Equity Portfolio Management Strategies

Equity portfolio construction

- Managers analyse economy, industries and companies to estimate a stock's intrinsic value.

- Evaluate firms' strategies and competitive advantage and recommend individual stocks for purchase or sale.

Equity portfolio construction

- Computers analyse relationships between stocks and market sectors to identify undervalued stocks.

Equity portfolio construction

- Managers of equity portfolios can increase investor's wealth through their sector and asset allocation decisions.

Tactical asset allocation

- A manager acting as a market timer might split his funds into two index portfolios:
- 1. stocks
- 2. bonds

- Benefits from correctly predicting broad market movements rather than trends for individual companies.

Insured asset allocation

- Attempts to limit investment losses by shifting funds between an existing equity portfolio and a risk-free security depending on changing market conditions.

Equity portfolio management strategies

- 1. Passive management
- 2. Active management

- One way to distinguish these strategies is to decompose the total actual return that the portfolio manager attempts to produce.

Equity portfolio management strategies

- Total Actual Return = Expected Return + Alpha
- ***Passive:***
- Total Actual Return = [Risk-free rate + Risk premium]

- ***Active:***
- Total Actual Return = [Risk-free rate + Risk premium] + [Alpha]

Passive portfolio managers

- Just try to capture the expected return consistent with the risk level of their portfolios.

Active portfolio managers

- Attempt to ‘beat the market’
- Form portfolio that can produce actual returns in excess of risk-adjusted expected returns
- Difference between actual and expected returns is called portfolio’s alpha

Active portfolio managers

- Alpha represents the amount of value
- Added if positive
- Or subtracted if negative
- To the investment process.

Passive equity portfolio management

- Portfolio return will track those of a benchmark index over time.
- Indexing
- No attempt to generate alpha

Passive equity portfolio management

- Long-term buy and hold strategy
- Occasional rebalancing
- if the composition of the underlying benchmark changes
- cash distributions are to be reinvested.

Passive equity portfolio management

- Managers are judged by how well she tracks the target
- Minimizes the deviation between stock portfolio and index returns

Active equity portfolio management

- Attempts to outperform a passive benchmark portfolio on a risk-adjusted basis by seeking the “alpha” value

- Managers attempt to add alpha by
- 1. tactical adjustments (equity style or sector timing)
- 2. security selection (stock-picking)

PASSIVE EQUITY PORTFOLIO MANAGEMENT STRATEGIES

Passive management strategies

- 1. EFFICIENT MARKETS HYPOTHESIS
- Buy and hold
- Indexing

Passive Equity Portfolio Management Strategies

- Attempt to replicate the performance of an index

Passive Equity Portfolio Management Strategies

- Strong rationale for this approach
- Stock markets throughout the world are often fairly efficient
- Costs of active management (1 to 2%) are hard to overcome in risk-adjusted performance

Passive Equity Portfolio Management Strategies

- However, passive strategies are not costless to employ.
- Because of cash flows into and out of an index fund, as well as events that change the composition of the benchmark itself.
- May slightly underperform the target index due to fees and commissions

Index Portfolio Construction Techniques

- ***Full Replication***
- All securities in the index are purchased in proportion to weights in the index
- This helps ensure close tracking
- Increases transaction costs, particularly with dividend reinvestment

Index Portfolio Construction Techniques

- ***Sampling***
- Buys a representative sample of stocks in the benchmark index according to their weights in the index
- Fewer stocks means lower commissions
- Reinvestment of dividends is less difficult
- Will not track the index as closely, so there will be some tracking error

Index Portfolio Construction Techniques

- ***Quadratic Optimization (or programming techniques)***
- Historical information on price changes and correlations between securities are input into a computer program that determines the composition of a portfolio that will minimize tracking error with the benchmark
- Relies on historical correlations, which may change over time, leading to failure to track the index

Tracking Error and Index Portfolio Construction

- The goal of the passive manager should be to minimize the portfolio's return volatility relative to the index, i.e., to minimize tracking error

Tracking Error and Index Portfolio Construction

- Tracking Error Measure
  - Return differential in time period t

$$\Delta_t = R_{pt} - R_{bt}$$

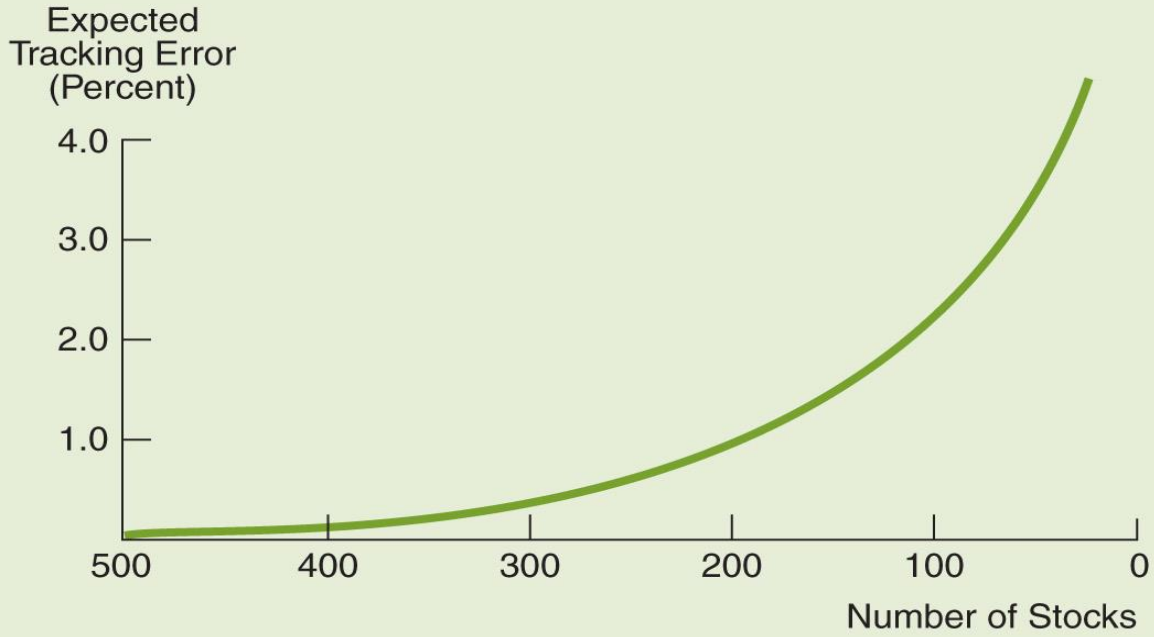
where R_{pt}= return to the managed portfolio in Period *t*

R_{bt}= return to the benchmark portfolio in Period *t*

  - Tracking error is measured as the standard deviation of Δ_t, normally annualized (TE)

Tracking Error and Index Portfolio Construction

Exhibit 15.3 Expected Tracking Error between the S&P 500 Index and Portfolios Comprised of Samples of Fewer than 500 Stocks



Source: Andrew Alford, Robert Jones, and Kurt Winkelmann, "A Spectrum Approach to Active Risk Budgeting," *Journal of Portfolio Management* 30, no. 1 (September 2003): 49–60.

Methods of Index Portfolio Investing

- ***Index Funds***
  - In an indexed portfolio, the fund manager will typically attempt to replicate the composition of the particular index exactly
  - The fund manager will buy the exact securities comprising the index in their exact weights

Methods of Index Portfolio Investing

- ***Index Funds***
  - Change those positions anytime the composition of the index itself is changed
  - Low trading and management expense ratios
  - Advantage: provide an inexpensive way for investors to acquire a diversified portfolio

Methods of Index Portfolio Investing

- ***ETFs***
  - Depository receipts that give investors a pro rata claim on the capital gains and cash flows of the securities that are held in deposit by a financial institution that issued the certificates
  - Advantage of ETFs over index mutual funds is that they can be bought and sold (and short sold) like common stock

Methods of Index Portfolio Investing

- ETFs
  - The notable example of ETFs
    - Falcom Saudi Equity ETF
    - HSBC Amanah Saudi 20
    - Falcom Petrochemical ETF

ACTIVE EQUITY PORTFOLIO MANAGEMENT STRATEGIES

Active Equity Portfolio Management Strategies

- 1. FUNDAMENTAL ANALYSIS
- a. Top down (asset class rotation, sector rotation, etc.)
- b. Bottom up (stock undervaluation / overvaluation)

Active Equity Portfolio Management Strategies

- 2. TECHNICAL ANALYSIS
- Contrarian (e.g. overreaction)
- Continuation (e.g. price momentum)

Active Equity Portfolio Management Strategies

- 3. ANOMALIES AND ATTRIBUTES
- a. Calendar effects (e.g. weekend)
- b. Information effects (e.g. neglect)
- c. Security characteristics (e.g. P/E, P/B)
- d. Investment styles (e.g. value, growth)

Active Equity Portfolio Management Strategies

- Goal is to earn a portfolio return that exceeds the return of a passive benchmark portfolio, net of transaction costs, on a risk-adjusted basis
  - Need to select an appropriate benchmark

Active Equity Portfolio Management Strategies

- Practical difficulties of active manager
  - Transactions costs must be offset by superior performance vis-à-vis the benchmark
  - Higher risk-taking can also increase needed performance to beat the benchmark

Fundamental Strategies

- Top-Down versus Bottom-Up Approaches
  - ***Top-Down***
    - Broad country and asset class allocations
    - Sector allocation decisions
    - Individual securities selection

Fundamental Strategies

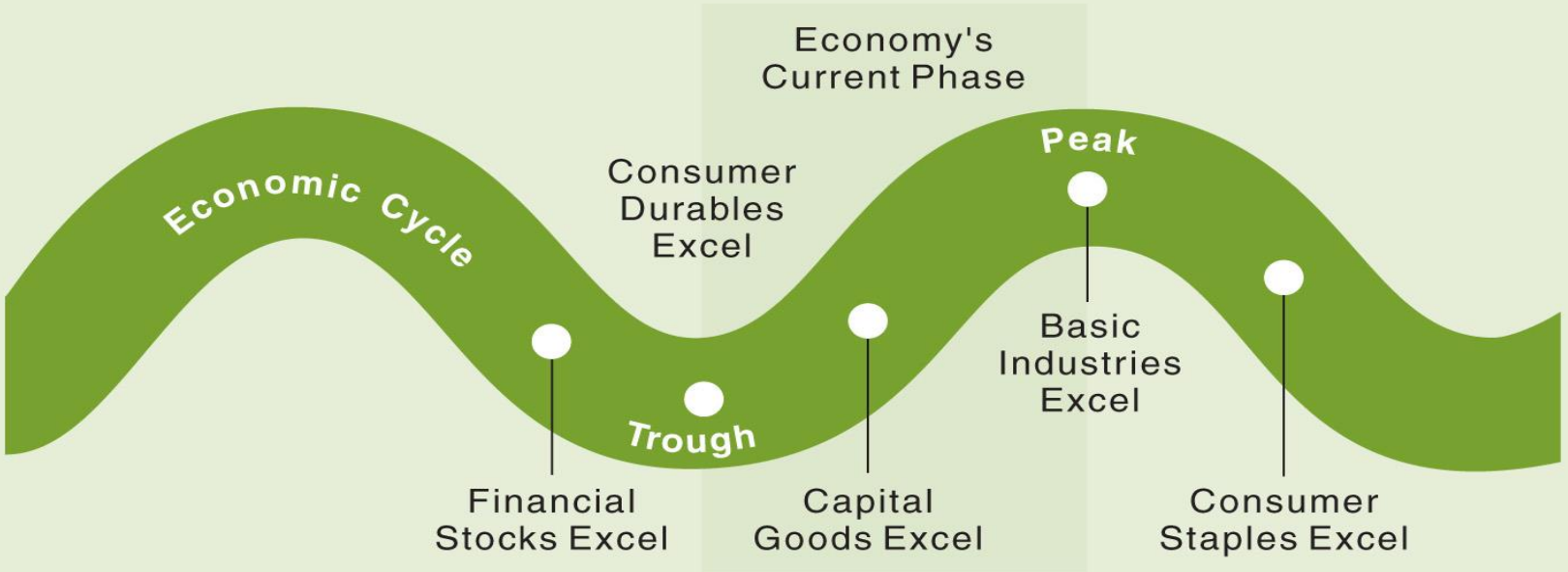
- Top-Down versus Bottom-Up Approaches
  - ***Bottom-Up***
    - Emphasizes the selection of securities without any initial market or sector analysis
    - Form a portfolio of equities that can be purchased at a substantial discount to what his or her valuation model indicates they are worth

Fundamental Strategies

- ***Three Generic Themes***
  - ***Time the equity market*** by shifting funds into and out of stocks, bonds, and T-bills depending on broad market forecasts
  - ***Shift funds*** among different equity sectors and industries (e.g., financial stocks, technology stocks) or among investment styles (e.g., value, growth large capitalization, small capitalization). This is basically the sector rotation strategy
  - Do ***stock picking*** and look at individual issues in an attempt to find undervalued stocks

The Stock Market and the Business Cycle

EXHIBIT 15.5 The Stock Market and the Business Cycle



Source: Susan E. Kuhn, "Stocks Are Still Your Best Buy," *Fortune* March 21, 1994, 140. © 1994 Time Inc. All Rights Reserved.

Fundamental Strategies:

- ***The 130/30 Strategy***
  - Long positions up to 130% of the portfolio's original capital and short positions up to 30%
  - Use of the short positions creates the leverage needed, increasing both risk and expected returns compared to the fund's benchmark
  - Enable managers to make full use of their fundamental research to buy stocks they identify as undervalued as well as short those that are overvalued

Technical Strategies

- ***Contrarian Investment Strategy***
  - The belief that the best time to buy (sell) a stock is when the majority of other investors are the most bearish (bullish) about it
  - The concept of mean reverting
  - The overreaction hypothesis
-

Technical Strategies

- ***Price Momentum Strategy***
  - Focus on the trend of past prices alone and makes purchase and sale decisions accordingly
  - Assume that recent trends in past prices will continue

Anomalies and Attributes

- ***Earnings Momentum Strategy***
  - Momentum is measured by the difference of actual EPS to the expected EPS
  - Purchases stocks that have accelerating earnings and sells (or short sells) stocks with disappointing earnings

Anomalies and Attributes

- ***Calendar-Related Anomalies***
  - The Weekend Effect
  - The January Effect

Anomalies and Attributes

- ***Firm-Specific Attributes***
  - Firm Size
  - P/E and P/BV ratios

Investment Styles

- ***Value Versus Growth***
  - A growth investor focuses on the current and future economic "story" of a company, with less regard to share valuation
  - Focus on EPS and its economic determinants
  - Look for companies expected to have rapid EPS growth

Investment Styles

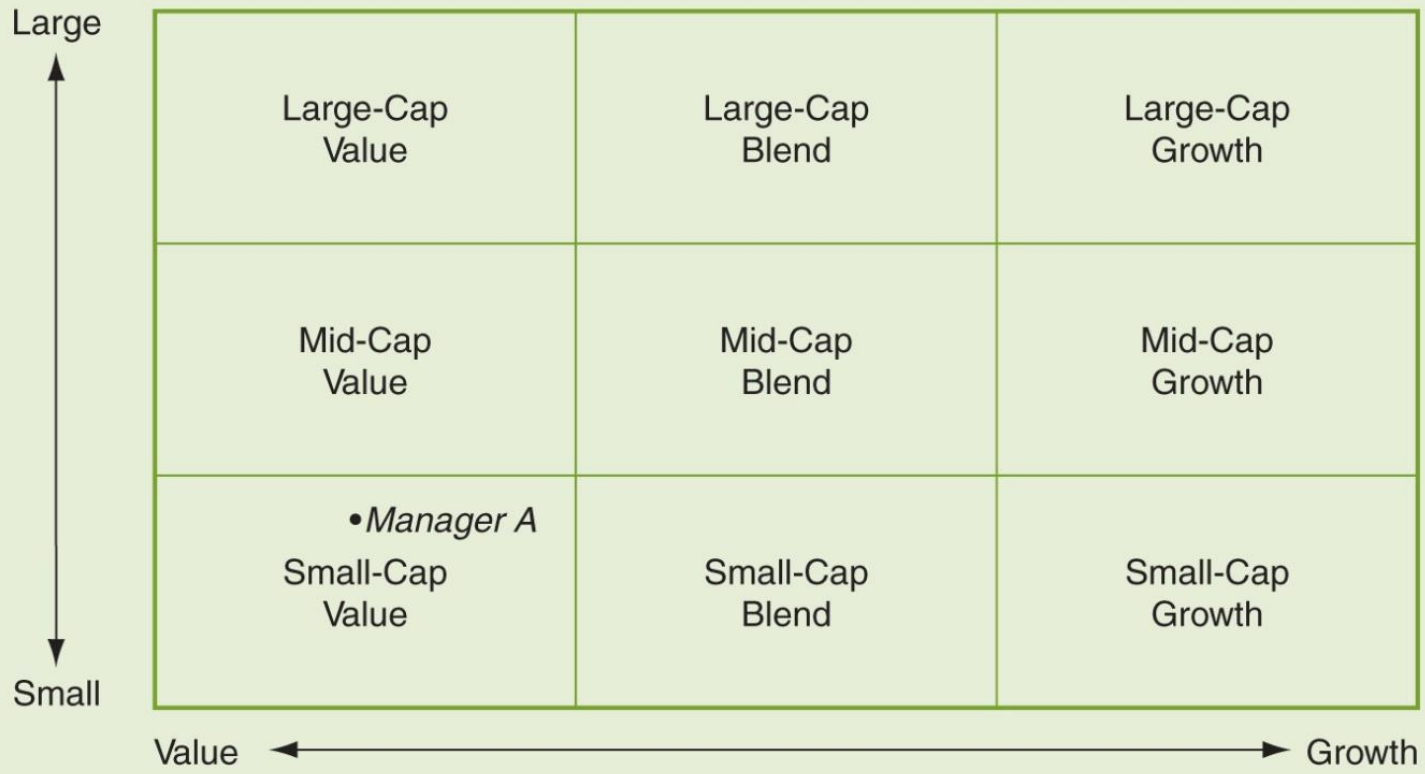
- ***Value Versus Growth***
  - Value investor focuses on share price in anticipation of a market correction and improving company fundamentals
  - Value stocks generally have offered somewhat higher returns than growth stocks, but this does not occur with much consistency from one investment period to another
  - Focus on the price component
  - Not care much about current earnings
  - Assume the P/E ratio is below its natural level

Style Analysis

- Construct a portfolio to capture one or more of the characteristics of equity securities
- Small-cap stocks, low-P/E stocks, etc…
- Value stocks (those that appear to be under-priced according to various measures)
  - Low Price/Book value or Price/Earnings ratios
- Growth stocks (above-average earnings per share increases)
  - High P/E, possibly a price momentum strategy

Style Analysis

EXHIBIT 15.14 A Style Analysis Grid



Does Style Matter?

- Choice to align with investment style communicates information to clients
- Determining style is useful in measuring performance relative to a benchmark
- Style identification allows an investor to diversify by portfolio
- Style investing allows control of the total portfolio to be shared between the investment managers and a sponsor
- Intentional and unintentional style drift

Asset Allocation Strategies

- Integrated asset allocation
  - Capital market conditions
  - Investor's objectives and constraints
- Strategic asset allocation
  - Constant-mix

Asset Allocation Strategies

- Tactical asset allocation
  - Mean reversion
  - Inherently contrarian
- Insured asset allocation
  - Constant proportion

Asset Allocation Strategies

- Selecting an Active Allocation Method
  - Perceptions of variability in the client's objectives and constraints
  - Perceived relationship between the past and future capital market conditions
  - The investor's needs and capital market conditions are can be considered constant and can be considered variable