



Insights 2.11. ChatGPT Mutual Fund suggestions – Good or Bad?

Not good - buyer beware as the **results were inconsistent textually and from a performance perspective**, where it suggested index trackers (without specifying Indices) and otherwise generally poor performing funds. This is not surprising¹ as it is akin to asking an English major to solve a differential equation - pun intended! The math here is in ingesting existing published results and making them contextually available and not on training the models to accurately select the asset. As such, the basis of ChatGPT is the Large Language Models (LLM) that are trained on existing 'outcomes' that are solicited from the training information and this makes them both a good and a bad candidate for disseminated information including,

Good

1. Moving from search queries giving links to textual results that are synthesized based on previously experienced consumption and similar suggestions
2. Well suited for standardizing language or boxed results (e.g., disclosures, context, etc)
3. Removing the drudgery of mundane tasks such as collating information
4. Offering premium shelf space for willing sponsors

Bad

1. Curating the textual results from the training set of information (potentially itself curated or influenced) with a potential to manage the narrative²
2. Randomizing outcomes or based on algorithm priority (e.g., frequency, region, sponsored, etc)
3. Hedging results via the disclosures, but giving interpretation/inference (e.g., best, popular, etc) as if it has ranking (vs. listing) models
4. Amplifying self reporting or similar biases from ingested datasets
5. Presenting results that are sponsored or biased, without disclosures

Overall, the use of the LLM models here is more like crowdsourcing the recommendation, where at a minimum back testing (and simulation) models should be added to make the results disclosure appropriate. Further, for improving the selection, performance ranking model (RM) results would need to be added as a feed to the LLM models. This is already being done locally via Natural Language Processing (NLP) models connected to the ranking models assessing the whole dataset, clusters, regimes, etc (note that this is the underpinning of the Ask2.ai platform). These aspects were covered in our Insights piece - Is Artificial Intelligence deployment the new Y2K? Where we show how selecting financial assets largely lies in the non-stationary quadrant, where degrees of continual tuning and expertise is necessary.

ChatGPT "recommendation" is akin to googling fund suggestions, but the textual delivery makes it more relatable (and potentially comforting for the less discerning user). This makes its application ripe for misuse when the selection is from over 7,000 mutual fund options (in the US alone)³. **ChatGPT's traditional valley get an MVP out there playbook seems to have generated the buzz, but here it seems to be treading on a regulatory minefield.**

DATA

We queried ChatGPT with 'Best US mutual fund' and the subcategory of 'Best large cap US mutual fund' using mobile and desktop (over a few days). We chose the word 'best' because it builds in a ranking need for classifying 'which' of the fund should be presented. Given ChatGPT's LLM underpinning we felt that the more pedantic 'how' would be more generically covered, but difficult to evaluate. Note as an extension the 'how' could also have a suggestion on 'a' method versus the 'best' method. Interestingly see 5 below, where it gave a 'how' result for the same query.

1. Best Mutual Fund (query on March 12th, 2023)

¹ At least in the current incarnation of the offerings. Financial markets are non-stationary and require tuning for each query.

² At the same time, setting guard rails on what information is good vs bad starts to infringe on the freedom aspects.

³ 27,000+ if you assume all share classes. Also, not including SMAs, ETFs, etc.

Choosing a Mutual Fund. +

SA Best mutual fund

As an AI language model, I cannot provide a specific recommendation for the "best" mutual fund as it would depend on individual investment objectives, risk tolerance, and financial situation. However, there are a few top-rated mutual funds based on their performance, fees, and other factors. It is important to conduct thorough research and consider multiple factors before selecting a mutual fund. Some popular mutual funds are:

- Vanguard Total Stock Market Index Fund (VTSMX)
- Fidelity Contrafund (FCNTX)
- T. Rowe Price Blue Chip Growth Fund (TRBCX)
- American Funds Growth Fund of America (AGTHX)
- T. Rowe Price Equity Income Fund (PRFDX)

These are just a few examples and not a comprehensive list. It is essential to do your own research and consult with a financial advisor before making any investment decisions.

ChatGPT Feb 13 Version. Free Research Preview. Our goal is to make AI systems more natural and safe to interact with. Your feedback will help us improve.

2. Best large cap US mutual fund (query on March 12th, 2023)

Choosing a Mutual Fund. + 10:15

SA Best large cap US mutual fund

There are several top-rated large-cap US mutual funds that investors can consider. Here are some of the best large-cap US mutual funds based on their performance, fees, and other factors:

- Vanguard 500 Index Fund (VFIAX): This fund tracks the S&P 500 Index and has low fees.
- T. Rowe Price Blue Chip Growth Fund (TRBCX): This fund invests in large-cap growth stocks and has a strong track record of performance.
- Fidelity Contrafund (FCNTX): This fund invests in large-cap companies with strong growth potential and has a long-term track record of performance.
- American Funds Fundamental Investors Fund (ANCFX): This fund invests in large-cap companies that have strong fundamentals and has a long history of solid performance.
- Dodge & Cox Stock Fund (DODGX): This fund invests in large-cap value stocks and has a long-term track record of performance.

These are just a few examples of the best large-cap US mutual funds available. It is important to conduct thorough research and consider multiple factors before selecting a mutual fund that aligns with your investment goals and risk tolerance. Additionally, it is always advisable to seek the guidance of a financial advisor before making any investment decisions.

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3. Best large cap US mutual fund (query on March 13th, 2023)

SA Best large cap US mutual fund

As an AI language model, I cannot provide financial advice, but I can provide some information about large-cap US mutual funds that are widely considered to be among the best in the market. Please note that past performance is not a guarantee of future results, and any investment decision should be made after thorough research and consultation with a financial advisor.

- Vanguard 500 Index Fund (VFIAX): This fund tracks the performance of the S&P 500 Index and has low expense ratios.
- Fidelity 500 Index Fund (FXAIX): Similar to the Vanguard 500 Index Fund, this fund aims to replicate the S&P 500 Index.
- T. Rowe Price Equity Income Fund (PRFDX): This fund invests in high-quality, dividend-paying large-cap companies.
- Dodge & Cox Stock Fund (DODGX): This fund invests in undervalued large-cap companies with long-term growth potential.
- American Funds Washington Mutual Investors Fund (AWSHX): This fund invests in large-cap companies with a history of consistent dividend and earnings growth.

It's important to note that there is no one-size-fits-all approach to investing, and the best mutual fund for you will depend on your financial goals, risk tolerance, and other factors. It's always a good idea to consult with a financial advisor before making any investment decisions.

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4. Best large cap US mutual fund (desktop query on March 13th, 2023)

SA Best large cap US mutual fund

As an AI language model, I cannot provide investment advice, and I must remain neutral on the subject of mutual funds. However, I can provide you with some information that may help you make an informed decision.

Large-cap mutual funds invest in the stocks of companies with large market capitalizations, typically over \$10 billion. These funds may be appealing to investors who seek long-term growth potential and stability from established companies.

When choosing a mutual fund, it's important to consider factors such as the fund's investment objective, its historical performance, its fees, and the experience and track record of the fund manager. Some popular large-cap US mutual funds include:

1. Vanguard 500 Index Fund (VFIAX)
2. Fidelity 500 Index Fund (FXAIX)
3. T. Rowe Price Equity Income Fund (PRFDX)
4. American Funds Growth Fund of America (AGTHX)
5. T. Rowe Price Blue Chip Growth Fund (TRBCX)
6. Vanguard Growth Index Fund (VIGAX)
7. Fidelity Contrafund (FCNTX)
8. T. Rowe Price Equity Index 500 Fund (PREIX)
9. Vanguard Dividend Growth Fund (VDIGX)
10. T. Rowe Price Capital Appreciation Fund (PCAPPX)

Regenerate response

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5. Best large cap US mutual fund (query on March 16th, 2023)

SA Best large cap US mutual fund

As an AI language model, I cannot provide specific investment advice or recommend specific mutual funds, but I can offer some general guidelines to consider when selecting a large cap mutual fund.

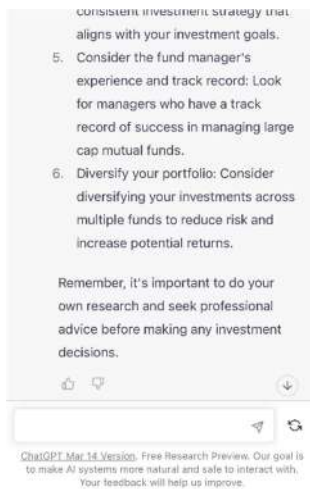
When looking for the best large cap mutual fund in the United States, investors may want to consider factors such as historical performance, fund fees, investment strategy, and the expertise of the fund manager. It is

important to note that past performance does not guarantee future returns and that mutual funds involve risks.

Here are a few steps that investors can follow to find a suitable large cap mutual fund:

1. Identify your investment goals and risk tolerance: Consider what you are looking to achieve with your investment, and how much risk you are willing to take on.
2. Look at the historical performance of large cap mutual funds: Analyze the performance of different funds over the past five to ten years and compare them against industry benchmarks.
3. Evaluate fees and expenses: Compare the expense ratios of different mutual funds, as well as any other fees or charges associated with the fund.
4. Understand the investment strategy: Look for funds that have a clear and consistent investment strategy that aligns with your investment goals.
5. Consider the fund manager's experience and track record: Look for managers who have a track record of success in managing large cap mutual funds.
6. Diversify your portfolio: Consider diversifying your investments across different sectors and asset classes.

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ANALYSIS

We look at the Performance Measures, Explainability Index (EI)⁴ and Risk of Target (RoT) of the suggested mutual funds with data over the 12/31/2015 - 12/31/2022 evaluation period.

Textual

Results on the same query gave different disclosures and textual context, where ***we believe most iterations of the query would probably fail the suitability or fiduciary test and so is treading on a fine regulatory line.***

1. Best Mutual Fund (mobile query on March 12th, 2023)

- Took pause to “best” due to objectives, risk tolerance and financial situation. However, gave “top-rated” and “popular” ones in any case. Based on performance, fees and “other” factors.
- No disclosure on historic performance or why these were shown. Statement on consulting a financial advisor.
- Gave 5 suggestions

2. Best large cap US mutual fund (mobile query on March 12th, 2023)

- Gave “top-rated” and “best” ...based on performance, fees and “other” factors.
- Did not describe large cap
- No disclosure on historic performance or why these were shown. Statement on consulting a financial advisor.
- Gave 5 suggestions

3. Best large cap US mutual fund (mobile query on March 13th, 2023)

- “...widely considered to be among the best...”
- Did not describe large cap
- Put in historic performance disclosure. Statement on consulting a financial advisor.
- Gave 5 suggestions

4. Best large cap US mutual fund (desktop query on March 13th, 2023)

- “...I must remain neutral...” but ...“Some popular...”
- Described large cap
- General statement on consideration factors. No statement on consulting a financial advisor.
- Gave 10 suggestions

5. Best large cap US mutual fund (mobile query on March 16th, 2023)

- Only ‘how’ to and no fund suggestions

⁴ Hirs, Ali and Ding, Rui and Malhotra, Satyan, Explainability Index (EI): Unifying Framework of Performance Measures and Risk of Target (RoT): Variability from Target EI (January 23, 2023). Available at SSRN: <https://ssrn.com/abstract=4335455>

Performance

Results on the same query (without any benchmark or objective function) gave different fund suggestions that were a mix of index trackers and those focused on sub categories of Large Cap Blend, Growth and Value. Even a general mutual fund suggestion query gave US large cap funds as suggestions. Assuming S&P 500 as the benchmark the suggestions (other than the index trackers) were mostly questionable.

1. Best Mutual Fund (query on March 12th, 2023)

Our query was quite generic, where

- Location: No location was specified
- Asset Class: No asset class was specified
- Benchmark: None was specified.

As noted in Table 1. and Illustrations 1. & 2., for the generic query ChatGPT did not mention a Benchmark, **suggested all US Large Cap funds** and further the funds were from Blend, Growth and Value sub-classifications with expense ratios ranging from 0.14% - 0.85%. For our analysis, we assumed S&P 500 as the benchmark and **most of the suggested funds are questionable choices**.

Table 1. Historical Benchmark and Fund Performance.

	S&P500		VTSMX		FCNTX		TRBCX		AGTHX		PRFDX	
	1 year	7 year	1 year	7 year	1 year	7 year	1 year	7 year	1 year	7 year	1 year	7 year
Alternative Data												
Net Expense Ratio	0.0%	0.0%	0.14%	0.15%	0.85%	0.74%	0.69%	0.72%	0.63%	0.66%	0.64%	0.66%
ROTI/EI												
EI	0.66	0.45	0.67	0.48	0.68	0.50	0.72	0.59	0.69	0.53	0.61	0.53
RoT	0.0%	0.0%	1.9%	6.6%	3.2%	10.7%	8.2%	32.3%	5.0%	17.9%	-7.5%	18.4%
Return Targeting												
Alpha	0.0%	0.0%	-1.7%	-0.8%	-13.4%	-0.5%	-24.8%	-3.0%	-15.7%	-1.6%	12.7%	-0.6%
Excess Return Arith	0.0%	0.0%	-1.5%	-0.6%	-10.2%	-0.6%	-20.5%	-2.9%	-12.6%	-1.6%	14.8%	-1.4%
Return	-18.1%	11.5%	-19.6%	10.9%	-28.3%	10.8%	-38.6%	8.6%	-30.7%	9.9%	-3.3%	10.1%
Average Gain	5.3%	3.3%	6.5%	3.4%	5.6%	3.6%	5.4%	3.9%	5.5%	3.6%	4.6%	3.4%
Batting Average	100.0%	100.0%	33.3%	44.0%	25.0%	46.4%	8.3%	42.9%	25.0%	52.4%	66.7%	42.9%
Beta	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.0	1.0	0.8	0.9
Bull Beta	1.0	1.0	1.1	1.0	1.0	1.0	1.3	1.0	1.1	1.1	0.6	0.9
M.S. Returns	-19.8%	10.2%	-21.3%	9.6%	-29.8%	9.6%	-39.9%	7.4%	-32.2%	8.7%	-5.3%	8.8%
M.S. Risk Adjusted Returns	-23.6%	7.3%	-25.0%	6.5%	-33.1%	6.3%	-43.8%	3.4%	-35.7%	5.3%	-9.0%	5.6%
Treynor Ratio	-18.1%	11.5%	-21.6%	9.5%	-31.2%	9.6%	-36.7%	6.9%	-32.3%	8.5%	-6.5%	9.4%
Up Capture Ratio	100.0%	100.0%	95.9%	99.8%	78.1%	100.9%	67.2%	101.1%	74.5%	99.8%	99.8%	91.6%
Up Period Percent	41.7%	71.4%	33.3%	70.2%	33.3%	67.9%	33.3%	64.3%	33.3%	66.7%	50.0%	66.7%
Volatility Targeting												
Gain Deviation	14.0%	12.7%	13.9%	12.9%	12.0%	13.5%	13.7%	14.3%	12.4%	13.5%	13.8%	12.9%
Information Ratio	0.0	0.0	-1.4	-0.4	-2.5	-0.1	-2.6	-0.3	-2.5	-0.3	1.9	-0.2
Kappa	-1.5	1.0	-1.5	0.9	-1.9	0.9	-2.1	0.6	-2.0	0.8	-0.4	0.8
Loss Deviation	17.7%	10.7%	18.2%	11.1%	20.5%	11.2%	25.5%	12.8%	21.9%	11.6%	14.4%	11.4%
Loss Std Dev	8.4%	11.5%	11.3%	12.5%	11.2%	11.4%	13.2%	13.5%	12.5%	12.5%	10.7%	14.2%
M.S. Risk	3.7%	2.9%	3.7%	3.1%	3.3%	3.3%	4.0%	3.9%	3.6%	3.4%	3.7%	3.2%
Omega	0.6	1.6	0.5	1.6	0.4	1.5	0.4	1.4	0.4	1.5	0.8	1.5
Sharpe Ratio	-0.9	0.6	-0.9	0.6	-1.3	0.6	-1.5	0.4	-1.4	0.5	-0.3	0.5
Sortino Ratio	-1.1	0.9	-1.2	0.9	-1.5	0.9	-1.6	0.6	-1.5	0.7	-0.4	0.8
Tracking Error	0.0%	0.0%	1.3%	1.4%	4.9%	5.5%	9.5%	7.7%	6.3%	5.3%	9.4%	7.1%
Volatility	23.0%	16.3%	23.2%	16.8%	23.0%	17.3%	27.2%	19.1%	24.2%	17.7%	20.8%	17.0%
Drawdown Targeting												
Average Loss	-6.3%	-4.8%	-5.7%	-4.8%	-6.6%	-4.8%	-8.4%	-4.9%	-7.0%	-4.8%	-5.8%	-4.3%
Bear Beta	1.0	1.0	1.1	1.1	0.8	1.0	1.1	1.1	1.0	1.0	1.5	1.1
Calmar Ratio	-0.8	0.5	-0.8	0.4	-0.9	0.4	-1.0	0.2	-1.0	0.3	-0.2	0.4
Down Capture Ratio	1.0	1.0	1.0	1.0	1.2	1.0	1.4	1.2	1.2	1.1	0.6	0.9
Overall Capture Ratio	1.0	1.0	0.9	1.0	0.7	1.0	0.5	0.9	0.6	0.9	1.6	1.0
Down Period Percent	58.3%	28.6%	66.7%	29.8%	66.7%	32.1%	66.7%	35.7%	66.7%	32.1%	41.7%	32.1%
Max Drawdown	-23.9%	-23.9%	-24.9%	-24.9%	-30.9%	-30.9%	-38.6%	-39.7%	-32.2%	-33.6%	-16.5%	-28.4%
VaR 5%	-39.5%	-28.6%	-35.4%	-23.9%	-41.1%	-27.8%	-52.9%	-32.4%	-40.9%	-28.0%	-28.5%	-23.0%
CVaR 5%	-52.8%	-47.3%	-49.9%	-42.1%	-55.7%	-44.8%	-69.0%	-51.3%	-58.6%	-44.9%	-38.4%	-40.3%
Variation Targeting												
Correlation	100.0%	100.0%	99.8%	99.7%	97.7%	94.9%	94.1%	91.7%	96.6%	95.5%	91.2%	90.9%
Kurtosis	-1.3	0.6	-1.2	0.9	-1.1	0.3	0.1	0.6	-0.9	0.6	-0.6	2.8
Skewness	0.5	-0.5	0.5	-0.5	0.5	-0.3	0.7	-0.3	0.5	-0.3	0.0	-0.6
Jarque Bera	1.3	4.1	1.2	5.6	1.0	1.6	0.9	2.8	0.8	2.7	0.2	31.6
R2	100.0%	100.0%	99.7%	99.4%	95.4%	90.0%	88.5%	84.0%	93.2%	91.2%	83.2%	82.7%
Residual Std Dev	0.0%	0.0%	1.3%	1.4%	5.1%	5.5%	9.6%	7.7%	6.6%	5.3%	8.9%	7.1%
Std Error Alpha	0.0%	0.0%	0.1%	0.0%	0.4%	0.2%	0.8%	0.2%	0.6%	0.2%	0.8%	0.2%
Std Error Beta	0.0%	0.0%	1.8%	0.9%	6.8%	3.7%	12.7%	5.2%	8.7%	3.6%	11.7%	4.8%
Appraisal Ratio	0.0	0.0	-0.4	-0.2	-0.8	0.0	-0.7	-0.1	-0.7	-0.1	0.4	0.0

Illustrations 1. & 2., shows that on an equally weighted risk-return categories basis, only one fund (PRFDX) performs better than the benchmark, but only on a 1-year basis (on a 7-year basis the RoT is high). Another fund (VTSMX) is a lower-cost Index tracker, which could be an alternative if a broad market blend is the objective like the S&P 500.

Illustration 1. EI&RoT Framework: Suggested funds

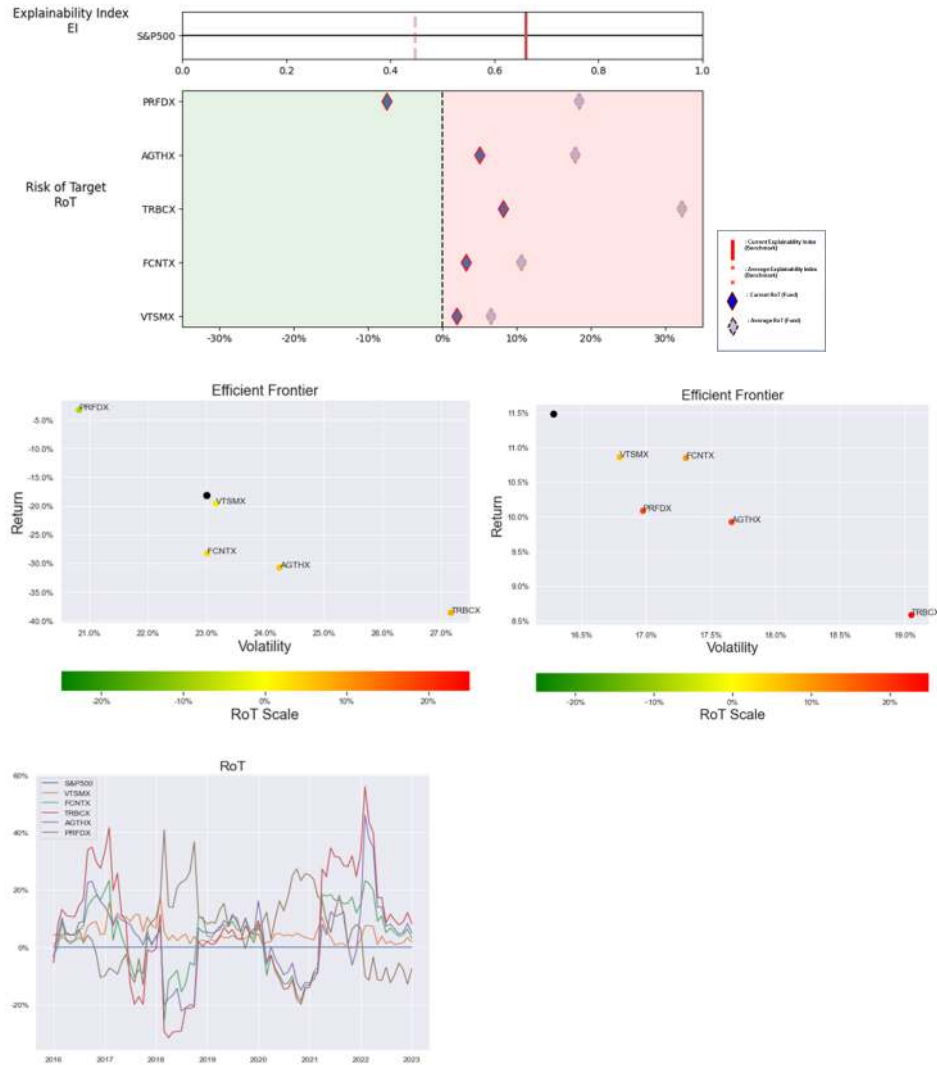
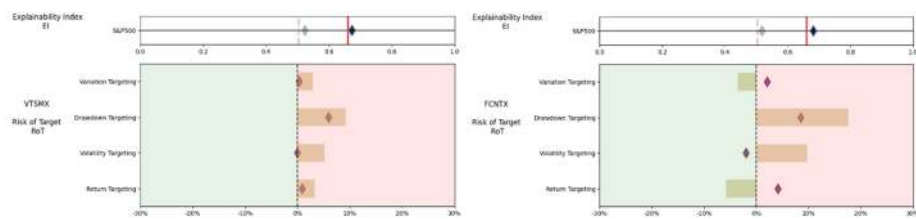
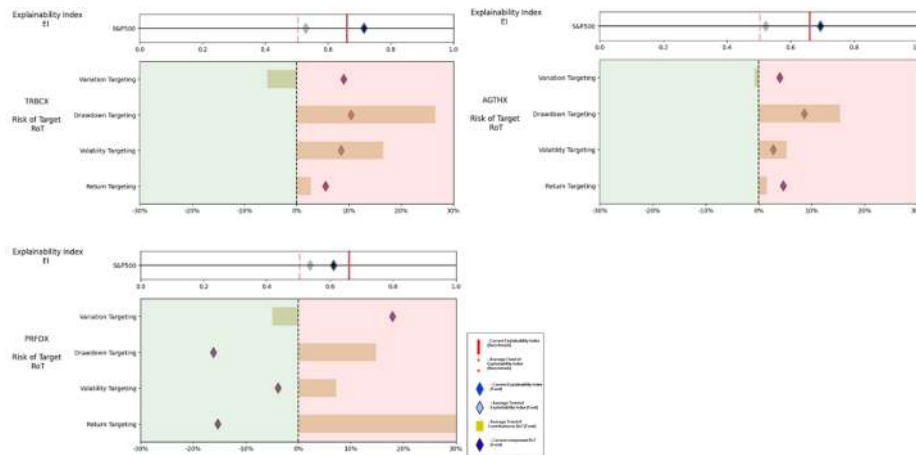


Illustration 2. EI&RoT Framework: Fund Level





2. Best large cap US mutual fund (query on March 12th, 2023)

Our query was quite generic, where

- Location: US was specified
- Asset Class: Large Cap was specified
- Benchmark: None was specified.

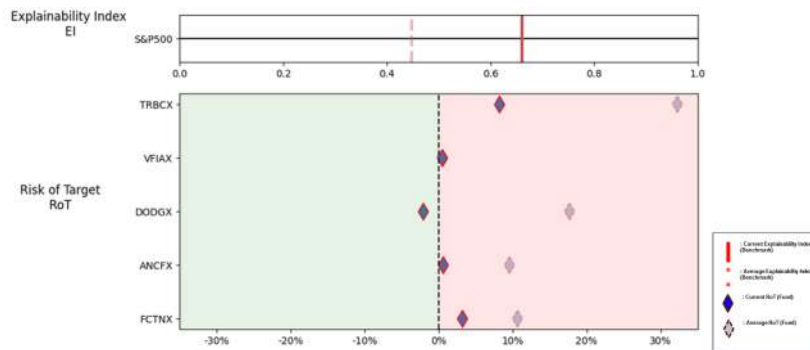
As noted in Table 2. and Illustration 3. & 4., for the query ChatGPT suggested all US Large Cap funds and further the funds were from Blend, Growth and Value sub-classifications with expense ratios ranging from 0.04% - 0.85. For our analysis, we assumed S&P 500 as the benchmark and **most of the suggested funds are questionable choices.**

Table 2. Historical Benchmark and Fund Performance.

		S&P500		FCNTX		ANCFX		DODGX		VFIAX		TRBCX	
				LC GROWTH		LC BLEND		LC VALUE		LC BLEND		LC GROWTH	
		1 year	7 year	1 year	7 year	1 year	7 year	1 year	7 year	1 year	7 year	1 year	7 year
Alternative Data	Net Expense Ratio	0.0%	0.0%	0.85%	0.74%	0.61%	0.60%	0.52%	0.52%	0.04%	0.05%	0.69%	0.72%
ROT/EI	EI	0.66	0.45	0.68	0.50	0.66	0.49	0.65	0.53	0.66	0.45	0.72	0.59
	RoT	0.0%	0.0%	3.2%	10.7%	0.6%	9.6%	-2.1%	17.7%	0.5%	0.4%	8.2%	32.3%
Return Targeting	Alpha	0.0%	0.0%	-13.4%	-0.5%	0.5%	-1.1%	10.5%	0.0%	0.0%	0.0%	-24.8%	-3.0%
	Excess Return Arith	0.0%	0.0%	-10.2%	-0.6%	1.2%	-1.6%	10.9%	0.3%	0.0%	0.0%	-20.5%	-2.9%
	Return	-18.1%	11.5%	-28.3%	10.8%	-16.9%	9.9%	-7.2%	11.8%	-18.1%	11.4%	-38.6%	8.6%
	Average Gain	5.3%	3.3%	5.6%	3.6%	5.2%	3.2%	5.0%	4.0%	5.3%	3.3%	5.4%	3.9%
	Batting Average	100.0%	100.0%	25.0%	46.4%	58.3%	44.0%	66.7%	52.4%	8.3%	15.5%	8.3%	42.9%
	Beta	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.1	1.0	1.0	1.1	1.1
	Bull Beta	1.0	1.0	1.0	1.0	0.8	0.9	0.5	1.0	1.0	1.0	1.3	1.0
	M.S. Returns	-19.8%	10.2%	-29.8%	9.6%	-18.6%	8.7%	-9.2%	10.5%	-19.9%	10.2%	-39.9%	7.4%
	M.S. Risk Adjusted Returns	-23.6%	7.3%	-33.1%	6.3%	-22.3%	5.9%	-13.4%	6.4%	-23.6%	7.2%	-43.8%	3.4%
	Treynor Ratio	-18.1%	11.5%	-31.2%	9.6%	-19.9%	9.1%	-10.3%	10.0%	-20.3%	10.3%	-36.7%	6.9%
	Up Capture Ratio	100.0%	100.0%	78.1%	100.9%	97.5%	95.0%	107.7%	106.0%	99.9%	99.9%	67.2%	101.1%
	Up Period Percent	41.7%	71.4%	33.3%	67.9%	41.7%	70.2%	50.0%	64.3%	41.7%	71.4%	33.3%	64.3%
Volatility Targeting	Gain Deviation	14.0%	12.7%	12.0%	13.5%	13.4%	12.1%	14.8%	14.8%	14.0%	12.7%	13.7%	14.3%
	Information Ratio	0.0	0.0	-2.5	-0.1	0.4	-0.5	1.4	0.0	-5.6	-3.6	-2.6	-0.3
	Kappa	-1.5	1.0	-1.9	0.9	-1.4	0.9	-0.7	0.9	-1.5	1.0	-2.1	0.6
	Loss Deviation	17.7%	10.7%	20.5%	11.2%	17.4%	10.7%	16.2%	12.5%	17.7%	10.7%	25.5%	12.8%
	Loss Std Dev	8.4%	11.5%	11.2%	11.4%	9.8%	11.7%	11.8%	14.9%	8.4%	11.5%	13.2%	13.5%
	M.S. Risk	3.7%	2.9%	3.3%	3.3%	3.6%	2.8%	4.3%	4.1%	3.7%	2.9%	4.0%	3.9%
	Omega	0.6	1.6	0.4	1.5	0.6	1.5	0.7	1.6	0.6	1.6	0.4	1.4
	Sharpe Ratio	-0.9	0.6	-1.3	0.6	-0.9	0.5	-0.4	0.6	-0.9	0.6	-1.5	0.4
	Sortino Ratio	-1.1	0.9	-1.5	0.9	-1.1	0.8	-0.6	0.8	-1.1	0.9	-1.6	0.6
	Tracking Error	0.0%	0.0%	4.9%	5.5%	3.9%	3.0%	9.8%	8.0%	0.0%	0.0%	9.5%	7.7%
	Volatility	23.0%	16.3%	23.0%	17.3%	22.4%	15.9%	22.9%	19.1%	23.0%	16.3%	27.2%	19.1%
Drawdown Targeting	Average Loss	-6.3%	-4.8%	-6.6%	-4.8%	-6.1%	-4.7%	-5.9%	-4.4%	-6.3%	-4.8%	-8.4%	-4.9%
	Bear Beta	1.0	1.0	0.8	1.0	1.1	1.0	1.5	1.1	1.0	1.0	1.1	1.1
	Calmar Ratio	-0.8	0.5	-0.9	0.4	-0.7	0.4	-0.4	0.4	-0.8	0.5	-1.0	0.2
	Down Capture Ratio	1.0	1.0	1.2	1.0	1.0	1.0	0.8	1.1	1.0	1.0	1.4	1.2
	Overall Capture Ratio	1.0	1.0	0.7	1.0	1.0	0.9	1.4	1.0	1.0	1.0	0.5	0.9
	Down Period Percent	58.3%	28.6%	66.7%	32.1%	58.3%	29.8%	50.0%	35.7%	58.3%	28.6%	66.7%	35.7%
	Max Drawdown	-23.9%	-23.9%	-30.9%	-30.9%	-24.8%	-24.8%	-18.9%	-29.2%	-23.9%	-23.9%	-38.6%	-39.7%
	VaR 5%	-39.5%	-28.6%	-41.1%	-27.8%	-34.0%	-22.6%	-34.0%	-25.6%	-33.7%	-23.3%	-52.9%	-32.4%
	CVaR 5%	-52.8%	-47.3%	-55.7%	-44.8%	-46.6%	-39.9%	-44.0%	-44.4%	-48.8%	-41.3%	-69.0%	-51.3%
Variation Targeting	Correlation	100.0%	100.0%	97.7%	94.9%	98.6%	98.3%	90.9%	91.0%	100.0%	100.0%	94.1%	91.7%
	Kurtosis	-1.3	0.6	-1.1	0.3	-1.4	1.0	-0.8	2.6	-1.3	0.6	0.1	0.6
	Skewness	0.5	-0.5	0.5	-0.3	0.3	-0.6	0.1	-0.4	0.5	-0.5	0.7	-0.3
	Jarque Bera	1.3	4.1	1.0	1.6	1.2	8.0	0.4	26.3	1.3	4.1	0.9	2.8
	R2	100.0%	100.0%	95.4%	90.0%	97.1%	96.5%	82.6%	82.9%	100.0%	100.0%	88.5%	84.0%
	Residual Std Dev	0.0%	0.0%	5.1%	5.5%	4.0%	3.0%	10.0%	8.0%	0.0%	0.0%	9.6%	7.7%
	Std Error Alpha	0.0%	0.0%	0.4%	0.2%	0.3%	0.1%	0.9%	0.3%	0.0%	0.0%	0.8%	0.2%
	Std Error Beta	0.0%	0.0%	6.8%	3.7%	5.2%	2.0%	13.2%	5.4%	0.0%	0.0%	12.7%	5.2%
	Appraisal Ratio	0.0	0.0	-0.8	0.0	0.0	-0.1	0.3	0.0	-1.6	-1.1	-0.7	-0.1

Illustration 2 shows that on an equally weighted risk-return categories basis, only one fund (DODGX) performs better than the benchmark, but only on a 1-year basis (on a 7-year basis the RoT is high). Another fund (VFIAX) is the lower-cost S&P Index tracker.

Illustration 3. EI&RoT Framework: Suggested funds



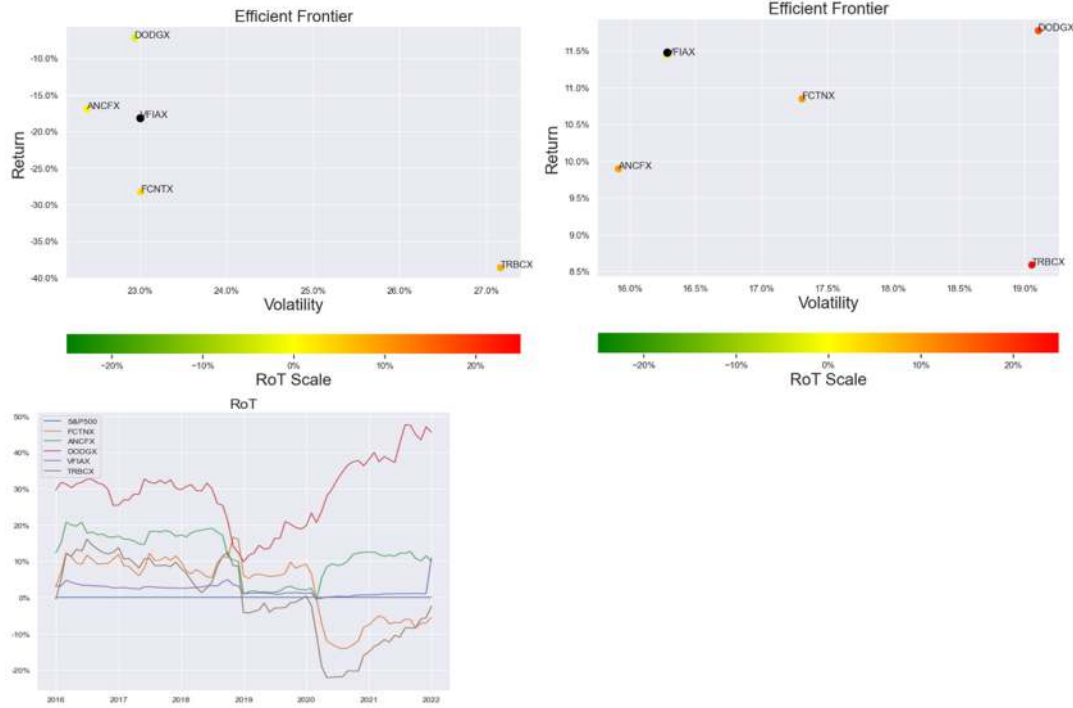
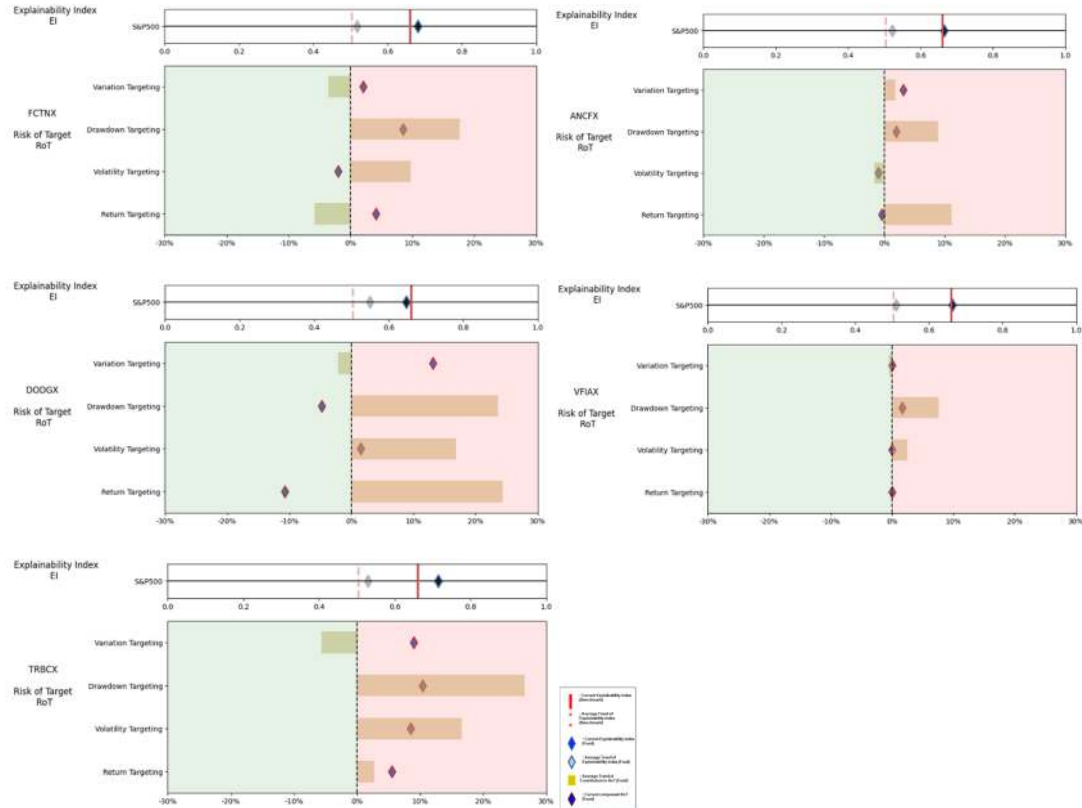


Illustration 4. EI&RoT Framework: Fund Level



3. Best large cap US mutual fund (query on March 13th, 2023)

Our query was quite generic, where

- Location: US was specified
- Asset Class: Large Cap was specified
- Benchmark: None was specified.

As noted in Table 3. and Illustration 5. & 6., for the query ChatGPT suggested all US Large Cap funds and further the funds were from Blend, Growth and Value sub-classifications with expense ratios ranging from 0.02% - 0.66%. For our analysis, we assumed S&P 500 as the benchmark and two of the funds suggested were trackers and so including those the **suggested funds had some potential choices in this set.**

Table 3. Historical Benchmark and Fund Performance.

		S&P500		VFIAX		FXAIX		PRFDX		DODGX		AWSHX	
		1 year	7 year	LC BLEND		LC BLEND		LC VALUE		LC VALUE		LC VALUE	
				1 year	7 year	1 year	7 year	1 year	7 year	1 year	7 year	1 year	7 year
Alternative Data	Net Expense Ratio	0.0%	0.0%	0.04%	0.05%	0.02%	0.02%	0.64%	0.66%	0.52%	0.52%	0.57%	0.58%
ROT/EI	EI	0.66	0.45	0.66	0.45	0.66	0.45	0.61	0.53	0.65	0.53	0.62	0.44
	RoT	0.0%	0.0%	0.5%	0.4%	0.5%	0.4%	-7.5%	18.4%	-2.1%	17.7%	-5.6%	-0.8%
Return Targeting	Alpha	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.7%	-0.6%	10.5%	0.0%	7.1%	0.9%
	Excess Return Arith	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.8%	-1.4%	10.9%	0.3%	9.6%	-0.3%
	Return	-18.1%	11.5%	-18.1%	11.4%	-18.1%	11.4%	-3.3%	10.1%	-7.2%	11.8%	-8.5%	11.2%
	Average Gain	5.3%	3.3%	5.3%	3.3%	5.3%	3.3%	4.6%	3.4%	5.0%	4.0%	5.2%	3.2%
	Batting Average	100.0%	100.0%	8.3%	15.5%	25.0%	15.5%	66.7%	42.9%	66.7%	52.4%	83.3%	44.0%
	Beta	1.0	1.0	1.0	1.0	1.0	1.0	0.8	0.9	0.9	1.1	0.8	0.9
	Bull Beta	1.0	1.0	1.0	1.0	1.0	1.0	0.6	0.9	0.5	1.0	0.6	0.9
	M.S. Returns	-19.8%	10.2%	-19.9%	10.2%	-19.8%	10.2%	-5.3%	8.8%	-9.2%	10.5%	-10.4%	10.0%
	M.S. Risk Adjusted Returns	-23.6%	7.3%	-23.6%	7.2%	-23.6%	7.2%	-9.0%	5.6%	-13.4%	6.4%	-13.4%	7.6%
	Treynor Ratio	-18.1%	11.5%	-20.3%	10.3%	-20.3%	10.3%	-6.5%	9.4%	-10.3%	10.0%	-12.7%	11.5%
	Up Capture Ratio	100.0%	100.0%	99.9%	99.9%	100.0%	99.9%	99.8%	91.6%	107.7%	106.0%	98.0%	90.1%
	Up Period Percent	41.7%	71.4%	41.7%	71.4%	41.7%	71.4%	50.0%	66.7%	50.0%	64.3%	41.7%	66.7%
Volatility Targeting	Gain Deviation	14.0%	12.7%	14.0%	12.7%	14.0%	12.7%	13.8%	12.9%	14.8%	14.8%	13.0%	11.7%
	Information Ratio	0.0	0.0	-5.6	-3.6	-2.0	-3.6	1.9	-0.2	1.4	0.0	1.9	-0.1
	Kappa	-1.5	1.0	-1.5	1.0	-1.5	1.0	-0.4	0.8	-0.7	0.9	-1.0	1.1
	Loss Deviation	17.7%	10.7%	17.7%	10.7%	17.7%	10.7%	14.4%	11.4%	16.2%	12.5%	13.9%	9.4%
	Loss Std Dev	8.4%	11.5%	8.4%	11.5%	8.4%	11.5%	10.7%	14.2%	11.8%	14.9%	8.3%	10.9%
	M.S. Risk	3.7%	2.9%	3.7%	2.9%	3.7%	2.9%	3.7%	3.2%	4.3%	4.1%	3.1%	2.4%
	Omega	0.6	1.6	0.6	1.6	0.6	1.6	0.8	1.5	0.7	1.6	0.7	1.7
	Sharpe Ratio	-0.9	0.6	-0.9	0.6	-0.9	0.6	-0.3	0.5	-0.4	0.6	-0.5	0.7
	Sortino Ratio	-1.1	0.9	-1.1	0.9	-1.1	0.9	-0.4	0.8	-0.6	0.8	-0.7	1.0
	Tracking Error	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.4%	7.1%	9.8%	8.0%	6.1%	4.2%
	Volatility	23.0%	16.3%	23.0%	16.3%	23.0%	16.3%	20.8%	17.0%	22.9%	19.1%	19.7%	14.7%
Drawdown Targeting	Average Loss	-6.3%	-4.8%	-6.3%	-4.8%	-6.3%	-4.8%	-5.8%	-4.3%	-5.9%	-4.4%	-4.8%	-3.6%
	Bear Beta	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.1	1.5	1.1	1.0	0.9
	Calmar Ratio	-0.8	0.5	-0.8	0.5	-0.8	0.5	-0.2	0.4	-0.4	0.4	-0.5	0.5
	Down Capture Ratio	1.0	1.0	1.0	1.0	1.0	1.0	0.6	0.9	0.8	1.1	0.8	0.9
	Overall Capture Ratio	1.0	1.0	1.0	1.0	1.0	1.0	1.6	1.0	1.4	1.0	1.3	1.1
	Down Period Percent	58.3%	28.6%	58.3%	28.6%	58.3%	28.6%	41.7%	32.1%	50.0%	35.7%	58.3%	33.3%
	Max Drawdown	-23.9%	-23.9%	-23.9%	-23.9%	-23.9%	-23.9%	-16.5%	-28.4%	-18.9%	-29.2%	-18.3%	-21.5%
	VaR 5%	-39.5%	-28.6%	-33.7%	-23.3%	-33.8%	-23.3%	-28.5%	-23.0%	-34.0%	-25.6%	-26.1%	-19.7%
	CVaR 5%	-52.8%	-47.3%	-48.8%	-41.3%	-48.8%	-41.3%	-38.4%	-40.3%	-44.0%	-44.4%	-39.6%	-37.1%
Variation Targeting	Correlation	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	91.2%	90.9%	90.9%	91.0%	97.1%	96.9%
	Kurtosis	-1.3	0.6	-1.3	0.6	-1.3	0.6	-0.6	2.8	-0.8	2.6	-1.1	1.2
	Skewness	0.5	-0.5	0.5	-0.5	0.5	-0.5	0.0	-0.6	0.1	-0.4	0.4	-0.4
	Jarque Bera	1.3	4.1	1.3	4.1	1.3	4.1	0.2	31.6	0.4	26.3	0.9	7.7
	R2	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	83.2%	82.7%	82.6%	82.9%	94.2%	93.8%
	Residual Std Dev	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.9%	7.1%	10.0%	8.0%	5.0%	3.7%
	Std Error Alpha	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.2%	0.9%	0.3%	0.4%	0.1%
	Std Error Beta	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.7%	4.8%	13.2%	5.4%	6.5%	2.5%
	Appraisal Ratio	0.0	0.0	-1.6	-1.1	-0.5	-1.1	0.4	0.0	0.3	0.0	0.4	0.1

Illustration 5. EI&RoT Framework: Suggested funds

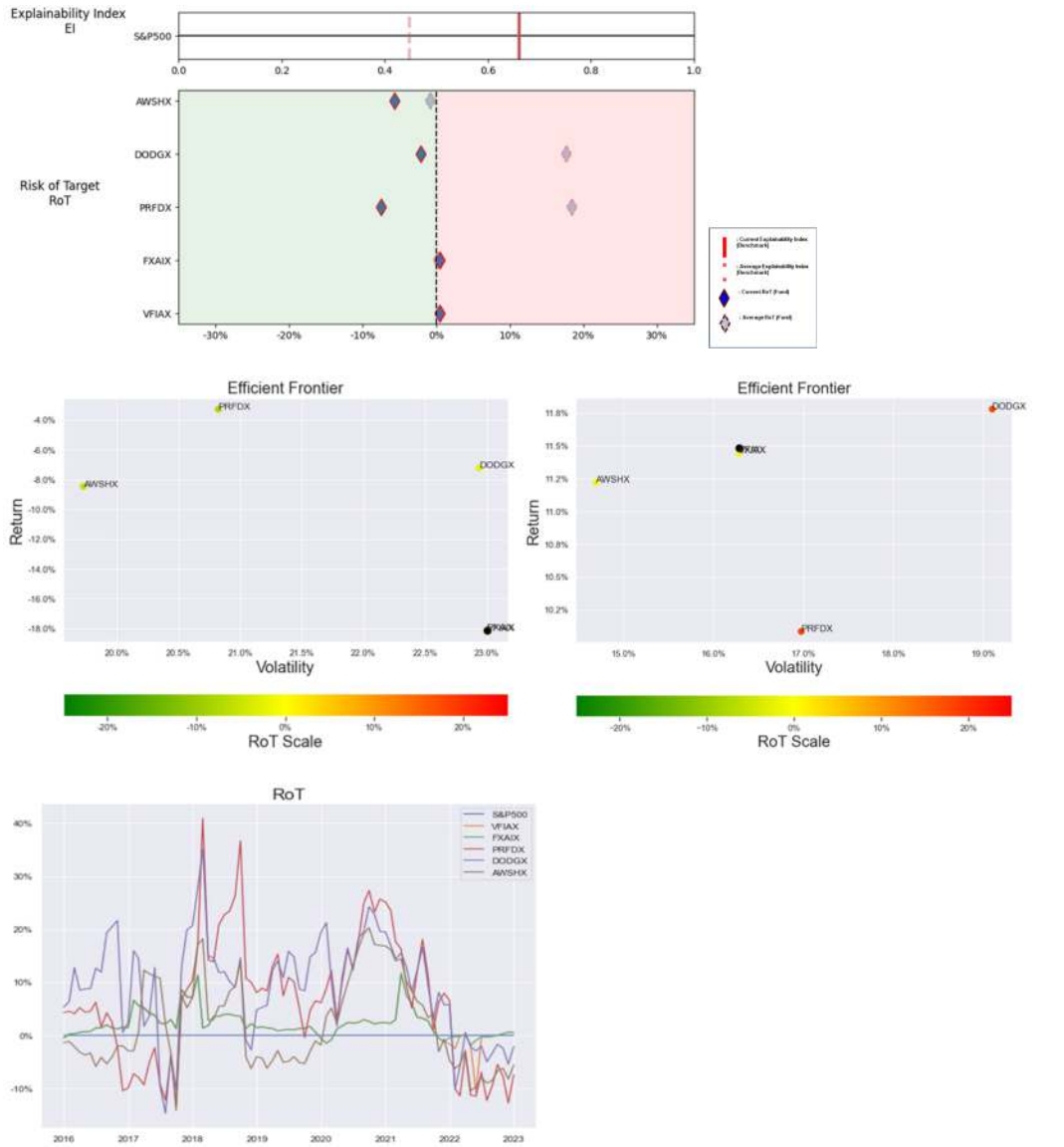
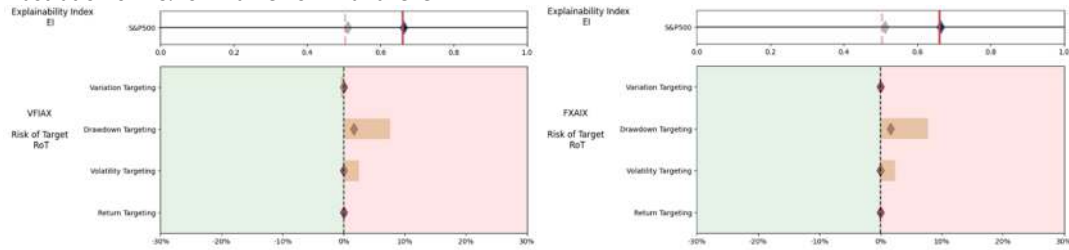
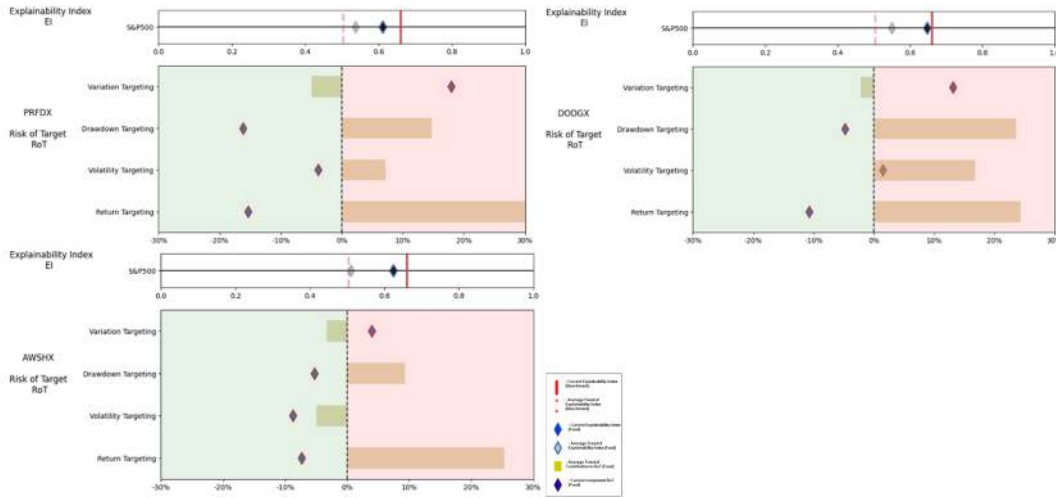


Illustration 6. EI&RoT Framework: Fund level





4. Best large cap US mutual fund (desktop query on March 13th, 2023)

Our query was quite generic, where

- Location: US was specified
- Asset Class: Large Cap was specified
- Benchmark: None was specified.

As noted in Table 4. and Illustration 7. & 8, for the query ChatGPT suggested US Large Cap funds (except potentially PRWCX) and further the funds were from Blend, Growth and Value sub-classifications with expense ratios ranging from 0.02% - 0.85%.

For our analysis, we assumed S&P 500 as the benchmark and three of the funds suggested were trackers and so excluding those the *most of the suggested funds are questionable choices.*

Table 4. Historical Benchmark and Fund Performance.

	S&P500		VFINX		FMAX		PRFDX		AGTHX		TRGX		VIGAX		FENTX		FBLEND		VMOGX		PRWCX		
	1year	7year	1year	7year	1year	7year	1year	7year	1year	7year	1year	7year	1year	7year	1year	7year	1year	7year	1year	7year	1year	7year	
Alternative Data																							
Net Expense Ratio	0.0%	0.0%	0.04%	0.05%	0.02%	0.02%	0.64%	0.66%	0.63%	0.66%	0.69%	0.72%	0.05%	0.06%	0.85%	0.74%	0.20%	0.25%	0.22%	0.28%	0.70%	0.70%	
RoT	0.0%	0.0%	0.5%	0.4%	0.5%	0.4%	-7.5%	18.4%	5.0%	17.9%	8.2%	32.3%	6.6%	13.0%	3.2%	10.7%	0.5%	1.4%	-7.2%	-16.3%	-6.1%	-16.3%	
Return Targeting																							
Alpha	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.7%	-0.6%	-15.7%	-1.6%	-24.8%	-3.0%	-16.1%	-0.6%	-13.4%	-0.5%	-0.2%	-0.2%	8.9%	2.5%	0.7%	1.5%	
Excess Return Arith	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.8%	-1.4%	-12.6%	-1.6%	-20.5%	-2.9%	-15.0%	0.0%	-10.2%	-0.6%	-0.2%	-0.2%	13.2%	0.7%	6.2%	-1.6%	
Return	-18.1%	11.5%	-18.1%	11.4%	-18.1%	11.4%	-3.3%	10.1%	-30.7%	9.2%	-39.6%	16.6%	-39.1%	11.5%	-29.3%	10.0%	-18.3%	11.3%	-4.9%	12.2%	-11.3%	9.9%	
Average Gain	5.3%	3.3%	5.3%	3.3%	5.3%	3.3%	4.0%	3.4%	5.5%	3.6%	5.9%	3.9%	6.4%	4.0%	5.0%	3.6%	5.3%	3.3%	6.0%	3.1%	3.9%	2.3%	
Return Average	100.0%	100.0%	8.3%	15.5%	25.0%	15.9%	66.7%	42.9%	25.0%	32.4%	8.9%	42.9%	16.7%	56.0%	25.0%	46.4%	0.0%	1.2%	75.0%	47.6%	66.7%	39.3%	
Beta	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.0	1.0	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	0.7	0.7	0.7	0.7	
Bull Beta	1.0	1.0	1.0	1.0	1.0	1.0	0.6	0.9	1.1	1.1	1.3	1.0	1.4	1.1	1.0	1.0	1.0	1.0	0.9	0.8	0.7	0.7	
M.S. Returns	-19.8%	10.2%	-19.8%	10.2%	-19.8%	10.2%	-5.3%	8.8%	-32.2%	8.7%	-39.9%	7.4%	-34.5%	10.3%	-29.6%	9.6%	-20.0%	10.0%	-6.9%	10.9%	-13.8%	8.6%	
M.S. Risk Adjusted Returns	-23.6%	7.3%	-23.6%	7.2%	-23.6%	7.2%	-9.0%	5.6%	-35.7%	5.3%	-48.8%	3.4%	-39.7%	6.4%	-33.1%	6.5%	-23.7%	7.1%	-9.5%	8.8%	-16.0%	7.2%	
Treynor Ratio	-18.1%	11.5%	-20.3%	10.5%	-20.3%	10.5%	-4.3%	9.4%	-32.3%	8.5%	-39.7%	6.9%	-39.0%	9.5%	-31.2%	9.6%	-20.4%	10.1%	-9.4%	13.9%	-19.4%	13.0%	
Up Capture Ratio	100.0%	100.0%	99.9%	99.9%	100.0%	99.9%	99.9%	91.6%	74.5%	89.8%	67.9%	101.1%	89.5%	106.6%	78.1%	100.9%	99.6%	99.5%	87.9%	87.0%	73.2%	69.2%	
Up Period Percent	41.7%	71.4%	41.7%	71.4%	41.7%	71.4%	50.0%	66.7%	33.3%	66.7%	33.3%	64.3%	33.3%	66.7%	33.3%	67.9%	41.7%	71.4%	33.3%	69.0%	41.7%	72.6%	
Volatility Targeting																							
Gain Deviation	14.0%	12.7%	14.0%	12.7%	14.0%	12.7%	13.8%	12.9%	12.4%	13.5%	14.3%	15.0%	14.5%	12.0%	13.5%	14.0%	12.6%	13.0%	11.5%	10.6%	9.2%	9.2%	
Information Ratio	0.0	0.0	-5.6	-3.6	-2.0	-3.6	1.9	-0.2	-2.5	-0.3	-2.6	-0.3	0.0	-2.5	-0.1	-14.5	-7.8	-2.1	0.1	0.1	-0.2	-0.2	
Kappa	-1.5	1.0	-1.5	1.0	-1.5	1.0	-0.4	0.8	-2.0	0.8	-2.1	0.6	-2.0	0.9	-1.9	0.9	-1.5	1.0	-0.8	1.4	-1.4	1.3	
Loss Deviation	17.7%	10.7%	17.7%	10.7%	17.7%	10.7%	14.4%	11.4%	21.9%	11.6%	25.5%	12.6%	29.7%	12.1%	20.5%	17.9%	10.7%	11.4%	8.4%	12.8%	7.1%	7.1%	
Loss Std Dev	8.4%	11.5%	8.4%	11.5%	8.4%	11.5%	10.7%	14.2%	12.5%	12.5%	13.2%	13.5%	11.6%	12.9%	11.2%	11.4%	8.4%	11.5%	7.0%	9.2%	7.5%	8.4%	
M.S. Risk	3.7%	2.3%	3.7%	2.3%	3.7%	2.3%	3.7%	3.2%	3.6%	3.4%	4.0%	3.3%	4.2%	3.3%	3.3%	3.3%	3.7%	2.3%	2.6%	2.1%	2.2%	1.4%	
Omega	0.6	1.6	0.6	1.6	0.6	1.6	0.8	1.5	0.4	1.5	0.4	1.4	0.4	1.5	0.4	1.5	0.6	1.6	0.8	1.8	0.6	1.8	
Sharpe Ratio	-0.9	0.6	-0.9	0.6	-0.9	0.6	-0.3	0.5	-1.4	0.5	-1.5	0.4	-1.3	0.6	-1.3	0.6	-0.9	0.6	-0.4	0.8	-0.8	0.8	
Sortino Ratio	-1.1	0.9	-1.1	0.9	-1.1	0.9	-0.4	0.8	-1.5	0.7	-1.6	0.6	-1.5	0.8	-1.5	0.9	-1.1	0.9	-0.6	1.3	-1.1	1.2	
Tracking Error	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.4%	7.1%	6.3%	5.3%	9.5%	7.7%	7.9%	5.8%	4.9%	5.5%	0.0%	0.0%	7.8%	5.9%	7.2%	6.5%	
Drawdown Targeting																							
Volatility	23.0%	16.3%	23.0%	16.3%	23.0%	16.3%	20.8%	17.0%	24.2%	17.7%	27.2%	19.1%	27.2%	19.1%	27.2%	19.1%	23.0%	16.3%	18.0%	13.8%	17.1%	11.5%	
Average Loss	-6.3%	-4.8%	-6.3%	-4.8%	-6.3%	-4.8%	-5.0%	-4.3%	-7.0%	-4.8%	-8.4%	-4.9%	-7.8%	-4.9%	-6.8%	-4.6%	-4.8%	-3.5%	-3.5%	-3.5%	-4.4%	-3.1%	
Bear Beta	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.0	1.0	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.7	0.7	
Calmar Ratio	-0.8	0.5	-0.8	0.5	-0.8	0.5	-0.2	0.4	-1.0	0.3	-1.0	0.2	-1.0	0.3	-0.9	0.4	-0.8	0.5	-0.3	0.7	-0.7	0.5	
Down Capture Ratio	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.2	1.1	1.4	1.2	1.3	1.1	1.2	1.0	1.0	1.0	1.0	0.8	0.9	0.7	0.6	
Overall Capture Ratio	1.0	1.0	1.0	1.0	1.0	1.0	1.6	1.0	0.6	0.9	0.5	0.9	0.6	1.0	0.7	1.0	1.0	1.0	1.4	1.2	1.0	1.2	
Down Period Percent	58.3%	26.6%	58.3%	26.6%	58.3%	26.6%	41.7%	32.1%	66.7%	32.1%	66.7%	36.7%	66.7%	33.3%	66.7%	32.1%	58.3%	26.6%	66.7%	31.0%	58.3%	27.4%	
Max Drawdown	-23.9%	-21.9%	-23.9%	-21.9%	-23.9%	-21.9%	-16.5%	-20.4%	-32.2%	-30.6%	-38.6%	-39.7%	-30.1%	-30.1%	-30.9%	-24.0%	-24.0%	-15.9%	-17.5%	-16.5%	-16.5%	-16.5%	
VaR 5%	-39.5%	-29.6%	-39.5%	-29.3%	-39.5%	-29.3%	-28.5%	-23.0%	-40.2%	-26.0%	-52.9%	-34.4%	-47.0%	-29.4%	-41.1%	-27.6%	-33.6%	-23.3%	-28.0%	-19.5%	-23.7%	-14.7%	
CVaR 5%	-52.0%	-47.3%	-48.0%	-40.1%	-48.0%	-41.3%	-38.4%	-40.8%	-56.6%	-44.9%	-69.0%	-51.3%	-63.9%	-48.2%	-55.7%	-44.0%	-48.6%	-41.4%	-37.8%	-35.0%	-34.1%	-26.8%	
Correlation	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	91.2%	90.9%	95.5%	94.1%	91.7%	96.3%	95.5%	97.7%	94.9%	100.0%	100.0%	100.0%	97.8%	95.8%	97.9%	95.1%	
Kurtosis	-1.3	0.6	-1.3	0.6	-1.3	0.6	-0.6	-0.9	0.6	0.1	0.6	-0.2	0.4	-1.1	0.3	-1.3	0.6	-0.4	0.4	-0.8	1.3	1.3	
Skewness	0.5	-0.5	0.5	-0.5	0.5	-0.5	0.8	0.5	-0.3	0.7	-0.3	0.8	-0.3	0.5	-0.3	0.5	-0.5	-0.7	-0.3	0.5	-0.3	-0.3	
Jarque Beta	1.3	4.1	1.3	4.1	1.3	4.1	1.3	4.1	31.6	0.8	2.7	0.9	2.8	1.2	1.8	1.0	1.6	1.3	4.1	1.9	0.8	7.6	
R2	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	85.2%	82.7%	92.2%	91.2%	88.5%	84.0%	90.8%	91.2%	95.4%	90.0%	100.0%	100.0%	91.6%	87.9%	95.8%	92.4%	
Residual Std Dev	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	1.1%	6.8%	5.3%	9.2%	7.7%	7.6%	5.6%	5.1%	5.5%	0.0%	0.0%	5.8%	4.8%	3.7%	3.1%	
Std Error Alpha	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.7%	0.4%	0.4%	0.0%	0.0%	0.8%	0.7%	0.3%	0.1%	
Std Error Beta	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.7%	4.8%	8.7%	3.6%	12.7%	5.2%	10.0%	3.8%	6.8%	3.7%	0.0%	0.0%	7.2%	3.8%	4.8%	2.1%	
Appraisal Ratio	0.0	0.0	-1.6	-1.1	-0.5	-1.1	0.4	0.0	-0.7	-0.1	-0.7	-0.1	-0.6	0.0	-0.8	0.0	-4.1	-2.3	0.5	0.2	0.1	0.1	

Illustration 7. EI&RoT Framework: Suggested funds

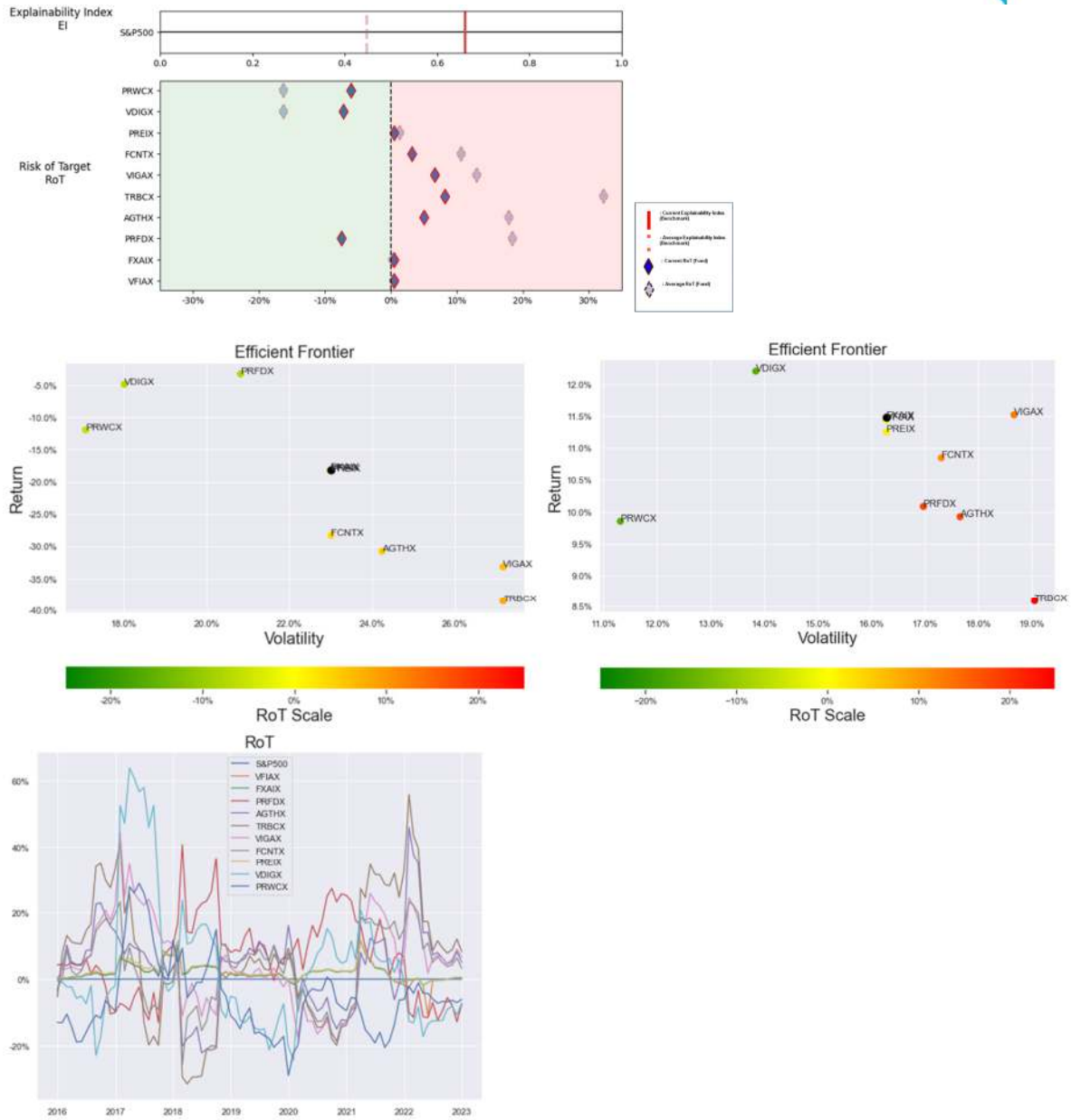
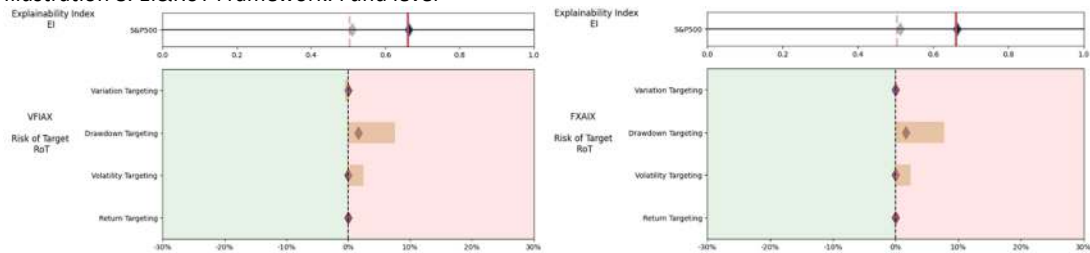
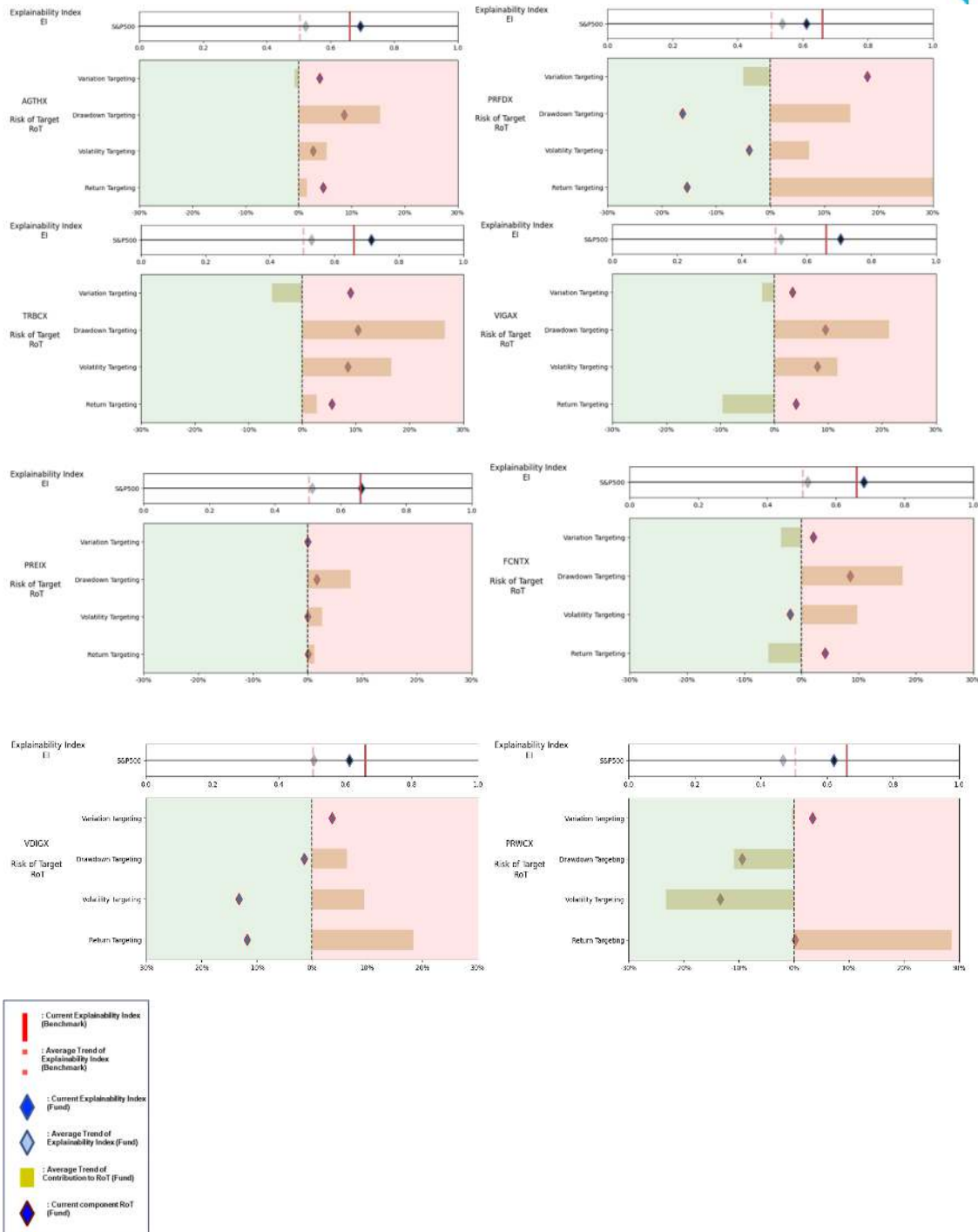


Illustration 8. EI&RoT Framework: Fund level





Overall, ChatGPT gave incomplete/inconsistent textual presentation and questionable fund suggestions especially as the reference benchmark was not specified. Further the results had cut-paste descriptions from the providers thereby potentially accentuating the biases. Overall, it remains a mystery as to why these were the results of the ‘best mutual funds’ and/or ‘best large cap US mutual fund’ queries, where one can only imagine that the LLM models found enough supporting language in the training dataset (e.g., offering documents, third-party write ups, etc).



Advisor beware – akin to patients visiting a doctor’s office armed with google reports, clients may visit your office armed with (annoying) ChatGPT suggestions!

Contact us for information about a particular fund, performance measure, time period, etc.

Email: info@ask2.ai for questions.
