LUND
UNIVERSITY

"Exploring the Impact of Economic Policy Uncertainty on Swedish Institutional Investors Fund Returns"

Master Thesis: Department of Economics

Author: Axel Johansson

Supervisor: Thomas Fischer

Abstract

Keywords:

Table of Contents:

Chapter 1: Introduction

1.1 Background

In the evolving landscape of financial markets, the concept of economic policy uncertainty (EPU) has garnered substantial attention for its profound influence on market behaviors, including stock market returns (e.g. Brogaard and Detzel, 2015; Chiang, 2019; Vikström, 2020; Xu et al., 2021; Hong et al., 2024) market volatility (Liu and Zhang, 2015; Ghani et al., 2024), impact on the M&A activity (Elshof, 2021; Han et al., 2020; Bauernfeind, 2023), fund flow (French and Li, 2022; Ali et al., 2023) and the interconnectedness among various asset classes (Badshah et al, 2019).

Gomes et al. (2012) and Pastor and Veronesi (2013) highlight EPU's role in influencing key financial decisions across personal and corporate spheres, particularly during economic downturns. Their research illustrates how EPU, as a systemic risk, impacts consumption, investment, and employment practices, affecting both firm-level and household-level decision-making.

This thesis investigates the impact of EPU on the returns of various investment funds in Sweden, including pension, mutual, insurance funds, and ETFs. It employs a monthly, news-based Swedish EPU index built by Armelius et al. (2016) that draws on Baker et al.'s (2016)

methodology, to explore the effects of both global and local uncertainties on the returns of Sweden's institutional investments. By focusing on Sweden's financial ecosystem, this study offers a fresh perspective on how policy uncertainty influences investment performance in the Swedish market. Additionally, we will compare the effects of the Swedish EPU index with European and global EPU indices to highlight any disparities or notable changes.

1.2 Research questions:

This thesis investigates the impact of economic policy uncertainties using a Swedish EPU index on institutional investment returns in Sweden. It seeks to identify whether local EPU acts as a significant risk factor influencing returns and how it compares to the influence of global EPU and European EPU on the Swedish financial market. The study will explore whether policy uncertainty is pierced into the returns of these funds and if it commands a risk premium, indicating a significant impact on fund performance based on a fund's exposure to policy uncertainty. Throughout our thesis, we aimed to address the following hypotheses:

H1: Local EPU in Sweden has a significant negative impact on the returns of institutional investments, including pension funds, mutual funds, insurance funds, and ETFs.

H2: Local uncertainty plays a more dominant role as a driver of institutional investment returns than global or European uncertainty for Sweden.

H3: EPU is a priced risk factor in the cross-section of fund returns in Sweden, commanding a statistically significant risk premium associated with a fund's exposure to policy uncertainty.

H4: Funds with lower exposure to policy uncertainty generate significantly higher annualized returns compared to funds with high uncertainty betas.

1.3 Scope and limitations:

1.3.1 Scope:

This thesis focuses on analyzing the impact of economic policy uncertainty on the returns of hedge funds, investment funds, and mutual funds within the Swedish financial ecosystem. By

employing the Swedish EPU index as a measure, the study aims to uncover patterns in fund returns during periods of heightened uncertainty and examine the efficacy of various investment strategies employed by these funds.

1.3.2 Limitations:

The research is constrained by several factors, including the availability and accessibility of comprehensive fund performance data during periods of economic uncertainty. Additionally, the specificity to Sweden, while offering detailed insights into the Swedish market, may limit the generalizability of the findings to other geographic contexts. Another limitation arises from the inherent complexity of quantifying EPU and its direct impact on fund returns, given the multifaceted nature of economic policies and their varying implications across different sectors and types of investments.

1.4 Disposition:

Chapter 2 introduces definitions and reviews the relevant literature. Chapter 3 describes the methodology used by Armelius et al. to produce a Swedish EPU index, details our data source and sample selection and briefly overviews the relevant statistical techniques. The results and findings are described in Chapter 4, while Chapter 5 analyzes the results and discusses implications for institutional investors. Finally, Chapter 6 presents the thesis's conclusions, the limitations of our work and suggests topics for further research.

Chapter 2: Empiric Research

2.1 Definitions:

2.1.1 EPU:

Al-Thaqeb et al. (2019) define Economic Policy Uncertainty (EPU) as “a risk in which government policies and regulatory frameworks are undefined for the near future”. Numerous major monetary policymakers and financial institutions, including the Federal Open Market Committee (2010), IMF (2013), World Bank (2023), and Citibank (2024), suggest that

uncertainty about U.S. and European fiscal, regulatory, and monetary policies have contributed to significant economic fluctuations and prolonged periods of instability.

Measuring EPU:

Measuring EPU has long been a challenge for researchers. The Volatility Index (VIX), created by the Chicago Board Options Exchange, is a traditional method that gauges market volatility by looking at the variance in stock returns and prices (CBOE, 2024). This approach, advocated by Baker et al., 2016, is recognized for its utility in assessing uncertainty at the firm and equity market levels. Nonetheless, the VIX falls short of capturing a wide spectrum of uncertainties since it primarily focuses on market volatility. Its applicability across various industries and countries is limited (Al-Thaqeb et al., 2019), highlighting a need for more versatile measures of EPU.

In pursuit of broader indicators, researchers have developed several alternative methods. The Federal Reserve Bank of Philadelphia, for instance, conducts quarterly surveys of professional forecasters on macroeconomic trends, offering a U.S.-centric EPU measure (FED Philadelphia, 2021). Julio and Yook (2012) analyzed the impact of national elections on EPU by including election years in their regression models. While this method allows for cross-country EPU analysis, it overlooks non-election periods and the varying impact of elections.

Other innovative proxies include the FEARS index (Da et al., 2014), which analyzes investor sentiments through internet searches, and methodologies that employ textual analysis of corporate earnings call transcripts to gauge firm-level political risk (Hassan et al., 2017) or economic uncertainty (Scotti, 2016). Jurado et al. (2015) also developed a measure focusing on macro-uncertainty within financial markets. However, these approaches tend to emphasize the economic and investor sentiment aspects over direct policy implications.

Baker et al. (2016) introduced a comprehensive EPU index that captures both policy and economic dimensions of uncertainty. This index, computed monthly and adaptable to various countries, has gained widespread recognition and usage among academics for its accessibility

and relevance across different contexts. The index employs a news-based approach, scanning leading newspapers for specific terms related to economic uncertainty and policy, adjusted for each country's political context. This methodology, standardized and normalized, ensures a consistent measure of EPU over time. Given its broad applicability and the depth of insight it provides, the index will be the primary measure of EPU utilized in this research.

The index is adaptable globally due to its use of widely available news sources, customizable search terms tailored to each country's political context, and a standard methodology for analyzing and normalizing data. This flexibility ensures it can accurately measure economic policy uncertainty in diverse environments.

2.1.2 Institutional Investors:

Institutional investors, such as pension funds, insurance companies, endowments, and hedge funds, play a pivotal role in the financial markets due to their substantial assets under management and their influence on market dynamics. These entities invest on behalf of others, leveraging large pools of money gathered from corporations or individual investors. Their investment decisions are typically guided by the dual objectives of asset growth and risk management (Davis, 1996).

Institutional investors are generally considered more risk-averse compared to retail investors, due to their fiduciary responsibilities to their stakeholders. In response to heightened uncertainty, these investors commonly shift their portfolios towards more liquid and less volatile assets to safeguard against market downturns (He et al., 2022).

In Sweden, institutional investors, including pension funds, insurance companies, and mutual funds, show a marked preference for conservative strategies, particularly in response to economic policy shifts (Andersson et al., 2023).

2.2 Previous research and literature:

Economic Policy Uncertainty and Financial Markets

The existing literature robustly supports the influence of EPU on financial markets, with numerous studies highlighting how EPU affects asset pricing (Li, 2022), investment decisions, and institutional investment returns. Pástor and Veronesi (2013) provide a foundational understanding by demonstrating the significant negative impacts of EPU on market dynamics, particularly under weaker economic conditions. They suggest that EPU can alter corporate decision-making, leading to greater stock return volatility and affecting firm valuations through increased discount rates.

Further extending the intertemporal capital asset pricing model (ICAPM), studies by Merton (1973) and Campbell (2018) have shown that assets which covary positively with future volatility forecasts, often due to policy uncertainty, are considered hedges but tend to result in lower expected returns due to increased investor demand. This relationship is supported by Ang et al. (2005), who demonstrate that market-wide volatility, often spurred by policy uncertainty, is consistently priced in stock returns, affirming a negative risk premium associated with EPU.

EPU and Institutional Investment Returns

Specifically focusing on institutional investors, recent studies have explored how hedge funds and other investment vehicles manage and react to EPU. According to research by Brogaard and Detzel (2015) and Wang et al. (2019), EPU influences the equity and corporate bond markets and commands a significant negative risk premium. This indicates that EPU is a critical, systematic risk factor that needs to be managed actively to prevent adverse effects on returns.

Empirical evidence presented by Liang et al. (2020) highlights the market timing abilities of hedge fund managers regarding EPU, with those adept at anticipating increases in EPU adjusting their portfolios to mitigate potential losses. This skill in timing EPU translates into higher risk-adjusted returns, reinforcing the economic value of understanding and managing EPU exposure in institutional investments.

Comparative Impact of Local vs. Global EPU

While much of the research has addressed the broader implications of EPU, there is a growing interest in comparing the effects of local versus global EPU. Studies like those by Brogaard and Detzel (2015) and Jiang et al. (2021) hint at the nuanced ways different scales of EPU influence investment returns, with local uncertainties potentially playing a more pivotal role in certain contexts. This aligns with the hypothesis that local EPU might exert a more significant influence on Swedish institutional investment returns than global or European uncertainty levels.

Chapter 3: Methodology

3.1 Institutional Investment / Hedge Fund Data in Sweden

Our analysis utilizes data sourced from Refinitiv Lipper's Investment Management (LIM) database, which provides comprehensive fund-level information for institutional investors based in Sweden. This data includes monthly returns, assets under management, Sharpe ratios, inception and redemption dates, fund types, and geographical focuses, among other metrics. The LIM database, renowned for its global coverage and bias-free information, spans more than 80 countries and includes over 350,000 share classes across various fund types such as mutual funds, ETFs, hedge funds, and domestic pension and insurance products. However, our study focuses exclusively on Swedish-domiciled funds, identifying them by their domicile and using the Swedish Krona (SEK) as the fund currency.

For the period of analysis, we consider data from January 1997 to December 2023, aligning with the availability of the Global Economic Policy Uncertainty (GEPU) Index developed by Baker et al. (2016) and the specific coverage for Swedish funds, which is more comprehensive post-1996.

Initially, our monthly dataset included 776 funds, but after filtering out those with incomplete returns or assets under management data, the final sample includes 456 funds with a total AUM of about 452 billion USD as of December 2023. Out of these, 318 funds are active, and 138 have either liquidated or merged.

We report these findings in various tables, highlighting both average and specific fund characteristics. For example, the average fund in our sample has an AUM of 140 million USD and a lifespan of about 132 months since inception. The mean monthly fund return is 0,6%.

Further exploring the characteristics based on fund type, asset type, and geographical focus, we find that the institutional investment industry in Sweden is primarily dominated by mutual and pension funds, with about 30% of the funds investing in equity assets and 67% adopting a global focus. Interestingly, Sweden-focused funds experience greater idiosyncratic volatility and downside risk compared to their global counterparts, and have on average experienced negative flows, as did the equity-based funds during the sample period. These insights will be organized and presented in designated tables within our analysis later on.

3.2 EPU index in Sweden

The construction of the Swedish EPU Index developed by Armelius et al. (2016) follows a methodology adapted from Baker et al. (2016), specifically tailored to measure Sweden's economic policy uncertainty. This process commenced with the extraction of articles from the National Library of Sweden's online archive, focusing on content from four major Swedish newspapers: Aftonbladet, Expressen, Dagens Industri, and Svenska Dagbladet. The selection of these sources was based on their broad readership and depth of economic reporting. Articles were identified through a search for those containing the Swedish equivalents of the keywords "economic," "policy," and "uncertainty," ensuring the relevance to economic policy uncertainty. The gathered data underwent a standardization process to harmonize the information from the different newspapers, followed by a normalization step. In normalization, the counts of relevant articles were adjusted by the total number of articles mentioning the keyword "economic" for each month. This approach mitigates the impact of fluctuating news volumes and maintains the index's focus on shifts in economic policy uncertainty. This methodology enables the Swedish EPU Index to serve as a nuanced tool for analyzing the specific contours of economic policy uncertainty within Sweden. We chose the Swedish EPU Index because it is specifically designed to reflect Sweden's unique economic policy environment, using a proven methodology that captures local nuances other indices might miss. It relies on established data sources, ensuring

relevance and depth. Creating our own index would require significant resources, while the Swedish EPU Index offers a ready-made, accurate measure of economic policy uncertainty. This makes it the most efficient and effective choice for our analysis.

Figure 1: Swedish EPU index

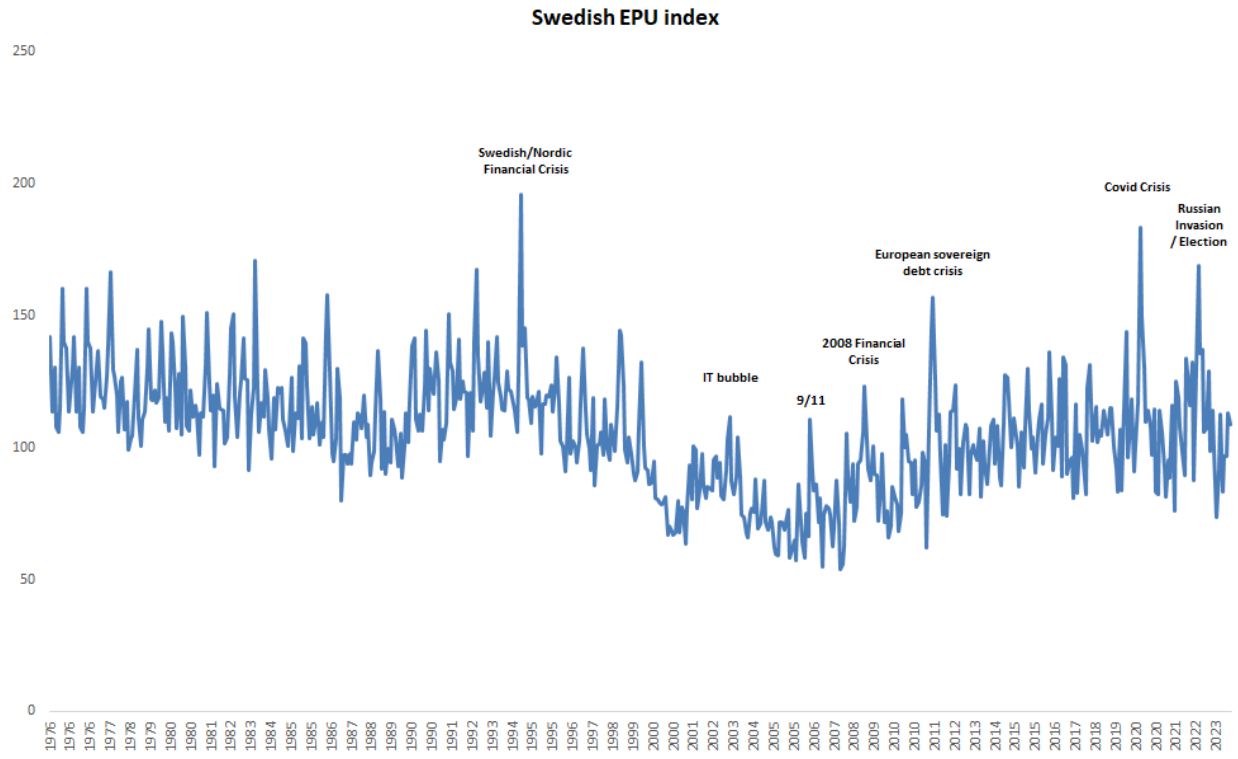
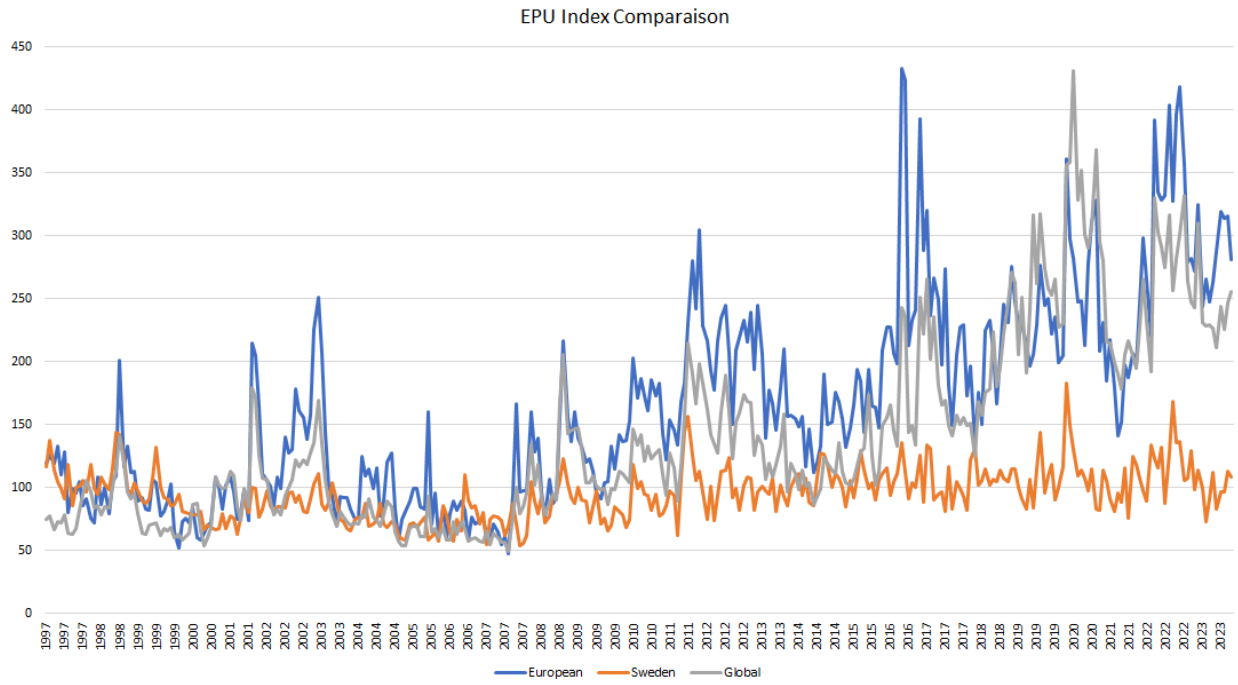


Figure 1 illustrates the monthly Economic Policy Uncertainty (EPU) index for Sweden, spanning from 1976 to 2023. The graph shows significant spikes coinciding with major events such as the Swedish/Nordic Financial Crisis from 1990 to 1994, the IT bubble burst, the September 11 attacks, the 2008-2009 financial crisis, the European sovereign debt crisis in 2010, and the combination of Russia's invasion of Ukraine with the Swedish election in 2022. Another chart, also shown in Figure 2, compares the Swedish EPU index with the global GEPU index and the European EPU index. The GEPU, developed by Baker et al. in 2016, encompasses data from 21 countries, representing approximately 71% of the world's GDP on a PPP basis and about 80% on market exchange rates. Similarly, the European EPU index, also created by Baker et al. in 2016, is derived from the two largest newspapers in each of the five major European economies: France, Italy, Spain, Germany, and the UK.

Figure 1: EPU Index Comparaison



We observe that the Swedish EPU Index shows a strong correlation with both the European and global EPU indices, particularly during significant global events such as the dot-com bubble, the COVID-19 crisis, and the recent geopolitical tensions following Russia's invasion. This synchronization indicates that the Swedish EPU mirrors and reacts simultaneously to the fluctuations seen in broader indices, highlighting Sweden's interconnectedness with the global economic system.

Armelius et al. (2016) explored the timing and impact of uncertainty shocks in Sweden, contrasting it with larger economies. The findings reveal that shocks to the Swedish EPU index—which encapsulates uncertainties from the US, EU, and Germany—directly affect Swedish GDP growth within the same quarter, showing a decline of 0.2 percentage points. This immediate impact is sharper compared to larger economies, where the effects are typically delayed due to more substantial internal buffers and diversified economic structures. For instance, US EPU shocks impact Swedish GDP with a one-quarter delay, while EU and German shocks take up to two quarters to exert their maximum effect.

These observations underscore the critical role of local and international economic policy uncertainties in influencing Swedish institutional investment returns. The rapid response of Sweden's small, open economy to EPU shocks necessitates timely and strategic adjustments in investment portfolios to mitigate potential negative outcomes. This integrated understanding of EPU dynamics is vital for managing investment risks and strategizing under conditions of high policy uncertainty, providing essential insights for predicting future impacts on investment returns in Sweden.

3.4 Risk factors

To explore the pricing implications of EPU on institutional investment returns, it is essential to incorporate systematic risk factors recognized in financial research. The factors sourced from Kenneth French's website—market (MKT), size (SMB), book-to-market (HML), momentum (WML), operating profitability (RMW), and investment (CMA)—are derived from the extensive work of Fama and French (2015) and Carhart (1997). These factors help explain variations in returns by accounting for differences in firm size, valuation ratios, and profit metrics, which are crucial for understanding asset pricing in any economic environment, including Sweden.

Moreover, our analysis will incorporate various economic and financial indicators such as:

Sweden's OMXS30 Index Dividend Yield (DIV_YLD_SW): This would reflect the aggregate dividend yield of the leading Swedish market index, providing insights into investor expectations and market sentiment within Sweden.

Monthly Swedish GDP Growth Rate (GDP_GRATE_SW): Using local GDP data will allow us to directly correlate economic growth in Sweden with EPU and investment returns, offering a clearer view of how domestic economic conditions influence financial markets.

Swedish Consumer Price Index (CPI_SW): As a measure of inflation, the Swedish CPI is used to analyze how changes in purchasing power and the cost of living impact investment returns amidst policy uncertainty.

Yield Spread (YIELD_SPRD_SW): Measured as the difference between long-term government bonds and short-term treasury bills in Sweden, this spread can indicate the economic outlook and investor risk appetite.

Swedish Unemployment Rate (UNEMP_RATE_SW): As an economic indicator, the unemployment rate can help gauge the overall economic health and labor market conditions in Sweden, affecting consumer confidence and spending.

Using these Swedish-specific financial and economic indicators will provide a more precise understanding of how local and global uncertainties are mirrored in economic indicators and investment returns. This adjustment tailors the analysis more closely to Sweden's financial ecosystem and may reveal unique patterns of how EPU influences market dynamics in a high-income, advanced economy. By examining these correlations once computed, we can assess whether EPU is a priced risk factor in the cross-section of Swedish fund returns, significantly impacting investment decisions and outcomes within Sweden's distinctive financial landscape.

Chapter 4: Results and Analysis

4.1 Regression Analysis

Univariate Regression Analysis

The preliminary stage of analysis will involve estimating the sensitivity of the funds' returns to the Swedish EPU index via a rolling regression framework. Adopting a 36-month rolling window, each fund's excess returns will be regressed on the Swedish EPU index to calculate the EPU beta for each fund. Subsequently, these funds will be stratified into different classifications based on their EPU beta magnitudes, allowing for an exploratory examination of the relationship between policy uncertainty exposure and fund performance.

$$R_{it} = \alpha_i + \beta_{i,EPU} \times EPU_t + \epsilon_{it}$$

where R_it represents the excess return of fund i at time t, EPU_t is the EPU index, β_i,EPU is the EPU beta for fund i, and ε_it is the error term. Funds are then sorted into quintiles based on their estimated β_i,EPU values.

Multivariate Regression Analysis

Subsequent to the univariate analysis, a multivariate framework will be employed to control for established risk factors. A Fama-MacBeth regression approach will be utilized, conducting cross-sectional regressions across time periods to probe the association between fund returns and their EPU betas, whilst adjusting for other risk factors, including the Swedish-specific economic indicators. This stage will establish whether EPU maintains its explanatory significance over fund returns when systematic risk factors are accounted for.

$$R_{it} = \alpha_i + \beta_{i,MKT} \times MKT_t + \beta_{i,SMB} \times SMB_t + \beta_{i,HML} \times HML_t + \beta_{i,RMW} \times RMW_t + \beta_{i,CMA} \times CMA_t + \beta_{i,WML} \times WML_t + \beta_{i,EPU} \times EPU_t + \epsilon_{it}$$

Here, B_i,x denotes the sensitivity of the returns to each respective factor for fund i, allowing us to isolate the effect of the EPU on fund returns, controlling for other known risk factors.

Fama-MacBeth Two-Step Regression

The Fama-MacBeth two-step regression is a robust method used to ascertain if certain factors (in this case, EPU) are systematically priced in the cross-section of asset returns, here referring to Swedish investment funds. This approach mitigates issues related to cross-sectional correlation and heteroskedasticity within the error terms.

Step 1: Time-Series Regression
In the first step, we estimate the beta sensitivities for each fund to market risk and EPU changes. This is operationalized by regressing each fund's excess returns on the market excess return and

the changes in the EPU index, as follows:

$$R_{it} = \alpha_i + \beta_{i,MKT} * MKT_t + \beta_{i,EPU} * \Delta EPU_t + \varepsilon_{it}$$

where:
- R_{it} is the excess return of fund i at time t.
- α_i is the intercept.
- $\beta_{i,MKT}$ is the sensitivity of fund i's returns to the market excess return (MKT_t) at time t.
- $\beta_{i,EPU}$ is the sensitivity of fund i's returns to the change in the EPU index (ΔEPU_t).
- ε_{it} is the idiosyncratic error term.

Step 2: Cross-Sectional Regression
Having estimated the betas, the second step involves cross-sectional regressions to examine the impact of these beta estimates on fund returns in the following period:

$$R_{it} = \gamma_0 + \gamma_{MKT} * \beta_{i,MKT,t-1} + \gamma_{EPU} * \beta_{i,EPU,t-1} + u_{it}$$

where:
- R_{it} is again the excess return on fund i in month t.
- γ_0 is the average expected return not explained by risk.
- γ_{MKT} is the risk premium for market beta.
- γ_{EPU} is the risk premium for EPU beta.
- u_{it} is the error term.

The coefficient γ_{EPU}'s sign and significance are critical, with a negative and significant γ_{EPU} indicating that EPU is a priced risk factor. The Fama-MacBeth method's reliability is augmented with a Shanken correction (1992), which corrects for the potential errors-in-variables bias, thus ensuring more trustworthy statistical inference regarding the risk factor pricing.

4.2 Results (Current Status = expected results)

Before the upcoming seminar, I have yet to conduct the regression analysis due to an error encountered in the data collection process.

However i expect the study to reveal:

- A significant negative relationship between local EPU and the returns of Swedish investment funds, supporting the idea that higher uncertainty is associated with lower fund performance (H1).
- A stronger impact of local EPU on investment returns compared to global or European EPU, highlighting the particular sensitivity of the Swedish market to its domestic policy environment (H2).
- Evidence that EPU is a priced risk factor, with funds more exposed to policy uncertainty showing a negative risk premium, meaning that higher EPU betas correlate with lower fund returns (H3).
- A trend where funds with lower exposure to EPU outperform those with higher exposure, suggesting that managing EPU exposure is beneficial for fund performance (H4).

Chapter 5: Discussion

5.1 Interpretation of the results

5.2 Limitations and future research directions

Chapter 6: References

6.1 List of sources cited in the thesis

Ali, S., Badshah, I., Demirer, R. and Hegde, P., 2023. Economic policy uncertainty and fund flow performance sensitivity: Evidence from New Zealand. First published: 29 January 2023. Available at: https://doi.org/10.1111/irfi.12407 [Accessed 5 April 2024].

Al-Thaqeb, S.A. and Algharabali, B.G., 2019. Economic policy uncertainty: A literature review. The Journal of Economic Asymmetries, 20(1), e00133. DOI: 10.1016/j.jeca.2019.e00133.

Andersson, J. and Williamson, E., 2023. The Wild Frontier: Navigating the unpredictable terrain of macroeconomic uncertainties in the Swedish private equity industry. Master Thesis, Stockholm School of Economics. Available at: http://arc.hhs.se/download.aspx?MediumId=5642 [Accessed 1 April 2024].

Ang, A., Hodrick, R.J., Xing, Y. and Zhang, X., n.d. The Cross-Section of Volatility and Expected Returns. Available at: https://ssrn.com/abstract=681343 [Accessed 3 April 2024].

Armelius, H., Hull, I. and Köhler, H.S., 2016. The timing of uncertainty shocks in a small open economy. Sveriges Riksbank, December 2016.

Badshah, I., Demirer, R. and Suleman, M.T., 2019. The effect of economic policy uncertainty on stock-commodity correlations and its implications on optimal hedging. Energy Economics, 84, 104553. DOI: 10.1016/j.eneco.2019.104553.

Baker, S.R., Bloom, N. and Davis, S.J., 2016. Measuring Economic Policy Uncertainty. 10 March 2016. Available at: https://www.policyuncertainty.com/media/EPU_BBD_Mar2016.pdf [Accessed 13 April 2024].

Bauernfeind, H.V., 2023. Effects of economic policy uncertainty on M&A deals: macroeconomic example of the US Market. Available at: http://hdl.handle.net/10400.14/42651 [Accessed 13 April 2024].

Brogaard, J. and Detzel, A., 2015. The Asset-Pricing Implications of Government Economic Policy Uncertainty. Management Science, 61(1), pp.3–18. Available at: http://www.jstor.org/stable/24551068 [Accessed 9 April 2024].

Campbell, J.Y., Giglio, S., Polk, C. and Turley, R., 2018. An intertemporal CAPM with stochastic volatility. Journal of Financial Economics, 128(2), pp.207-233. DOI: 10.1016/j.jfineco.2018.02.011.

Carhart, M.M., 1997. On Persistence in Mutual Fund Performance. Journal of Finance, American Finance Association, vol. 52(1), pages 57-82, March.

Chen, J.S., 2002. Intertemporal CAPM and the Cross-Section of Stock Returns. EFA 2002 Berlin Meetings Discussion Paper. Available at: https://ssrn.com/abstract=301918 or http://dx.doi.org/10.2139/ssrn.301918 [Accessed 8 April 2024].

Chiang, T.C., 2019. Economic policy uncertainty, risk and stock returns: Evidence from G7 stock markets. Finance Research Letters, 29, pp.41-49. DOI: 10.1016/j.frl.2019.03.018. Available at: https://www.sciencedirect.com/science/article/pii/S1544612318307396 [Accessed 10 April 2024].

Chung, B.W., Wang, J. and Wu, C., 2019. Economic Policy Uncertainty and the Cross-Section of Corporate Bond Returns. July 15, 2019. Available at: https://acfr.aut.ac.nz/__data/assets/pdf_file/0006/294108/EPUpaper_2019Auckland-Conference.pdf [Accessed 4 April 2024].

Citigroup, 2024. Policy Uncertainty Stalls Global Investment. Available at: https://www.citigroup.com/global/insights/citigps/policy-uncertainty-stalls-global-investment [Accessed 5 April 2024].

CBOE (Chicago Board Options Exchange). Making Sense of the VIX Index: An Indicator of Expected Market Volatility. Available at: https://www.cboe.com/tradable_products/vix/ [Accessed 10 April 2024].

Davis, E.P., 1996. The Role of Institutional Investors in the Evolution of Financial Structure and Behaviour. FMG Special Papers sp89, Financial Markets Group.

Davis, S.J., 2016. An Index of Global Economic Policy Uncertainty. NBER Working Paper Series, Working Paper 22740. Available at: http://www.nber.org/papers/w22740 [Accessed 2 April 2024].

Elshof, E.W., 2021. Economic policy uncertainty and mergers and acquisitions: an empirical study on European firms. Essay (Master), Behavioural, Management and Social Sciences, Business Administration MSc (60644), Faculty: BMS. Link to this item: https://purl.utwente.nl/essays/87460 [Accessed 1 April 2024].

Fama, E.F. and French, K.R., 2015. A five-factor asset pricing model. Journal of Financial Economics, 116(1), pp.1-22. DOI: 10.1016/j.jfineco.2014.10.010.

Federal Open Market Committee. The Federal Reserve's Policy Actions during the Financial Crisis and Lessons for the Future. Speech by Vice Chairman Donald L. Kohn, 13 May 2010. Available at: https://www.federalreserve.gov/newsevents/speech/kohn20100513a.htm [Accessed 16 April 2024].

Federal Reserve Bank Philadelphia. First Quarter 2024 Survey of Professional Forecasters, February 2024. Available at: https://www.philadelphiafed.org/surveys-and-data/real-time-data-research/survey-of-professional-forecasters [Accessed 17 April 2024].

French, J.J. and Li, W-X., 2022. Economic policy uncertainty and fund flows to the United States. Finance Research Letters, 45, 102126. DOI: 10.1016/j.frl.2021.102126.

Ghani, M. and Ghani, U., 2023. Economic Policy Uncertainty and Emerging Stock Market Volatility. Asia-Pac Financ Markets, 24 May 2023, pp.1-17. DOI: 10.1007/s10690-023-09410-1.

Gomes, F.J., Kotlikoff, L.J. and Viceira, L.M., 2012. The Excess Burden of Government Indecision. London Business School and CEPR, Boston University and NBER, Harvard University and NBER.

Han, X., Chen, K. and Huang, X., 2020. Economic Policy Uncertainty and Corporate Mergers and Acquisitions. Journal of Educational and Social Research, 3(4), October 2020. DOI: 10.30564/jesr.v3i4.2413.

Hassan, T.A., Hollander, S., van Lent, L. and Tahoun, A., 2019. Firm-Level Political Risk: Measurement and Effects. April 2019. Available at: https://www.bu.edu/econ/files/2019/05/Firm-levelPoliticalRisk.pdf [Accessed 12 April 2024].

He, C., Wen, Z., Huang, K. and Ji, X., 2022. Sudden shock and stock market network structure characteristics: A comparison of past crisis events. Technological Forecasting and Social Change, 180, 121732. DOI: 10.1016/j.techfore.2022.121732.

Hong, Y., Zhang, R. and Zhang, F., 2024. Time-varying causality impact of economic policy uncertainty on stock market returns: Global evidence from developed and emerging countries. International Review of Financial Analysis, 91, 102991. DOI: 10.1016/j.irfa.2023.102991.

IMF Policy Paper, 2013. Global Impact and Challenges of Unconventional Monetary Policies, 7 October 2013. Available at: https://www.imf.org/external/np/pp/eng/2013/090313.pdf [Accessed 12 April 2024].

Julio, B. and Yook, Y., 2012. Political uncertainty and corporate investment cycles. The Journal of Finance, 67(1), pp.45-83.

Jurado, K. et al., 2015. Measuring Uncertainty. The American Economic Review, 105(3), pp.1177–216. Available at: http://www.jstor.org/stable/43495414 [Accessed 13 April 2024].

Liang, B., Wang, S. and Zhou, C., 2020. Does Economic Policy Uncertainty Matter for Hedge Fund Returns. SSRN. Available at: https://ssrn.com/abstract=3758012 or http://dx.doi.org/10.2139/ssrn.3758012 [Accessed 13 April 2024].

Liu, L. and Zhang, T., 2015. Economic policy uncertainty and stock market volatility. Finance Research Letters, Elsevier, vol. 15(C), pages 99-105.

Merton, R.C., 1973. An Intertemporal Capital Asset Pricing Model. Econometrica, 41(5), pp.867–87. Available at: https://doi.org/10.2307/1913811 [Accessed 11 April 2024].

Pástor, Ľ. and Veronesi, P., 2013. Political uncertainty and risk premia. Journal of Financial Economics, 110(3), pp.520-545. DOI: 10.1016/j.jfineco.2013.08.007.

Scotti, C., 2016. Surprise and Uncertainty Indexes: Real-Time Aggregation of Real-Activity Macro Surprises. International Finance Discussion Papers (IFDP), November 2013 (Revised May 2016). Available at: https://www.federalreserve.gov/econres/ifdp/surprise-and-uncertainty-indexes-real-time-aggregation-of-real-activity-macro-surprises.htm [Accessed 11 April 2024].

Sum of All FEARS: Investor Sentiment and Asset Prices, Day, Z., Engelberg, J. and Gao, P., 2013. First Draft: September 2, 2009; This Draft: October 7, 2013. Available at: https://rady.ucsd.edu/faculty/directory/engelberg/pub/portfolios/FEARS.pdf [Accessed 8 April 2024].

Vikström, A., 2020. Economic Policy Uncertainty and the Swedish stock market: A quantitative study on how Economic Policy Uncertainty affects the Swedish stock market. Umeå University, Faculty of Social Sciences, Umeå School of Business and Economics (USBE), Economics. 2020 (English).

Xu, Y., Wang, J., Chen, Z. and Liang, C., 2021. Economic policy uncertainty and stock market returns: New evidence. The North American Journal of Economics and Finance, 58, 101525. DOI: 10.1016/j.najef.2021.101525.

Chapter 7: Appendices

7.1 Supplementary materials, such as tables and figures