

Investment Advisors, LLC



[Memorandum]

To: The Financial Advisory Team
From: The Desk of the Directors
CC: Legal
Date: Fall 2022
Re: The Harley Family Account

Financial Advisory Team Members:

A representative for the large Harley Family has reached out to our investment advisory firm. He has indicated that the Harleys are interested in hiring us to manage their finances. On behalf of this family, he would like to hear a presentation about the following:

- current state of the economy
- current state of financial markets
- information on an industry of interest for the family
- information on stocks and bonds from that industry
- optimal risky portfolios
- available mutual fund or ETF investments

We have arranged for your team to make a presentation to a representative of the family. The presentation should last about 30-40 minutes. While this representative is *not* as informed about finance as your team, he's highly educated and well read. The goal is for you to indicate our firm's understanding of the economy and markets in order to earn this family's business.

He requests two things be sent to him by **noon on December 6.**

- A PowerPoint presentation, consisting mostly of figures, diagrams, and tables. Screenshots of financial data may be useful. Some bullet points are expected, but avoid excessive text. Link diagrams and figures to their source if possible.
- A written report (PDF) as a companion to the PowerPoint. This report should provide discussions of the figures and tables you include in your presentation. It must be written in your own words but may draw from numerous sources. Your sources can be linked on the last page of this document. There is no need to follow any MLA/Chicago style formatting for references, links and article titles are just fine.

Creativity is important. Thorough, well-researched, and organized presentations are a must. Reports should be well formatted, attractively designed, and easy to read, including at least (1) a Cover Page with names of your group and group members, (2) Table of Contents, (3) Executive Summary, (4) Section Headers (and sub headers as necessary), (5) Conclusion. You are not limited to any page or word count. Participants in the meeting should wear appropriate professional attire.

During the meeting, the representative insists on controlling the slide show himself. He will flip through your slides, choosing what he wants to talk about and who on your team he wants to discuss that topic with. Some slides may be skipped over entirely. We therefore expect the presentation to be more of a “round-table” or “panel” style. Therefore, everyone on your team must be well versed on every topic. While your team will not get to talk about everything during the presentation, everything *must* be included in the report.

We as the directors of your firm have put together an overview of what you should present and include in your report. Remember, there are not always “perfect” answers. Just be sure you are well versed in these topics, can justify your choices, have a strong opening and conclusion for both the presentation and report, and are able to discuss your results in detail.

Do everything you can to earn this account!

Thank you,
Your Directors

Section 1: An Overview of the Economy

Provide an overview of the economy through graphs and figures. Understand what each figure represents and be able to interpret each. This info is generally available on the Fed's FRED website. Your figures should go back to at least 2007 (before the financial crisis) to give context to the numbers we are seeing today.

- GDP
- Unemployment Rate
- Weekly Initial Jobless Claims
- CPI, PCE and/or other inflation measures
- Federal Funds Rate
- 90-day T-bills yield
- Yield curve and/or 10-2 Treasury Spread

You should be able to answer or address the following questions...

- Why do these measures matter? How are they relevant for investors?
- What explains the movement of these economic measures?
- How do you project these measures will change moving forward?
- How do the Fed Funds rate and 90-day T-bills yield differ?
- Explain big changes (peaks or dips) in the figures you present. Explain the “shape” of the yield curve.

Section 2: An Overview of Financial Markets

Provide an overview of the state of financial markets. Overlay the five-year percent change of these three indices on one graph so that we see their relative performance (that is, show the performance of these indices all on one single graph):

- S&P 500
- DJIA
- Russell 3000

Show the historical Shiller CAPE measure going back to the 1800s. How is this defined? Why do investors care about this measure?

You should be able to answer or address the following questions...

- Why should investors care about historical data?
- How are these indices weighted?
- What stocks are generally represented in each?
- What explains their recent movement (peaks and dips) and where do you see them going?

Section 3: An Overview of an Industry

Describe the industry and its competitive landscape. List the major firms and what they do. Is the industry *cyclical* or *defensive* (and how can we tell by looking at industry betas)? How has this industry performed year-to-date and over the last several years? What are some things that may be important for investors in this industry to know about? S&P NetAdvantage and IBIS World have several reports that you may find useful. Various industry ratios are available on FINVIZ.

You should be able to answer or address the following questions...

- What are the most relevant metrics and ratios in this industry? Why? What does a “low” or “high” value for these ratios or metrics mean?
- What are your projections about the performance of this industry moving forward?

Section 4: Mutual funds and ETFs

For this section, you may consider using information from Morningstar, S&P NetAdvantage, or directly from Fidelity, BlackRock, Vanguard, State Street, etc.

1. Find an equity mutual fund or ETF one might buy if they are *interested in exposure to your industry*. Is this an active fund or index fund? Mutual fund or ETF? In a table, provide the following (and be sure you can discuss each in your paper and presentation):
 - a. Expense ratio
 - b. Top five holdings (the stocks you pick below should probably be among the fund’s holdings, though not necessarily in the top 5)
 - c. YTD return
 - d. NAV
 - e. Alpha
 - f. Beta
2. Find a fixed income or bond mutual fund or ETF. *This can be in any industry or represent several industries*. Discuss its:
 - a. Average duration and what that means
 - b. What does the credit rating breakdown look like (what percent of the bonds in the fund are AAA, AA, A, BBB, BB, and so on)?

You should be able to answer or address the following questions...

- What are the pros/cons of ETFs over mutual funds?
- What does it mean to be indexed or actively managed?
- What do the above metrics mean (expense ratio, alpha, beta, etc...) and why are they important for investors to know about?
- What does the current interest rate environment mean for this bond portfolio? To what degree should investors in the bond fund be concerned about rising or falling interest rates?

Section 5: Investment Opportunity Set

Construct an investment opportunity set of the stock fund and bond fund you introduced in Part 4. What are the weights of each in the optimal risky portfolio? What is this optimal risky portfolio's Sharpe ratio? Pictures and visualizations are very helpful for this section. Consider using templates and outputs available at <https://www.portfoliovisualizer.com/efficient-frontier> or at <https://www.josephfarizo.com/fin366.html>.

You should be able to answer or address the following questions...

- What is an investment opportunity set, optimal risky portfolio, Sharpe ratio, etc.? Explain in plain English.
- How is this IOS and the optimal risky portfolio “derived”?
- What is mean-variance optimization?

Section 6: Stocks and Bonds

Pick two *similar* firms in your industry. Provide a graph of the firms' comparative stock performance, overlaid with the performance of the S&P 500 and the equity mutual fund you chose above. In this section, you may also consider using S&P NetAdvantage (particularly for the bond information), Yahoo! Finance, the WSJ Market Data Center and Morningstar.

1. Compare for the two stocks:
 - a. P/E Ratio (relative to each other and the industry), trailing and forward
 - b. Implied price by comps P/E ratio
 - c. Relative P/E ratio
 - d. PEG, P/B, P/Sales, and/o any other relevant ratios for your firm in its industry (relative to each other and the industry)
 - e. Beta (relative to each other and the industry)
2. Describe what makes these firms competitors. Provide links to each firm's most recent 10-K in your report and in your PowerPoint. Cite some of the language from the 10-K that helps explain how they are competitors.
3. Conduct a FCF valuation for both firms. How do they trade relative to their intrinsic values? Does the difference in price and the intrinsic value you calculate imply you should buy or short the stocks? Use the multistage growth model, with a constant growth rate after a few years. You are welcome to build your own model or use templates available at <https://www.josephfarizo.com/fin366.html>
 - a. Focus on the *assumptions*, like
 - i. Near-term growth rates
 - ii. Constant growth rate
 - iii. Discount rates

In your report and presentation, explain in detail the inputs and assumptions in the model. Be able to justify them. I think summarizing them (along with the intrinsic values you estimate) in a table would be useful.

4. Find a bond for both firms. Provide the bonds':
 - a. Price chart/current price
 - b. Credit ratings
 - c. Seniority
 - d. Coupon
 - e. Maturity
 - f. Secured/unsecured
 - g. Duration

Comment on why the coupon rates between the two bonds for your two firms might differ. How are the coupon rates established in the first place? S&P Net Advantage is a useful resource for this section.

5. Calculate your own price of the bonds. Consider looking up current yields on the Fed's FRED website for bonds of similar credit ratings as your discount rate when you value your bonds. Are your bonds under- or overvalued given your estimate of the price, and should you buy each?

You should be able to answer or address the following questions...

- How do you justify your discount rates and growth rate assumptions?
- Can you explain the mechanics of discounted cash flow analysis and valuation? Can you describe discount rates, forecasting cash flows, levering/unlevering?
- Why are yields on similar newly-issued debt the appropriate discount rate for existing bonds?

NOTE: Course evaluations for FIN 366 have been posted. They are due by December 2. If at least 85% of the class completes these surveys, you will not need to any of Section 7 below. Remember that surveys are completely anonymous, remain anonymous forever, and I will not see overall results until the University unlocks them after end-of-semester deadlines. I will announce by Friday if the 85% threshold has been met.

Section 7: Asset Allocation

There are a few family members that would like to know how much they should allocate to big company stocks, small company stocks, fixed income securities, international companies, and cash overall. Based on the profile of the family members below, provide a recommendation for how much they should invest in each, perhaps by using an [investor questionnaire template](#). How did you arrive at your conclusions? Why does this real-world approach differ from the "optimal portfolio" approach?

Mac

- Profession: plumber
- Age: 35, retiring at 65
- Knowledge of equity investing, and very “risk-seeking”
- Owns domestic and international equities and bonds
- Normally attempts to “buy the dip” when prices fall



Deandra

- Profession: CFO of a vegan restaurant chain
- Age: none of your business
- Retiring in 40 years
- Little interest in investments, but deep knowledge and understanding of firm financial statements
- Conservative spender, preferring preservation of capital rather than growth opportunities

Frank

- Profession: consultant and government defense contractor
- Age: 70
- Retiring “when I die, which will never happen”
- Does not know much about investing; learning about investing would take his attention away from matters of national security
- Has extensive knowledge of foreign cultures
- In his work and personal life, tends to be calm and make thoroughly researched decisions
- Would like to have some funds available within the next 5 years to donate monthly to theater and arts programs across the country



Additionally, Mac wants information on other investing opportunities. What are calls and puts? Buying on margin? Shorting? Provide brief overviews of each. Why invest in calls/puts, buy on margin, or short sell rather than just invest in equities?

Appendix: Notes on Grading and Other Instructions

Have **one** team member from your group upload the PowerPoint and Report to the same website link we've used all semester. The file names should be **AbcInvestmentAdvisorsSlides** (as a .pptx file) and **AbcInvestmentAdvisorsReport** (as a .pdf file), replacing "Abc" with the name I assigned your group.

After the presentation, you will evaluate your own performance as well as the performance of others on your team. This will remain confidential. I take these evaluations into account when assessing your overall performance (30% *individual* performance, 70% how well the *team* did overall). *Failure to participate meaningfully in the project can result in a zero overall score. That is, a student who only needs a 70% on the final project can't assume that if they do nothing they will only lose 30 points if their team earns a 100% on the group portion without their help.*

Meaningfully participating in this assignment is a requirement to pass this course, even if you do not need the points to pass.

A point scale ranging from 1 to 10 will be assigned to each of the following:

1. The quality of content in each of the sections (Overview of the Economy, Overview of Financial Markets, etc...)
2. The formatting, grammar, style, etc. of the report
3. The formatting, grammar, style, etc. of the slides
4. Individual presentation ability on the presentation day
5. Overall team cohesiveness and presentation ability on presentation day

The 10-point scale:

- 10:** Excellent
- 9:** Very Good
- 8:** Good
- 7:** Ok, but needs improvement
- 6:** Needs Significant Improvement
- 5:** In need of a major revision
- 0 - 4:** Inadequate performance or work not completed.

I make adjustments based on whether you are asked an "easy" or "hard" question on presentation day. For example, if I ask you a very hard question, you may be able to earn a "10" even if your answer is less than perfect since the question is hard. If you are asked an easy question, the standard for earning a "10" is higher.

Given you will not know who will be asked what on the presentation day, it is important that you read, study, and understand your team's report. Practice running through your slides alone and with your team by pulling names from a hat to randomize who presents what.

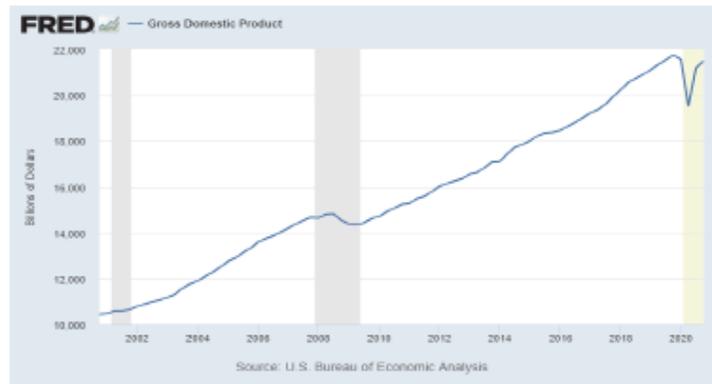
Sample from a report that earned a "10" for formatting and style:

Economic Overview



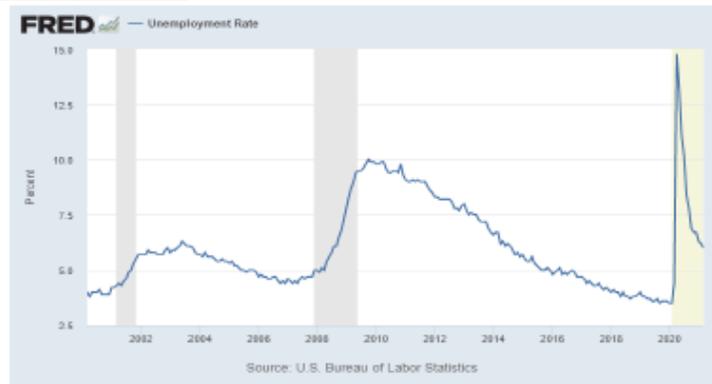
Gross Domestic Product

The gross domestic product [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]



Unemployment Rate

While the economy has seen an impressive rebound, [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

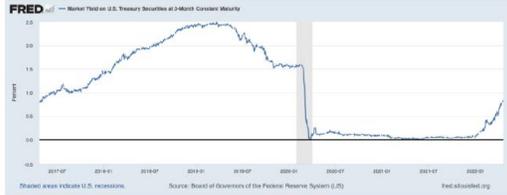


Sample from a presentation that earned a "10" for formatting and style:

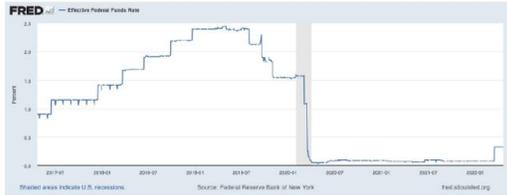


Economy Measures - Interest Rates

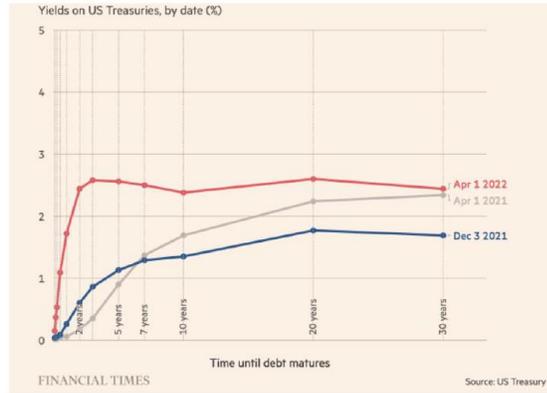
90 Day T-Bill Yields - 0.90%



Federal Fund Rate - 0.33%



Yield Curve



Communications Industry

- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]

Beta and Alpha (5Y)

