



Northwestern University

Asset Management Practicum IV

Finance 936

Spring 2014

Wednesday, 6:30 pm – 9:30 pm

Jacobs Center 165

Professor Linda Vincent

Jacobs 6250

(847) 491-2659

l-vincent@kellogg.northwestern.edu

Asset Management Practicum IV

(March 25, 2014 – Subject to Change)

AMP IV (FINC 936) is the final quarter of a four quarter sequence in asset management. This class meets jointly with AMP I (FINC 933). It is open only to students who have completed at least two quarters of AMP I, II, and III.

Information about the course and all course-related documents are on the Blackboard site with the title “Kellogg Asset Management Practicum.”

Additional information about the course is available at:

http://www.kellogg.northwestern.edu/asset_management/index.htm

Office hours: If you would like to set up an appointment, please email me at l-vincent@kellogg.northwestern.edu and I will be happy to meet with you.

Teaching Assistants: The course teaching assistants are:

Andreas Neuhierl a-neuhierl@kellogg.northwestern.edu

Selwyn Yuen s-yuen@kellogg.northwestern.edu

Overview of AMP IV

AMP I and AMP IV meet together. Some AMP IV students serve as the portfolio managers for the portfolios and some serve as analysts, depending on their roles in prior quarters. As the senior members of the portfolio teams, AMP IV students will take the lead in managing the portfolios and in developing the AMP I students to assume responsibility for the portfolios. All AMP I students will “shadow” the portfolio managers for their assigned portfolio and learn the responsibilities and operational duties of the PMs. In particular, the AMP IV students should help familiarize the AMP I students with software and

procedures so that they can take over investment committee responsibilities at the end of the quarter. Portfolio assignments are provided in a separate document available on Blackboard.

Portfolio managers are responsible for decisions about the positions taken in the portfolio, based on the analyses provided by the equity analysts. These decisions include whether to take a position in a security and, if so, how large a position, as well as when to add to a position, decrease a position, or close out a position. Investment committee members evaluate all analyst recommendations together with the rest of the class.

The portfolio managers also provide the portfolio updates. **Attachment I** provides guidelines for the portfolio updates. Each portfolio will present an expanded update on the first night of class on April 2. The annual Advisory Board Meeting on May 21 requires preparation of a detailed analysis of each portfolio's performance and holdings.

Each AMP IV analyst will present one pitch and at least one stock update during the quarter on 1 - 4 stocks identified by the portfolio managers of the portfolio. Additional updates are welcome; please schedule with the instructor.

Research Report. AMP IV portfolio managers will present a research report during the final class period on June 4. Requirements for the research report are provided in **Attachment V**. Please discuss your proposed topic with the instructor as early in the quarter as possible. All topics must be preapproved by the instructor.

Traders. One or more of the portfolio managers for each fund must be designated as traders. Please let the instructors know who will be trading. Traders are responsible for determining the optimal trading strategies in order to minimize the implementation shortfall due to order execution; advising portfolio managers on the appropriate execution strategies; and devising pre-trade estimates and post-trade evaluation of execution costs. Traders must be familiar with trading procedures (e.g., Triton at ITG, our executing broker, and Goldman Sachs, our prime broker) and must maintain a cumulative record of trades as outlined in the trade data spreadsheet (on the course website in spreadsheet form). Copies of the trade data spreadsheet must be emailed to the portfolio managers requesting the trade as well as to:

l-vincent@kellogg.northwestern.edu
r-korajczyk@kellogg.northwestern.edu
Phillip-braun@kellogg.northwestern.edu

Traders should read the trading tutorial prepared by the AMP TAs, Andy and Selwyn, and the research reports by Kim (F '09) "AMP Trading Tutorial," Hennegan and Stott (F '08) "A Primer on Trading Costs & Methods for AMP Funds," Brusznicki and Rangaswami (W '08) "A Process Oriented Approach to Measure Trading Costs," and Carlson and Qiao (F'07) "A Study on AMP Funds' Trading Costs and Trading Venues." The tutorial and the reports are on the course blackboard site.

New Traders must get the previous quarter's Trade excel spreadsheet from the previous trader/s for the portfolio so we can maintain a continuous record.

Advisory Board Meeting: The AMP IV students are primarily responsible for preparing the presentation for the Advisory Board Meeting on the afternoon of Wednesday, May 21, with the assistance of the other AMP I analysts. Attendance is required of all full time AMP IV students at this meeting and part time students are encouraged to attend if possible.

Honor Code/Code of Ethics/Plagiarism Policy: All students in the Practicum must abide by the Kellogg Honor Code and both the Practicum Code of Ethics and the Practicum Plagiarism Policy. You each signed copies of these documents when you joined AMP.

Code of Classroom Conduct: Because this is an experiential learning class modeled on professional investment management as practiced, students are expected to act as professionals in the classroom. Please refrain from eating during class and be courteous with your attention to the presenter, whether a student or an outside speaker. Because the pitches include a spreadsheet, I permit laptops to be open at all times. However, unrelated uses of the laptop such as surfing the web and reading/responding to emails are inappropriate and rude to the presenter. Questions and comments to the presenter should be professionally stated, avoiding slang and inappropriate language. The presenter should likewise avoid slang and inappropriate language. Side conversations should be avoided. These requirements are consistent with the *Kellogg Code of Classroom Etiquette*.

Grading:

Portfolio managers:

Research paper	30%
Weekly portfolio updates	10 %
Presentation at annual advisory board meeting (May 21st)	10 %
Class participation	10 %
Written evaluations of stock pitches and research reports	30 %
Peer evaluation	10 %

Analysts:

Stock pitch	40 %
Stock updates	10 %
Class participation	10 %
Written evaluations of stock pitches and research reports	30 %
Peer evaluation	10 %

Peer evaluation: All students will complete peer reviews of their portfolio team, both portfolio managers and analysts. Forms for these reviews will be distributed at the end of the quarter. The peer reviews constitute a significant portion of the grade and should be completed carefully and completely. Failure to complete the peer reviews and completion in a perfunctory manner (e.g., with no comments) will result in a penalty to the preparer's peer review grade.

Completion of co-requisites: If a student does not complete the course co-requisites by the end of the AMP sequence, a one letter-grade reduction will be imposed for each course deficit. Students with scheduling issues should discuss options with the instructor. Please note: the co-requisites may be completed by graduation without penalty, however grades will not be given until all co-requisites are completed. The instructor will provide students with written performance evaluations at the end of each quarter.

Advisory Board Meeting – Attendance Required

The annual AMP Advisory Board meeting and dinner occur on Wednesday, May 21, 2014. Each portfolio team will report on the funds' performance at the meeting. Full time AMP IV students are required to attend the afternoon meeting with the board members from 12:30 – 5:30 pm and students in the part time program are encouraged to attend. AMP IV students are invited to the reception and dinner beginning at 6:00 pm. This is a great opportunity to meet the outside members of the AMP Advisory Board, all of whom are investment professionals and have contributed financially to the funds. Other invitees to the reception and dinner include all past AMP guest speakers, all major sponsors of AMP, all AMP alumni, and selected Kellogg faculty. The Advisory Board is invited to participate via teleconferencing in all stock pitches and research reports.

Stock Pitches:

Students choose the company on which they make a stock recommendation (long or short) in consultation with the portfolio managers and the instructor. All pitches must be approved in advance by the portfolio managers of the presenter's fund and by the instructor. **Attachment II** provides guidelines and requirements for the stock pitches. In addition, all past pitches made to the Practicum are posted on the Blackboard website and students may refer to these for examples. The pitch report, including a spreadsheet valuation model, must be emailed to all class members (this can be accomplished through the Blackboard website with Communication – Send Email – All Users) by **9:00 AM on the Monday before the Wednesday presentation**. All students are expected to read the report and study the spreadsheet model **before class**. The report must contain all of the substantive information and analyses for the stock pitch. The second component of the analysis is a set of power point slides for presentation to the class. Because the students will have read the report before class, the purpose of the power point slides is not to educate the audience of potential investors but rather to emphasize the main points and the recommendations from the written report. The power point presentation must be emailed to all class members (using the Blackboard procedure) by **3 pm on the day of the presentation**.

If the report is submitted late, 5 points (out of a 100) will be deducted for each 24 hour period (or portion thereof) it is late.

The analysts will have a maximum of 10 minutes to make the pitch followed by a maximum of 15 minutes of questions from the class. The point of view in asking questions should be that of an investment committee analyzing a potential investment.

Analysts will receive additional points for their pitch if one or more portfolios take a position (long or short) in the pitched name. The size of the position will influence the number of additional points received. This "carrot" is intended to encourage analysts to pitch stocks that PMs are likely to take positions in.

Online evaluations. After each class, students will receive an email directing them to an online survey for the analyst stock pitches or the research reports. The surveys are due no later than the following **Friday at midnight** – no exceptions will be made. You will be asked to provide numerical and qualitative evaluations of the stock pitches and research reports. The comments will be distributed without attribution to the entire class so all may benefit from the comments. A summary of the numerical evaluations will be given to the presenter together with the instructor's comments. The numerical scores are weighted averages of the instructor's scores (70%) and the student's scores (30%). Thoughtful written comments are more valuable than the numerical score and such comments will receive more

weight in the grade. Comments lacking substantive feedback (e.g., “good presentation!”) will receive the same grade as no comment. The pitch evaluation form is provided in **Attachment III**.

The stock pitches will be broadcast via Webinar to the AMP’s Board of Advisors and interested alumni who may ask questions of the presenter. Analysts should bring their pitches to class on a memory stick/flash drive because they must use the laptop computer attached to the Webinar system for the presentation.

Analytics Sessions are scheduled from 5:15 to 6:15 in our classroom. These sessions will go over aspects of our analytics software/tools

Textbooks:

There is no required textbook or case packet for AMP I. The book by Maginn, et al. is very general, accessible, and part of the CFA Investment Series. I recommend getting a copy.

Recommended Texts:

Maginn, John L., Donald L. Tuttle, Jerald F. Pinto, and Dennis W. McLeavey, *Managing Investment Portfolios: A Dynamic Process*, 3rd edition. Hoboken: Wiley, 2007.

Rappaport, Alfred, and Michael J. Mauboussin, *Expectations Investing*. Boston: Harvard Business School Press, 2001.

Bodie, Zvi, Alex Kane, and Alan J. Marcus, *Investments*, 7th edition. New York: McGraw-Hill, 2008.

Stowe, John D., Thomas R. Robinson, Jerald E. Pinto, and Dennis W. McLeavey, *Equity Asset Valuation*, Wiley, 2007.

Attachment I

Requirements for Weekly Portfolio Updates by Investment Managers

The three AMP investment committees should present reports on the risk and performance of the four funds as indicated in the schedule. The report is due by 5 pm on the Wednesday the class meets. The report should include, at a minimum:

- A statement of the committee's chosen target asset allocation. This should include an analysis of cash versus equity, market capitalization of the fund's holdings, and selected sector exposures via ETFs.
- Total return on the fund: calendar year to date; calendar quarter to date; and any other period of your choice. Compare these returns to the benchmark return. All of these returns can be obtained from the "Performance: Fund Performance" section of the Goldman web site.
- An analysis of each position's contribution to the fund's performance. This can be obtained from the "Performance: Security Performance" section of the Goldman web site or from Barra Aegis Performance Analyst (under Asset Contributions).
- A graph of the Risk Decomposition Chart from the MSCI Barra Aegis Portfolio Manager as of the previous Friday.
- A graph of the Active Risk Index Exposures and Active Industry Exposures from the MSCI Barra Aegis Portfolio Manager as of the previous Friday.
- An analysis of the fund's performance using Barra's performance analyst (please refer to the research paper by Marwick, Shekleton, Stulberg, and Wong from Winter Quarter, 2010).
- A check of adherence to all of the fund's restriction as outlined in the current Investment Policy Statement (please use the BARRA estimated beta rather than the Goldman computed beta because the BARRA beta is forward looking rather than historical).

An electronic version of this report should be emailed to all class members, the instructors, and Debbie Brauer (this can be accomplished through the Blackboard website with Communication – Send Email – All Users) by 5:00 PM on class days.

Attachment II

Stock Pitch Guidelines and Requirements

Analysts choose the company on which they make stock recommendations (long or short) after consulting with their PMs. The PMs may have concerns about sectors or industries that are under-represented in the portfolio. Because we are making recommendations for investments, the goal is to choose a stock for which a **buy** or **sell** (short) recommendation can be made. Hold recommendations should be avoided.

The analyst must get email approval of the selected name from the PMs and the instructor.

A fundamental analysis should include, at a minimum:

- 1) an analysis of the firm's business and its industry, including its strategy and the competitive landscape
- 2) an analysis of the firm's financial condition including profitability, balance sheet, and cash flow generation
- 3) a forecast of the firm's future performance structured as pro forma financial statements with well-articulated assumptions about the key value drivers
- 4) a DCF valuation of the firm based on the financial projections
- 5) a target price or price range and a related target date for attaining that price

In addition the analyst should provide information as to how the stock was selected. If a screen or set of screens was used, the results of each of the screens should be provided.

The analyst should provide the investment committees with a downside price at which the analyst recommends the portfolio exit the position if a long, or cover the position if a short, if the thesis does not play out.

The stock pitch comprises two parts. The first is a written report with supporting exhibits, providing an in depth analysis of the company and the bases for the recommendation. Included in this written report, in excel format, must be a complete set of pro forma financial statements for the firm as well as a DCF valuation analysis. Additional analyses may be provided but the pro forma financial statements and DCF valuation analysis are required. The analyst should specify the assumptions behind the pro forma financial statements and provide both sensitivity analysis and scenario analysis.

Analysts provide either a Word or PDF document for the report and the pro forma financial statements in a separate Excel document. It is important that the pro forma financial statements be in excel format, not PDF, so students in the class can trace the analyses and even do their own sensitivity analysis if desired. To that end, the spreadsheets should be formatted so that they can be printed easily by the class members.

The report and spreadsheets **must** be emailed to all class members (this can be accomplished through the Blackboard website) by **9 am on the Monday before the Wednesday presentation unless noted otherwise on the syllabus**. All students are expected to read the report and study the spreadsheet financials before class. The report must contain all of the substantive information and analyses for the stock pitch.

The second component of the analysis is a set of power point slides for presentation to the class. Because all students will have read the report before class, the purpose of the power point slides is not to educate the audience of potential investors but rather to emphasize the main points and the recommendations from

the written report. The power point presentation must be emailed to all class members (using the Blackboard procedure) by **3 pm on the day of the presentation**.

If the report is submitted late, 5 points (out of a 100) will be deducted for each 24 hour period, or portion thereof, it is late.

The analyst will have a maximum of 10 minutes to make the pitch followed by a maximum of 15 minutes of questions from the class. The point of view in asking questions should be that of an investment committee analyzing the potential investment.

All students and the instructor will provide a written evaluation (electronically on a form provided – see **Attachment III**) of the stock pitch, assessing the quality of the written report and of the oral presentation. The key considerations are the quality and effectiveness of the stock pitch and whether the evaluator would support the recommendation made in the stock pitch for the AMP funds. The written evaluations consist of numerical scores for several portions of the evaluation and written comments to support those scores.

The stock pitches will be broadcast via WEBINAR to the AMP's Board of Advisors and interested alumni who may ask questions of the presenter. Analysts should bring their pitches to class on a memory stick/flash drive because they must use the laptop computer attached to the WEBINAR system for the presentation.

As noted above, all prior stock pitches are posted on the AMP Blackboard website and can serve as both references and examples for subsequent analysis.

Attachment III

Stock Pitch Evaluations

After the pitch, all members of the class will receive a link to a website with the evaluation form for the pitch. The evaluations are due by **midnight Friday** following the Wednesday stock pitch presentation so the results can be distributed to the investment committees. Timing can be an important element of portfolio management.

The valuation model is an important part of the stock pitch and all students should review carefully the model and its assumptions prior to the presentation. The model should receive a significant portion of the written comments and suggestions.

Although the focus is on being constructive, positive comments such as “good pitch” may be considered supportive but they lack the information content to make them constructive. Why was it a good pitch? What in particular distinguished the pitch? What was compelling about the pitch? Comments such as “presenter really seemed to know the business” are likewise not sufficiently informative. How was this knowledge demonstrated? What did you find convincing about the presentation? Would you recommend implementing the buy or sell recommendation? Why or why not? What recommendations can you make for improving the structure and effectiveness of the stock pitch?

The numerical scores are important but the most valuable element of the evaluation to the person presenting the pitch is the written section of suggestions for improvement.

The form includes the following questions:

Written Presentation	What grade do you assign to the overall quality of the written portion of the stock pitch? Included in this category are the analysis of the business (e.g., competitive advantages) and financial analysis (e.g., balance sheet, income statement, cash flows). (1 – 100)
Oral Presentation	What grade do you assign to the overall quality of the oral portion of the stock pitch? (1 – 100)
Valuation Model	What grade do you assign to the quality of the valuation model supporting the stock pitch? (1 – 100)
Effectiveness	What grade do you assign to the effectiveness of the stock pitch in convincing you of the presenter’s position; in other words, how likely is it that you will recommend implementing the trade? (1 – 100)
Recommendations	What recommendations for improvement would you suggest? Please address each of the above categories in your detailed, written recommendations.

Attachment IV

Updates on Portfolio Holdings – or How to “Follow” a Stock

Portfolio Managers assign their analysts to “follow” stocks that are currently held in the portfolio. Often these stocks have been pitched by students who have graduated. Following the stock involves making recommendations to the investment committee about continuing to hold the stock, purchasing more of the stock, reducing the position, or closing out the position.

The assigned analyst should review the original stock pitch (generally posted on the AMP Blackboard site) as well as any updates to the pitch (also posted on the AMP Blackboard site) in order to understand the original investment thesis.

An update on at least one of the stocks should be made to the class (5 – 10 minutes in length) which would include the stock’s performance since its addition to the portfolio and performance relative to the pitch’s target price and target date. Examples of stock updates from previous quarters are on the course website.

The analyst should keep abreast of new developments with respect to the stock that could affect the recommendation in the future—for example, earnings announcements, management changes, regulatory issues, etc. The analyst should communicate these updates via an email to the class, summarizing the recent development and providing any change in recommendation as a result. However, if there is a potentially important change, a short presentation (5 – 10 minutes) to the class is warranted. An invitation to provide updates on the existing positions will be made at the beginning of each class.

The stock update presentation should be distributed to the class and to Debbie Brauer by email by 3 pm on class day.

Attachment V

Research Reports

The research reports will be presented by the AMP IV portfolio managers during the last class period of the quarter, June 4. PMs may present the research report individually or in teams of up to three persons. Research reports from prior quarters are posted on the course website and we strongly urge you to review those papers as they provide some excellent suggestions and implementable procedures for managing the AMP portfolios. They may also provide assistance in developing a topic for future research reports. In some instances, it may be possible to expand and extend a previous research report.

All research report topics must be approved by the instructor. Please make an appointment with the instructor to discuss the topic and design of your research report as soon as you have some thoughts and ideas about it.

Presentations and Q&A should be approximately 30 minutes (e.g., 20 minutes for the presentation and 10 minutes for Q&A). The reports are due by 5 pm the Monday before class and should be emailed to the class via Blackboard. Presentation slides should be sent to the class via Blackboard by 3:00 PM the day of the presentation.



Professors Robert Korajczyk, Linda Vincent, Phillip Braun
Asset Management Practicum I - IV
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Operational Rules

It is natural for those in asset management to focus on the financial risks associated with the investments made by the fund. There are many operational risks faced by asset management companies. We must minimize operational risks by adhering to strict operational rules.

- 1) All participants must abide by and sign the Practicum code of ethics.
- 2) Each Fund must adhere to the Investment Policy Statement for that Fund.
- 3) Only Securities/Strategies presented in class are eligible for inclusion in Funds (with exceptions stated in the investment policy statement).
- 4) Only designated student traders are authorized to trade assets for the fund. Trades should only be made during trading hours on the Exchange. Limit orders should be used rather than market orders to protect against trading errors.
- 5) When a fund team decides to make a trade in an asset, they should e-mail instructions to the trader and copy the course instructors. Instructions should include a specific description of the asset, the size (in shares) and direction (buy, sell, short, cover) of the trade, and an indication of urgency. The fund team must also make sure that sufficient funds are available to cover the trade, and that the trade does not cause the fund to be in violation of the investment policy statement. The fund team must also determine that the fund's positions will not trigger UBIT (unrelated business income tax).
- 6) **Before** a short sale, the trader must locate the shares with the prime broker. **It is illegal to execute a short sale without locating shares.**
- 7) The trader is encouraged to have a second practicum participant confirm the accuracy of the trade before submitting it to the executing broker (ITG Incorporated). Post execution, the trader must send a confirming e-mail to the fund team (and copy the course instructors) confirming the execution of the trade with amounts and transaction prices. The trader must notify the prime broker (Goldman Sachs) of the trade (security, size, direction, and fund name).
- 8) Traders **MUST** not override the trading limits in the trading software.
- 9) The trade and the fund team investment committee must both confirm that the trade is accurately posted by the Prime Broker (Goldman Sachs) by the morning after the trade.

- 10) If the trader is unable to trade the order, the trader or the fund team can ask the instructors to trade the order.
- 11) Fund teams must present a weekly report of fund valuation, risk, adherence to the fund's investment policy statement. If the fund is out of compliance (e.g., the fund's beta is less than 0.7 or greater than 1.3), the fund's investment committee must take appropriate steps within two days to return the fund to compliance.
- 12) The fund teams must keep a record of execution costs and analyst performance for periodic reporting purposes.



Professors Robert Korajczyk, Linda Vincent, and Phillip Braun
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Investment Policy Statement

The Asset Management Practicum portfolio consists of four sub-funds:

The Crown Fund
The Kenney Fund
The Nash Fund
The Commingled Fund

The Crown, Kenney, and Commingled Funds:

The Crown, Kenney, and Commingled Funds are to be invested in equities traded in the United States, exchange traded funds (ETF), and cash reserves. Positions may be long or short and must be based on fundamental security analysis. The funds should have a net exposure (beta) to the S&P 500 between 0.7 and 1.3. The funds should be diversified to the extent that tracking error, relative to the S&P 500, should not exceed 5% per month.

All individual stock positions must be from the set of stocks pitched in class, in FINC 444, or at an Investment Management Club meeting. Existing positions can be adjusted at any time. A stock is eligible for inclusion as a new position in the portfolio for up to four weeks following the date of the pitch or of an in-class update. Stocks that have been pitched or updated in class during the preceding two academic quarters can become eligible following an email update to the class and instructors containing at least the following information: 1) a summary of the original investment thesis, target price, target date, and catalysts; 2) an analysis of important changes to the firm and the industry since the pitch or update; 3) the current thesis, target price, target date, and catalysts. Stocks that have not been pitched or updated in class in the last two quarters require a detailed update of the stock in class to re-qualify the stock for inclusion in the portfolio. Portfolio managers can take positions of up to 1% in stocks not yet pitched (not to exceed a total of 4% of the portfolio). If the stock is not pitched within 4 weeks, the position must be closed.

ETF positions are meant to control the overall market and style exposure of the funds. The following ETFs can be traded without prior approval: S&P Depository Receipts (SPY), Vanguard large/small capitalization, value/growth, and total market VIPERS (VV, VB, VUG, VTV, VTI). Other ETF positions must be approved by the instructors and may require a short presentation to the class. Only ETFs that are covered by Barra are eligible. A list of eligible ETFs is posted on the course website.

Quantitative Overlays: Up to 10% of the fund may be allocated to a particular quantitative strategy (up to 40% across strategies) after a presentation to the class (including past research reports) and with permission of the instructors. Once the strategy is approved, stocks chosen by the strategy do not need to be pitched.

Position Limits: A long position in an individual security should not exceed 8% of the fund's market value. A short position in an individual security should not exceed 4% of the fund's market value. These limits do not apply to cash or securities that are, themselves, well-diversified, such as exchange traded funds linked to market indices. Total short positions should not exceed 30% of the fund's market value.

The fund's portfolio needs to be structured to avoid incurring unrelated business income tax (UBIT).

The Nash Fund:

The Nash Fund is to be invested in equities traded in the United States, exchange traded funds, and cash reserves. Positions must be long and based on fundamental security analysis. The fund should have a net exposure to the S&P 500 between 0.7 and 1.3. The fund should be diversified to the extent that tracking error, relative to the S&P 500, should not exceed 5% per month.

All individual stock positions must be from the set of stocks pitched in class, in FINC 444, or at an Investment Management Club meeting. Existing positions can be adjusted at any time. A stock is eligible for inclusion as a new position in the portfolio for up to four weeks following the date of the pitch or of an in-class update. Stocks that have been pitched or updated in class during the preceding two academic quarters can become eligible following an email update to the class and instructors containing at least the following information: 1) a summary of the original investment thesis, target price, target date, and catalysts; 2) an analysis of important changes to the firm and the industry since the pitch or update; 3) the current thesis, target price, target date, and catalysts. Stocks that have not been pitched or updated in class in the last two quarters require a detailed update of the stock in class to re-qualify the stock for inclusion in the portfolio. Portfolio managers can take positions of up to 1% in stocks not yet pitched (not to exceed a total of 4% of the portfolio). If the stock is not pitched within 4 weeks, the position must be closed.

ETF positions are meant to control the overall market and style exposure of the funds. The following ETFs can be traded without prior approval: S&P Depository Receipts (SPY), Vanguard large/small capitalization, value/growth, and total market VIPERS (VV, VB, VUG, VTV, VTI). Other ETF positions must be approved by the instructors and may require a short presentation to the class. Only ETFs that are covered by Barra are eligible. A list of eligible ETFs is posted on the course website.

Position Limits: A position in an individual security should not exceed 8% of the fund's market value. These limits do not apply to cash or securities that are, themselves, well-diversified, such as exchange traded funds linked to market indices.

The fund's portfolios need to be structured to avoid incurring unrelated business income tax (UBIT).