BMA5323 Applied Portfolio Management: Security Analysis and Valuation  
SEM 1, 2015 – Course Syllabus (Version 2)

Instructor: Joseph Cherian  
Email: bizjc@nus.edu.sg  
Section: Tuesday 6pm – 9pm, CAMRI Lab, 3rd Floor, BIZ 1 (MRB)  
TA: Mr Shao Yuping <yuping.shao@u.nus.edu>

Course Description: This Advanced Seminar in Portfolio Management module will serve as a comprehensive real world examination of the quantitative, fundamental, behavioral, and model-based approaches utilized for performing security valuation & portfolio management in the financial industry. Major topics covered include Relative Valuation, Multifactor Models, Liquidity and Value Enhancement Strategies. Lectures will involve frequent interaction with practitioners from the industry, hands-on lab projects, and real-life examples. Students are also expected to research, write, and publish equity investment reports (preferably on Asian companies with limited research analyst coverage) and/or portfolio investment strategies. These individual equity reports and a presentation in the form of a team-based stock pitch could subsequently be presented by the students to a panel of senior members from the Singapore investment management industry so as to showcase & ascertain students’ equity research and stock-picking skills. There may also be an opportunity to put your skills to the test and manage real money (i.e., a live CAMRI Student Managed Fund) during the course of the semester. Students will be divided into sector teams and their fundamental analysis & recommendations (appropriately formatted) will be incorporated into the CAMRI Student Managed Fund portfolio optimization process. This course is suitable for students interested in a career as a financial analyst (both on the buy-side and sell-side), or as a portfolio manager.

1. Multifactor Models (MFM) in Portfolio Management
   • Economic rationale for MFM
   • Types of models – APT, Relative Valuation, Fundamental
   • Diversification of themes
   • Testing for efficacy, monotonicity, transitions, downside risk

2. Behavioral Finance
   • Anchoring, over and under-reaction, overconfidence, loss aversion
   • Herding
   • Mental accounting
   • Confirmation and Hindsight Bias

3. Liquidity and Asset Prices
   • How we define and measure liquidity
   • How liquidity affects valuation of asset prices
   • Flight to liquidity versus flight to quality

4. Hedge funds and Alternative Investments
   • Investment strategies

DATED: 11 June 2015
Performance and risk management, particularly evaluating downside risk

5. Reading Materials

- Investment Valuation (Revised and Updated), by Aswath Damodaran (AD), 3rd University Ed., Wiley Finance, 2012. This text serves as the primary reference guide.
- CAMRI’s guide for new users of Bloomberg is available by clicking here. More Bloomberg resources are available here for you to download
- Barra resources are available for you to download (password-protected). You can also view the Barra Training Video. Lastly, click here for a CAMRI-developed Guide to Barra Aegis Portfolio Manager and a CAMRI-developed Guide to Barra Aegis Performance Analyst
- The course will also have my overheads & various current articles distributed via IVLE.

Learning Outcomes

- In-depth knowledge of distinct security valuation approaches
- Methodologies & models used in theory and in practice - Relative Valuation, Multifactor Models, and Value Enhancement Strategies, Behavioral Finance.
- How liquidity affects valuation
- Ability to value various assets and stochastic cash flows related to the firm (decision-making under conditions of uncertainty)
- Hands-on computational finance, risk & portfolio management, and trading abilities

Students are expected to:

1. Research, write, and publish investment reports (preferably on companies with limited research analyst coverage) using both quantitative and fundamental techniques
2. Perform live & backtested portfolio investment strategies to develop equity research and stock-picking skills using financial applications such as Bloomberg and Barra
3. Perform portfolio optimization and risk management routines and analysis
4. Explore the latest thinking in investment management systems and processes

CAMRI Lab: Located at Level 3 of BIZ 1 (MRB), the CAMRI Investment Management & Trading Lab enhances students’ portfolio research & management experience and activity. The Lab has 31 student workstations + 1 Instructor workstation, Bloomberg live feeds, live financial data tickers, investment and risk management software modules, and various other trading and portfolio management software
applications. The aim is to enable NUS Business School students to have first-hand experience and training with the best tools available to the professional investment community, and as a result, best prepare them for the investments, financial, and wealth management job markets. Financial Software & Datasets available in the CAMRI Lab include: **Bloomberg** and **Barra** installed on all the 32 PCs. (*Bold* indicates students should have acquired deep knowledge of these software by semester’s end.) For the weblinks and downloadable training materials on the aforementioned software, please visit:

**SMF Website:** [http://bschool.nus.edu/CAMRI/StudentManagedFund.aspx](http://bschool.nus.edu/CAMRI/StudentManagedFund.aspx)

**NUS Recess Week is from September 19 – 27, 2015**

**The Midterm Quiz is on 27 October 2015. There is no Final Exam in this class.**

**GUEST SPEAKERS:** We will have numerous guest speakers from the portfolio management, trading, asset allocation, external manager selection, back office operations and private equity industry sharing with us what their average day is like.

**Grading:**

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Type</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Midterm Quiz (Oct 27th – in class)</td>
<td>40</td>
</tr>
<tr>
<td>1</td>
<td>Case</td>
<td>10</td>
</tr>
<tr>
<td>1</td>
<td>Fundamental Equity Research Report 1</td>
<td>10</td>
</tr>
<tr>
<td>1</td>
<td>Fundamental Equity Research Report 2</td>
<td>10</td>
</tr>
<tr>
<td>1</td>
<td>Class Participation</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>100</strong></td>
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Also visit past Student Equity & Trading Reports available at the CAMRI website:


**Potential HBS Cases:**

1. Dimensional Fund Advisors, 2002 – Case No: 9-203-026
2. Smith Breeden Associates: The Equity Plus Fund (A) – Case No: 9-297-089
APPENDIX A

ACADEMIC HONESTY & PLAGIARISM – A WORD FROM YOUR SPONSOR

Academic integrity and honesty is essential for the pursuit and acquisition of knowledge. The University and School expect every student to uphold academic integrity & honesty at all times. Academic dishonesty is any misrepresentation with the intent to deceive, or failure to acknowledge the source, or falsification of information, or inaccuracy of statements, or cheating at examinations/tests, or inappropriate use of resources.

Plagiarism is ‘the practice of taking someone else's work or ideas and passing them off as one's own' (The New Oxford Dictionary of English). The University and School will not condone plagiarism. Students should adopt this rule - You have the obligation to make clear to the assessor which is your own work, and which is the work of others. Otherwise, your assessor is entitled to assume that everything being presented for assessment is being presented as entirely your own work. This is a minimum standard. In case of any doubts, you should consult your instructor.

Additional guidance is available at:

http://www.nus.edu.sg/registrar/adminpolicy/acceptance.html#NUSCodeofStudentConduct

Online Module on Plagiarism:

http://emodule.nus.edu.sg/ac/
APPENDIX B

All students are encouraged to also take the following courses in SEMS 1 or 2, which is part of the Student Managed Fund Track at CAMRI and taught by former senior fund managers, chief investment officers and/or captains of the investments industry. They are now adjunct professors at CAMRI:

CAMRI-proposed MBA classes if you are interested to find a job in the asset management industry!

<table>
<thead>
<tr>
<th>Asset Management</th>
<th>Module No</th>
<th>Core or Elective Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Management</td>
<td>BMA5008</td>
<td>Core</td>
</tr>
<tr>
<td>Managerial Economics</td>
<td>BMA5001</td>
<td>Core</td>
</tr>
<tr>
<td>Financial Accounting</td>
<td>BMA5003</td>
<td>Core</td>
</tr>
<tr>
<td>Management Accounting</td>
<td>BMA5005</td>
<td>Core</td>
</tr>
<tr>
<td>Macroeconomics in the Global Economy</td>
<td>BMA5011</td>
<td>Core</td>
</tr>
<tr>
<td>Value Investing in Asia (Equities focus)</td>
<td>BMA5324</td>
<td>Elective</td>
</tr>
<tr>
<td>International Finance</td>
<td>BMA5325</td>
<td>Elective</td>
</tr>
<tr>
<td>Applied Security Analysis and Valuation Workshop (Equities focus)</td>
<td>BMA5331</td>
<td>Elective</td>
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<tr>
<td>Investment Analysis and Management (Equities focus)</td>
<td>BMA5302</td>
<td>Elective</td>
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<tr>
<td>Fund Management (Multi-asset class / Asset Allocation focus)</td>
<td>BMA5309</td>
<td>Elective</td>
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<tr>
<td>Private Equity (PE focus)</td>
<td>BMA5313</td>
<td>Elective</td>
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<tr>
<td>Special Topics in Private Equity (PE focus)</td>
<td>BMA5313D</td>
<td>Elective</td>
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<tr>
<td>Valuation and Mergers &amp; Acquisitions (Corporate finance / M&amp;A focus)</td>
<td>BMA5313A</td>
<td>Elective</td>
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<tr>
<td>Topics in Finance : Trading and Investing in Commodities</td>
<td>BMA5330</td>
<td>Elective</td>
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<tr>
<td>Macroeconomics &amp; Finance: Perspectives From Asia</td>
<td>BMA5122</td>
<td>Elective</td>
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<tr>
<td>Family Business and Wealth Management</td>
<td>BMA5327</td>
<td>Elective</td>
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NOTE 1: Also open to select and a limited number of MBA Students, a 4MC course: FIN 4118 Equity Research Seminar (BBA Hons module) taught by Prof James Cheng.

NOTE 2: I also strongly recommend you register for and take the CFA (Levels I, II and III) and CAIA (Levels I and II) exams if you are seriously interested in the asset management industry.

DATED: 11 June 2015