Don’t Bet It All on One Stock: How Diversified Portfolios Win

A Portfolio Comparison Between AAPL and a Mixed Fund Strategy

Portfolio Performance Presentation: Wharton Business and Financial Modeling Capstone

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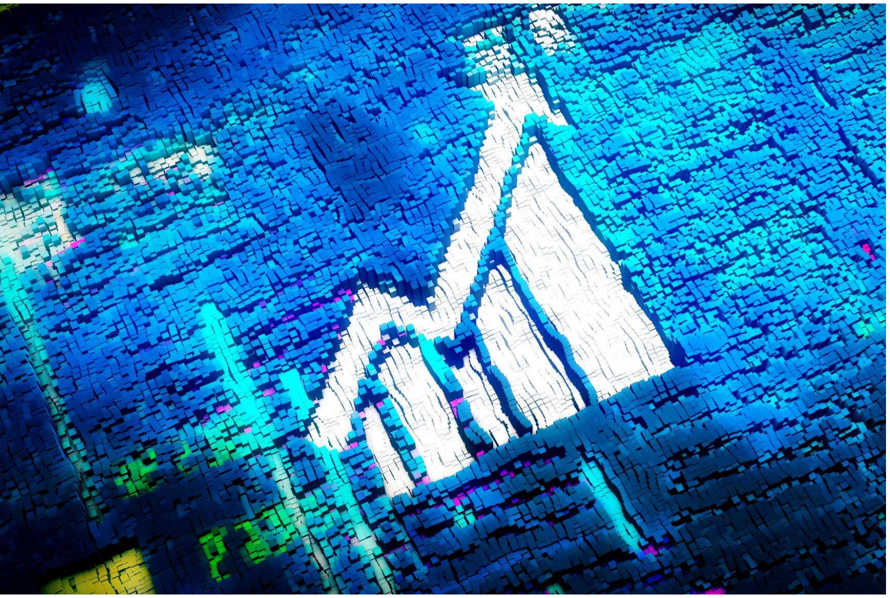
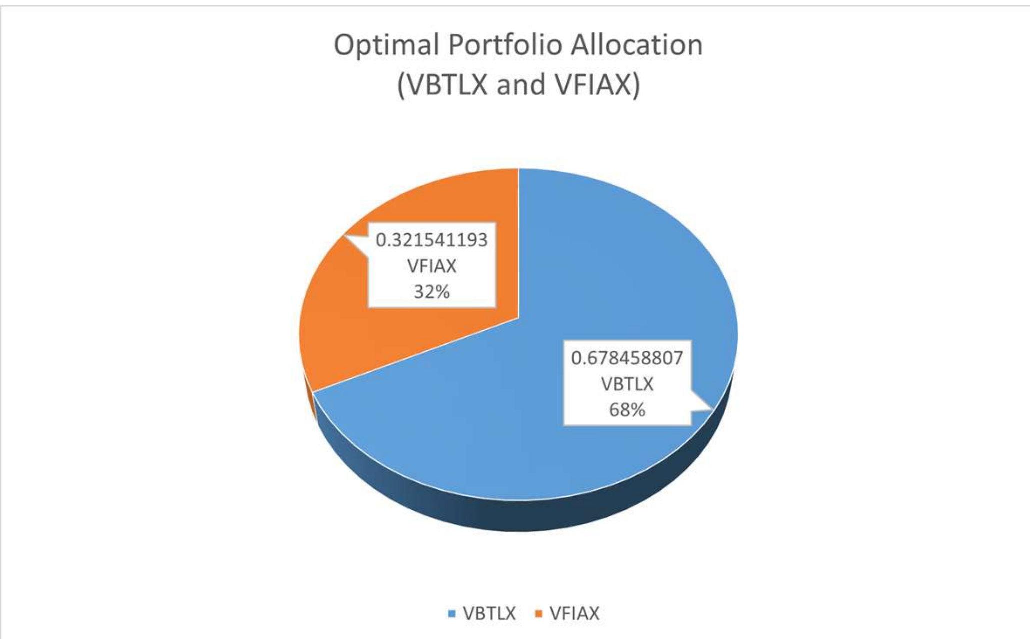


Why Diversification Matters

- Many investors are tempted to invest in popular individual stocks like AAPL.
- But even strong companies experience downturns.
- This analysis compares AAPL to a balanced portfolio made up of bond and stock funds.
- The goal is to show how diversification protects and grows wealth.

The Diversified Portfolio (VBTLX + VFIAX)



Effective asset allocation within a portfolio is crucial for achieving desired financial outcomes and balancing risk.

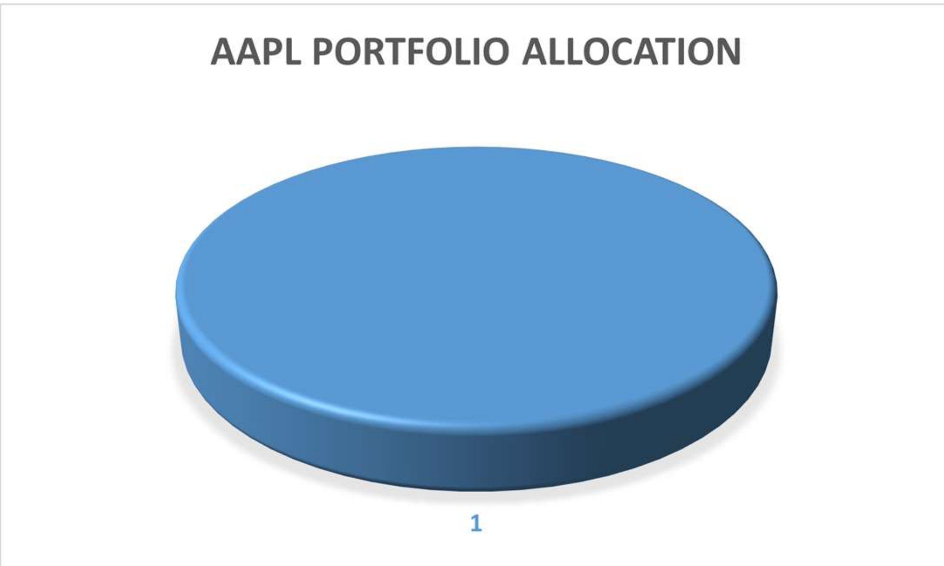
The diversified portfolio is made up of two investment vehicles namely the **Vanguard Total Bond Market Index (VBTLX)** and the **Vanguard 500 Index (VFIAX)**.

This is a mix of fixed income and equity which can help investors manage risk and returns accordingly.

Based on the optimal risky portfolio (Sharpe Ratio: 0.4746) on the efficient frontier for the preceding years Jan 2012-Dec 2015, the optimal asset allocation for a $5 million in Dec 2015 is as follows:

VBTLX : $3,392,294 (Weight$_{VBTLX}$ = 0.67846)
VFIAX : $1,607,706 (Weight$_{VFIAX}$ = 0.32154)

The Single Asset Portfolio (AAPL)



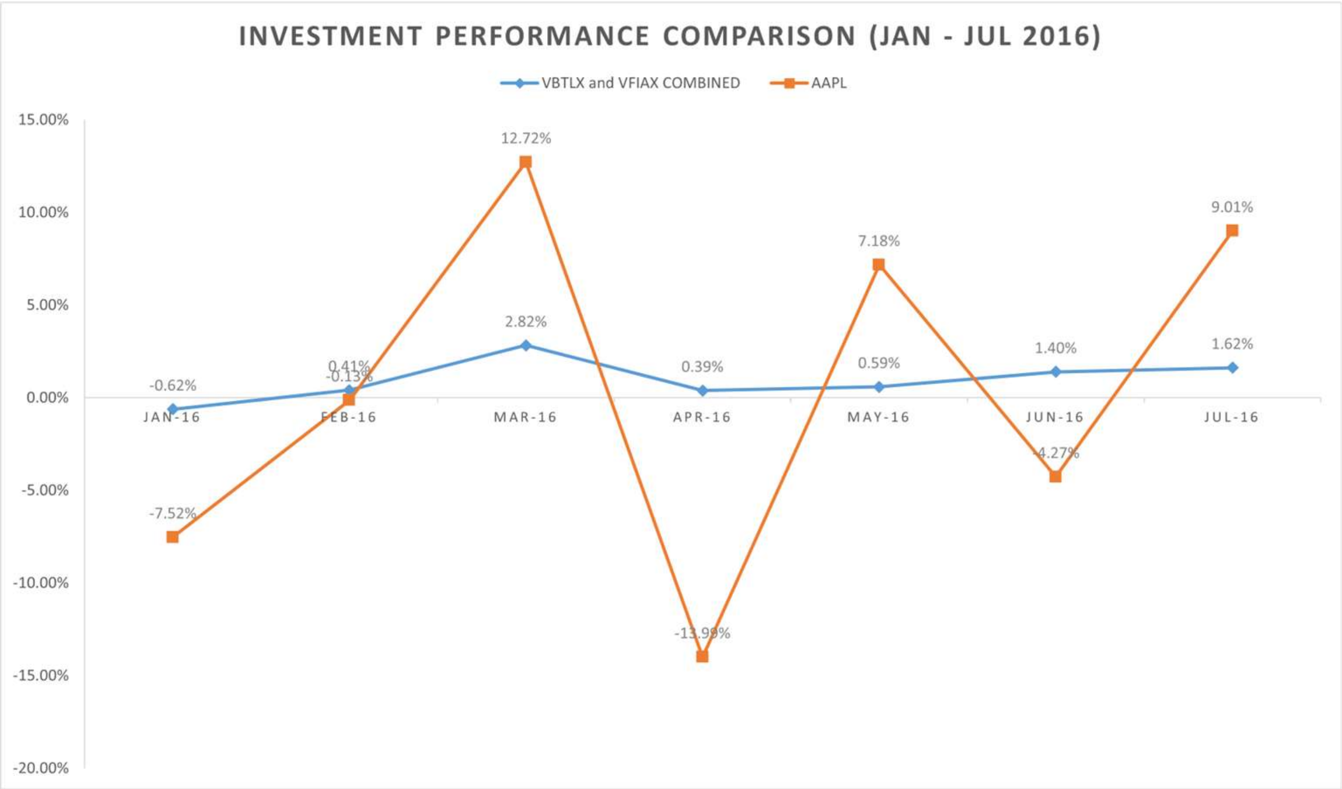
Stock-focused portfolios primarily invest in shares, providing investors access to corporate growth and profits.

Investing in a single tech equity portfolio such as Apple Inc. (AAPL) has the potential for high growth which is appealing to investors seeking substantial capital appreciation.

However, higher growth potential comes with increased volatility and risk, requiring careful management and assessment.

The optimal asset allocation for a $5 million in Dec 2015 is as follows:

AAPL : $5,000,000 (Weight$_{AAPL}$ = 1.00)



Portfolio Performance Comparison

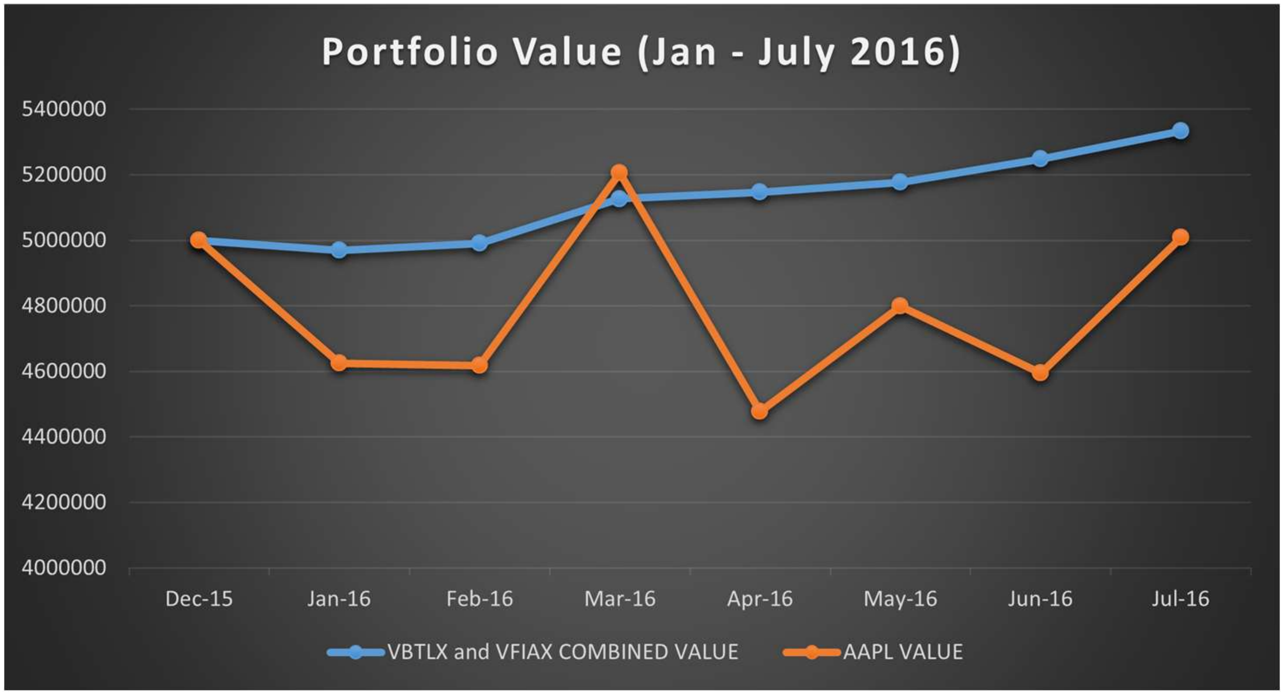
As these two portfolios are invested from January 2016 through July 2016, AAPL witnesses more volatility throughout the period compared to the weighted portfolio of VBTLX and VFIAX.

In March, AAPL experienced its highest month-to-month gain with a 12.72% rise compared with the diversified portfolio's 2.82% gain (also it's highest).

The next month, AAPL witnesses its lowest monthly drop, a 13.99% loss, compared with the modest 0.39% gain of the diversified portfolio.

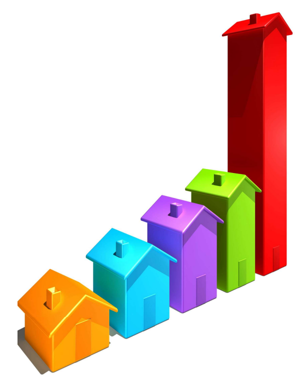
In three of the months (March, May and July) , AAPL had higher returns than the weighted diversified portfolio of VBTLX and VFIAX.

In four of the months (January, February, April, June) AAPL also had lower returns than the diversified portfolio.

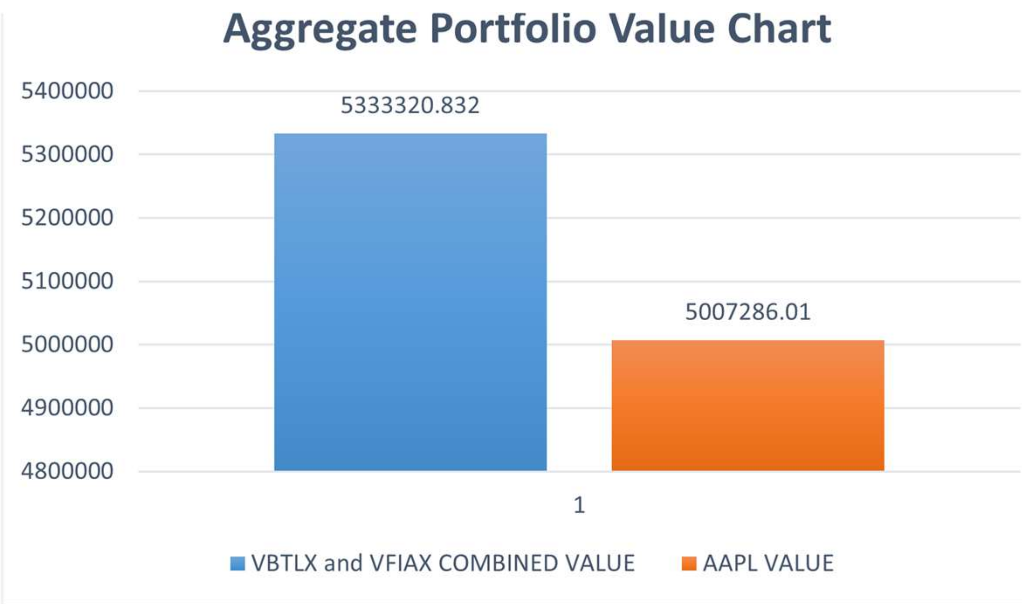


The weighted diversified portfolio value of VBTLX and VFIAX outperformed AAPL every month except for March where AAPL had a cumulative higher return.

Even a strong stock like AAPL had losses in 4 of 7 months. Non-diversified portfolios are highly susceptible to market fluctuations, risking significant financial losses for investors.



Portfolio Growth: Jan – Jul 2016



So, would you rather bet it all on one stock?

For the period under review, we see that the diversified portfolio outperformed AAPL by $326,034.82.

The weighted diversified portfolio grew steadily with lower risk. Diversification helps in reducing risk by spreading investments across different asset classes, minimizing potential losses.

Diversification provides better returns and peace of mind.

Conclusion

Diversified portfolios have historically shown better performance compared to non-diversified portfolios, especially in challenging market conditions.

Long-term investment strategies benefit significantly from diversification, leading to more stable returns over time.

During market downturns, diversified portfolios tend to be more resilient, protecting investors from significant losses.

“Build portfolios for the long term, not the moment.”

Thank you!