Asset Allocation, A Strategic & Tactical Approach

Instructor Information

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Course Information

- FRE GY 6991
- Asset Allocation, a Strategic & Tactical Approach
- Time & Place: As Announced in Albert

Course Overview and Goals

The essence of investment is timing. But no investor has the crystal ball to choose the right time to invest or to allocate the capital among various asset classes. Many large institutional investors such as pension funds, which have future liabilities towards their members, need to come up with investment schemes to optimize the return of their assets to meet the liabilities. The board of a pension fund using the historical parameters such as return, volatility, and correlation of assets develops an efficient frontier to come up with strategic weights for various assets of the portfolio. The static weighting scheme is hoped to remove the timing and discretionary risks of its investment managers. Research has shown that more than 80% of the return of a portfolio can be due to Asset Allocation, i.e., allocating the investment capital to Equities, Fixed Income, Commodities and their subclasses. To take advantage of the mean reversing nature of assets, the investor incorporates rebalancing process and bands. Sometime, a pension fund allows some flexibility in the management of the fund. In that case, the fund can potentially incorporates tactical asset allocation, i.e. dynamic weights vs. static weights within the guidelines of fund. Availability of data and computer power, as well incorporation of AI may provide opportunity to enhance the performance of the fund by making better dynamic allocation.

Upon completion of this course, students will learn about static and dynamic asset allocation, some aspects of asset liability management (ALM), rule based
allocation incorporating macro, fundamental, technical and valuation factors, and optionality embedded in asset allocation schemes.

Course Requirements

- Courses in Investment, Probability and Statistics, working knowledge of EXCEL and high level language such as R or Python

Class Participation

Lectures

Assignments
There will be weekly assignments dealing with actual situations in the market

Tests & Quizzes
There will be a final project

Assigned Readings
Articles will be posted regarding current events in the financial markets and their relevance to the topics being covered in the course.

Grading of Assignments
The grade for this course will be determined according to the following formula:

<table>
<thead>
<tr>
<th>Assignments/Activities</th>
<th>% of Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>60%</td>
</tr>
<tr>
<td>Project</td>
<td>40%</td>
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Letter Grades
Letter grades for the entire course will be assigned as follows:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Percent</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>95% and Higher</td>
</tr>
<tr>
<td>A-</td>
<td>90%-95%</td>
</tr>
<tr>
<td>B+</td>
<td>85%-90%</td>
</tr>
<tr>
<td>B</td>
<td>80%-85%</td>
</tr>
<tr>
<td>B-</td>
<td>75%-80%</td>
</tr>
<tr>
<td>C+</td>
<td>70%-75%</td>
</tr>
<tr>
<td>C</td>
<td>60-70%</td>
</tr>
<tr>
<td>F</td>
<td>Less than 60%</td>
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</table>

Course Schedule

Topics and Assignments

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Assignment Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fundamentals of Asset Allocation</td>
<td>Sunday, two weeks from the lecture</td>
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<tr>
<td></td>
<td>Asset Classes and their properties</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rebalancing of a portfolio</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Macroeconomics &amp; Business Cycle</td>
<td>Sunday, two weeks from the lecture</td>
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<tr>
<td></td>
<td>Central Bank actions and their impact on different asset classes,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>their returns, risks, and correlations</td>
<td></td>
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</tbody>
</table>
Fixed Income instruments and their relations to other assets during business cycle

Equities, and valuation

FX and central bank actions, Purchasing power parity

Elements of Tactical Asset allocation; role of options

Students Presentation

Required Textbooks & Material
Will be provided

- Access your course materials: NYU Classes (nyu.edu/its/classes)
- Obtain 24/7 technology assistance: Tandon IT Help Desk (soehelpdesk@nyu.edu, 646.997.3123)
  NYU IT Service Desk (AskIT@nyu.edu, 212-998-3333)

Policies

Academic Misconduct

A. Introduction: The School of Engineering encourages academic excellence in an environment that promotes honesty, integrity, and fairness, and students at the School of Engineering are expected to exhibit those qualities in their academic work. It is through the process of submitting their own work and receiving honest feedback on that work that students may progress academically. Any act of academic dishonesty is seen as an attack upon the School and will not be tolerated. Furthermore, those who breach the School's rules on academic integrity will be sanctioned under this Policy. Students are responsible for familiarizing themselves with the School's Policy on Academic Misconduct.

B. Definition: Academic dishonesty may include misrepresentation, deception, dishonesty, or any act of falsification committed by a student to influence a grade or other academic
evaluation. Academic dishonesty also includes intentionally damaging the academic work of others or assisting other students in acts of dishonesty. Common examples of academically dishonest behavior include, but are not limited to, the following:

1. Cheating: intentionally using or attempting to use unauthorized notes, books, electronic media, or electronic communications in an exam; talking with fellow students or looking at another person’s work during an exam; submitting work prepared in advance for an in-class examination; having someone take an exam for you or taking an exam for someone else; violating other rules governing the administration of examinations.

2. Fabrication: including but not limited to, falsifying experimental data and/or citations.

3. Plagiarism: Intentionally or knowingly representing the words or ideas of another as one’s own in any academic exercise; failure to attribute direct quotations, paraphrases, or borrowed facts or information.

4. Unauthorized collaboration: working together on work that was meant to be done individually.

5. Duplicating work: presenting for grading the same work for more than one project or in more than one class, unless express and prior permission have been received from the course instructor(s) or research adviser involved.

6. Forgery: altering any academic document, including, but not limited to, academic records, admissions materials, or medical excuses.

Disability Disclosure Statement

Academic accommodations are available for students with disabilities. Please contact the Moses Center for Students with Disabilities (212-998-4980 or mosecsd@nyu.edu) for further information. Students who are requesting academic accommodations are advised to reach out to the Moses Center as early as possible in the semester for assistance.

Inclusion Statement

The NYU Tandon School values an inclusive and equitable environment for all our students. I hope to foster a sense of community in this class and consider it a place where individuals of all backgrounds, beliefs, ethnicities, national origins, gender identities, sexual orientations, religious and political affiliations, and abilities will be treated with respect. It is my intent that all students’ learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. If this standard is not being upheld, please feel free to speak with me.