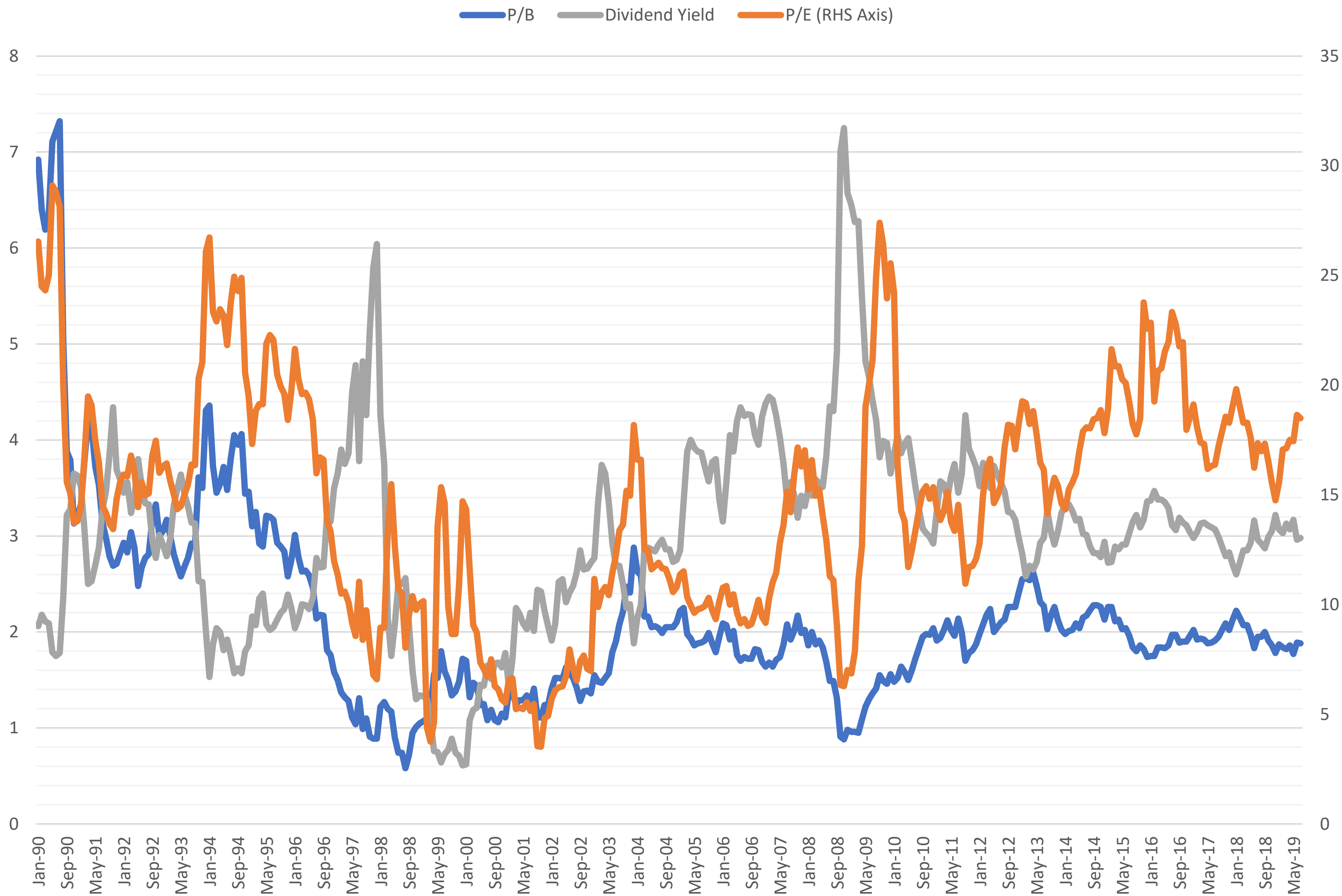
Market Cap

- Market capitalization refers to the total dollar market value of a company's outstanding shares.
- The investment community uses this figure to determine a company's size, as opposed to using sales or total asset figures.
- Using market capitalization to show the size of a company is important because company size is a basic determinant of various characteristics in which investors are interested, including risk.
- It is also easy to calculate. A company with 20 million shares selling at $100 a share would have a market cap of $2 billion.

$$Market\ Cap = Outstanding\ shares \times Market\ Price$$

Liabilities	50,811.52	50,637.84	46,721.24	43,439.43	36,386.20
Equity	108,587.57	121,321.87	131,376.25	143,902.78	148,834.73
Paid-up Capital	14,285.70	14,285.70	14,285.70	14,285.70	14,285.70
Revenue	45,773.37	52,783.34	56,744.27	62,135.93	48,920.21
Net Profit	18,728.65	19,571.46	20,683.60	25,170.76	19,905.19
EPS (Baht)	13.11	13.70	1.45	1.76	1.39
Financial Ratio					
ROA(%)	15.92	15.55	15.62	17.56	17.78
ROE(%)	18.22	17.03	16.37	18.29	17.50
Net Profit Margin(%)	40.92	37.08	36.45	40.51	40.69

Statistics as of	30/12/2015	30/12/2016	29/12/2017	28/12/2018	28/08/2019
Last Price(Baht)	346.00	398.00	68.00	64.25	71.25
Market Cap.	494,285.22	568,570.86	971,427.60	917,856.22	1,017,856.12
F/S Period (As of date)	30/09/2015	30/09/2016	30/09/2017	30/09/2018	30/06/2019
P/E	26.39	29.05	46.97	36.47	40.47
P/BV	4.55	4.69	7.39	6.38	6.84
Book Value per share (Baht)	76.01	84.93	9.20	10.07	10.42
Dvd. Yield(%)	1.89	1.72	1.26	1.63	1.47


P/B
Dividend Yield
P/E (RHS Axis)
8
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Airports of Thailand PCL, Thailand, M, Thailand
O41.40 H42.50 L37.25 C38.75
Market Closed
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15.00
10.00
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Split date: Feb 09, 2017
Split ratio: 10:1
Investing.com
Volume (20)
1.287B
743.862M
2B
1.5B
Oil May Be A Bright Spot For The U.S. Economy Right Now
2010
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2013
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2015
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2017-02-01
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2019
2020