



Term project

CORPORATE ANALYSIS OF ENPHASE ENERGY  
& ITS INDUSTRY PEERS

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### Investment Policy Statement

- Objectives

- o Returns

☐ We pursue capital appreciation that outperforms the fund's performance benchmark and S&P500 through proactive asset allocation and investment management, while controlling portfolio risk.

- o Risk

☐ Credit risk: Also referred to as default risk, it is the potential loss resulting from the default of the participants in asset-backed securities on the various contracts to which they are committed. In a simple sense, credit risk manifests itself as a loss to investors due to the inability of the cash flows generated by the securitized assets to support the timely payment of principal and interest.

☐ Interest rate risk: This refers to the risk that asset-backed securities, as a type of fixed-income security, also have interest rate risk, i.e., the risk that the price of asset-backed securities is subject to the occurrence of interest rate fluctuations such as interest rate increases by the Federal Reserve.

☐ Liquidity risk: This is the risk that the asset-backed securities cannot be liquidated quickly and at low cost.

☐ Early repayment risk: This refers to the possibility that investors may suffer losses due to early repayment if the debtor is contractually entitled to repayment before the product matures.

- Constraints

- o Liquidity: No liquidity needed until end of time horizon
- o Time Horizon of 20 years
- o The proportion of the Fund's investment in each class of asset-backed securities of the same original equity holder shall not exceed 10% of the net asset value of the Fund
- o The liquidation period of the Fund's property is 6 months, but if the liquidity of the securities held by the Fund is restricted and cannot be liquidated in time, the liquidation period will be extended accordingly.
- Asset Allocation Targets
  - o As a mixed-category fund, we select segments that are expected to have good growth prospects after considering the growth, cyclicity, competitive landscape, technological advances, government policies and other factors of the industry.
  - o The Fund focuses on the fundamentals and valuation levels of individual stocks when selecting individual stocks. The fundamentals include the competitiveness of the main business, profitability, stability and sustainability of earnings, governance structure and management capability, and business model. The valuation level mainly examines the growth of the stock's performance, the company's business prospects, changes in fundamentals and other factors and the valuation match. Preferred listed companies with good fundamental factors and reasonable valuation levels are selected to construct stock portfolios.
- Guidelines for Portfolio Adjustment and Rebalancing
  - o The Fund will rebalance the portfolio for losses and gains in excess of 5% of the asset allocation target based on its judgment of interest rate movements and changes in the yield curve.

- Schedule for Portfolio and IPS Review
  - o Each quarter, our fund custodian will review and examine the relevant fund information publicly disclosed, such as the fund net asset value, net value of each type of fund share, subscription and redemption price of each type of fund share, fund periodic reports, updated prospectus, fund product information summary, fund liquidation report, etc., prepared by the fund manager in accordance with relevant laws and regulations, and confirm them to clients in writing or electronically.

### Investment Strategies

Our portfolio aims to have a time horizon of 15 years investing in medium and large cap companies. We seek to beat the S&P 500 over the investment period through stocks that are high in value. We have decided to go ahead with med and large size companies as they have proven to be less risky while giving good returns along with dividends. The long time horizon helps the stocks to make returns over the benchmark while keeping a low risk profile. To show diversity in our portfolio, we have decided to invest in stocks from different sectors through a combination of mid and high market size companies and constant dividends paying stocks.

According to our investment goal and to keep trading costs to a minimum, we have decided to hold our stocks over a period of time until the desired level of returns are achieved. As time passes by and the portfolio matures around the market changes, we may make changes to our portfolio.

**Portfolio Holdings, Value & Performance**

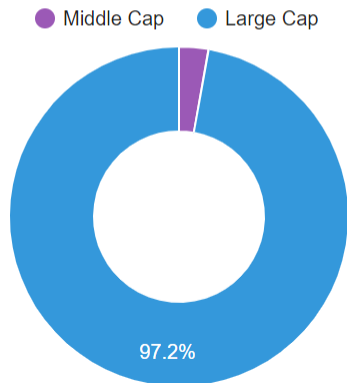
Return reflects the change in the value of the investment. It does not assume the reinvestment of distributions from dividend income and capital gains. The shareholder would also pay taxes on security distributions and redemption of mutual fund shares. Past performance of the fund is not an indication of future performance. 30-day return schedule is widely used by short term traders & intra day traders as it provides a bit more precise movement of the stock price as compared to a 100-day return schedule.

**Portfolio Holdings**

Post selling of 2 shares, namely, ENPH and UPS, our portfolio holdings as of 12/08/2022 is as follows:

STOCK	QUANTITY	Percentage of Fund's Net Assets
GME	Fifty shares	14.29%
CVX	One hundred shares	28.57%
MU	One hundred shares	28.57%
NVDA	One hundred shares	28.57%

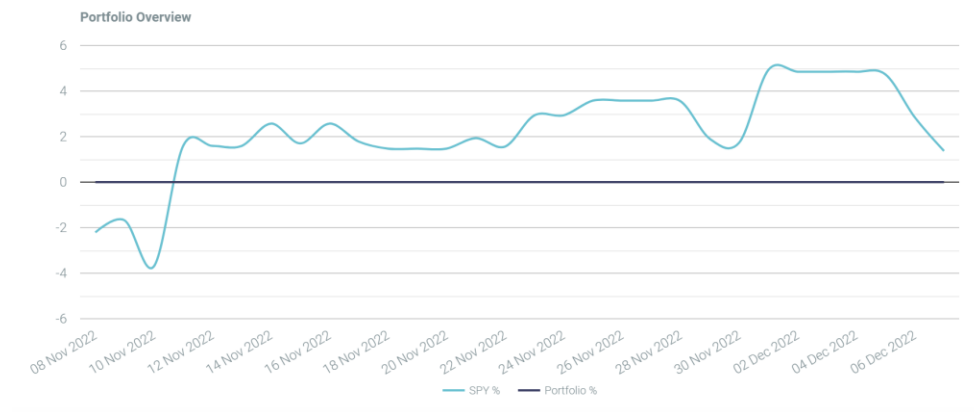
Asset Class	Industry
Symbols	Market Cap



### Fund Performance

A growing number of new housing and consumer spending post covid 19 pandemics encouraged our portfolio to invest within energy, technology, entertainment, automobile & aviation sector. The fund does hold securities that have growth potential such as the information technology & energy sector. The belief is that near future the securities held in the fund will grow, but the main goal of the fund is to provide income to the short-term investor through capital gains.

The portfolio was constructed in a balanced way by diversifying the investment across multiple sectors to spread out the risk. The portfolio has underperformed as compared to SPY (ETF).



All the stocks in the portfolio have a positive mean return. Therefore, for an intraday trading we have a greater exposure to positive returns for our portfolio. The overall return of the portfolio is 0.01% which means our portfolio has underperformed as compared to that of market i.e., S&P 500 which has posted a return of 0.307%. While larger sectors had underachieving periods which dragged down the performance of the portfolio, the diversified nature of the portfolio helped in preventing greater damage to the expectations.

### PORTFOLIO CHARACTERISTICS

We've opted to perform day trading as there are a lot of strategies available to make most of the short-term price movements. The primary strategy we've implemented is the market timing strategy which involves a basic assumption that a steady increase in prices will eventually reverse, as well as trend following or momentum trading, range-bound, and price action trading. Although day trading is risky, it can be very rewarding which was the case with our portfolio. Post the day trading we've performed, below is our transaction history. Our portfolio value of 12/08/2022 stands at \$10,001,289.38 which is more than what we started off with (\$10,000,000).



**FINA 6203: Investment Analysis - Fall 2022**

Symbol	TransactionType	CompanyName	Exchange	Quantity	Currency	SecurityType	Price	Amount
ENPH	Market - Sell	Enphase Energy Inc	US	-50	USD	Equities	\$314.69	\$15,734.50
UPS	Market - Sell	United Parcel Service, Inc. - Ordinary Shares - Class B	US	-100	USD	Equities	\$174.89	\$17,489.00
MU	Market - Buy	Micron Technology Inc.	US	100	USD	Equities	\$53.45	(\$5,345.00)
CVX	Market - Buy	Chevron Corp.	US	100	USD	Equities	\$172.73	(\$17,273.00)
UPS	Market - Buy	United Parcel Service, Inc. - Ordinary Shares - Class B	US	100	USD	Equities	\$174.51	(\$17,451.00)
NVDA	Market - Buy	NVIDIA Corp	US	100	USD	Equities	\$160.26	(\$16,026.00)
GME	Market - Buy	Gamestop Corporation - Ordinary Shares - Class A	US	50	USD	Equities	\$23.94	(\$1,197.00)
ENPH	Market - Buy	Enphase Energy Inc	US	50	USD	Equities	\$308.00	(\$15,400.00)

**BETA**

Beta measures the volatility of a stock within the portfolio. Below is the breakdown of Beta as per each stock in our portfolio. As per the below calculated numbers, we see that MU (Micron Technology) was the riskiest stock compared to the others within the portfolio.

STOCK	BETA
ENPH	0.122965
UPS	0.406055
MU	1.379851
CVX	0.44092
NVDA	0.275552
GME	0.32694

**ASSET PERFORMANCE STATISTICS**

	Risk			Performance			
	Variance	Standard Dev.	Beta	Mean	Jensen Alpha	Sharpe Ratio	Treynor I
ENPH	0.0000	0.0060	-1.1259	1.9115%	2.2324%	3.1650	-0.0169
UPS	0.0002	0.0146	0.4636	0.7848%	0.6358%	0.5302	0.0167
MU	0.0001	0.0119	0.5655	1.1054%	0.9263%	0.9151	0.0193
CVX	0.0001	0.0103	0.6588	1.0214%	0.8147%	0.9841	0.0153
NVDA	0.0001	0.0088	0.7666	1.4518%	1.2132%	1.6335	0.0188
GME	0.0091	0.0956	0.0707	1.8054%	1.7726%	0.1877	0.2536

Above is the breakdown of performance as per each stock within our portfolio. As per the numbers, we can see that only ENPH has a negative Treynor Ratio which indicates that we have managed to reduce risk and get a better return than the risk-free rate. Within our portfolio, ENPH is the best performing stock by looking at the returns calculated on the excel and the variance and standard deviation shown above. Below are the 1-day graphs of the open positions that we still hold in our portfolio post selling of ENPH and UPS.

## 1. CVX



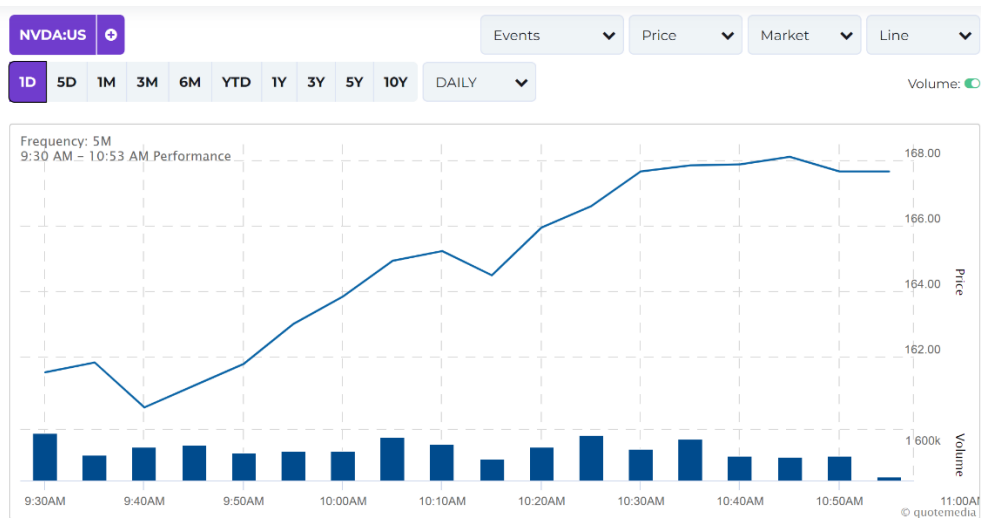
## 2. GME



### 3. MU



### 4. NVDA



Team Organization and Operations

- NanjieYin- Economist, Sector Analyst
  - o Qualitative company analysis
  - o Macro Policy Research
  - o Organize text materials
  
- HanyangLi - CIO, Stock Analyst
  - o Bundled all the financial information & data
  - o Financial analysis (efficiency and liquidity ratios)
- Poorna - CEO, Stock Analyst
  - o Evaluated security positioning
  - o Organize team meetings
  - o Liaison between professor and group
  
- Varun Jain - Economist, Stock Analyst
  - o Assigned weekly duties and keep everyone up to date
  - o Researched and analyzed sectors for updates and relevant information
  
- Michael Zampitella - Economist and Sector Analyst
  - o Macro Policy Research

- o Organize text materials
- o Evaluated security positioning

Our group believes in short term investing, so we will WhatsApp online once a week. Ideas are exchanged about short positions or buy-sell options.

### Conclusion

We worked very efficiently as a team together, we had a few ups and downs through our journey of investing as we encountered a few glitches in our investment timeline, but all in all we wished to have a longer time span to have a more accurate result of the investments in compliance to our long term goals. For the future, we could probably be more efficient in the allocation and timeline of our investments in our portfolio.

The portfolio underperformed the S&P 500, and for that, we underachieved. But on the upside, we learned a lot from this project and gained practical exposure of trading in real life. From all this, we gained valuable portfolio construction experience.

