Asset Allocation and Investment Strategy
Module Two
2009-2010 academic year

Brian Gendreau

Course description: This course will provide an introduction to portfolio management and asset allocation as practiced by fund managers. Course content will include a review of the analytical tools and models typically used in asset allocation, but will also provide an appraisal of the successes and failures of asset allocation strategies. While there will be some treatment of stock selection, the main focus will be on investment strategies involving allocation across broad asset classes.

Prerequisites: This course requires that students either be in the Master of Science in Finance program or have completed FIN 5437 and FIN 5439.

Textbooks: The principal text for this class will be Roger Gibson, *Asset Allocation: Balancing Financial Risk 4th edition*, McGraw-Hill, 2007. Some material will also be drawn from Richard Grinold and Ronald Kahn, *Active Portfolio Management: A Quantitative Approach for Producing Superior Returns and Controlling Risk, 2nd edition* (McGraw-Hill, 1999). There will also be a course packet containing articles that are required reading. (see below).

Grading: Mid-term examination (35%), final examination (50%), class participation (10%), and problem sets (5%). Power point presentations used in the lectures will be available on-line.

1. Approaches to asset allocation.

    - Strategic asset allocation: Moving onto and along the efficient frontier.
    - Tactical asset allocation: An attempt to outperform an investment index by making short-term deviations from the benchmark weights.
    - Passive investing: A program that replicates the investment weights of the benchmark index. Gibson, Introduction and Chapter 1.

2. Review of the major asset classes: Stocks, bonds, cash, alternatives, and derivatives.

    - Discussion of the four major asset allocation decisions. How much to allocate to: (1) cash, bonds, or stocks; (2) Large-cap vs. small-cap stocks; (3) domestic vs. international stocks; and (4) value vs. growth stocks. Gibson, Chapter 2.

3. Measuring portfolio returns and risk.

- Arithmetic vs. geometric means, variance, semi-variance, correlations, alpha, tracking error, the Sharpe ratio, and the information ratio.
- Diversification: How many assets need to be held to achieve it?
- Grinold's "Fundamental Law of Active Management."); Bernstein (2003); Gibson, Chapter 3.;Goodwin (1998); Grinold and Kahn, Chapters 1, 5, 6, and Appendices B and C.

4. What drives portfolio performance?

   - Does asset allocation policy explain 40%, 60%, or 100% of portfolio performance? Review of the Brinson, Hood, and Beebower (1986/1995) and Ibbotson and Kaplan (2000) results.
   - Active managers vs. closet indexers. Costa (2008); Cremers and Petajisto (2006); Gibson, Chapters 4 &5

5. The macroeconomic foundations of market performance.

   - The historical relation between the economy and asset returns. Fama and French (1989).
   - The need to forecast asset returns in tactical asset allocation. Grinold and Kahn, Chapter 10.
   - Sources of predictability of asset returns: Expected cash flows, expected market risk premium, firm risk exposure, and the term structure. [The business cycle is a common component to all four; Dahlquist and Harvey (2001).]

6. Valuation models in asset allocation.

   - Regression-based "fair value" models.
   - The earnings yield gap. Asness (2003).
   - Abnormal earnings models. Thomas and Claus (2001).
   - Dividend yield-based long horizon forecasts.
   - P/E ratios and future equity returns. Siegel (2000).
   - Valuation in practice. Grinold and Kahn, Chapter 9.

7. Asset allocation models.

   - Mean-variance optimization (including its pitfalls). Gibson, Chapters 6-9.
   - Z-score based models.
   - Country and industry allocation.

8. Value vs. growth.

   - Review of the major value and growth indices.
   - Style rotation over the business cycle. Santicchia (2005).
   - The perils of style drift in the indices.
   - The bias toward value in index construction.

9. Technical analysis.

- Popular measures of market sentiment.
- Momentum strategies.

10. The role of alternatives in asset allocation.

    - How does adding REITs, commodities, emerging markets, private equity, or hedge funds alter risk and returns in a traditional cash-bonds-equity portfolio? Gibson, Chapter 10.
    - Have alternatives lived up to their promise of higher returns and low correlations?

11. International investing.

    - The case for global investing. Sarkar and Li (2002); Heckman (2002).
    - Ways of investing abroad: ADRs, ETFs, country funds, and buying U.S. companies with large revenue streams from overseas operations.

12. Behavioral finance in asset allocation.

    - Introduction to the central concepts: Framing, anchoring, familiarity bias, hindsight bias, the snake-bite effect, herding, overconfidence, cognitive dissonance, mental accounting.
    - Useful in asset allocation mostly to avoid hidden biases. Montier (2005).

13. Asset allocation in the 21st century.

    - Demographics and capital flows: Implications of rapidly aging populations in Europe, Japan, and the United States and younger populations in the emerging markets.
    - Effect of globalization on future relative returns to labor and capital. Freedman (2006).

Required readings:

Cliff Asness, “Fight the Fed Model,” *Journal of Portfolio Management* (Fall 2003).

Peter L. Bernstein, “Points of Inflection: Investment Management Tomorrow,” *Financial Analysts Journal* (July/August 2003).

Gary Brinson, L. Randolph Hood, and Gilbert Beebower, “The Determinants of Portfolio Performance,” *Financial Analysts Journal* (July/August 1986, reprinted in January/February 1995). Available at: http://www.cfapubs.org/doi/pdf/10.2469/faj.v51.n1.1869

Vincent Costa, “Are Active Managers Active Enough?” ING Investment Management, (September 1, 2008). Available at: http://www.inginvestment.com/US/NewsandCommentary/Equity/index.htm

Martijn Cremers and Antti Petajisto, “How Active is Your Fund Manager? A New Measure that Predicts Performance.,” Yale School of Management, August 7, 2006.

Magnus Dahlquist and Campbell Harvey, “Global Tactical Asset Allocation,” *Emerging Markets Quarterly* (Spring 2001).

Eugene F. Fama and Kenneth R. French, “Business Conditions and the Expected Returns on Stocks and Bonds,” *Journal of Financial Economics* (November 1989).

Richard B. Freeman, “Labor Market Imbalances: Shortages, or Surpluses, or Fish Stories?” Boston Federal Reserve Economic Conference: *Global Imbalances – As Giants Evolve,* Chatham, MA June 14-16 2006.

Thomas H. Goodwin, “The Information Ratio*,” Financial Analysts Journal*, (July/August 1998).

Leila Heckman, “The Case for Investing Internationally,” Salomon Smith Barney (2002).

Roger Ibbotson and Paul D. Kaplan, “Does Asset Allocation Explain 40, 90, or 100 Percent of Performance?” *Financial Analysts Journal* (January/February 2000).

James Montier, “Seven Sins of Fund Management,” Dresdner Kleinwort Wasserstein (November 18, 2005).

Massimo Santicchia, Richard Tortoreillo, and Hung-Sheng (Oscar) Chen, “Disentagling the Growth/Value Paradox,” Standard & Poor’s (May 3, 2005).

Asani Sarkar and Kai L, “Should Investors Hold Foreign Stocks?” Federal Reserve Bank of New York *Current Issues in Economics and Finance* (March 2002).

Jeremy Siegel, “The Rise in Stock Valuations and Future Equity Returns,” *Journal of Investment Consulting* (Summer 2000).

Jacob K. Thomas and James Claus, “Equity Premia as Low as Three Percent? Evidence from Analysts’ Forecasts for Domestic and International Stock Markets,” *Journal of Finance* (October 2001).