Company Analysis

Chapter 15
Charles P. Jones, Investments: Analysis and Management,
Ninth Edition, John Wiley & Sons
Fundamental Analysis

• Last step in top-down approach is company analysis

• Goal: estimate share’s intrinsic value
  – Constant growth version of dividend discount model

\[
\text{Intrinsic value} = P_0 = \frac{D_1}{k - g}
\]

– Value justified by fundamentals
Fundamental Analysis

• Earnings multiple could also be used
  \[ P_0 = \text{estimated EPS} \times \text{justified P/E ratio} \]
• Stock is under- (over-) valued if intrinsic value is larger (smaller) than current market price
• Focus on earnings and P/E ratio
  – Dividends paid from earnings
  – Close correlation between earnings and stock price changes
Accounting Aspects of Earnings

• How is EPS derived and what does EPS represent?
• Financial statements provide majority of financial information about firms
• Analysis implies comparison over time or with other firms in the same industry
• Focus on how statements used, not made
Basic Financial Statements

• Balance Sheet
  – Items listed in order of liquidity or in order of payment
  – Assets
    • Cash vs. non-cash assets
      – Non-cash assets may be worth more or less than carried on books
    • Depreciation methods for fixed assets
    • Inventory evaluation choices
Basic Financial Statements

• Balance Sheet
  – Liabilities
    • Fixed claims against the firm
  – Equity
    • Residual
    • Adjusts when the value of assets change
    • Linked to Income Statement
  – Picture at one point in time
Basic Financial Statements

- Income Statement
  Sales or revenues
  - Product costs
    Gross profit
  - Period Costs
    EBIT
  - Interest
    EBIT

  EBT
  - Taxes
    Net Income available to owners
  - Dividends
    Addition to Retained Earnings

- EPS and DPS
The Financial Statements

• Earnings per share
  – EPS = Net Inc./average number of shares outstanding
  – Net Inc. before adjustments in accounting treatment or one-time events

• Certifying statements
  – Auditors do not guarantee the accuracy of earnings but only that statements are fair financial representation
Problems with Reported Earnings

• EPS for a company is not a precise figure that is readily comparable over time or between companies
  – Alternative accounting treatments used to prepare statements
  – Difficult to gauge the ‘true’ performance of a company with any one method
  – Investors must be aware of these problems
Analyzing a Company’s Profitability

• Important to determine whether a company’s profitability is increasing or decreasing and why

• Return on equity (ROE) emphasized because is key component in finding earnings and dividend growth

\[ EPS = \text{ROE} \times \text{Book value per share} \]
Du Pont Analysis

- Share prices depend partly on ROE
- Management can influence ROE
- Decomposing ROE into its components allows analysts to identify adverse impacts on ROE and to predict future trends
- Highlights expense control, asset utilization, and debt utilization
Du Pont Analysis

- ROE depends on the product of:
  1) Profit margin on sales: EBIT/Sales
  2) Total asset turnover: Sales/Total Assets
  3) Interest burden: Pre-tax Income/EBIT
  4) Tax burden: Net Income/Pre-tax Income
  5) Financial leverage: Total Assets/Equity

- \[ \text{ROE} = \text{EBIT efficiency} \times \text{Asset turnover} \times \text{Interest burden} \times \text{Tax burden} \times \text{leverage} \]
Obtaining Estimates of Earnings

• Expected EPS is of the most value
• Stock price is a function of future earnings and the P/E ratio
  – Investors estimate expected growth in dividends or earnings by using quarterly and annual EPS forecasts
• Estimating internal growth rate
  \[ EPS_1 = EPS_0 (1 + g) \]
Estimating an Internal Growth Rate

• Future expected growth rate matters in estimating earnings, dividends

\[ g = ROE \times (1 - \text{Payout ratio}) \]

  – Only reliable if company’s current ROE remains stable
  – Estimate is dependent on the data period

• What matters is the future growth rate, not the historical growth rate
Forecasts of EPS

- Security analysts’ forecast of earnings
  - Consensus forecast superior to individual
- Time series forecast
  - Use historical data to make earnings forecasts
- Evidence favors analysts over statistical models in predicting what actual reported earnings will be
  - Analysts are still frequently wrong
Earnings Surprises

• What is the role of expectations in selecting stocks?
  – Old information will be incorporated into stock prices if market is efficient
  – Unexpected information implies revision

• Stock prices affected by
  – Level and growth in earnings
  – Market’s expectation of earnings
Using Earnings Estimates

- The surprise element in earnings reports is what really matters
- There is a lag in adjustment of stock prices to earnings surprises
- One earnings surprise leads to another
  - Watch revisions in analyst estimates
- Stocks with revisions of 5% or more - up or down - often show above or below-average performance
The P/E Ratio

• Measures how much investors currently are willing to pay per dollar of earnings
  – Summary evaluation of firm’s prospects
  – A relative price measure of a stock

• A function of expected dividend payout ratio, required rate of return, expected growth rate in dividends

\[
P/E = \frac{(D_1/E_1)}{(k - g)}
\]
Dividend Payout Ratio

• Dividend levels usually maintained
  – Decreased only if no other alternative
  – Not increased unless can be supported
  – Adjust with a lag to earnings

• The higher the expected payout ratio, the higher the P/E ratio
  – Growth rate will probably decline, adversely affecting the P/E ratio
Required Rate of Return

- A function of riskless rate and risk premium

\[ k = RF + \text{Risk premium} \]

- Constant growth version of dividend discount model can be rearranged so that

\[ k = \left( \frac{D_1}{P_0} \right) + g \]

- Growth forecasts are readily available
Required Rate of Return

• Risk premium for a stock a composite of business, financial, and other risks
• If the risk premium rises (falls), then k will rise (fall) and $P_0$ will fall (rise)
• If RF rises (falls), then k will rise (fall) and $P_0$ will fall (rise)
• Discount rates and P/E ratios move inversely to each other
Expected Growth Rate

• Function of return on equity and the retention rate
  \[ g = ROE \times (1 - \text{Payout ratio}) \]
  – The higher the g, the higher the P/E ratio

• P/E ratio depends on
  – Confidence that investors have in expected growth
  – Reasons for earnings growth
Fundamental Security Analysis in Practice

• Regardless of detail and complexity, analysts and investors seek an estimate of earnings and a justified P/E ratio to determine intrinsic value

• Security analysis always involves predicting an uncertain future and mistakes will be made and outlooks will differ
END