

MScFE 560 FINANCIAL MARKETS

Group Work Project # 3

[See grading rubric here.](#)

Scenario

In GWP 2, you examined the effect that regulation played. In GWP3, we will focus on comparing mutual funds, exchange-traded funds, and indexed annuities. The idea is to provide the features and benefits of each .

Tasks

Step 1:

As a group, submit a 2-page overview of each of the following 3 products. the features and benefits of the following 3 product types.

- a. An open-ended, low-cost mutual fund that tracks a broad market index
- b. An Exchange-traded Fund that tracks the same broad market index.
- c. An indexed annuity, which uses zero coupon bonds and options; the underlying of the options are the same broad market index.

All group members should contribute by sharing the writing of the review. The review must include:

1. Performance
2. Fees
3. Transparency
4. Liquidity
5. Professional Management
6. Investor Protections (e.g. Fiduciary responsibilities, SIPC, SEC, FINRA, etc.)

Note: Groups of 2 students will pick either a or b, and complete that choice, in addition to completing c.

Step 2:

Each team member selects one of the following roles:

- Student A plays the role of a salesperson at the mutual fund
- Student B plays the role of a financial advisor recommending the ETF
- Student C plays the role of an insurance salesperson recommending the indexed annuity

In a **group of 2 students**, one student is A, another student is B, and both students work on C.

Let's examine open-ended mutual funds, exchange-traded funds, and indexed-annuities along 5 factors:

- a. Collateral-related risks: financing and credit
- b. Statistical related risks: volatility and correlation
- c. Magnifying risk factors: leverage and non-linearity
- d. Frictional risk factors: liquidity and regulation
- e. Fallout risks: model failure and crises

7. Collateral-Related Risks. Credit Risk. For your product:

- a. Explain the credit risks, if any, of your product.
- b. What institutions, if any, insure the payment of dividends/credit guarantees?
- c. What questions will A and B want to ask C about the credit guarantees for the annuity?

8. Statistical-Related Risks: Correlation.

- a. Suppose the equities in the index have medium to high correlation. Is your product a relatively safe investment? Why or why not?
- b. What questions does C want to ask A and B about down markets?
- c. What questions do A and B want to ask C about the correlation between the participation rate and the equity market performance?

9. Magnifying Risk: Leverage & Nonlinearity

- a. Explain how the indexed annuity has no downside (e.g. downside protection).
- b. Explain how the indexed annuity has an upside.

- c. Explain the leverage of the participation rate.
- d. Hint: From the previous question, review the correlation between the participation and equity market performance

Step 3:

Based on the individual work from Step 2, all team members compare answers, and write a group report that synthesizes perspectives for each question based on their respective roles. Finally, as a group, answer questions 10 and 11.

10. Frictional Factors: Liquidity and Regulation

- a. For the mutual fund, explain the issues of:
 - i. large capital flows in and out of the fund
 - ii. the lack of intraday trading for the fund.
 - iii. The limited transparency of holdings of the fund
- b. For the exchange-traded fund, explain the issues of:
 - i. Market volatility affecting performance
 - ii. Fees associated with management and exchanges
 - iii. Dividends impacting the fund
- c. For the indexed annuity, explain the issues of:
 - i. Penalties for early withdrawal
 - ii. The lack of control of the participation rate
 - iii. The limited transparency of fees

Groups of 2 students will pick either a or b; they must also complete c.

11. Regulation

Each member (A, B, and C) will read their relevant portion, and write 2 - 3 pages describing the crisis from the reading, and proposed regulations.

- a. In 2003, there was a mutual fund crisis. Read about that here:
<https://link.springer.com/article/10.1007/s11417-010-9090-7>
- b. There is some discrepancy between physical and synthetic ETFs. (A sample article is
<https://www.bloomberg.com/professional/blog/stigma-surrounding-synthetic-etfs-should-be-put-to-rest-for-good/>)

- c. Indexed annuities are not suitable for everyone. Please read:
https://scholarship.law.stjohns.edu/cgi/viewcontent.cgi?article=1273&context=faculty_publications for issues pertaining to suitability.

Groups of 2 students will pick either a or b; they must also complete c.

Submission requirements and format

One team member submits on behalf of the entire group the following:

1. **1 PDF document*** with:
 - a. 1 Group 1000-word review of Questions 1 - 6
 - b. Individual answers to Questions 7-9
 - c. 1 Group report for step 3
 - d. Group answers to questions 10 and 11

Use the available Report Template and fill out the required information on the first page

**** Use Google Docs to collaborate.** Start by uploading the Report Template provided in the Course Overview. Once your report is completed, click File → Download → PDF Document (.pdf) to obtain the copy for your submission.*

Rubric

Your instructor will evaluate your group submission for GPW2 using the following rubric:

Quantitative Analysis (open-ended questions)	Technical and Non-technical Reports	Writing and Formatting
40 Points	30 Points	20 Points
<p>The group is able to apply results, formulas, and their knowledge of theory to real-life finance scenarios by doing the following:</p> <ul style="list-style-type: none"> • Providing all the necessary information to support their arguments. • Presenting arguments that reflect group discussion and research. • Using authoritative references to support a position and provide updated information • Concluding with practical takeaways for more insightful financial decision-making 	<p>Technical Reports contain 3 parts:</p> <ol style="list-style-type: none"> 1) summary of key results; 2) interpretation of results; and 3) the recommended course of action that can reasonably follow from those results and interpretations. <p>Note: Technical reports will include the technicalities of models, such as names, methods of estimation, parameter values, etc. and exclude generalities about the work done. It should NOT include the names of Python code that was used.</p>	<p>A submission that looks professional should include:</p> <ul style="list-style-type: none"> • The axes labels and scales in graphs. • No significant grammar errors or typos. • Organized, clear structure, and easy to read document. • Proper citations and bibliography using MLA format.
	<p>Non-technical Reports contain 3 parts:</p> <ol style="list-style-type: none"> 1) clear explanation of results; 2) the recommended course of action that follows; and 3) the identification of factors that impact each portfolio. <p>Note: AVOID all references to model names, algorithms, unnecessary details, and focus on the investment decision.</p>	

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