FIN 2704/2704X

Week 7 Slides

Stock Valuation

Learning objectives

Understand how stock prices depend on future dividends

Stockholders: Ways To Receive Cash Return

- If you buy a share of stock, you can receive cash in 2 ways:

  1. The company pays **dividends**
  2. You **sell** your **shares**, either to another investor in the market (secondary market) or back to the company (when a firm repurchases shares)

- As with bonds, the value of the stock is the **present value** of these expected cash flows

Stock: Dividends

- Dividends are cash disbursements to shareholders.

  - Firms are <u>not required</u> to pay dividends to their shareholders (each period dividends may be declared <u>at the discretion</u> of the Board of Directors).

  - Dividends are **NOT** a liability of the firm <u>until</u> a dividend has been declared by the Board.

- Consequently, a firm cannot go bankrupt for not declaring dividends.

- Dividends and Taxes

  - Dividend payments are not considered a business expense; therefore, they are <u>not tax deductible</u>.

  - In most jurisdictions, dividends received by individuals are <u>taxed as ordinary income</u>.

  - In Singapore, however, dividends are tax exempt at the individual shareholder recipient level.

Value: Several Kinds

There are several types of value, for example

1. **Book Value:** The price paid to acquire the asset (including betterments), less accumulated depreciation.

2. **Market Value:** The price of an asset as determined in a competitive marketplace.

3. **Intrinsic Value:** What an asset is really worth in theory. In finance, this real worth is estimated by the **present value** of the expected future cash flows discounted at the decision maker's required rate of return from CAPM or its true required rate of return.

Determinants of Intrinsic Value

- The primary determinants of the intrinsic value of an asset to an individual are:

  - **Size** and **timing** of the expected future cash flows.
  - The individual's **required rate of return** (as we've seen, this is determined by a number of other factors such as risk/return preferences, returns on competing investments, expected inflation, tax rates applicable to the individual, etc.)

- Note that the **intrinsic value** of an asset can be, and often is, different for each individual (that's what makes markets work).

  - If markets are efficient, market value should equal intrinsic value for the marginal investor

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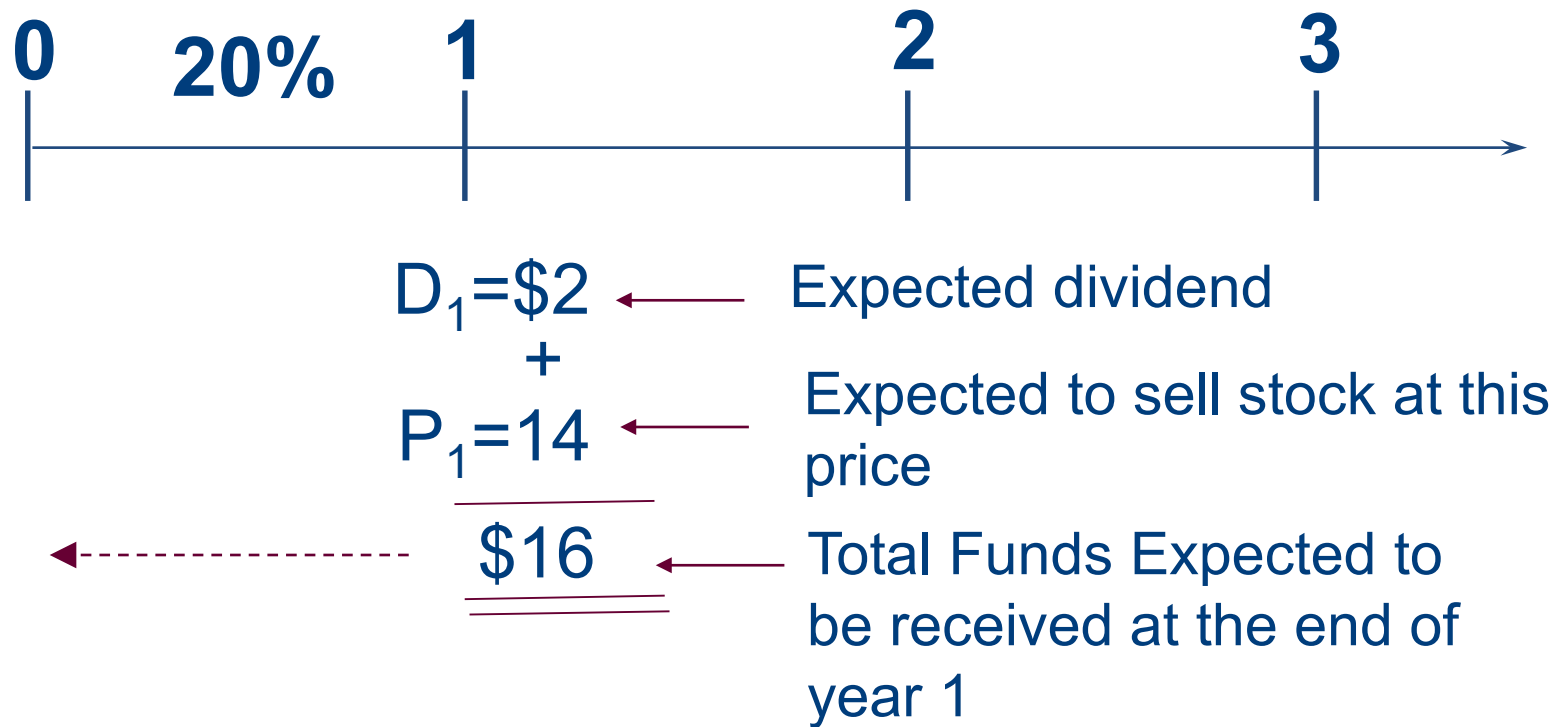
Stock Value: 1-Period Example

- Suppose you are thinking of purchasing the stock of Moore Oil, Inc. and you expect it to pay a $2 dividend in 1 year and you believe that you can sell the stock for $14 at that time.

- If you require a return of 20% on investments of this risk, what is the maximum you would be willing to pay?

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Stock Value: 1-Period Example

Using a Time-Line

$$0 \quad 20\% \quad 1 \quad\quad 2 \quad\quad 3$$

$D_1 = \$2$ ← Expected dividend

\+

$P_1 = 14$ ← Expected to sell stock at this price

$\$16$ ← Total Funds Expected to be received at the end of year 1

$P_0 = \$16 * 1/(1.20) = $ Value of the stock at time 0

Stock Value: 1-Period Example

- Compute the PV of the expected cash flows, i.e. compute P_0

  ❖ Scientific Calculator:
  - Price = (14 + 2) / (1.2) = $13.33

  ❖ Financial Calculator:

  16 \<FV\>

  20 \<I/YR\>

  1\<N \>

  $\Rightarrow$ \<CPT\>\<PV \> -13.33

  Recall the reversal of sign for PV computation

Stock Value: 2-Period Example

- Now what if you decide to hold the stock for 2 years?

- In addition to the dividend in one year, you expect a dividend of $2.10 and a stock price of $14.70 at the end of year 2. Now how much would you be willing to pay?

❖ $PV = 2 / (1.2) + (2.10 + 14.70) / (1.2)^2 = 13.33$

$\Rightarrow NPV = 13.33$

Stock Value: 2-Period Example

Using a Time-Line

$$0 \qquad 20\% \qquad 1 \qquad\qquad 2 \qquad\qquad 3$$

$1.667 \leftarrow -- 1/(1.2) \times D_1 = \$2$

$+$

$D_2 = \$2.10$

$P_2 = 14.70$

$11.667 \leftarrow ------ 1/(1.2)^2 \times \$16.80$

$P_0 \quad \$13.33$

ASIDE: Stock Value: 2-Period Example

TI BA II Plus Financial Calculator

- Use <↓> and <↑> to enter the following values.

  CF_0: **0 <ENTER>** → CF_0 = $0

  <↓>   **C01: 2 <ENTER>** → CF_1 = $2

  <↓>   **F01: 1** → Freq. of receiving $2 is 1.

  <↓>   **C02: 16.80 <ENTER>** → CF_2 = $16.80

  <↓>   **F02: 1** → Freq. of receiving $16.80 is 1.

- Press <NPV> to display the current discount rate (I)

  I: 20 <ENTER> → Discount rate = 20%

  <↓> NPV <CPT> → NPV = <u>**13.33**</u>

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Stock Value: 3-Period Example

- Finally, what if you decide to hold the same stock for three periods?
- In addition to the dividends at the end of years 1 and 2, you expect to receive a dividend of $2.205 at the end of year 3 and a stock price of $15.435. Now how much would you be willing to pay?

  ❖ $PV = 2 / 1.2 + 2.10 / (1.2)^2 + (2.205 + 15.435) / (1.2)^3 = 13.33$

  ❖ Or $CF_0 = 0$; $CF_1 = 2$; $CF_2 = 2.10$; $CF_3 = 17.64$; I/YR = 20 $\Rightarrow$ NPV = 13.33

Stock Value: 3-Period Example

Using a Time-Line

0	20%	1	2	3

$1.667 \leftarrow 1/(1.2) \times D_1 = \$2$

$+ \ 1.458 \leftarrow 1/(1.2)^2 \times D_2 = \$2.10$

$D_3 = \$2.205$

$P_3 = \$15.435$ +

$+ \ 10.208 \leftarrow 1/(1.2)^3 \times \quad \$17.64$

$P_0 \ \mathbf{\$13.33}$

Stock Value: Developing The Model

- You could continue to delay when you would sell the stock

- You would find that the price of the stock is really just the **present value of all expected future dividends**

$$\hat{P}_t = \frac{D_{t+1}}{(1+r_E)^1} + \frac{D_{t+2}}{(1+r_E)^2} + \frac{D_{t+3}}{(1+r_E)^3} + ... + \frac{D_\infty}{(1+r_E)^\infty}$$

- But how can we estimate all future dividend payments? There are some simplifying cases that make this estimation easier.

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Summary

- Two types of cash flows from a stock in:

  1. Dividends
  2. When you sell your shares

- The value of the stock is the **present value** of these expected cash flows

Dividend Growth Model

Learning objectives

- Understand how stock prices depend on future dividends and dividend growth

- Be able to compute stock prices using the **Dividend Growth Model** (also called the Dividend Discount Model)

- Be able to compute a stock's expected return from DGM

Estimating Dividends: Special Cases

1. **Constant Dividend** (Zero-Growth Dividend)
    –   The firm will pay a constant dividend forever
    –   The price is computed using the <u>perpetuity formula</u>

2. **Constant Dividend Growth** (Stable Growth)
    –   The firm will increase the dividend by a constant percent every period

3. **Supernormal Growth** (Non-constant Growth)
    –   Dividend growth is not consistent initially, but settles down to constant growth eventually
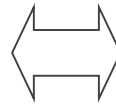
Scenario 1: Firm Pays Constant Dividends

If dividends are expected at regular intervals forever, then this is like preferred stock and is valued as a **perpetuity**:

General formula for perpetuity

$$PV = \frac{PMT}{i}$$

$\Longleftrightarrow$

Formula for Price of Stock Paying Constant Dividend1

$$P_0 = \frac{D_1}{r_E}$$

Cost of equity - required return of stockholders

Usually estimated using CAPM

Constant Dividend Example

Suppose a stock is expected to pay a $0.50 dividend every quarter and the required return is **10% with quarterly compounding**. What is the price?

❖ $P_0 = .50 / (.1 / 4) = \$20$

The quoted rate is divided by 4 to get the quarterly rate

Scenario 2: Constant Dividend Growth

The General Dividend Discount Model (DDM):

$$\hat{P}_0 = \frac{D_1}{(1+r_E)^1} + \frac{D_2}{(1+r_E)^2} + \frac{D_3}{(1+r_E)^3} + ... + \frac{D_\infty}{(1+r_E)^\infty}$$

becomes

$$\hat{P}_0 = \frac{D_0(1+g)^1}{(1+r_E)^1} + \frac{D_0(1+g)^2}{(1+r_E)^2} + \frac{D_0(1+g)^3}{(1+r_E)^3} + ...$$

With a little algebra, this reduces to:

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

Dividend in 1 year's time

Constant Dividend Growth

- The stable model is best suited for firms experiencing **long-term stable growth.**

- Generally, stable firms are assumed to grow at the rate equal to <u>the long-term nominal growth rate of the economy (inflation plus real growth in GDP).</u>

- Also

$$P_0 = \frac{D_1}{r_E - g} \qquad \text{requires} \qquad r_E > g$$

If $r_E \leq g$, stock price is *infinite*.

This makes no economic sense. We can't use model unless (1) $r_E > g$ and

(2) g is expected to be constant forever.

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Dividend Growth Model – Example

Suppose Moore Oil, Inc. is expected to pay a $2 dividend *in one year*. If the dividend is expected to grow at 5% per year and the required return is 20%, what is the price?

➢ P_0 = 2 / (.2 - .05) = $13.33

➢ Note that the $2 in the numerator is NOT multiplied by (1.05) in this example. Why?

An Example Incorporating CAPM

Assume equity beta β = 1.2, r_f = 7%, r_M = 12%; D_0 = 2.00; g = 6%.

1. What is the required rate of return on the firm's stock?

2. What's the stock's market value?

An Example Incorporating CAPM
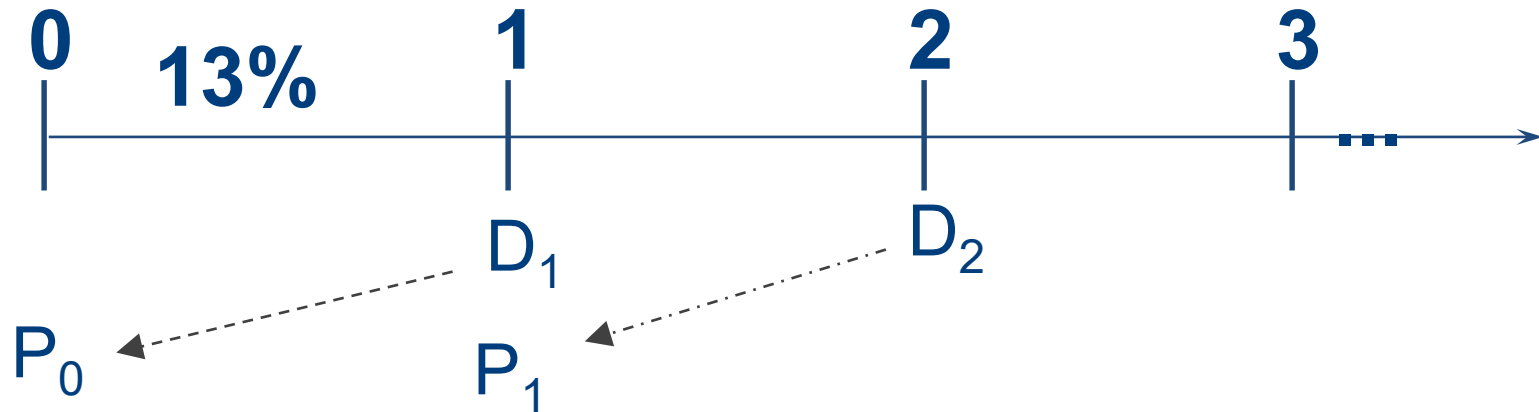
Step1: Use the CAPM to calculate r_E:

$$r_E = r_f + \beta(r_M - r_f)$$
$$= 7\% + (1.2)(12\% - 7\%)$$
$$= 13\%$$

Step 2: Apply the constant growth model:

$$P_0 = \frac{D_1}{r_E - g} = \frac{\$2.12}{0.13 - 0.06}$$
$$= \$30.29$$

An Example Incorporating CAPM

What is the stock's market value one year from now, P_1?

$$0 \quad 13\% \quad 1 \quad 2 \quad 3 \quad \ldots$$

D_1 D_2

P_0 P_1

D_1 will have been paid, so expected dividends are D_2, D_3, D_4 and so on. Thus,

$$P_1 = \frac{D_2}{r_E - g} = \frac{\$2.247}{0.13 - 0.06}$$

$$= \$32.10$$

Example Continued

Find the expected dividend yield, capital gains yield, and total return during the first year.

$$\text{Dividend yield} = \frac{D_1}{P_0} = \frac{\$2.12}{\$30.29} = \mathbf{7.0\%}$$

$$\text{Cap gains yield} = \frac{P_1 - P_0}{P_0} = \frac{\$32.10 - \$30.29}{\$30.29} = \mathbf{6.0\%}$$

Total return = 7.0% + 6.0% = 13.0%

= (($32.10-$30.29)+$2.12) / $30.29

Return Components:
For Constant Growth Scenario Only

If you rearrange the model to the rate of return form:

$$P_0 = \frac{D_1}{r_E - g} \quad to \quad r_E = \frac{D_1}{P_0} + g$$

Then, r_E = \$2.12/\$30.29 + 0.06

= 0.07 + 0.06 = 13%

What Would P_0 be if g = 0?

The dividend stream would be a perpetuity

$$0 \qquad 1 \qquad 2 \qquad 3$$

13% ...

2.00   2.00   2.00

$$P_0 = \frac{PMT}{i} = \frac{\$2.00}{0.13} = \$15.38$$

Scenario 3: Non-Constant Growth Example

Suppose a firm is expected to increase dividends by 20% in one year and by 15% two years from now. After that, dividends will increase at a rate of 5% per year indefinitely. If the last dividend was $1 and the required return is 20%, what is the price of the stock?
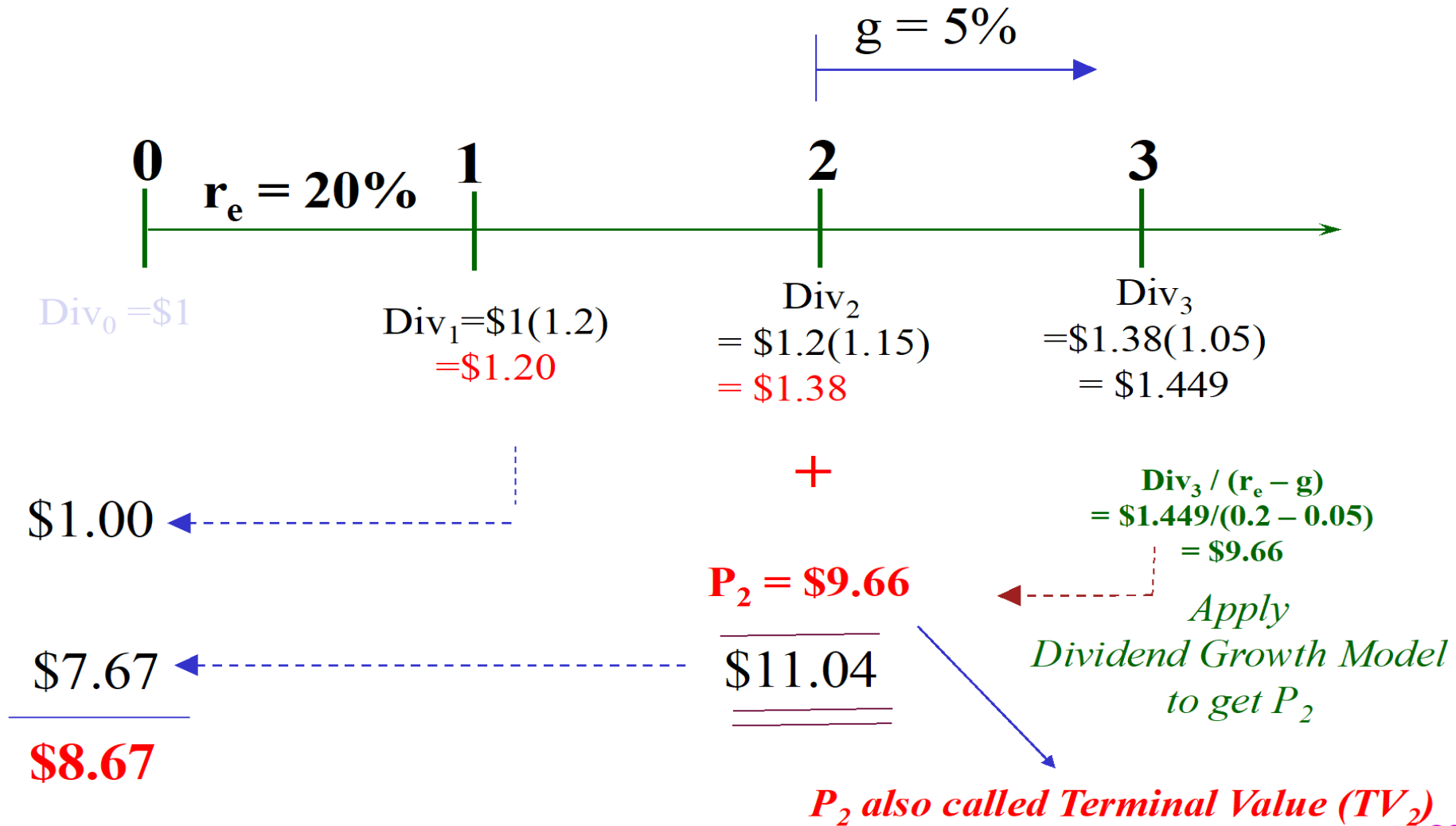
Scenario 3: Non-Constant Growth Example

- Remember that we must find the PV of **all** expected future dividends.

- Can no longer use constant growth model

- However, growth becomes constant after 2 years, so we can incorporate the constant growth formula

- Draw a timeline – it helps to visually see the cash flows

Timeline of Non-constant Growth Example

$$g = 5\%$$

0		1	2	3

$$r_e = 20\%$$

$Div_0 = \$1$

$Div_1 = \$1(1.2)$
$= \$1.20$

Div_2
$= \$1.2(1.15)$
$= \$1.38$

Div_3
$= \$1.38(1.05)$
$= \$1.449$

+

$Div_3 / (r_e - g)$
$= \$1.449/(0.2 - 0.05)$
$= \$9.66$

$1.00

$P_2 = \$9.66$

Apply
Dividend Growth Model
to get P_2

$7.67

$11.04

$8.67

P_2 *also called Terminal Value (TV$_2$)*

Non-Constant Growth – Example Solution

- Compute the dividends until growth levels off
  - $D_1 = 1(1.2) = \$1.20$
  - $D_2 = 1.20(1.15) = \$1.38$
  - $D_3 = 1.38(1.05) = \$1.449$

- Find the expected future price (the Horizontal or Terminal Value) at time t = 2
  - $P_2 = D_3 / (r_E - g) = 1.449 / (.2 - .05) = 9.66$

- Find the present value of the expected future cash flows
  - $P_0 = 1.20 / (1.2) + (1.38 + 9.66) / (1.2)^2 = 8.67$

Quick Review– Part I

- What is the value of a stock that is expected to pay a constant dividend of $2 per year if the required return is 15%?

  - ❖$13.13 = 2/0.15

- What if the company starts increasing dividends by 3% per year, beginning with the next dividend? The required return stays at 15%.

  - ❖$17.17 = 2*(1.03)/(0.15 – 0.03)
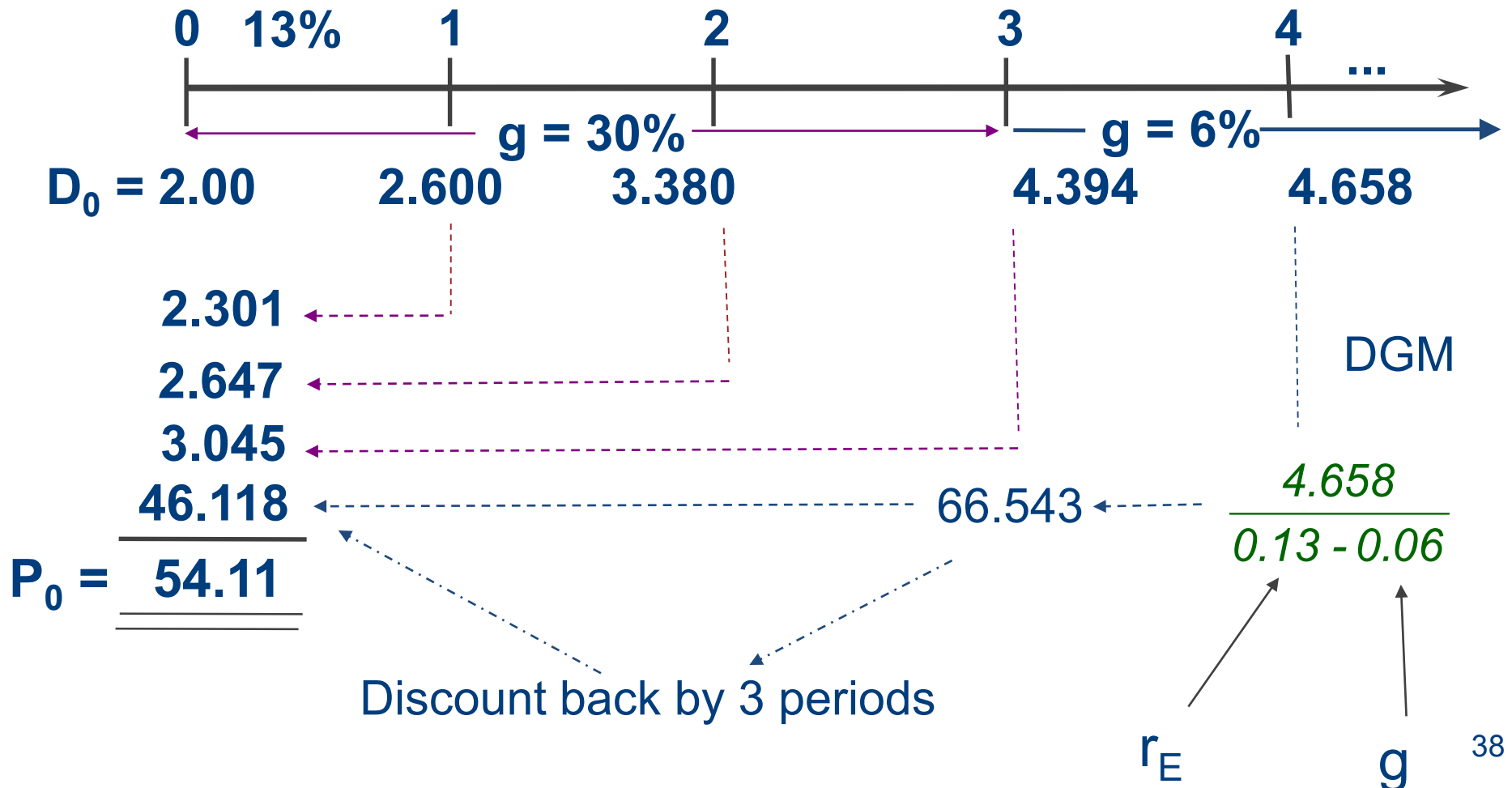
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Quick Review– Part 2

- A firm expects supernormal growth of 30% for 3 years, then a long-run constant g = 6%.

- If the last dividend was $2 and the required return is 13%, what is the current value of the stock?

Quick Review Part 2 - Draw a Timeline

$$\begin{array}{ccccccc}
0 & 13\% & 1 & & 2 & & 3 & & 4 \\
\end{array}$$

...

g = 30%   g = 6%

$D_0 = 2.00$ 2.600   3.380   4.394   4.658

2.301

2.647   DGM

3.045

46.118   66.543 $\dfrac{4.658}{0.13 - 0.06}$

$P_0 =$ 54.11

Discount back by 3 periods

r_E g

Using the DGM to Find r_E

- Start with the DGM:

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

- Rearrange and solve for r_E

$$r_E = \frac{D_0(1+g)}{P_0} + g = \frac{D_1}{P_0} + g$$

Finding the Expected Return# - Example

Suppose a firm's stock is selling for $10.50. They just paid a $1 dividend and dividends are expected to grow at 5% per year.

- What is the expected return#?

$$\hat{r}_E = [1*(1.05)/10.50] + .05 = 15\%$$

- What is the dividend yield?

  1*(1.05) / 10.50 = 10%

- What is the capital gains yield?

  g = 5%

Recall that this is also the *required return* under market equilibrium conditions.
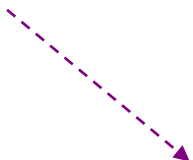
Market Equilibrium

- In equilibrium, stock prices are **stable** and only change with relevant new information**.**

- There is no general tendency for people to buy versus to sell.

- In equilibrium, **expected returns** must equal **required returns**:

$$r_E = r_f + (r_M - r_f)\beta_E$$
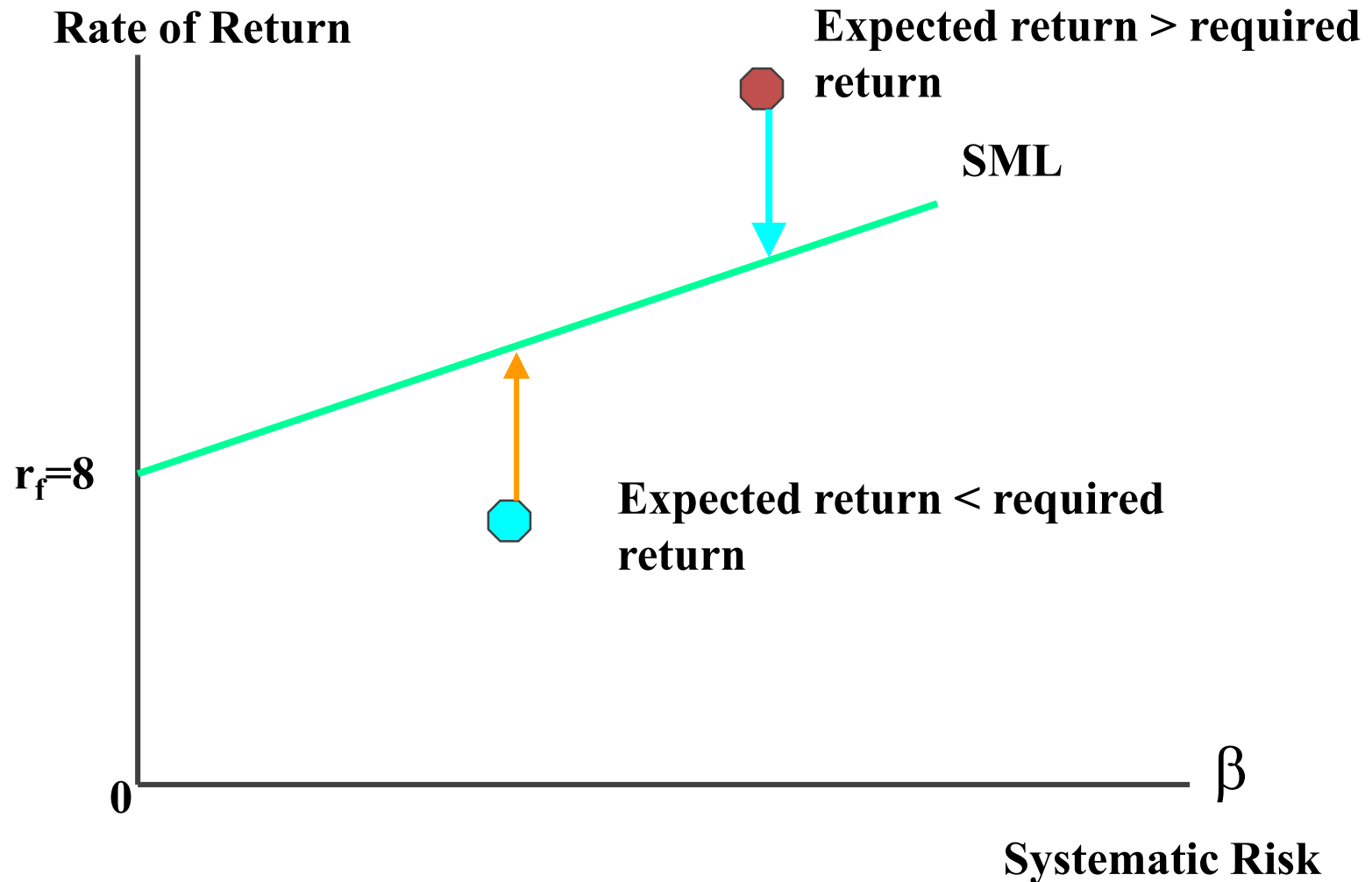
$$\hat{r}_E = \frac{D_1}{P_0} + g$$

Expected Returns vs Required Returns

We will differentiate returns as follows:

- **Expected returns** are obtained by estimating dividends and expected capital gains.

  - Expected return is the return implied by the asset's expected future cash flows and current price

- **Required returns** are obtained from **CAPM**

How Is Equilibrium Established?

Rate of Return

Expected return > required return

SML

$r_f=8$

Expected return < required return

0

β

Systematic Risk

How Is Equilibrium Established?

If $\hat{r}_E = \dfrac{D_1}{P_0} + g$ $> r_E$ then

P_0 is "too low" (a bargain).

$\Rightarrow$ Current Price is under valued.

Buy orders > Sell orders

$\Rightarrow P_0$ bid up and D_1/P_0 falls until

$\quad\quad D_1/P_0 + g = r_E$ where $r_E = r_f + (r_M - r_f)\beta_E$

Why Do Stock Prices Change?

$$P_0 = \frac{D_1}{r_E - g}$$

1. r_E could change:

   $r_E = r_f + (r_M - r_f)\beta_i.$

   $r_f \approx r^* +$ Inflation Premium for expected inflation

   real risk-free interest rate

2. g could change due to a macroeconomic or firm-specific situation.

Example: Singapore Shares Fall On Week After Fed Move

Singapore stocks fell this week after U.S. Federal Reserve maintained its projection for a third rate increase in 2017. Singapore's FTSE Straits Times Index ended little changed at 3,231.44 on Friday, ending the week 0.7% lower. This week's losses came mainly from Thursday's decline after the Fed's move drove losses in the city-state's lenders and property developers.

Most other regional indexes also fell after the U.S. central bank delivered a widely-expected 25-basis-point rate increase and kept its forecast for another hike this year. This week's increase was widely expected, but investors were hoping for lowered projections for future hikes as the world's largest economy grapples with political uncertainty and mixed datasets. The Nikkei Asia300 Index was down about 0.9% this week, heading for its first weekly loss since April.

- Nikkei Asian Review, 16 Jun 2017

Example: Tokyo Zoo Panda Gives Birth, Sending Shares in Retailers Surging

- Ueno Zoo panda Shin Shin gives birth to at least one cub
- Shares in nearby Chinese eatery Totenko surge as much as 38%

Tokyo's main zoo welcomed a baby panda for the first time in five years, sending shares of nearby restaurant operators surging on hopes of a boost to tourism in the central metropolitan area.

Totenko, which operates a Chinese eatery within walking distance of the zoo, jumped as much as 38 percent, while French restaurant Seiyoken advanced up to 11 percent.

Shares in both companies surged in February when the zoo announced that the pandas were mating. The Nikkei cited one estimate that put the economic impact of the baby panda at 26.7 billion yen ($242 million).
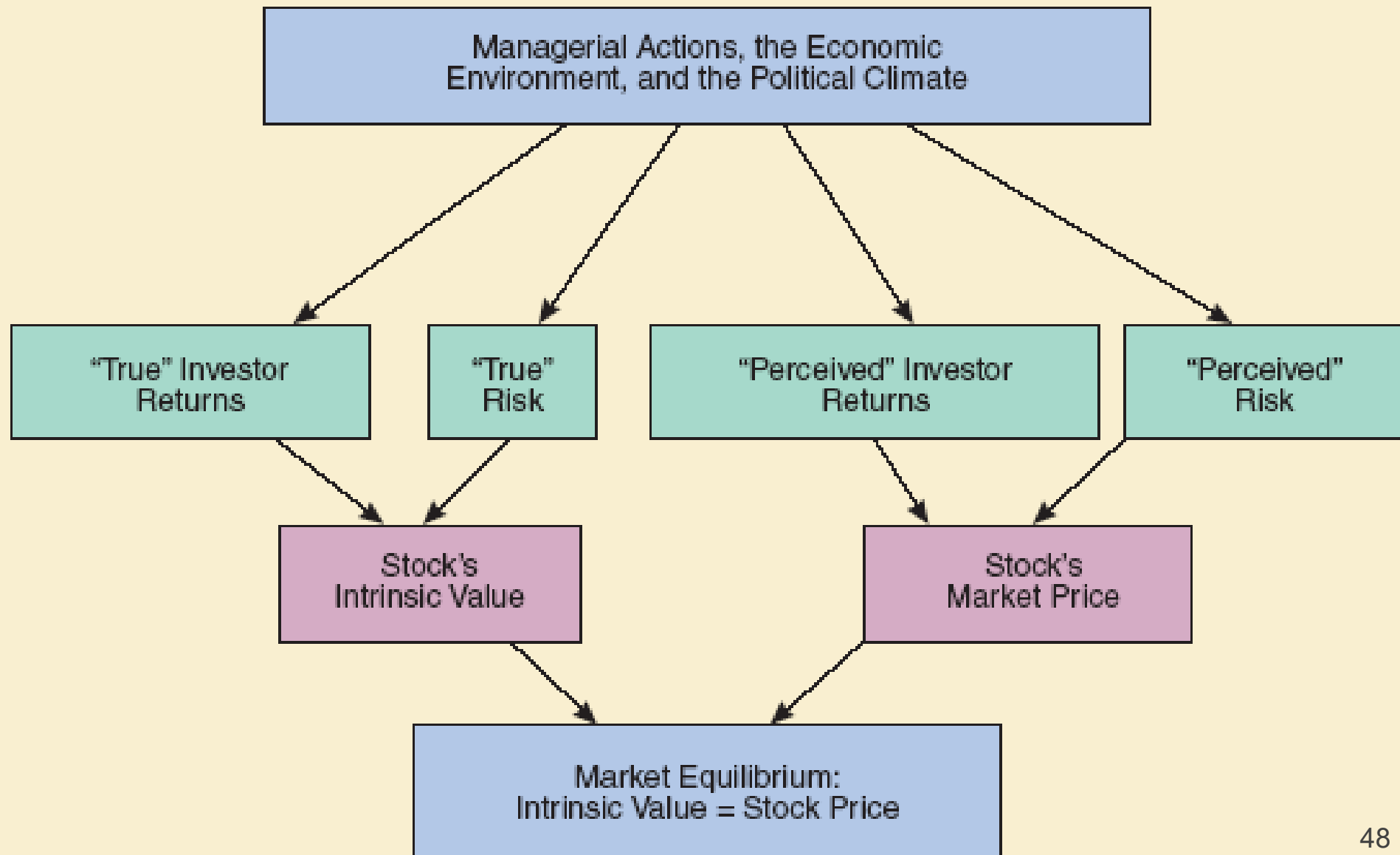
- Bloomberg, 12th Jun 2017

Determinants of Intrinsic Value and Stock Prices

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Features of Preferred Stock

- Preferred Dividends
  - Stated dividend must be paid before dividends can be paid to common stockholders
  - not a liability of the firm and can be deferred indefinitely
  - Most are *cumulative* – any missed preferred dividends have to be paid before common dividends can be paid

- Preferred stock generally do not carry voting rights.

Features of Preferred Stock

If preferred stock with an annual dividend of $5 sells for $50, what is the preferred stock's expected return ($\hat{r}_p$)?

V_p = D / r_p (a perpetuity)

$50 = $5 / r_p$

= $5 / $50

$\hat{r}_p$ = 0.10 = 10%

Summary

- Computing stock prices using the Dividend Growth Model:
  1. Constant Dividend
  2. Constant Dividend Growth
  3. Supernormal Growth

- Computing expected return from DGM
  - Expected return vs. required return
  - Market equilibrium

- Preferred stocks

Corporate Value Model

Learning objectives

Be able to compute stock prices using the **Corporate Value Model**

Corporate Value Model

- Also known as the **free cash flow method**.

- It suggests the value of the **entire firm** equals the present value of the **firm's** free cash flows.

  - Thus we're essentially using the DCF (discounted cash flow) method to find the firm's total **value today**.

- Recall that *Cash Flow from Assets (CFFA) (or free cash flow)* is the firm's after-tax operating income less the net capital investment in fixed assets and investment in operating working capital:

    CFFA = OCF – NCS – Changes in NOWC

- Previously, we found a firm's past CFFA when we considered its past year's Income Statement and Balance Sheet. Now we need to find **projected CFFAs** from *projected* Balance Sheets and Income Statements.

Corporate Value Model

- These projected CFFAs are cash flows expected to be generated by the firm and belonging to all the firm's providers of capital). Thus they are to be discounted back by the firm's cost of capital WACC (weighted average cost of capital). In subsequent classes we will discuss this WACC and how it weights the firm's cost of equity r_E as well as its cost of debt r_D)

Assets

25%
Debt

75%
Equity

Assets generate

CFFAs

These CFFAs belong to all the providers of capital
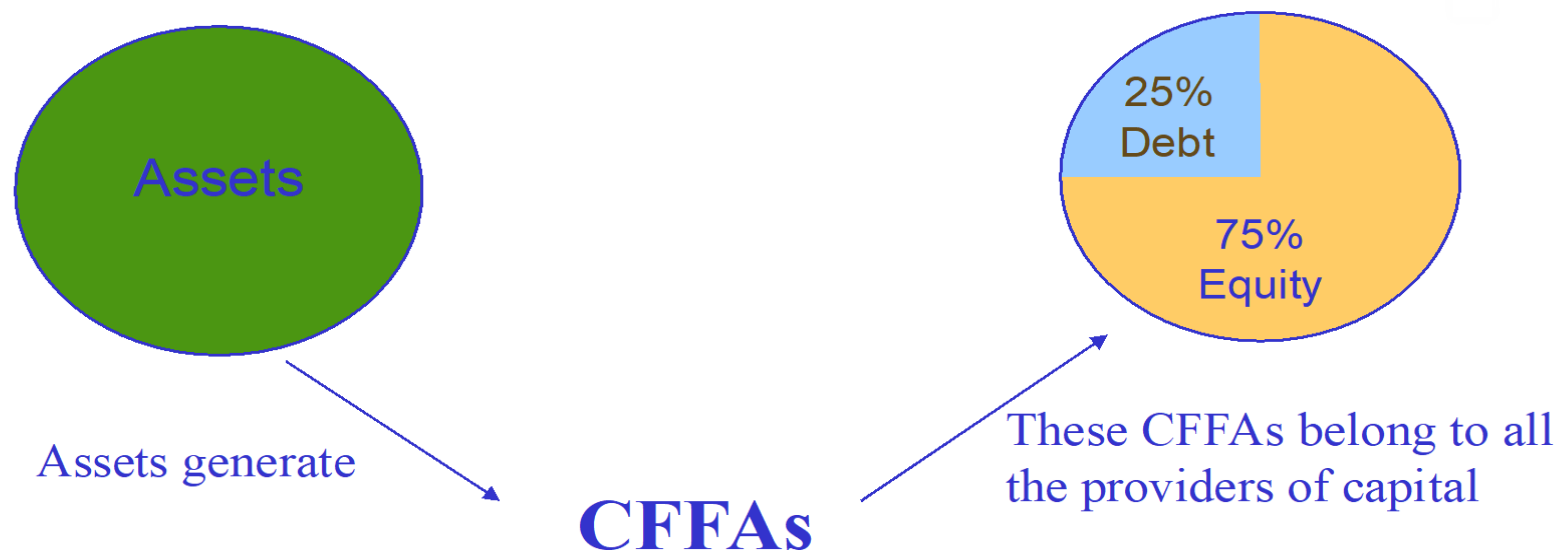
CFFAs are the cash flows *generated* by a firm's operating assets for a given period, *after* taking into account investment needed in fixed assets and working capital. Thus its cash *available* to the providers of capital

Applying the Corporate Value Model: The Steps

- **Find the *market value* (MV) of the firm, by finding the *PV of the firm's future CFFAs*.**

- From that firm value, subtract Market Value of firm's debt and preferred stock to get <u>Market Value of common stock</u>.

- Divide this Market Value of common stock by the number of shares outstanding to get intrinsic stock price (value) per share.
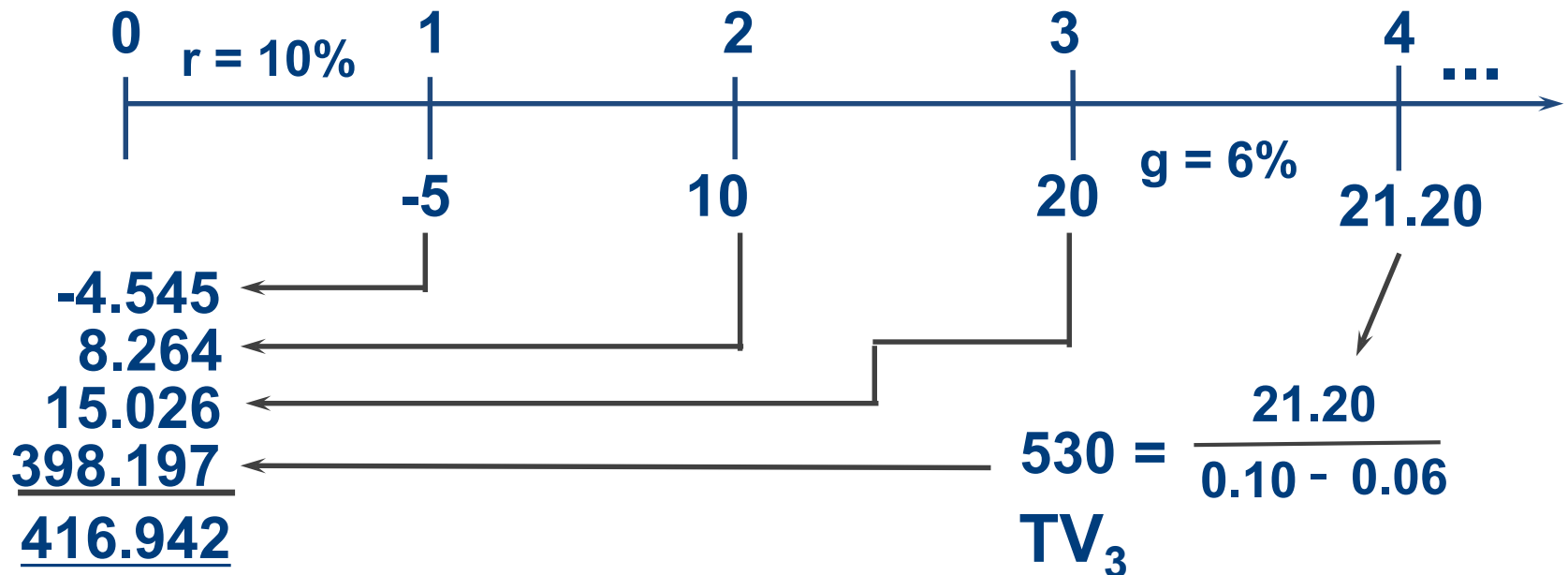
Using The Corporate Value Model

- This method is often preferred to the dividend growth model, especially when considering the number of firms (e.g. Amazon & Google) that *don't pay dividends* and/or when dividends are hard to forecast.

- Similar to dividend growth model as it assumes at some point free cash flow will grow at a constant rate.

- Terminal value (TV_N) represents value of firm as a whole **at the point that growth becomes constant**, i.e., time N.

  - It is similar to the Dividend Growth Model (also called the Dividend Discount Model) where we have terminal value estimate for the price of the stock P_N at time N.

Example: Corporate Value Model

The below timeline indicates the firm's **projected** CFFAs (in $Millions): $CFFA_1 = -5$, $CFFA_2 = 10$, $CFFA_3 = 20$. After year three, the firm is expected to have a long-run constant $g_{CFFA} = 6\%$. It has a Weighted Average Cost of Capital (WACC) of 10%. Use the corporate value model to find the firm's intrinsic value today.

0	1	2	3	4

r = 10%

g = 6%

-5　　　　10　　　　20　　　　21.20

-4.545

8.264

15.026

398.197

416.942

$$530 = \frac{21.20}{0.10 - 0.06}$$

TV_3

Example: Corporate Value Model

If the firm has $40 million in debt and has 10 million shares of stock, what is the firm's intrinsic value per share?

- **_MV of equity_ = MV of firm – MV of debt**

  = $416.94 - $40

  = $376.94 million

- **_Value per share_ = MV of equity / # of shares**

  = $376.94 / 10

  = $37.69

Summary

Corporate Value Model:
   The value of the ***entire firm*** equals the present value of the ***firm's*** free cash flows

How do we compute stock price using CVM?

1. Find the PV of the firm's future CFFAs

2. Then subtract Market Value of firm's debt and preferred stock to get <u>Market Value of common stock</u>

3. Then Divide this Market Value of common stock by the number of shares outstanding to get intrinsic stock price (value) per share

Appendix
(Not examinable)

Another Approach to Corporate Valuation (Multiples Method)

Learning Objectives

(Not examinable)

- Multiples Approach
- Understand how securities are sold to the public and the role of investment bankers
- Understand initial public offerings & rights issues

Valuation with Multiples

⇨ The **multiples method** of valuation can be used to obtain a quick idea of value when the determinants of value are not so clear or readily available. Under this method, the *observed prices of assets similar* to the asset of interest (traded securities and/or similar deals) *are appropriately scaled and then used to estimate the value of the asset concerned* (often a non-traded security and/or incomplete deal).

⇨ To apply the multiples method, the following are needed:

- *Similar firms*, and

- *A means to scale prices* (i.e., compare relative sizes of firms)

⇨ The multiples method can serve as a rough "market" check on values obtained using other valuation methods such as Corporate Value.

Valuation with Multiples:

⇨ ***Many Comparable Firms Available***: If there are several traded firms that are similar to the project being valued, then average the P/E's of the comparable firms:

Equity Value $_{Firm}$= Average [P/E $_{Similar\ Firms}$] * Net Income $_{Firm}$

▸ **$2 Billion in Equity Value = ($20 share/ $1 Earnings per Share) * 100 Million in NI**

The average P/E is called "the industry's average P/E ratio" or

"the P/E ratio of comparables."

⇨ ***Common Multiples Used***:

• Generic: EPS, Operating Earnings, EBIT, EBITDA, Sales

• Specific: subscribers, hits, square footage, proven reserves (the most accurate multiples are usually industry-specific multiples).

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Valuation & Multiples

⇨ ***When Using Multiples***:

- The *higher is the basis for the multiple in the income statement* (e.g., Sales vs. EBIT), *the less important are accounting differences*.

⇨ ***Some General Problems with Using Multiples***:

- Usually *heavy reliance on accounting data* (especially P/E ratio)
- *No reflection of unique aspects of firms* in industry (e.g., marketing strategies, technological differences, age of assets…)
- *Often hard to find comparable firms.*
- *The average ratio from a sample of comparable could have a wide range.*

How Firms Issue Securities

- Firms can sell their debt and equity:
  - ❖ To the public at large through a *public offering.*
  - ❖ To **qualified investors** through a *private placement.*

- Both distribution channels are usually regulated.

How Firms Issue Securities

Private placement

- Tailored to meet specific needs

- Does not have to register with a government agency

- Flexible, discreet, and speedy method of raising funds

- Drawback – absence of organized trading in privately held securities

General Cash Offerings

- Securities are offered to the general public

- Needs the involvement of underwriters (usually investment banks):
    1. Formulate the issue method
    2. Price the new securities
    3. Sell the new securities

How Firms Issue Securities

Public offerings

- Registered with government body
- Use investment banks
  - ❖ Type and amount of securities
  - ❖ Approval of government agencies
  - ❖ Appropriate selling price
  - ❖ Best time for the offering
  - ❖ Stimulate widespread interest in the offering

Initial Public Offering (IPO)

- The first public equity issue that is made by a company

- This happens when a private company decides to go public.

- Also known as unseasoned new issue
  - as opposed to seasoned equity offering (SEO) which refers to a new issue by a company with securities that have been previously issued

Rights Offering

- Issue of new stock to existing shareholders on a privileged-subscription basis.

- Firm distributes to its shareholders rights to subscribe for additional shares at a specified price.

Shareholders can do one of the following:

1. **Exercise** their rights and subscribe for the shares.

2. **Sell** the rights to interested investors if they do not want to buy new shares.

3. **Do nothing** and let the right expire.

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Issue Methods

```
                    Private          ←——        A Firm issues Equity to
                    Placement                          raise funds
                                                             |
                                                             |
                            ┌────────────────────────────────┴────┐
                            ↓                                      ↓
                     General Cash                             Rights
                      Offering                                Issue
```

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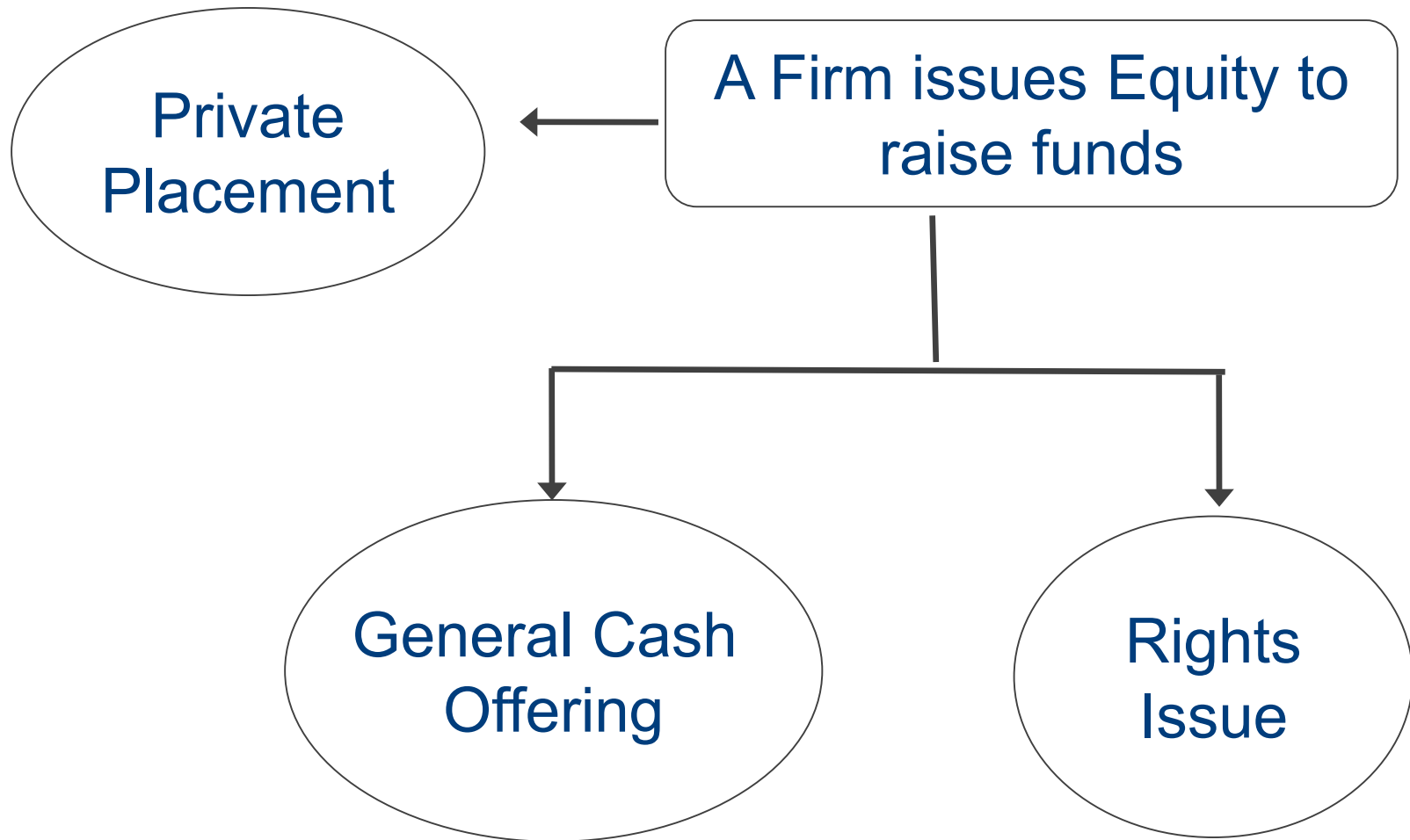
Quick Review – Part 3

- What are the different methods a company can raise equity capital?

- What is an initial public offering?

- What is a rights offering?

In the News: HP Drops as Hurd Quits, Leaving Lesjak Slowing Growth
by Aaron Ricadela, August 09, 2010, Bloomberg

- Hewlett-Packard Co. slid the most in six years in New York trading following the Aug. 6 resignation of Chief Executive Officer Mark Hurd, who leaves behind a company with slowing growth and a senior staff that may be distracted by jockeying for the top job.

- Hewlett-Packard slid $3.70, or 8 percent, to $42.60 at 4 p.m. in New York Stock Exchange composite trading -- the biggest drop since August 2004.

Example: Stock Value Headlines

Microsoft Raises Dividend, Authorizes Debt
Reuters, Sept 22, 2010

- SEATTLE, USA - Microsoft Corp raised its ***quarterly dividend*** *by 23 per cent to* **16 cents** *per share* on Tuesday, its first increase in two years, marking the latest move by a technology company to return cash to shareholders frustrated by stagnant share prices. The world's largest software company, whose stock is trading at the same level it was eight years ago, has been under pressure to distribute more of the US$37 billion ($49.17 billion) of cash on its balance sheet.

Example: AIA Debut Headlines Hong Kong IPO Boom
by By NISHA GOPALAN , The Wall Street Journal, 21/9/10

- Companies ranging from coking coal miners and traders to clean energy producers launched plans for initial public offerings in Hong Kong on Monday, while American International Group Inc.'s pan-Asia life insurer, AIA Group Ltd., moved a step closer to a long-awaited IPO there that could be the world's second-biggest IPO this year and whose stock is already publicly listed and traded.

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Example: DBS Aims To Raise $4b Through 1-for-2 Rights Issue

AFP, Dec 23rd, 2008

- DBS Group Holdings said yesterday that it plans to raise about $4 billion in a rights issue.

- The funds will beef up the bank's balance sheet at a time when global investors favour financial institutions with higher capital levels, DBS said in a statement.

- 'DBS is initiating this capital- raising exercise from a position of strength,' chief executive officer Richard Stanley said in the statement.

- 'The rights issue will enable DBS to capture opportunities to entrench our market position in key Asian markets and confidently weather the economic uncertainties ahead.'

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