Course outline

Advanced Topics in Finance

(preliminary, current version May 03rd, 2007)

Program: NES MS

Course: Portfolio Theory

Lecturer: Andrei Simonov

Location and Dates:

Classes are planned to be Tuesdays and Thursdays 11.45-13.15 in room 521.

Summary:

The Portfolio Theory course will make students familiar with set of issues related to modern portfolio management. We will cover the wide range of topics, starting from classical mean-variance portfolio theory, tactical asset allocation and volatility trading to hedge funds strategies. The emphases are on practicalities of portfolio choice and portfolio management. We will cover five different cases that show you number of issues in practice.

Literature:

There is no textbook. The course is based on the set of articles I am posting on the web (<u>http://andreisimonov.com/Msk07/index1.htm</u>). Most of the material is available in PDF form. The few others only in paper form, sorry... Mandatory readings is marked with **X**. The rest is going to be covered in class. Please note: some of those papers are quite involved. But what I want from you is to understand the issues and not the econometric nitti-gritti.

Cases:

Five cases have to be done by students *individually*. I expect decent analysis of situation at hand (think about consulting report or the recommendation you submit to the client). Data to be analyzed will be provided. Due dates are on the web.

Topics:

- 1. Portfolio choice (classes 1-3):
 - o Utility theory and mean-variance preferences
 - Representation of risk by variance
 - Risk tolerance and asset allocation
 - Portfolio optimization
 - Domestic diversification
 - Index funds
 - International Diversification
 - o Pitfalls in Portfolio constructions
 - o Taxes
 - Application: Pension reform (see OTPPB case)
- 2. Risk Premium and Asset Pricing Models (classes 4-6)
 - State of asset pricing theory (CAPM, APT, international asset pricing models)
 - Identifying factor
 - Small stocks and Value Premia (see DFA case)
 - Factors vs. attributes
 - What is equilibrium Risk Premia?
 - o Black-Litterman Approach: Beyond Equilibrium
- 3. Tactical Asset Allocation (classes 7-9)
 - Are expected returns predictable?
 - o US and International evidence.
 - Statistical and econometric issues
 - Example: Dividend yield as predictor (Fast Forward case)
 - o Econometric techniques used for modeling volatilities and correlations.
 - o Statistical properties of volatility
 - Higher moments: Skewness and Kurtosis

- 4. EMH & Mechanics and Pitfalls of Information Processing (class 10)
 - Information in financial markets.
 - Application to PEAD
 - Analysts' recommendations: are they worth anything?
 - o Market reaction on analyst recommendation.
- 5. Hedge funds and market neutral investments (classes 11-12)
 - o Events arb
 - Fixed income arbitrage
 - o M&A Arb (see Abbott Lab case)
 - o Risk controls
- 6. Investor Sentiment and Risks (classes 13-14)
 - o Investors' sentiment and the effects on risk (see Royal Dutch/Shell case)
 - Framing, overconfidence, prospect theory
 - o Implications for investment industry

Grading:

The grade will be based on five cases with equal weight (total of 90%) plus 10% for class participation. Generally, I try to give the cases back during next class.

Appeal: You can appeal your grade within 5 days of grade announcement. For this, please submit short written memo pointing out where exactly I am wrong and why.

Make-up: For the ones who missed submission deadline for serious (medical and alike) reason, I will offer make-up cases. In all other instances, 0 points will be recorded as grade for particular case.

Mapping to letter grades: FAIL (F, "2"): >50%, PASS(C, "3", "TROIBAN"): 50-69.99%, GOOD(B, "4"): 70%-89.99%, EXCELLENT (A, "5"): >90%

More information:

Course policies, grading, appeal rules, etc. are on the web (<u>http://andreisimonov.com/Msk07/index1.htm</u>). If you have questions, please ask!

Office Hours:

- My office will be at NES. The phone no will be posted here before first class.
- My default office hours will be 1 hour before class. I am ready to meet you in person if necessary outside of those hours. Please make an appointment.
- My email is <u>andrei.simonov(AT)hhs.se</u>
- my Skype is **I'm online**

• my ICQ

Teaching Assistant:

Danila Deliya (ddeliya@gmail.com). Office hours: TBA