Group Project: Wealth Management

FINE 441 - Winter 2016

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With the participation of PWL Capital

Summary

Your team of consultants specializes in wealth management for a particular clientele:

> **age:** early-mid 40s
> **family situation:** typically 1-3 children younger than 15 years old
> **income**: total household income between $150K and $500K per year
> **financial wealth**: total savings worth $200-400K
> **real estate**: house/condo in city & cottage worth $500K-1M
> **debt:** total mortgage debt outstanding $400-800K

These clients are in a relatively healthy financial situation but they seek your help because they realize that retirement is 20-25 years away and they are not sure about how to proceed to maintain their lifestyle in retirement.

Your job in this project is to provide expert advice on this matter to one of these clients. How much does your client need to save today, and how should he/she invest?

You specialize in *customized passive* management. In other words, your strategy isn't to go on hunting trips for mispriced assets. You aim to create a long-term, diversified portfolio that is tailored to your client's needs. If your client is very sensitive to a particular source of risk then you make sure that his/her portfolio is less exposed to it. But if there is another source of risk that your client isn't very sensitive to then you should view it as an opportunity to earn high returns. We'll learn more about these concepts in the course.

Your client expects on March 30th a concise report that is polished, precise, intelligent, and easy to follow.

Tasks & Objectives

The purpose of this project is to put you in the shoes of a portfolio manager, apply the course material, and make you think independently and creatively about an important, relevant, and current real-world scenario. The end product is a professional executive report that will help you when you interview for jobs.

This project consists of five parts.

1. **Find a client:** I would like each group to work with a real client who fits the criteria above. It doesn't have to be a perfect fit, but I want you to focus on someone who is anxious about his/her retirement prospects. It obviously needs be someone who is willing to talk about his/her finances.

2. **Study your client:** Build a precise understanding of the financial situation and the risk-profile of your client. Begin by mapping out his/her assets and liabilities, create a timeline of future cash flows, and then see what return is needed to meet your client's retirement goals. You should also study how your client *differs* from the average investor out there. Are there sources of risk he/she is especially averse or indifferent to? Your team needs to go and interview different types of households to figure out how your client is different. Doing this well is very hard. People have a hard time verbalizing how risk averse they are and the types of risks they dislike the most and also the least. To extract this information you'll have to be creative and also think carefully about how to set up the interviews. Obviously, the more people you interview the better. You're welcome and encouraged to talk to practitioners and see how they do it, and you're free to use any publicly available information.

3. **Brainstorm on a strategy:** Once you have built a good profile, then you need to come up with a strategy. That strategy shouldn't be to just go and invest in shares of a market ETF (e.g. SPY). I want you to customize the portfolio based on your client's profile. If there are risks that your client is especially averse to, then hedge them. That is, reduce the client's exposure to particular types of assets (by type I mean a category like "growth stock," not a particular title like YHOO). If there are risks that your client is not very averse to, then load up on these risks. It will give you extra risk premium at low cost.

   To do this part well, you need to conduct some data analysis on past returns (available on [Yahoo Finance](#) or [CRSP](#)) and get some evidence, along the lines of the two-pass regression method that we'll learn in the course. For example, if you want to hedge some systematic source of risk, you will probably need to pay a hefty price and give up future returns. How much would you give up? If you want to make up for it by loading onto another source of risk that you aren't exposed to, then provide empirical support. Guessing isn't good enough.

   Be creative, look for interesting facts and use your intuition. I'm fully aware that you are new to this field and not trained enough in statistics, but I really value projects that are clever and that make sense from an economic perspective.

4. **Implement the strategy:** You then need to implement this strategy. Based on the asset classes you've identified, how should you allocate your client's wealth across the different assets today? Make sure to provide precise portfolio weights for the assets you're planning to buy. From your report, the client's broker should be able to execute the trades. Also, how expensive is this strategy to implement (i.e. transaction costs, rebalancing)? How sensitive is your portfolio to the different types of risk? Are you able to meet your client's retirement needs? Here I recommend that you base your analysis on a formal optimization that builds on the mean-variance analysis from lecture and that adds other features (constraints, additional objectives, common sense, etc...).

5. **Summarize your findings:** Finally, you need to prepare an executive report to present your findings. The report should not be longer than 5 pages. You are free and encouraged to attach an appendix that documents the steps you took to get to your findings. However, any material that you deem to be important and relevant must be in the report. I should be able to grade the report without looking at the appendix. Make sure to cite any external source of information you've used whenever appropriate. This is extremely important. Otherwise it becomes plagiarism.

Timeline & Deliverables

1. **Progress report #1 – due via email on Tues Feb 9 at 12PM** Attach it as a PDF, with title "FINE441 – GROUP NAME – REPORT1". I expect each group to come up with up to 3 potential clients and to summarize their profiles (i.e. that's part 1 and the start of part 2 from the previous Section). I expect you to identify what makes each client 'unique,' relative to other investors. In total the progress report needs to fit into one page. I expect it to be concise and easy to follow.

   Note that when you submit the reports and you discuss your work with people outside your group, your clients will obviously remain anonymous. But they should be real people. So you need to start now and see among friends/family /others who might be a good fit. Many people will not be willing to reveal their finances, which is perfectly fine, but some people will not object, and you are essentially providing them a free service. If you need a letter from me to provide credibility please let me know. I am also relatively flexible on the type of client you end up working for (e.g. doesn't necessarily have to be Canadian).

   Follow-up meeting with groups on Wed Feb 10: This will take place during class time. I will provide feedback on your progress. The order of the groups will be random, and in the likely event that I do not see all the groups then I will schedule off-lecture appointments with the remaining groups. If some groups would prefer to schedule the meeting before Feb 10 (in order to move faster on the project), that's fine too, just email me in advance. I expect each group to be ready and discuss the profiles. After Feb 10 I do not want any more client-searching.

   The progress report and meeting will be graded; it will account for 10% of the project grade. I will look at both the content and the presentation and use the following guidelines: 87.5% (excellent), 82.5% (very good), 77.5% (good), 72.5% (okay), 67.5% (limited), 62.5% (poor), 57.5% (very poor), 50% (awful), 0% (MIA).

2. **Progress report #2 -- due via email Tues March 8 at 12PM**. Details TBD.

   Follow-up meeting with groups on Wed March 9: Same concept as the first meeting.

3. **Final report due in class on Wed March 30.** This report will count for 80% of the project grade. See the additional instructions at the end of this document.

4. **Finalists Presentations on Mon April 11:** We'll welcome Anthony Layton (CEO), Peter Guay (Portfolio Manager), and Raymond Kerzérho (Director of Research) from PWL Capital, a well-known wealth management boutique based in Montreal.

   The PWL team will start by providing a brief overview of the firm and discuss the intricacies of serving clients like the ones you've studied. Even if a portfolio strategy is sound in theory, there are behavioural and social considerations that often make it difficult to execute. Afterwards, the top three teams in class will present their findings to the class. The PWL team will listen to the presentations and provide feedback.

Prizes

The top three teams in each section will get the opportunity to present their findings to the class. (These presentations will not be graded.) In addition, there will be a series of invitations for the best teams offered by PWL and other Investment groups. More details to come.

Additional instructions

You are expected to apply and think about what we have learned in the course so far. This project isn't about picking individual stocks and it isn't about playing with accounting ratios (this isn't to say that they are not important). Moreover, this project isn't a standard homework exercise in which you feed numbers into models and just report the output like a robot. Think about the assumptions behind these models and their context. Use your intuition. Grow this project organically based on the findings from the interviews.

Don't begin by looking at the various financial products available or you will end up like a horse with blinders. You should begin by modeling the risk profile of the investors and understanding what types of assets are most appropriate (i.e. an asset that does well in these conditions...). *Then* you look into the products that might correspond to your needs.

Prepare this report as if you were going to submit it to a professional. I am not looking for a standard essay. You are free to format it however you want. I will grade *both* the content and the way it is presented. I will take time to read and grade your report so I am expecting a report that is to the point, easy to understand, and insightful. I'd also like to *learn* something from what you did and not see a re-hashing of lecture material. I am purposely not providing precise instructions on the formatting to make you think about what *should* be in the report and how it *should* be presented. I want you to be creative, to think for yourself, and to keep working on it until *you* become satisfied with it -- within the limited time frame and expertise you have. I strongly believe that this is the best way to learn and output high quality material.

Make sure to get the numbers right. How much should they save today? What can they expect in return in 30 years? You will only be able to deliver a good project if you aren't afraid to go into the details and really understand the financial tradeoffs that your target population will be facing.

You should get started on this project right now. As you can see the point of this project is to put you in the shoes of a portfolio manager. There are lots of steps involved and none of them is easy. At every point along the way you will confront uncertainty on whether you are doing the right thing. This is normal. If you are not comfortable dealing with this uncertainty then Finance is not for you.