

The research relies on three foundational methodologies: validity, reliability, and triangulation.

- **Validity** ensures that conclusions drawn from the data are meaningful and justifiable, based on thorough analysis.
- **Reliability** involves sourcing raw data from credible instruments, government agencies, and reputable research bodies, ensuring the consistency of results across repeated analyses.
- **Triangulation** strengthens the findings by corroborating evidence from multiple sources, such as interviews, observational data, and quantitative analysis, fostering a comprehensive understanding.

See – [Guidance note: The Seven Carriages An approach to thesis design and development | Musicom20 \(musicum20.com\)](https://musicum20.com/guidance-note-the-seven-carriages-an-approach-to-thesis-design-and-development/)

Data collected

The data collected in this thesis on asset class correlations on the NYSE provides essential insights into price relationships among equities, bonds, commodities, and cryptocurrencies. It identifies patterns of positive, negative, and neutral correlations, offering valuable analysis for portfolio diversification. Examining ETFs like XLF and XLK highlights sector-specific behaviours under varying economic conditions. Furthermore, indicators like Treasury yield curves and crude oil trends provide macroeconomic context. Overall, these findings equip investors and policymakers with actionable data to navigate market dynamics effectively.

Literature review

The concept of optimal portfolio allocation has been central to Modern Portfolio Theory (MPT). Developed to maximise returns while minimising risk, MPT provides a structured framework for portfolio diversification by examining asset correlations. With advanced statistical platforms and robust analytical techniques, stakeholders delve deeper into the intricate relationships between asset classes to optimise their portfolios in an ever-changing economic landscape.

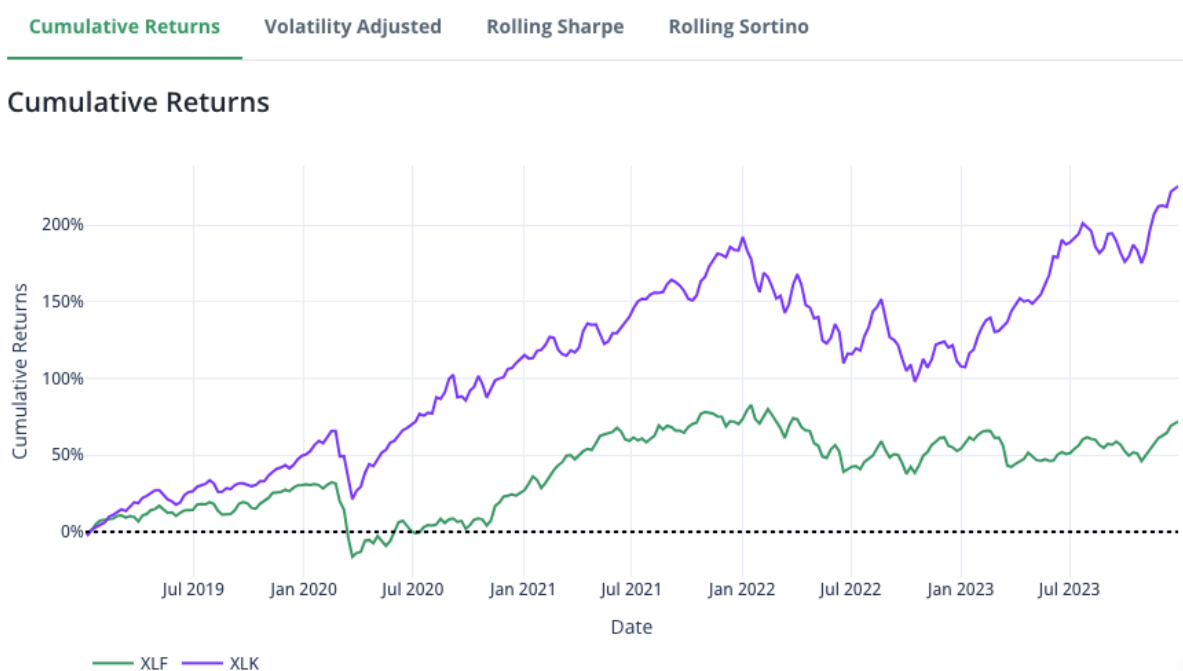
Data analysis

The thesis on asset class correlations on the NYSE provides essential insights into price relationships among equities, bonds, commodities, and cryptocurrencies. It identifies patterns of positive, negative, and neutral correlations, offering valuable analysis for portfolio diversification. Examining ETFs like XLF and XLK highlights sector-specific behaviours under varying economic conditions. Furthermore, indicators like Treasury yield curves and crude oil trends provide macroeconomic context. Overall, these findings equip investors and policymakers with actionable data to navigate market dynamics effectively.

Conclusion

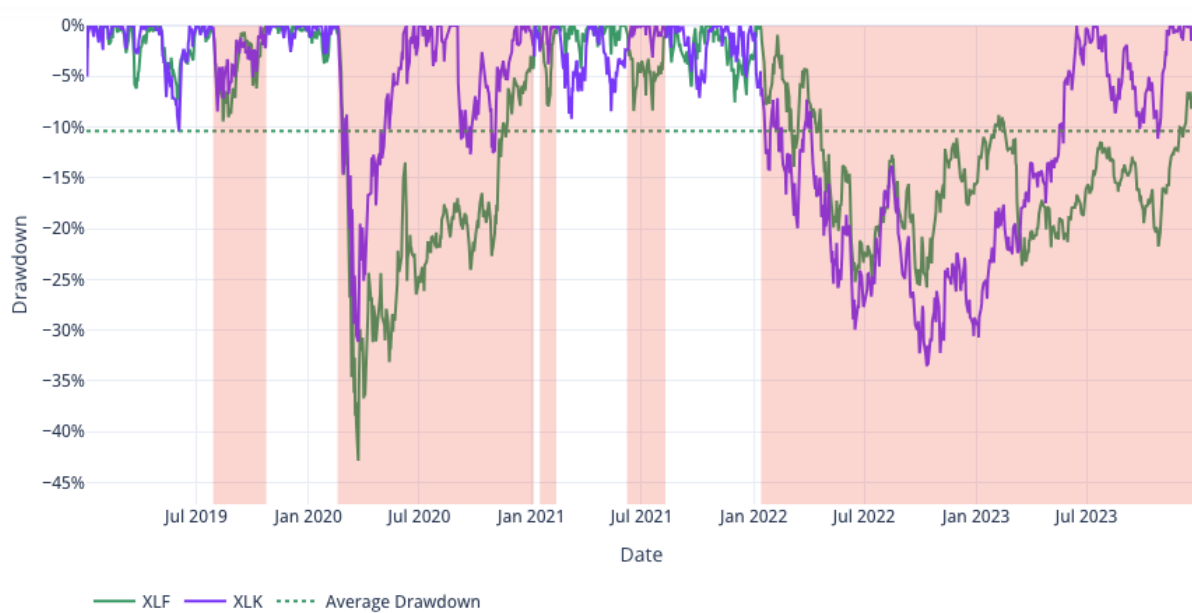
I identified a positive correlation between XLF and XLK cumulative returns. The spread of these two ETF equities is widening within a range of two standard deviations; and a positive correlation between these two assets, where XLK registered greater returns and losses than XLF. Further, when analysing drawdowns of XLF and XLK, It shows that in times of disinflationary pressures, XLF experiences greater drawdowns than XLK.

Cumulative returns



Source: [PortfolioMetrics \(portfoliometrics.net\)](https://www.portfoliometrics.net)

Drawdowns



Source: [PortfolioMetrics \(portfoliometrics.net\)](https://www.portfoliometrics.net)

When analysing WTI prices that rise fast and when they reach certain price levels, we can expect disinflation and even a recession period, followed by a sharp crash in crude oil price action.

Lastly, by analysing the yield curve of the 10-year Treasury Constant Maturity Minus the 2-year Treasury Constant Maturity, we can see that about six months after the curve reinverts (normal curve), there will be a recession in the US economy

Recommendation

Follow the framework provided in the thesis and be sure to identify “black swan” events, that can void the framework.

Further research

I recommend expanding the thesis to additional asset classes, namely NASDAQ 100 (ETF: QQQ) and Dow 30 indices (ETF: DJIA).

The thesis analyses correlations among NYSE asset classes, identifying positive, negative, and neutral relationships for equities, bonds, commodities, and cryptocurrencies. ETFs like XLF and XLK exhibit widening spreads, with XLK outperforming during disinflation. Treasury yield curve inversions predict recessions. Recommendations include monitoring "black swan" events and expanding the analysis to NASDAQ 100 (QQQ) and Dow 30 (DJIA).

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