Growth Companies & Growth Stocks

• Growth Companies
  – Historically, consistently experience above-average increases in sales and earnings
  – Theoretically, yield rates of return greater than the firm’s required rate of return

• Growth Stocks
  – Necessarily the stocks of growth companies
  – A growth stock has a higher rate of return than other stocks with similar risk
  – Superior risk-adjusted rate of return occurs because of market undervaluation compared to other stocks
Defensive Companies and Stocks

• Defensive Companies
  – The firms whose future earnings are more likely to withstand an economic downturn
  – Low business risk
  – No excessive financial risk
  – Typical examples are public utilities or grocery chains—firms that supply basic consumer necessities

• Defense Stocks
  – The rate of return is not expected to decline or decline less than the overall market decline
  – Stocks with low or negative systematic risk
Cyclical Companies and Stocks

• Cyclical Companies
  – They are the companies whose sales and earnings will be heavily influenced by aggregate business activity
  – Examples would be firms in the steel, auto, or heavy machinery industries.

• Cyclical Stocks
  – They will have greater changes in rates of return than the overall market rates of return
  – They would be stocks that have high betas.
Speculative Companies and Stocks

• Speculative Companies
  – They are the firms whose assets involve great risk but those that also have a possibility of great gain
  – A good example of a speculative firm is one involved in oil exploration

• Speculative Stocks
  – Stocks possess a high probability of low or negative rates of return and a low probability of normal or high rates of return
  – For example, an excellent growth company whose stock is selling at an extremely high P/E ratio
Value versus Growth Investing

- Growth stocks will have positive earnings surprises and above-average risk adjusted rates of return because the stocks are undervalued
- Value stocks appear to be undervalued for reasons besides earnings growth potential
- Value stocks usually have low P/E ratio or low ratios of price to book value
Company Analysis

- Firm’s Overall Strategic Approach
  - Industry competitive environment
  - SWOT analysis
    - Strengths
    - Weaknesses
    - Opportunities
    - Threats
- Firm’s Valuation Approaches
  - Present value of cash flows
  - Relative valuation ratio techniques
Firm Competitive Strategies

• Porter suggests two major strategies:
  – Low-Cost Strategy
    ▪ The firm seeks to be the low-cost producer, and hence the cost leader in its industry
    ▪ Cost advantages vary by industry and might include economies of scale, proprietary technology, or preferential access to raw materials
  – Differentiation Strategy
    ▪ Firm positions itself as unique in the industry in an area that is important to buyers
    ▪ A company can attempt to differentiate itself based on its distribution system or some unique marketing approach
SWOT Analysis

• Internal Analysis
  – Strengths
    ▪ Give the firm a comparative advantage in the marketplace
    ▪ Perceived strengths can include good customer service, high-quality products, strong brand image, customer loyalty, innovative R&D, market leadership, or strong financial resources
  – Weaknesses
    ▪ Weaknesses result when competitors have potentially exploitable advantages over the firm
SWOT Analysis

• External Analysis
  – Opportunities
    ▪ These are environmental factors that favor the firm
    ▪ They may include a growing market for the firm’s products (domestic and international), shrinking competition, favorable exchange rate shifts, or identification of a new market or product segment
  – Threats
    ▪ They are environmental factors that can hinder the firm in achieving its goals
    ▪ Examples would include a slowing domestic economy, additional government regulation, an increase in industry competition, threats of entry, etc
Some Lessons from Peter Lynch

• Favorable Attributes of Firms
  – Firm’s product should not be faddish
  – Firm should have some long-run comparative advantage over its rivals
  – Firm’s industry or product has market stability
  – Firm can benefit from cost reductions
  – Firms that buy back shares show there are putting money into the firm
Tenets of Warren Buffet

• Business Tenets
  – Is the business simple and understandable?
  – Does the business have a consistent operating history?
  – Does the business have favorable long-term prospects?

• Management Tenets
  – Is management rational?
  – Is management candid with its shareholders?
  – Does management resist the institutional imperative?
Tenets of Warren Buffet

• Financial Tenets
  – Focus on return on equity, not earnings per share
  – Calculate “owner earnings”
  – Look for companies with high profit margins
  – For every dollar retained, make sure the company has created at least one dollar of market value

• Market Tenets
  – What is the value of the business?
  – Can the business be purchased at a significant discount to its fundamental intrinsic value?
Estimating Intrinsic Value

- Present value of cash flows (PVCF)
  - Present value of dividends (DDM)
  - Present value of free cash flow to equity (FCFE)
  - Present value of free cash flow (FCFF)

- Relative valuation techniques
  - Price earnings ratio (P/E)
  - Price cash flow ratios (P/CF)
  - Price book value ratios (P/BV)
  - Price sales ratio (P/S)
Present Value of Dividends

• Simplifying assumptions help in estimating present value of future dividends

• Constant Growth DDM

  Intrinsic Value = \( \frac{D_1}{(k-g)} \) and \( D_1 = D_0(1+g) \)

• Growth Rate Estimates
  – Average Dividend Growth Rate

  \[ g = n \sqrt[n]{\frac{D_n}{D_0}} - 1 \]

  – Sustainable Growth Rate

  \[ g = RR \times ROE \]
Present Value of Dividends

• Required Rate of Return Estimate
  – Nominal risk-free interest rate
  – Risk premium
  – Market-based risk estimated from the firm’s characteristic line using regression

\[ E(R_{stock}) = E(R_{FRR}) + \beta_{stock} [E(R_{market}) - E(R_{FRR})] \]
Present Value of Dividends

• The Present Value of Dividends Model (DDM)
  – Model requires $k > g$
  – With $g > k$, analyst must use multi-stage model
  – The three-stage model example of the DDM approach in the book illustrates how to estimate the stock price experiences:
    ▪ High growth at 13% for 3 years
    ▪ Low growth rate of 1% for 6 years
    ▪ Constant perpetual growth of 6%
Present Value of Free Cash Flow to Equity

- Computing the FCFE

\[
\text{FCFE} = \text{Net Income} + \text{Depreciation Expense} - \text{Capital Expenditures} - \Delta \text{ in Working Capital} - \text{Principal Debt Repayments} + \text{New Debt Issues}
\]

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Present Value of Free Cash Flow to Equity

• The Constant Growth Formula

\[
\text{Value} = \frac{FCFE_1}{k - g_{FCFE}}
\]

where:
- \( FCFE \) = the expected free cash flow in period 1
- \( k \) = the required rate of return on equity for the firm
- \( g_{FCFE} \) = the expected constant growth rate of free cash flow to equity for the firm

• A multi-stage model similar to DDM can also be applied
Present Value of Operating Free Cash Flow

• Discount the firm’s operating free cash flow to the firm (FCFF) at the firm’s weighted average cost of capital (WACC)

• Computing FCFF

\[ \text{FCFF} = \text{EBIT} (1 - \text{Tax Rate}) + \text{Depreciation Expense} - \text{Capital Spending} - \Delta \text{ in Working Capital} - \Delta \text{ in other assets} \]
Present Value of Operating Free Cash Flow

• The Formula

\[
Firm Value = \frac{FCFF_1}{WACC - g_{FCFF}}
\]

or

\[
= \frac{OFCF_1}{WACC - g_{OFCF}}
\]

where: 
- \(FCFF_1\) = the free cash flow in period 1
- \(OFCF_1\) = the firm’s operating free cash flow in period 1
- \(WACC\) = the firm’s weighted average cost of capital
- \(g_{FCFF}\) = the constant growth rate of free cash flow
- \(g_{OFCF}\) = the constant growth rate of operating free cash flow
Present Value of Operating Free Cash Flow

• An alternative measure of long-run growth
  
g = (RR)(ROIC)

  where:
  
  RR = the average retention rate
  ROIC = EBIT (1-Tax Rate)/Total Capital

• Computation of WACC

  \[ WACC = W_E \cdot k + W_D \cdot i \]

  where:
  
  \( W_E \) = the proportion of equity in total capital
  \( k \) = the after-tax cost of equity (from the SML)
  \( W_D \) = the proportion of debt in total capital
  \( i \) = the after-tax cost of debt
Relative Valuation Ratio Techniques

- The general relative valuation ratio techniques have been discussed in the previous chapters.
- Exhibit 14.3 contains the basic data required to compute the relative valuation ratios.
- Exhibit 14.4 contains the four sets of relative valuation ratios for Walgreens, its industry, and the aggregate market.
Estimating Company Earnings Per Share

• A Two-Step Process
  – Sales Forecast
    ▪ It includes an analysis of the relationship of company sales to various relevant economic series
    ▪ It also includes a comparison with the industry series
  – Estimated Profit Margin
    ▪ Identification and evaluation of the firm’s specific competitive strategy
    ▪ The firm’s internal performance
    ▪ The firm’s relationship with its industry
Walgreens Competitive Strategies

• The Internal Performance
  – Industry Factors
  – Company Performance
  – Net Profit Margin Estimate
  – Computing Earnings per Share

• Importance of Quarterly Estimates
  – A way to confirm our annual estimate
  – If the actual quarterly results are a surprise relative to our estimate, we will want to understand the reason for the surprise
Estimating Company Earnings Multipliers

- Macroanalysis of the Earnings Multiplier
- Microanalysis of the Earnings Multiplier
  - Comparing dividend-payout ratios
  - Estimating the required rate of return
  - Estimating the expected growth rate
  - Computing the earnings multiplier
  - Estimates of intrinsic value for Walgreens
Additional Measures of Relative Value

• Price/Book Value Ratio
  – Book value is a reasonable measure of value for firms that have consistent accounting practice
  – It can been applied to firms with negative earnings or cash flows
  – Should not attempt to use this ratio to compare firms with different levels of hard assets—for example, a heavy industrial firm and a service firm
  – See Walgreens in Exhibits 14.16 & 14.17
Additional Measures of Relative Value

- **Price/Cash Flow Ratio**
  - The price/cash flow ratio has grown in prominence and use because many observers contend that a firm’s cash flow is less subject to manipulation
  - See Walgreens in Exhibits 14.18 & 14.19

- **Price-to-Sales Ratio**
  - Sales growth drives the growth of all subsequent earnings and cash flow and sales is one of the purest numbers available
  - See Walgreens in Exhibits 14.20 & 14.21
Analysis of Growth Companies

• Generating rates of return greater than the firm’s cost of capital is considered to be temporary
• Earnings higher the required rate of return are pure profits
• How long can they earn these excess profits?
• Is the stock properly valued?
• Growth companies and the DDM
  – No growth firms
  – Long-run growth models
No-Growth Firm

• A No-Growth Firm
  – \( E = r \times \text{Assets} \)
  – \( E = r \times \text{Assets} = \text{Dividends} \) (Firms has retention ratio, \( b \), of 0)

• Firm Value

\[
V = \frac{E}{k} = \frac{(1-b)E}{k}
\]

• Required Rate of Return

\[
k = \frac{E}{V}
\]
Long-Run Growth Models

• Simple Growth Model
  – It assumes the firm has growth investment opportunities that provide rates of return equal to $r$, where $r$ is greater than $k$
  – $r=mk$ ($m$ is the relative rate of return operator)
  – $D=E (1-b)$
  – Gross Present Value of Growth Investments
    \[
    \frac{bEmk}{k^2} = \frac{bEm}{k}
    \]
  – Net Present Value of Growth Investments
    \[
    \frac{bEm}{k} - \frac{bE}{k}
    \]
Long-Run Growth Models

• Simple Growth Model (continued)
  – Firm Value
    \[ V = \frac{E}{k} + \frac{bEm}{k} - \frac{bE}{k} \]
  – PV of Constant Dividend + PV of Growth Investment
    \[ V = \frac{D}{k} + \frac{bEm}{k} \]
  – PV of Constant Earnings + PV of Excess Earnings from Growth Investment
    \[ V = \frac{E}{k} + \frac{bE(m-1)}{k} \]
Long-Run Growth Models

• Expansion Model
  – Firm retains earnings to reinvest, but receives a rate of return on its investment equal to its cost of capital
  – In this case, $m = 1$ so $r = k$
  – Firm Value
    ▪ Recall the simple growth model
      \[ V = \frac{E}{k} + \frac{bE}{k} \left( m - 1 \right) \]
    ▪ When $m = 1$
      \[ V = \frac{E}{k} \]
Long-Run Growth Models

• Negative Growth Model
  – Firm retains earnings, but reinvestment returns are below the firm’s cost of capital. That is, \( r < k \) and \( m > 1 \)
  – Since growth will be positive \( (r > 0) \) but slower than it should be \( (r < k) \), the value will decline when the investors discount the reinvestment stream at the cost of capital
Long-Run Growth Models

• The Capital Gain Component
  – The gross present value of growth investments
    \[ bEm / k \]
  – The three factors that influence the capital gain component:
    ▪ The amount of capital invested in growth investments \((b)\)
    ▪ The relative rate of return earned on the funds retained \((m)\)
    ▪ The time period for these growth investments
Long-Run Growth Models

- Dynamic True Growth Model
  - Firm invests a constant percentage of current earnings in projects that generate rates of return above the firm’s required rate of return
  - In this case, \( r > k \) and \( m > 1 \)
  - Firm value for the dynamic growth model for an infinite time period

\[
V = \frac{D_1}{k - g}
\]
Measures of Value-Added

- Economic Value-Added (EVA)
  - It is equal to the net operating profit less adjusted taxes (NOPLAT) minus the firm’s total cost of capital in dollar terms, including the cost of equity

- EVA Return on Capital
  - EVA/Capital
  - This ratio can compare firms of different sizes and determine which firm has the largest economic profit per dollar of capita

- Alternative Measure of EVA
  - Compare return on capital to cost of capital
Measures of Value-Added

• Market Value-Added (MVA)
  – Measure of external performance
  – How the market has evaluated the firm’s performance in terms of market value of debt and market value of equity compared to the capital invested in the firm

• Relationships between EVA and MVA
  – mixed results
Measures of Value-Added

• The Franchise Factor
  – Breaks P/E into two components
    ▪ P/E based on ongoing business (base P/E)
    ▪ Franchise P/E the market assigns to the expected value of new and profitable business opportunities

  Franchise P/E = Observed P/E - Base P/E
  – Incremental Franchise P/E
    = Franchise Factor X Growth Factor
      \[
      = \frac{R - k}{rk} \cdot G
      \]
      where 
      \[R = \text{the expected return on the new opportunities} \]
      \[k = \text{the current cost of equity} \]
      \[r = \text{the current } ROE \text{ on investment} \]
      \[G = \text{the PV of the new growth projects relative to the current value of the firm} \]
Growth Duration Model

• The purpose is to evaluate the high P/E ratio for the stock of a growth company by relating its P/E ratio to the firm’s rate of growth and duration of growth.

• A stock’s P/E is a function of:
  – expected rate of growth of earnings per share
  – stock’s required rate of return
  – firm’s dividend-payout ratio

• The growth estimate must consider both the rate of growth and how long this growth rate can be sustained—that is, the duration of the expected growth rate.
Intra-Industry Analysis

• Directly compare two firms in the same industry
• An alternative use of T to determine a reasonable P/E ratio
• Factors to consider
  – A major difference in the risk involved
  – Inaccurate growth estimates
  – Stock with a low P/E relative to its growth rate is undervalued
  – Stock with high P/E and a low growth rate is overvalued
Site Visits and the Art of the Interview

- Focus on management’s plans, strategies, and concerns
- Restrictions on nonpublic information
- “What if” questions can help gauge sensitivity of revenues, costs, and earnings
- Management may indicate appropriateness of earnings estimates
- Discuss the industry’s major issues
- Review the planning process
- Talk to more than just the top managers
When to Sell

- Holding a stock too long may lead to lower returns than expected
- If stocks decline right after purchase, is that a further buying opportunity or an indication of incorrect analysis?
- Continuously monitor key assumptions
- Evaluate closely when market value approaches estimated intrinsic value
- Know why you bought it and watch for that to change
Influences on Analysts

• Efficient Markets
  – In most instances, the value estimated for a stock will be very close to its market price, which indicates that it is properly valued

• Paralysis of Analysis
  – To earn above-average returns, there are two requirements: (1) the analyst must have expectations that differ from the consensus, and (2) the analyst must be correct

• Analyst Conflicts of Interest
  – A potential conflict can arise if communication occurs between a firm’s investment banking and equity research division
Global Company and Stock Analysis

- Availability of Data
- Differential Accounting Conventions
- Currency Differences (Exchange Rate Risk)
- Political (Country) Risk
- Transaction Costs and Liquidity
- Valuation Differences