

## Topics in Investment Management, BAFI519 Full Time MBA Program Period 6 (January/February), 2022

Instructor: Adlai Fisher, <u>adlai.fisher@sauder.ubc.ca</u> Meeting Times: Monday and Wednesday, 10-12, makeup class Friday January 7, 10-12 Venue: Zoom initially, return to in-class as permitted Office hours: after class or by appointment Website: Canvas

#### I. Course Description, General

The area of finance relates to how and why individuals and institutions buy and sell claims to real assets. As a special topics course, priority will be given to advancing quickly to the frontiers of knowledge in one or more specialized areas of finance. We emphasize recently emerging topics, research findings, and areas gaining prominence in industry that are not yet covered elsewhere in the students' curriculum. Primary resources and methods will be the study of working papers, journal articles, and industry publications that develop new ideas, consideration of real-world examples and current events, and student-led, data-driven implementation of financial strategies. The topics covered in this course will vary according to the background and interests of students and instructor and changes in the field of finance.

## II. Details for this Section: Methods, Topics, and Learning Objectives

The primary focus of the course this year will be *thematic investing*: the idea of targeting specific long-term structural changes in the economy to help guide investment portfolio construction. This is a topic that should be accessible and tailored to the abilities of a wide range of MBA students, including those focusing on finance but also strategy, marketing, generalists, or other areas. Your primary deliverable for the course will be to develop a thematic investing proposal in a group project.

Additional topics that we will develop, and that will provide context for better understanding thematic investing, will be:

- Asset allocation and the role of modern portfolio theory (mean-variance analysis).
- Factor investing:
  - Empirical factors (e.g., size, value)
  - Macro factors (e.g., GDP, inflation)
- Quantitative finance/algorithmic trading: We will learn to automatically download

finance data from web sources and implement basic quantitative trading strategies using the programming language Python. Don't be scared off by this, even if you have no programming background. This will be at an introductory level, broadly accessible, but hopefully enough to give you an idea how some market participants implement strategies.

- Behavioural finance.
- Fundamental investing / valuation (as necessary to complete our course project, depending on backgrounds of students)

A rough outline of topics follows:

- Week 1-2: Introduction to thematic investing; comparison with traditional asset allocation / modern portfolio theory implementation
  - The roles of data and quantitative analysis vs. qualitative analysis
  - Asset allocation with historical data in Excel
  - TI thesis brainstorming, group formation, and thesis development
  - Modern portfolio theory implementation and critiques
- Week 3: TI proposals, factor models and factor investing
  - Thematic investing project proposals / short presentations
  - Factor models and factor investing
  - Fama-French model; other empirical factors (e.g., momentum, beta, volatility)
  - Performance measures and implementation
- Week 4: Python introduction and implementation of quantitative trading strategies
  - Sourcing data and calculating portfolio returns in Python; properties of returns; momentum, investment, and other strategies
  - Individual writing assignment proposals (feedback only)
- Week 5: More quantitative trading strategies and foundations
  - TI/group final project outlines (feedback only)
  - Additional Python implementation
  - Macro factors
  - Behavioural finance
  - Discussion of additional topics (screening, fundamental valuation) as needed to complete projects
- Exam week
  - Presentation of group projects and group project final memoranda due (at scheduled exam time)
  - Individual writing assignments due (at end of week)

The learning outcomes of the course are:

• Understand the roles, objectives, and strategies of different types of investors and traders.

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- Evaluate the potential benefits and risks of different investment and trading strategies.
- Contribute to developing and/or implementing new investment and trading strategies.
- Explain one's analysis and conclusions to other investment professionals and potential clients.

## III. Student Work and Evaluation

<u>Class/group project (approximately 50% total; 10 pts proposal, 40 pts final)</u>: Your group project (2-3 students per group) will be to develop an investment theme and follow this theme through to recommended investments. The steps will be:

- Develop a theme. Why is it important? Interesting? What is the time horizon over which you expect it to develop?
- Critically evaluate the theme: is it already a "crowded" space? If so, are there angles on the theme (second order, third order) that might not be as well recognized or popular?
- Identifying the opportunity: Explain why there is an opportunity. Is this an instance of a growth area that is unrecognized? Misplaced or excessive fear driving down valuations?
- Accessing the theme: How can you invest in the theme? Broad instruments such as asset classes or ETF's? Individual companies?
- Screening: To establish a common objective for everyone and to go through a company level investment analysis, aim to identify 2-3 "top picks," or individual companies that you would recommend based on your theme and view of valuation. The screening process can start at a high level with a broad set of companies in a given industry, country, etc. Identify criteria based on your theme. Then narrow your focus to a smaller set by applying additional criteria: data availability, size, presence of other catalysts, etc. Finally, for a small group use standard valuation methods (multiples, discounted cash flow) to provide an additional criterion for your investment recommendation.
- Identify the role of your thematic view in your investment decision. This is a higher level of analysis. The objective is to be explicit about how your thematic view relates to your investment recommendation through valuation. Do you forecast higher growth than consensus views, or lower discount rates, and how does this relate to the insights of your theme?
- Risk: What risks does this theme expose one to? There is the obvious risk of the theme not materializing, but look at risk in other ways: e.g., market risk (beta), value vs growth exposure, macro exposures. Understanding the risk exposures of your recommended investment is important when your investments are part of a larger portfolio.



**ROBERT H. LEE** GRADUATE SCHOOL Syllabus

For the final project each team will submit a written report and make a final presentation. Evaluation of the projects will be based on:

- 1) Appropriateness and interest of the topic
- 2) Demonstrated understanding of the context and relevant literature
- 3) Ambitious sourcing and use of data
- 4) Appropriateness of methodology and implementation
- 5) Interpretation of results
- 6) Communication, both written and verbal

The group project will consist of a 3-5 page written memorandum (not including attachments), as well as a final presentation, or "pitch", for the theme in lieu of a final exam.

<u>Individual essay (Approximately 25% weight):</u> Write an individual essay on a topic of your choosing related to the course. The objective will be to learn on your own more about a topic of interest. The essay will be 3-4 pages in length, and will be based on a minimum of 5-7 readings (more is ok). At least three readings must be "academic", and at least one reading must be from the popular press or industry. You must add your own perspective, not simply summarize the opinions of the background articles. Explain why the topic is important; relate the articles you have read to one another and to current events; conjecture about future research or investigations that could help to shed more light on the topic. It is ok if the topic you choose for your individual essay is related to your team project, but this is an opportunity for you to broaden your understanding of investment topics, so feel free to range outside of things you have already worked on.

The default for this assignment is a pure writing assignment/essay, but other variations may be possible and interesting – feel free to discuss with me if you have ideas but these could include quantitative applications of methods relevant to the course, or extensions of class exercises or homeworks that you wish to explore. I will discuss possibilities in class.

<u>Other</u>: The remainder of the course grade will be based on participation (typically 10%) and any individual graded homework assignments (expect two for 15% total).

#### **IV. Course Materials**

Primary course materials (lecture notes, sample data, sample programs) will be available on Canvas. All lectures/classes will be synchronous, whether online or in person. Classes will be recorded to the best of my ability, but you are strongly encouraged to be present during scheduled class time unless extenuating circumstances arise.

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To participate in the quantitative trading exercises shown in class you will need a reliable computing platform with Python installed. I will use Python 3.9 provided by Anaconda at <a href="https://www.anaconda.com/distribution/">https://www.anaconda.com/distribution/</a>. The sample code used in the course has been developed on this distribution, and it is recommended you use the same.

Accessing journal articles will be very useful in this course. When searching for journal articles on a particular topic Google Scholar is a great resource, and provides links to articles. The UBC library has subscriptions to all major journals. Please be aware that you will need to have a UBC VPN set up when accessing library resources from off campus. The library home page has additional information on setting up a VPN if you have not already done this.

#### V. Policies

i. Late assignments not accepted following RHL policy.

ii. This is a course where data and computation are important, so for online classes you are encouraged to setup your screen(s) in a way that allows you to work in Excel or other programs (e.g., browser, Python) while maintaining your Zoom screen, and for in person classes laptop use relevant to the course is permitted.

iii. Academic concessions follow RHL policy. <u>https://webforms.sauder.ubc.ca/academic-concession-rhlee</u>.

iv. Academic misconduct of any kind is not worth it. Academic misconduct has serious consequences, and students are responsible for understanding academic misconduct policies. See the <u>UBC Policy on Academic Misconduct</u>.

In particular, use appropriate citation in both writing and coding. If you are having trouble distinguishing where others' ideas end and yours begin, please ask me. We all use others ideas and work, but we give proper attribution.

For homework and projects, I give allowances to work with others when it is appropriate for learning. Please do not go beyond the level of collaboration specified for a particular assignment. Consult with me if you think additional cooperation with classmates could improve learning.

v. RHL policy on citations is for APA standard but unlike APA I do not need page numbers unless the reference is a book or a direct quotation from any source. You can also use standards from any major finance or economics journal and I will be fine with that. vi. RHL policies are summarized here.

vii. Copyright: All course materials including recordings of class are covered by copyright, and must not be reproduced without authorization of the instructor.

viii. UBC policies, developed by UBC Senate: UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions. Details of the policies and how to access support are available on the UBC Senate website at <u>https://senate.ubc.ca/policies-resources-support-student-success</u>.

ix. UBC policies, Covid and academic freedom, developed by Provost's Office: During this pandemic, the shift to online learning has greatly altered teaching and studying at UBC, including changes to health and safety considerations. Keep in mind that some UBC courses might cover topics that are censored or considered illegal by non-Canadian governments. This may include, but is not limited to, human rights, representative government, defamation, obscenity, gender or sexuality, and historical or current geopolitical controversies. If you are a student living abroad, you will be subject to the laws of your local jurisdiction, and your local authorities might limit your access to course material or take punitive action against you. UBC is strongly committed to academic freedom, but has no control over foreign authorities (please visit http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,33,86,0 for an articulation of the values of the University conveyed in the Senate Statement on Academic Freedom). Thus, we recognize that students will have legitimate reason to exercise caution in studying certain subjects. If you have concerns regarding your personal situation, consider postponing taking a course with manifest risks, until you are back on campus or reach out to your academic advisor to find substitute courses. For further information and support, please visit: http://academic.ubc.ca/supportresources/freedom-expression.

x. Sauder School of Business Statement on Equity, Diversity, and Inclusion: *The UBC Sauder School of Business strives to promote an intellectual community that is enhanced by diversity along various dimensions including status as a First Nation, Metis, Inuit, or Indigenous person, race, ethnicity, gender identity, sexual orientation, religion, political beliefs, social class, and/or disability. It is critical that students from diverse backgrounds and perspectives be valued in and well-served by their courses. Furthermore, the diversity that students bring to the classroom should be viewed as a resource, benefit, and source of strength for your learning experience. It is expected that all students and members of our community conduct themselves with empathy and respect for others.*