Utrecht University

Average Performance of U.S. Politicians' Trades; Study on Possible Presence and Key Determinants of Abnormal Returns in Common Stock Transactions Made by Members of U.S. House of Representatives[1].

Masters' Thesis U.S.E

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Keywords: Insider Trading, Event Study, STOCK act, Politicians

JEL classification: D53, G14

Abstract

This thesis analyses the trading behaviours of U.S. House of Representatives Members from 2020 to 2023, focusing on their common stock investments to determine if they achieved abnormal returns, suggesting trading on non-public information. Using a dataset from Periodic Transaction Reports filed by politicians and the calendar-time portfolio methodology, the study finds no significant abnormal returns, indicating that House Members did not utilize non-public information to achieve positive significant long-term gains. In certain samples, the study finds the trades done by Members underperformed the market by statistically significant margin, hinting at the fact that Members didn't posses or act on information that would allow them to time the trades better. The analysis includes subsamples differentiated by political party affiliation, experience, education, and committee assignments, all showing no superior stock performance. These results support the effectiveness of the STOCK Act in preventing insider trading among politicians and align with the strong form of the Efficient Market Hypothesis. The study also reveals different investment strategies between Democrats and Republicans, but no significant abnormal returns for either party members. Despite the lack of positive abnormal returns, the research highlights the need for improved transparency in transaction reporting and auditing. This is crucial due to public perception of political trades and the practice of data vendors of selling refined trade data to investors at high prices. Enhanced transparency and auditing would even further deter unethical trading and increase public trust in political financial activities. It would also eliminate the gatekeeping of aggregated information, which is currently obscured by technical barriers, reducing the incentive for external data providers to sell this dataset to individual investors.

Contents

1. Introduction

1.1. Research's Aim and Theoretical Background

This paper seeks to investigate the potential existence of abnormal returns and thus the existence of trading on non-public information among Members of the United States House of Representatives. By examining the trading behaviours of politicians and inspecting the returns from their common stock investments for the long run holding period, the research can contribute to the broader discourse on trading on non-public information and its implications for governance and market integrity.

In the United States, the current law enacted to deter politicians from acting on material non-public information is the Ethics in Government Act (EIGA) and the Stop Trading on Congressional Knowledge Act (STOCK Act). Studies suggest that the STOCK Act, enacted in 2012, could have deterred politicians from engaging in insider trading activities (Kardas et al., 2021). However, anecdotal evidence and studies conducted after 2020 hint at a potential reversal of this trend, indicating that the decrease in profitability of U.S. politicians' trades from 2012 to 2020 may have been disrupted by the COVID-19 pandemic[2]. This disruption could have exposed politicians to a surge of yet undisclosed macroeconomic and firm-specific information, prompting them to act on it. The enactment of the STOCK Act coupled with a period of relative tranquillity complicates distinguishing the effect of the law from the effect of smaller streams of material macroeconomic information that the politicians might have been exposed to. Furthermore, the literature on politicians trading on non-public information reveals mixed results, influenced by the period, geographical location, and subsample of trades analysed. Ziobrowski et al. (2004, 2011) found that U.S. politicians, especially Senators, often achieve abnormal returns, likely due to their access to non-public macroeconomic and firm-specific information. The findings of Karadas et al. (2021), who observed that the STOCK Act of 2012 reduced politicians' informational advantage, particularly in short-term trades, brings an important overview of the before-and-after of the new regulation being introduced. This research highlights the prior presence of abnormal returns and explains their disappearance with the introduction of the STOCK act. Contrarywise to the presented papers, Eggers and Hainmueller (2013) argued that Congress members did not trade stocks with an informational advantage.

Due to this ambiguity, the research aims to explore whether members of the U.S. House of Representatives achieved abnormal returns on their common stock transactions during the period of 2020-2023, and if so, whether this suggests trading on non-public information. The investigated period covers the whole duration of 116th United States Congress and the first year of the 117th Congress. This specific timeframe was selected to evaluate whether significant global macroeconomic events, such as

[2] https://www.politico.com/news/2020/04/29/congress-stocks-coronavirus-221742
https://www.nytimes.com/interactive/2022/09/13/us/politics/congress-stock-trading-investigation.html
https://x.com/congresstrading

the COVID-19 pandemic and the Russo-Ukrainian war escalation in February 2022, provided politicians with a wider range of accessible insider information, potentially leading to abnormal returns on their stock investments.

This paper contributes to the existing literature by shedding light on the determinants of the presence of abnormal returns in sub-samples of politicians' trades in the long run. By bridging the gap between studies on politicians' trading on non-public information and corporate insider trading, the research aims to offer fresh insights into the drivers of abnormal returns in politicians' trades. Through the application of established methodologies, this research also facilitates the comparability of results with existing literature on politicians' trades.

1.2. Societal and Academic Relevance

This research on the potential trading on non-public information by Members of the United States House of Representatives holds substantial societal relevance. By examining the trading behaviours of politicians and the long-term returns on their investments, this study aims to enhance the understanding of insider trading within the political arena and spark a debate on its broader implications for governance and market integrity.

Firstly, the research is crucial for policymakers and regulators. Insights gained from this study can influence the development and implementation of measures to prevent the misuse of privileged information by politicians. Enhanced transparency in financial markets is vital for maintaining public trust and ensuring fair market practices. Policymakers can utilize these findings to refine existing legislation, ensuring they effectively deter trading on material non-public information and promote ethical conduct among elected officials. Secondly, this research contributes to the broader discourse on market integrity. By investigating whether members of the U.S. House of Representatives achieved abnormal returns on their stock transactions during significant global events like the COVID-19 pandemic and the Russo-Ukrainian war escalation, the study sheds light on the potential for politicians to exploit their positions for financial gain. This understanding is crucial for maintaining the ethical standards of public office and preventing conflicts of interest that could undermine the democratic process.. Thirdly, by highlighting potential ethical breaches and conflicts of interest, the research empowers the electorate to hold their representatives accountable, fostering a more transparent and trustworthy political environment. Lastly, market participants, especially the individual investors can benefit from this research. Understanding the potential impact of insider trading by politicians on market dynamics can aid investors in making more informed decisions. This knowledge can help investors better navigate the complexities of the financial markets and enhance their investment strategies.

This findings of this study contribute significantly to the debate on the Efficient Market Hypothesis (EMH) by providing empirical evidence that supports the strong form of EMH, which posits that stock prices fully reflect all available information, including non-public data. Secondly, the study bridges a gap between Corporate-Insider Trading literature and Politicians' Trading literature, drawing from both streams of studies, offering enhanced view of the topic.

In summary, this research not only contributes to the academic discourse on insider trading and political ethics but also has practical implications for policymakers, the general public, and market participants. By promoting transparency and accountability, the findings of this study potentially could support the development of a fairer and more efficient financial market, ultimately benefiting society as a whole.

1.3. Research Hypothesis and Result's Overview

The main Research Question is: To what extent did Members of the United States House of Representatives achieved positive abnormal returns on their common stock transactions during the period of 2020-2023 in the long run, and how did specific characteristics such as political experience, committee assignments, party affiliation, and education influence these returns?

Based on the literature review, I hypothesize that Members of the United States House of Representatives achieved statistically significant positive abnormal returns on their common stock transactions during the investigated period. Additionally, I hypothesize that these abnormal returns are correlated with individual characteristics of House members, including political experience, committee assignments, party affiliation, and education. Specifically, based on literature on corporate-insider trading, I expect that higher education, certain committee assignments and the length of political tenure have positively influenced the performance of Members' trades.

H1: The general sample of trades conducted by Members of U.S. House of Representatives displays positive abnormal returns.

H2: The trades conducted by Members with longer political experience were able outperform trades conducted by their colleagues with shorter tenure.

H3: The trades conducted by Members serving on powerful committees were able to outperform trades conducted by their colleagues serving on relatively less influential committees

H4: The trades conducted by Members who obtained higher levels of education were able to outperform trades conducted by their colleagues with lower levels of education.

To test this hypotheses, I employ an event study methodology with a calendar-time portfolio approach, alongside three regression models. The analysis starts with a general sample of trades, followed by a member-weighted portfolio analysis for robustness check. Finally, transactions are divided based on politician qualities to determine if different groups displayed different levels of abnormal returns.

The results indicate that the general sample of trades does not display statistically significant abnormal returns across any of the analysed portfolios or models. This finding and conclusions remained consistent when testing for robustness using different weighting schemes. Additionally, when examining portfolios differentiated by politician qualities, none of the groups showed statistically significant positive abnormal returns across all models and differentiations. In summary, the research hypotheses have been rejected. There is no evidence of informed trading among the members of the House of Representatives for the years 2020-2023, as the results indicate no statistically significant positive abnormal returns under this event study specifications.

The rest of the paper is structured as follows: Section 2 presents the regulatory landscape and literature review, while Section 3 introduces the data gathering and preprocessing methods as well as the methodology. Section 4 introduces the results of the study and Section 5 concludes the paper by providing discussion of the results while acknowledging the limitations.

2. Literature review

2.1. Legal framework

The foundational policy shaping the current legal framework regarding insider trading in the U.S. is the Securities and Exchange Act of 1933. At its core, this legislation aimed to foster an investing environment where investors are assured protection and equitable opportunities. It sought to mitigate chances for exploitation of systematic information asymmetry, and as an effect, providing greater market liquidity and reducing volatility (Aboody & Lev, 2000).

Subsequently, the Ethics in Government Act of 1978 (EIGA) was enacted. This legislation mandated public financial disclosures and employment history disclosures for public officials and their immediate family members. Additionally, it established the Office of Government Ethics, which continues to operate to this day. Over time, the EIGA has undergone amendments and supplements, notably through the Ethics Reform Act of 1989 and the Stop Trading on Congressional Knowledge Act of 2012 (STOCK Act).

Under the current legal framework, the EIGA requires members, officers, certain employees of the U.S. House of Representatives, related offices, and House candidates to file Financial Disclosure Statements with the Clerk of the House of Representatives (Committee on Ethics, 2022). Additionally, the STOCK Act amended the EIGA to mandate that members, officers, and certain employees of the House report securities transactions over $1,000. The filing deadline is determined by the earlier of two dates: 30 days from becoming aware of the transaction (for transactions made without prior knowledge of the filer), or 45 days from the transaction. These STOCK Act filings are referred to as Periodic Transaction Reports (PTRs) and must disclose not only trades by House members but also those made by their spouses and dependent children (Committee on Ethics, 2022).

Members of the House have the option to file PTRs electronically or manually, either by completing the form on a certified printout or by utilizing third-party services. However, due to the possibility of the purchaser of the stock and the individual reporting the trade being different entities, PTRs are submitted within varying timeframes, spanning from one day to several months after the transaction date. To incentivize timely reporting, the STOCK Act imposes late filing fees and allows for disciplinary actions to be taken by the Committee on Ethics.

2.2. Existing Research

The discourse on the existence, performance, legality and morality of politicians trading on non-public information provides mixed opinions and results are largely inconclusive. Depending on the period, geographical location and the subsamples of trades under analysis, the results vary (Eggers &

Hainmueller, 2013; Ziobrowski et al., 2011; Ziobrowski et al., 2004; Kardas 2019). One strand of research indicates that politicians may utilize non-public information in their stock trades, raising concerns about the fairness and integrity of financial markets (Karadas et al., 2021). Studies have highlighted that politicians, including Members of The House of Representatives and Senators, may have access to information ahead of the public, both in terms of macroeconomic variables and firm-specific circumstances, giving them an unfair advantage in trading activities (Ziobrowski et al., 2011; Ziobrowski et al., 2004). Findings of the research by Karadas (2019) suggest that members of Congress engage in trading activities based on time-sensitive information, with a notable concentration of value-relevant insights among those serving on more influential committees. Moreover, this study highlights that the ability to make informed trades typically requires two consecutive terms in office, but this advantage is particularly pronounced for members serving on powerful committees. This research further shows that the level of perceived power within the party and The House tends to be a good predictor of abnormal returns.

The literature review on how politicians may acquire material information highlights two potential channels. Firstly, politicians may gain such information directly through their roles as lawmakers, where they can influence the entire economy and its sectors. Secondly, the interconnectedness of business and politics in the United States creates a scenario where social networks play a pivotal role in shaping political dynamics and potentially providing access to material information. (Ziobrowski et al., 2004). This interconnectedness and business's influence over politics has been further researched by Tahoun (2014). He concludes that the stock ownership of U.S. Congress members is higher in firms that contribute to their political campaigns. Additionally, firms that contributed to politicians' campaigns and were later held by elected officials received more government contracts. However, this mutually beneficial relationship often ended with politicians divesting stocks, firms discontinuing political contributions, and losing future government contracts, resulting in a relative deterioration of the company's condition. The statement that politicians exploit their position to gain unfair advantage in investments is further supported by evidence that, leading up to political retirement, they tend to divest from stocks associated with their campaign contributors, suggesting either possession of privileged information they no longer have access to or influence over firm's future outlooks. Tahoun's research emphasizes that stock ownership serves as a safeguard of an unwritten agreement between the firm and the politician, where the financial well-being of one entity partially relies on the other. In this strand of research, it is underscored that the higher performance of politicians' portfolio comes not only from the stream of information that they are exposed to, but also from their influence over the real economy.

The pioneering research of Ziobrowski et al (2004, 2011) who analysed stock trades of U.S. politicians, found a material difference between the height of abnormal returns between Senators and Members of The House of Representatives' portfolios. This apparent difference in the outperformance of the market, assessed at 85 basis points per month for the buy portfolio for Senators compared to 55 basis points

outperformance for an identically constructed portfolio for Members of the House, is theorized to stem from the comparatively smaller power of the Members of the House. This difference is a crucial factor that helps to underline the importance of relative power and position within political structures. As Ziobrowski et al (2011) put it:

'Being one of 435, as opposed to one of 100, is likely to result in a significant dilution of power relative to members of the Senate'

Despite that, in both cases, the politicians' portfolios' outperformance of the market was assessed to be positive and statistically significant.

Recent research by Karadas et al. (2021) provides evidence that politicians did indeed enjoy a small informational advantage in small stocks similar to corporate insiders before the introduction of the STOCK Act. This advantage allowed them to outperform the market, particularly in short-term holding periods. However, the STOCK Act effectively clipped this advantage by deterring politicians from trading on non-public macroeconomic and firm-specific information. This finding is in line with the argument that the high performance of politicians' portfolios was cut short by the STOCK Act, aligning with the belief that the Act served as a true deterrent for trading based on non-publi information. Furthermore, Eggers & Hainmueller (2013) present findings that members of Congress did not trade stocks at an information advantage, nor did they choose portfolios that outperformed market indices. The STOCK Act likely played a role in levelling the playing field and reducing the advantage that politicians might have had in trading stocks.

When theorizing about implications of trading on material non-public information, one must acknowledge that there exists a robust body of research arguing against insider trading, emphasizing its negative effects on both market efficiency and ethical considerations (Engelen & Liedekerke, 2007). Recent literature extensively discusses the moral implications of politicians trading on non-public information, highlighting it as a significant example of the misuse of power and privileged information (Hanousek et al., 2023). Moreover, certain political and social systems can create environments favourable to the abuse of power by facilitating extensive interconnectedness between politicians and businessmen through lobbying and campaign sponsorships, as observed in the U.S. This interconnectedness can lead to scenarios where power dynamics are influenced by relationships between politicians and business entities, potentially enabling the exploitation of power for personal gain. As a result, the presence of trading among politicians has far-reaching implications for policymakers, market efficiency, and even the political stability of a nation by the virtue of violating accepted moral standards (Hanousek et al., 2023). In that case the politicians could be viewed as an exceptional cases of insider traders due to the arising concern that the opportunity to earn abnormal returns could cloud their judgement and adversely influence their voting strategies, creating conflicts of interest and inflicting agency costs, rendering them unfit to fulfil public duties.

On the other hand, the general theory concerning trading on non-public information has scholars who tend to underline the potential benefits of such actions. Central to their argumentation is the notion that since most investors believe that trades made by insiders are based on material non-public information, then mimicking them could also enable investors to earn excess returns. They argue that insiders' actions foster higher efficiency in capital markets by instantaneously improving the accuracy of stock prices and allowing for more accurate capital allocation in the economy (Carlton and Fischel, 1983). Furthermore, proponents of the theory of usefulness of insider trading underline that by acting as a signalling flags to the market, insiders expedite mispricing discovery, decreasing time and resources wasted in the process of uncovering information (Albanna & Tawakol, 2018).

Studies on corporate insider traders by Hillier et al. (2015), Huang & Qiu (2022) emphasize the role of personal characteristics of insiders in influencing trading decisions and performance. They suggest that understanding the motivations and drivers behind insider trading activities is crucial, indicating that personal attributes and circumstances play a significant role in shaping insider trading behaviour. This research establishes a theoretical connection between the characteristics of Members of the House of Representatives and their political activities with the presence and magnitude of abnormal returns in insider trading. Both studies support the notion that personal attributes significantly influence insider trading decisions and performance, underscoring the importance of considering individual characteristics when analysing the trading behaviour of politicians.

The distinction between purchase and sale transactions of insiders is a critical aspect highlighted in the literature. Hillier et al. (2015) delve into the significance of insider-specific fixed effects on the performance of trades, indicating that insider sales are often influenced by non-information factors. The literature presents varying perspectives on whether insider sales or purchases lead to higher abnormal returns, with inconclusive findings. An essential consideration raised by numerous studies is the challenge in differentiating sales trades based on non-public information from those driven by liquidity needs or portfolio rebalancing (Nanda & Barai, 2020). Moreover, the research by Skaife et al. (2013) suggests that insider purchases tend to have a greater predictive ability for future returns compared to sales, attributed to differing incentives and risks faced by insiders. On the other hand, Meng et al. (2022) found that insider sales generate more abnormal returns than insider purchases, indicating a divergence in findings across studies regarding the type of transaction made by insiders on abnormal returns.

3. Data and the Research Methodology

3.1. Input Data

The research utilizes various datasets derived from different sources. The main datasets, differentiated by their origin, are: trade information, politician information, stock price returns based on adjusted closing prices, and control variables for portfolio returns history.

1. Trade Information Dataset: This dataset comprises a list of transactions made by members of the House of Representatives, their spouses and dependent children, along with transaction attributes, such as date of the transaction, stock ticker and name, transaction value brackets, notification date, politician's name and surname and finally an indication whether particular transaction was a purchase or a sale. It was compiled partially by using specially designed Python algorithm and partially manually.
2. The Politician Information Dataset includes personal characteristics of House Members and their political records, manually compiled from publicly available information. This dataset encompasses variables such as Party_Affiliation, Committee_Assignments, Education_Level, and Politically_Active_For_Category. Each variable was constructed following the same logic: for each of the congresses under the scope of this paper, the highest education level, party affiliation, and the time elapsed since the first time each politician was elected to hold a public office were collected. These data points represent the qualities at the beginning of each congress and may change over time which is reflected in the dataset. The variable Politically_Active_For_Category was constructed by categorizing the length of time since the politician first held an elective office into three groups: less than 5 years of political experience, between 5 and 24 years of political experience, and more than 24 years of experience. These thresholds were chosen to divide the sample of politicians into three roughly equal-sized groups, facilitating a balanced analysis of trading behaviours. The Committee_Assignments variable represents a list of committees to which the members have been assigned during each congress.
3. Stock Price Returns Dataset: This dataset consists of daily time series of price returns for each individual stock traded by Members.
4. Control Variables Portfolio Returns History Dataset: This dataset contains returns histories of benchmarks, risk-free rates and theoretical Fama-French portfolios (Fama & French 1992). It is obtained through the FactSet research platform and Ken French's website[3].

The main data vendor for stock returns history and the firm-specific qualities used to filter the data is FactSet. The first dataset is constructed from raw data extracted from Periodic Transaction Reports (PTRs) available on the Clerk of the U.S. House of Representatives' website[4]. It must be highlighted that the Reports are unaudited sources of information and could be filled with varying levels of diligence. For the sake of dataset creation and the analysis conducted based on it, it is assumed that all the transactions were accurately disclosed. These documents, accessible to the public, exist in either computer-generated Portable Document Format (PDF) files or scans of manually filled-out forms. They contain information on transactions made over $1,000 across various asset types, including details on transaction date, notification date, transaction type, and transaction amount brackets ($1,001 to $15,000;

[3] https://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html
[4] https://disclosures-clerk.house.gov/FinancialDisclosure

$15,001 to S50.000; $50,001 to $100,000; $100,001 to $250,000; $250,001 to $500,000; $500,001 to $1,000,000; $1,000,001 to $5,000,000). For common stock transactions, the records also include the stock ticker, company name, and occasionally a comment. While both types of documents should contain the same information, manually filled-out forms often lack certain data points, the handwriting is illegible or certain information is missing. As a result, I opt to exclude manually filled-out PTRs from the analysis due to potential data quality issues. The exclusion of scanned files leaves 2055 files to be processed. I believe that the exclusion does not introduce bias into the sample.

From the computer-generated files, I download those filed in the years 2020-2023, as they are most likely to contain transactions settled during 2020, 2021 and 2022. These files are then automatically processed using a specially designed algorithm to extract all transactions involving common stock made by Members of the House of Representatives.

To ensure data quality, checks are implemented into the code, and additional manual checks are conducted to identify any issues with records. Mistakes were identified in the source PTR files, primarily involving incorrect values in the 'Transaction Date' or 'Notification Date' columns. As a result, some transactions are excluded from the analysis. Then, the dataset is manually filtered for any discrepancies regarding the transaction amounts or dates reported in the file. As a result several changes are manually made to the incorrectly extracted pieces of the dataset, based on the contents of the PTR files. The list of obtained transactions is then filtered to retain records describing purchases and sales of common stock settled between 2020 and 2023. In the next steps, the dataset derived from Periodic Transaction Reports (PTRs) and the manually compiled dataset on politicians were merged into a single dataset. This merging facilitated easier analysis of transactions and enabled the slicing of the data into subsets for more detailed examination of trades.

The final step of data processing involved manually supplementing stock tickers with the appropriate company names extracted directly from the PTR filings and applying filters to exclude all transactions except those conducted on common stock. During the filtering process, Exchange Traded Notes, Exchange Traded Funds, preferred stocks, American Depositary Shares and Receipts, warrants, debentures, and Real Estate Investment Funds were excluded, among others. This ensured that the trade sample comprised only common stock transactions of U.S. companies. To further ensure that the sample met the criteria and that the companies traded were an integral part of the U.S. economic and regulatory landscape, an additional filtering step was conducted. Companies that derived the majority of their revenue from outside the U.S. or were not primarily listed on U.S. exchanges were excluded. This process resulted in a final sample of 8 162 trades during the period from January 1, 2020, to December 31, 2022. The files including Python code used to process PTR filings and extract transactions, alongside files necessary to run the analysis are described in the Appendix A and provided as a supplementary material to the Thesis.

3.2. Calendar Time-Portfolio Methodology

One of the most common measures used to determine the possible presence of insider trading is the event study. Meulbroek (1992) highlighted the use of event study methodology to measure the information content in insider trading. This methodology enables researchers to evaluate abnormal trading behaviour around specific events, providing insights into the presence of informed traders. Event studies typically aim to uncover abnormal returns in relation to a set benchmark or assess the impact of perceived insider trading on stock characteristics, such as trading volume within specific estimation periods (Nanda, Barai, 2020) or idiosyncratic volatility (Hanousek et al., 2021).

To answer the research question, the I adopt the event study methodology outlined in the research of Senators' and Members of The House of Representatives trades by Ziobrowski et al (2004, 2011), implementing the calendar-time portfolio approach to measure long-term stock performance of an event portfolio. The used methodology deviates from the one outlined in the referenced papers as far as calculations of monthly excess returns are concerned. I decided to proceed with daily excess returns due to significantly shorter period analysed in this paper. The calendar-time portfolio approach was chosen to account for the uncertainty surrounding the nature and time sensitivity of the information possessed by politicians. This method allows for the measurement of trade performance in the long run. Additionally, the limitations of the data, particularly the inability to determine exact holding periods for each stock, support the adoption of this approach.

In constructing the portfolio, all stocks with event dates within the prior 365 days are included for a portfolio constructed for each trading day. The returns of such portfolio are than calculated using the returns of the stocks included in the portfolio. Two portfolios are constructed using different weighting schemes: equal weighting and transaction value weighting. Due to data limitations, the value of each transaction is estimated as the midpoint of the declared value brackets. For each stock in the portfolio a daily price return check is conducted. If the price return value is not defined or missing, the particular stock is not included in the portfolio creation for the day due to the lack of data. Trades reported to be done on holidays are treated as if they were done at the beginning of the first trading day that came after holidays.

As outlined in the literature review, the calculations for buy transactions and sell transactions should be performed separately, resulting in construction of four portfolios for each of the investigated slices of trades sample: two portfolios with different weighting schemes for purchase transactions conducted by Members and two portfolios for sale transactions. Such construction of portfolios implies that if a Member buys a stock before a price rises, the purchase portfolio will perform well. For sale-side portfolio, the indicator of informed trading would be an apparent underperformance of the portfolio, depicting the fact that the member sold the stock before the price dropped.

In the next step the daily portfolio excess returns are calculated by subtracting the risk-free rate from the daily return series. The calculated excess returns are than regressed on three models: Capital Asset Pricing Model (CAPM), Fama-French three-factor model (Fama & French 1992), and an Index Sectoral model. The CAPM utilizes a countrywide index as a proxy for the market portfolio, while the Fama-French three-factor model employs three stock portfolios defined by Fama and French (Fama & French 1992).

The novel Index Sectoral model relies on building a trade-weighted index for every event day based on the returns of sectoral indices representing the sectors that the companies present in the general trade portfolio for the given day act in. The Sectoral Index's returns are calculated as trade-value weighted average of distinct sectoral indices returns representing sectors of each trade included in the constructed trade portfolio for any given trading day. The returns of sectoral indices and company classification have been derived based on data provided by FactSet. This approach allows for the evaluation of trade performance not only at the market level but also within sectors. The inclusion of this model allows to confirm whether politicians serving on committees have an informational advantage in particular sectors that are an area of expertise of given committees. For each model, the coefficient alpha is interpreted as a measurement of abnormal returns

The Capital Asset Pricing Model is shown in the *Formula 3.2.1.*:

Formula 3.2.1

$$R_{p,t} - rf_t = \alpha_i + \beta_i(R_{m,t} - rf_t) + \varepsilon_{i,t}$$

Where $R_{p,t}$ is the daily portfolio return on the day t, rf_t is the daily risk-free rate on a day t derived from daily quotes on monthly risk-free rates. $R_{m,t}$ is the daily return on the market portfolio at the day t. The regression parameters are α_i which measures stocks' daily abnormal returns over the model, β_i which is a measure of stock's sensitivity to market changes and an error term $\varepsilon_{i,t}$. The second model used in the research is the Fama-French three-factor model as defined below:

Formula 3.2.2

$$R_{p,t} - rf_t = \alpha_i + \beta_i\left(R_{m,t} - rf_t\right) + \gamma_i SMB + \delta_i HML + \varepsilon_{i,t}$$

Where the β_i, γ_i and δ_i are three coefficients measuring the portfolios' sensitivity to excess return on the market portfolio $\left(R_{m,t} - rf_t\right)$, sensitivity to the difference of performance between a portfolio of small stocks and the portfolio of big stocks (SMB) and the sensitivity to difference of performance between a portfolio of stocks with high book-to-market value and a portfolio of stocks with low book-to-market value (HML). The coefficient $\alpha_n$measures the model daily abnormal returns. The last model is the Index Sectoral model:

Formula 3.2.3

$$R_{p,t} - rf_t = \alpha_i + \beta_i(R_{n,t} - rf_t) + \varepsilon_{i,t}$$

Where compared to the CAPM, the market portfolio is substituted with $R_{n,t}$ denoting the returns of trade-weighted Sector Index for the general trades' portfolio on the day t. The regression parameters are again α_i which measures portfolio's daily abnormal returns over the model, β_i which is a measure of portfolio's sensitivity to index changes and an error term $\varepsilon_{i,t}$.

Due to the common issues of heteroskedasticity and autocorrelation in financial time series data, Breusch-Pagan and Durbin-Watson tests were conducted when fitting the models. The Breusch-Pagan test uses a p-value threshold of 5% to reject the null hypothesis of homoskedasticity. For the Durbin-Watson test, values less than 1.75 or greater than 2.25 are used to reject the null hypothesis of no autocorrelation. If either test indicates the presence of heteroskedasticity or autocorrelation, Newey-West robust standard errors are implemented to correct for both issues.

A statistically significant positive alpha in any of the three models for purchase sample would indicate that Members of the House outperform the market, suggesting informed trading behaviour. Conversely, a statistically significant negative alpha for purchase sample would imply underperformance, indicating a lack of valuable insights guiding their investment decisions. Under the null hypothesis that returns are incidental, it's anticipated that Members of the House would not earn statistically significant positive abnormal returns on their stock acquisitions.

To examine the results' sensitivity to various factors and determine the determinants of abnormal returns, hypothesis testing is conducted for different subsamples of the dataset. This methodology allows for a comprehensive analysis of the presence and determinants of abnormal returns in the trades made by Members of the House of Representatives in the long run.

3.3. Hypotheses Testing

To answer the research question whether members of the House of Representatives achieved abnormal returns in the long run, the α_i coefficients of the models are tested for their statistical significance. The null hypothesis of the tests state that abnormal returns depicted by α_i are equal to zero suggesting lack of evidence for politicians' insider trading. On the other hand, the alternative hypothesis states that the α_i is statistically different from zero. Accepting alternative hypothesis would mean that during the event window politicians portfolios yielded different returns than benchmarks. This in turn would hint at the possibility of insider trading. The hypothesis are tested at 5% significance level. As indicated earlier, the hypothesis testing for purchase and sale samples differ due to the interpretation of the regression coefficients.

Hypothesis testing for buy side sample of transactions:

H_0: α_i of a model is statistically indifferent from zero

H_1: α_i of a model is larger than zero

Hypothesis testing for sell side sample of transactions:

H_0: α_i of a model is statistically indifferent from zero

H_1: α_i of a model is smaller than zero

The description of Python code used to build portfolios and run regressions is provided in the Appendix A. The code itself, input files used to conduct the analysis and the output files of created portfolios and regressions' results are provided as a supplementary material to the Thesis.

4. Results

4.1. Full Sample Analysis

As the main focus of this study is on uncovering the potential presence of abnormal returns, I describe and interpret coefficients other than alpha in only three out of the six analyses. For the full sample analysis and the robustness-check analysis, I describe these coefficients to establish the robustness of the research and to ensure that the skew present in the data does not impact the main results and conclusions of the study. In the case of the political party differentiated sample analysis, I analyse the differences between the investment strategies of Democrats and Republicans, as indicated by the varying magnitudes of the coefficients. The other analyses are focused solely on presence, magnitude and interpretation of alpha coefficients indicating presence of abnormal returns, in line with research question and research hypotheses.

Table 4.1.1 shows the results of full sample analysis of the calendar-time portfolios of stocks traded by Members. For both CAPM and Fama-French regressions the coefficients on market proxy portfolios display values that are consistently slightly above the value of one, meaning that the Members favoured stocks that were more aggressive than the market average. However, it is worth noting that for all three models, in case of the Purchase Trade-Weighted portfolio, the regressions display larger coefficients than the Equal-Weighted Purchase sample hinting that Members tended to invest larger sums of money into aggressive stocks. The opposite seems to be the case for Sale samples, hinting that the Members tended to divest more funds from the more conservative stocks. This value-weighted divestment from conservative stocks combined with larger value-weighted investments in aggressive stocks could hint that the Members portfolios changed their beta-characteristics during the investigated period.

The coefficients on SMB portfolio is positive and statistically significant, proving that during the investigated period Members tended to favour investments in smaller companies. It is however worth noting that for Value-Weighted Sale Portfolio, the coefficient in question is negative and statistically significant, meaning that Members tended to divest larger amount of money from large companies. Combining it with the propensity for investment in smaller companies, this proves that during this period Members favoured holding stocks of small-cap companies. The coefficients on HML portfolio follow the same pattern, providing the insight that Members tended to favour value stocks and divested larger amounts of money from growth stocks. Here however, in the case of the Trade-Weighted Purchase Portfolio, the coefficient on HML portfolio is statistically insignificant at the accepted 5% level.

The Sectoral Index model sheds the light on the particular selection of stocks within their respective sectors. The coefficients are statistically significant, oscillating around the value of one proving that members tended to conduct transactions on the sample of averagely aggressive stocks within their respective sectors.

The lpha coefficients are statistically insignificant at 5% level for all of the portfolios and models except for the Value-Weighted Sale Portfolio regressed on Fama-French model and Sectoral Index model. In this two cases they are positive and statistically significant, proving that this portfolio underperformed both the market and their respective sectors by statistically significant margin. It is worth noting that statistically insignificant alphas for Equal-Weighted Sale Portfolios across two models indicate that the Members tended to divest larger amounts of money from companies that otherwise would have provided abnormal returns in the future.

Table 4.1.1

Calendar-Time Portfolios Regression Results According to CAPM, Fama-French Three-Factor and Sectoral Index of The House Members' Common Stock Purchase and Sale Samples in Equal and Trade-Value Weighting Schemes.

	Purchases		Sales	
	Equal	Weighted	Equal	Weighted
MKT-RF	1.0544***	1.1026***	1.0877***	1.0599***
	(76.71)	(100.19)	(72.66)	(103.67)
CAPM Alpha	0.0127	0.0089	0.0005	0.0314*
	(0.79)	(0.49)	(0.03)	(1.87)
MKT-RF	1.0327***	1.0883***	1.0612***	1.0640***
	(84.61)	(54.03)	(78.18)	(106.32)
SMB	0.2648***	0.1480***	0.2829***	-0.0704***
	(15.24)	(3.94)	(14.48)	(-3.49)
HML	0.1793***	0.0367*	0.0936***	-0.0935***
	(14.97)	(1.87)	(7.03)	(-7.86)
Fama-French Alpha	0.0086	0.0080	-0.0017	0.0334**
	(0.81)	(0.45)	(-0.14)	(2.09)
Sectoral Index-RF	0.9821***	1.0420***	1.0141***	1.0031***
	(99.07)	(114.17)	(70.89)	(123.04)
Sectoral Alpha	0.0154	0.0111	0.0033	0.0335**
	(0.89)	(0.70)	(0.19)	(2.35)

*For each portfolio and variable, the Table presents the regression coefficient and the t-statistics below in the brackets. The asterisks indicate significance level according to the demarcation: *** significance at 1% level, ** significance at 5% level, * significance at 10% level.*

This findings contradict the theory of presence of informed trading within the broad sample of Members of The House of Representatives in two ways. First of all, the analysis provides evidence that Purchase Portfolios of Common Stock didn't provide Members with abnormal returns in the long run. Their

portfolios on average performed on par with both the market and the respective sectors. Secondly, their Trade-Weighted Sale portfolio exhibited statistically significant abnormal returns after the sale transaction, proving that the Members didn't have superior knowledge of when to exit their investments. This proves that the general sample of the Members didn't posses or didn't act on material non-public information related to their work. Thanks to the analysis conducted using three models, this conclusion seems to be true not only for the general information about macroeconomic condition but also for the sector related events and the firm-specific circumstances.

4.2. Member-Weighted Portfolio Analysis

To investigate the sensitivity of the results to a small number of traders who conduct transactions frequently, it was crucial to address the potential concern of high-volume traders skewing the results. To test for possible sample bias, special portfolios were constructed for each member for each trading day, calculating their daily portfolio returns according to the two weighting schemes. The individual daily portfolios were then combined into a single portfolio for each event window day and averaged by the number of Members included in that day's calculations. This method ensured that each Member received equal weight in the final daily value of returns for the portfolio, regardless of the number of trades they made in the prior 365 days. As opposed to the Table 4.1.1 where the results should be interpreted in relation to the general portfolio of trades, results presented in Table 4.2.1 should be interpreted in relation to each Member's portfolio on average. The results of this analysis are presented in Table 4.2.1

The analysis suggests that the general impact of high-volume traders on the market proxy regression coefficients is minimal. The differences in market proxy coefficient values between Purchase and Sales, and Equal and Value-Weighted portfolios across all models appear to be levelled out, indicating that high-frequency traders might have been responsible for the apparent differences seen in Table 4.1.1 However, the general interpretation that Members prefer to trade in stocks slightly more aggressive than the market average still stands.

The Fama-French model's coefficients and their statistical significance have been affected by the change in observation weighting. Across all trade portfolios, the SMB and HML portfolios' coefficients are statistically significant, positive, and similar in magnitude, proving that Members generally prefer to trade in smaller companies and value stocks, regardless of whether they are purchasing or selling. Combining the conclusions from results presented in Table 4.1.1 and Table 4.2.1, it can be seen that high-frequency traders preferred to conduct higher value sale transactions in large and growth companies compared to the general population of the Members.

The Sectoral Index model's coefficient estimates of the sectoral proxy experienced a drop in magnitude due to the different weighting scheme. The Member-Weighted analysis suggests that each Member, on

average, bought stocks that are less aggressive than their respective sector; however, these stocks were still more aggressive than the market average, as depicted by coefficients on market proxies for CAPM and Fama-French models, indicating a propensity for investments in high-beta sectors.

Despite the disappearance of statistical significance of alpha coefficients for Trade-Weighted Sale sample, the general conclusion about the presence of abnormal returns from common stock trades of Members of the House of Representatives does not change with the weighting scheme adjustment; there are no abnormal returns present in the trades of the general sample of Members. Comparing the results, it can be stated that high-volume traders, are the ones who consistently sell their large investments before peak returns could be achieved, thus driving the negative abnormal returns seen in Table 4.1.1.

Table 4.2.1

Calendar-Time Portfolios Regression Results According to CAPM, Fama-French Three-Factor and Sectoral Index of the House Common Stock Purchase and Sale Samples in Equal and Trade-Value Weighting Schemes, Member Weighted Portfolios.

	Purchases		Sales	
	Equal	Weighted	Equal	Weighted
MKT-RF	1.0634***	1.0607***	1.0465***	1.0297***
	(101.70)	(105.58)	(125.86)	(136.53)
CAPM Alpha	0.0058	0.0080	0.0127	0.0138
	(0.34)	(0.49)	(0.93)	(1.12)
MKT-RF	1.0425***	1.0410***	1.0277***	1.0133***
	(114.13)	(115.90)	(157.80)	(165.25)
SMB	0.2373***	0.2201***	0.2202***	0.1899***
	(12.91)	(12.18)	(16.80)	(15.39)
HML	0.1191***	0.1021***	0.1249***	0.1060***
	(10.98)	(9.57)	(16.14)	(14.56)
Fama-French Alpha	0.0030	0.0056	0.0098	0.0114
	(0.20)	(0.39)	(0.94)	(1.16)
Sectoral Index-RF	0.9883***	0.9860***	0.9740***	0.9577***
	(90.81)	(93.93)	(109.63)	(115.37)
Sectoral Alpha	0.0086	0.0108	0.0154	0.0165
	(0.45)	(0.59)	(0.99)	(1.14)

*For each portfolio and variable, the Table presents the regression coefficient and the t-statistics below in the brackets. The asterisks indicate significance level according to the demarcation: *** significance at 1% level, ** significance at 5% level, * significance at 10% level.*

The results of this analysis indicate that high-volume traders affect the magnitude of the coefficients in the sample, notably changing the sign and statistical significance for HML and SMB portfolios under certain scenarios, and leading to the disappearance of statistically significant alphas for Fama-French and Sectoral Index models for the Value-Weighted Sale Portfolio. However, the fundamental conclusion of the research remains unchanged. The lack of statistically significant alphas proves that the general sample of Members, on average, did not possess or act on material non-public information related to their work. This holds true not only for general macroeconomic conditions but also for sector-related events and firm-specific circumstances as depicted by alpha coefficients across all three models.

4.3. Political Party Affiliation Differentiated Portfolio Analysis

The results presented in Table 4.3.1 provide insights into the calendar-time portfolios regressions with a differentiation by political party affiliation. For both Republicans and Democrats, the coefficients on the market risk premium are statistically significant at the 1% level across all portfolios. It is observed that Republicans' portfolios, both purchase and sale, tend to have slightly lower MKT-RF coefficients compared to Democrats' portfolios. This suggests that Republican Members might favour slightly less aggressive stocks. Additionally, the equal-weighted portfolios for Republicans generally exhibit higher MKT-RF coefficients than the value-weighted portfolios, implying a preference for more aggressive stocks when smaller transactions are equally considered.

The coefficients on the size premium are positive and statistically significant at the 1% level for most portfolios, except for two. The first on being Democrats' value-weighted purchase portfolio, where the coefficient is small and insignificant. The second one, being Democrats' value-weighted sale portfolio, where the coefficient is negative, yet significant. This indicates a general preference for smaller companies among both parties, with Republicans showing a stronger tendency compared to Democrats. The negative and significant SMB coefficient for Democrats' value-weighted sale portfolios suggests that Democrats tend to divest from smaller companies in favour of larger ones.

The value premium coefficients show mixed results. Republicans exhibit positive and significant HML coefficients for both purchase and sale portfolios, indicating a preference for trading in value stocks. Democrats' portfolios display positive and significant HML coefficients for purchases but negative and significant for sales, suggesting a tendency to buy value stocks and sell growth stocks. This highlights the preference of Democrats to shift the characteristics of their holdings more into value oriented stocks. These patterns highlight the different investment strategies employed by Members of the two parties.

The sectoral index coefficients are positive and statistically significant at the 1% level across all portfolios. Republicans' portfolios tend to have lower sectoral index coefficients compared to Democrats', aligning with the overall market risk premium coefficient results, showing the possibly

lower risk tolerance of Republicans by highlighting the choice of stocks that are less aggressive than their respective sectors.

The CAPM alpha coefficients are statistically insignificant at 5% level, indicating that all of the portfolios do not generate significant abnormal returns above the market. Both the Fama-French and Sectoral Index models' alpha coefficients are mostly statistically insignificant, reinforcing the lack of significant abnormal returns. However, at 10% significance level, we can observe a positive and significant alpha for Republicans' equal-weighted purchase portfolio in Fama-French regression, hinting at potential existence of abnormal returns, though the economic significance is limited. This overperformance of the Republican's trades could be an effect of the party holding majority seats in both the House and the Senate during the 114th and 115th Congresses. This might have allowed Republicans to better establish themselves and utilize existing connections and informal structures to achieve the abnormal returns during the following congresses. However, the main conclusion is that neither party's Members are able to reliably achieve abnormal returns through their trades.

In conclusion, a notable differences emerge between two parties. Republicans' portfolios, both in terms of purchases and sales, tend to have lower MKT-RF coefficients compared to Democrats', suggesting that Republicans favour slightly less aggressive stocks. Furthermore, Republicans tended to trade more in stocks of small companies, no matter whether purchasing or selling, while Democrats favoured buying small companies and selling large companies as far as the Value-Weighting scheme is concerned. In terms of value premium, Republicans consistently prefer value stocks for both purchases and sales. In contrast, Democrats display a tendency to buy value stocks and sell growth stocks. Despite these variations, there is no substantial evidence of abnormal returns for either party.

4.4. Political Experience Differentiated Portfolio Analysis

The results presented in Table 4.4.1 provide insights into the calendar-time portfolios regressions differentiated by the length of political tenure defined as the time that has elapsed between the politician's first win in any public election and the start of the each congress during the investigated period. The three groups analysed are: less than 5 years (short tenure), between 5 and 24 years (medium tenure), and more than 24 years (long tenure). These thresholds were chosen as they divide the Members into three roughly equally sized samples for both of the Congresses that convened during the researched period. The result of the analysis underscores that regardless of the length of tenure, Members did not achieve abnormal returns, as indicated by the lack of statistical insignificance of the alpha coefficients across all tenure groups and models. This suggests that Members, irrespective of how long they have held an elective office, do not possess or act on material non-public information that would enable them to outperform the market consistently. This counterintuitive finding suggests that the level of political experience does not help to predict presence of abnormal returns.

Table 4.3.1

Calendar-Time Portfolios Regression Results According to CAPM, Fama-French Three-Factor and Sectoral Index of the House Common Stock Purchase and Sale Samples in Equal and Trade-Value Weighting Schemes, with Differentiation by Political Party Affiliation.

	Purchases Republicans		Sales Republicans		Purchases Democrats		Sales Democrats	
	Equal	Weighted	Equal	Weighted	Equal	Weighted	Equal	Weighted
MKT-RF	1,0576***	0,9917***	1,0071***	0,9120***	1,0709***	1,1706***	1.1133***	1.1253***
	(42,65)	(29,59)	(91,05)	(49,85)	(79,90)	(78,26)	(67,65)	(75.29)
CAPM Alpha	0,0204	0,0569	0,0012	0,0265	0,0034	-0,0185	-0,0063	0.0232
	(0,81)	(1,61)	(0,07)	(0,88)	(0,23)	(-0,75)	(-0.37)	(0.95)
MKT-RF	1,0390***	0,9675***	0,9885***	0,8970***	1,0466***	1,1627***	1,0828***	1,1332***
	(95,30)	(36,17)	(57,96)	(36,89)	(81,96)	(56,43)	(72,77)	(66,24)
SMB	0,2813***	0,3615***	0,2414***	0,2350***	0,2652***	0,0113	0,3039***	-0,1664***
	(12,82)	(8,43)	(7,76)	(4,77)	(14,46)	(0,24)	(14,06)	(-5,27)
HML	0,3146***	0,3990***	0,1966***	0,2788***	0,1070***	-0,1915***	0,0449***	-0,2752***
	(24,29)	(14,68)	(15,56)	(11,47)	(8,22)	(-7,34)	(2,80)	(-17,27)
Fama-French Alpha	0,0134	0,0479*	-0,0033	0,0202	0,0009	-0,0143	-0,0075	0,0294
	(0,77)	(1,79)	(-0,25)	(0,76)	(0,08)	(-0,63)	(-0,52)	(1,46)
Sectoral Index-RF	0,9905***	0,9380***	0,9389***	0,8581***	0,9937***	1,1035***	1,0372***	1,0621***
	(69,98)	(49,56)	(85,59)	(50,66)	(99,47)	(82,57)	(67,14)	(80,12)
Sectoral Alpha	0,0229	0,0588*	0,0037	0,0285	0,0063	-0,0160	-0,0035	0,0256
	(0,93)	(1,78)	(0,19)	(0,96)	(0,36)	(-0,68)	(-0,19)	(1,10)

*For each portfolio and variable, the Table presents the regression coefficient and the t-statistics below in the brackets. The asterisks indicate significance level according to the demarcation: *** significance at 1% level, ** significance at 5% level, * significance at 10% level.*

Table 4.4.1

Calendar-Time Portfolios Regression Results According to CAPM, Fama-French Three-Factor and Sectoral Index of the House Common Stock Purchase and Sale Samples in Equal and Trade-Value Weighting Schemes, with Differentiation by Time Since First Holding an Elective Office.

	Purchases < 5 years		Sales < 5 years		Purchases > 5 and < 24 years		Sales > 5 and < 24 years		Purchases > 24 years		Sales > 24 years	
	Equal	Weighted	Equal	Weighted	Equal	Weighted	Equal	Weighted	Equal	Weighted	Equal	Weighted
MKT-RF	1.0810***	1.0511***	1.1110***	1.1832***	1.0523***	1.0394***	1.0885***	0.9641***	1.0260***	1.1776***	1.0739***	1.1186***
	(54.60)	(79.63)	(94.11)	(61.79)	(81.04)	(64.35)	(67.96)	(38.93)	(75.62)	(70.88)	(50.92)	(92.60)
CAPM Alpha	0.0093	0.0234	-0.0231	-0.0079	0.0102	0.0227	0.0031	0.0117	0.0200	-0.0146	0.0023	-0.0085
	(0.39)	(1.08)	(-1.19)	(-0.25)	(0.48)	(0.86)	(0.22)	(0.53)	(1.53)	(-0.54)	(0.09)	(-0.43)
MKT-RF	1.0533***	1.0204***	1.0784***	1.1564***	1.0284***	1.0393***	1.0651***	0.9733***	1.0146***	1.1689***	1.0481***	1.1147***
	(58.27)	(45.14)	(70.17)	(64.13)	(91.45)	(64.52)	(73.66)	(69.95)	(73.32)	(74.29)	(46.39)	(71.81)
SMB	0.3261***	0.3456***	0.3428***	0.1774***	0.2871***	0.0415	0.2399***	-0.0920***	0.1491***	0.0118	0.2659***	-0.0052
	(10.65)	(10.37)	(14.15)	(4.89)	(11.61)	(1.28)	(11.97)	(-3.29)	(8.77)	(0.37)	(5.71)	(-0.16)
HML	0.1911***	0.1651***	0.1047***	-0.2299***	0.1809***	0.1237***	0.0558***	-0.0154	0.1228***	-0.2128***	0.0644***	-0.1257***
	(11.65)	(8.24)	(5.85)	(-10.73)	(8.86)	(6.46)	(3.73)	(-0.93)	(12.42)	(-11.39)	(3.63)	(-7.58)
Fama-French Alpha	0.0049	0.0195	-0.0257	-0.0031	0.0060	0.0200	0.0017	0.0122	0.0172	-0.0100	0.0006	-0.0058
	(0.26)	(1.09)	(-1.65)	(-0.11)	(0.34)	(0.78)	(0.14)	(0.55)	(1.61)	(-0.40)	(0.03)	(-0.30)
Sectoral Index-RF	1.0046***	0.9818***	1.0353***	1.1112***	0.9848***	0.9887***	1.0180***	0.9159***	0.9549***	1.1127***	1.0002***	1.0498***
	(53.38)	(77.08)	(87.75)	(62.50)	(79.73)	(71.39)	(118.46)	(37.93)	(67.12)	(75.60)	(71.00)	(93.98)
Sectoral Alpha	0.0121	0.0260	-0.0203	-0.0052	0.0127	0.0246	0.0057	0.0135	0.0226	-0.0122	0.0050	-0.0059
	(0.49)	(1.17)	(-0.98)	(-0.17)	(0.59)	(1.02)	(0.38)	(0.66)	(1.54)	(-0.47)	(0.20)	(-0.30)

*For each portfolio and variable, the Table presents the regression coefficient and the t-statistics below in the brackets. The asterisks indicate significance level according to the demarcation: *** significance at 1% level, ** significance at 5% level, * significance at 10% level.*

Table 4.5.1

Calendar-Time Portfolios Regression Results According to CAPM, Fama-French Three-Factor and Sectoral Index Models for the House Common Stock Purchase and Sale Samples in Equal and Trade-Value Weighting Schemes, with Differentiation by Highest Attained Degree.

	Purchases Bachelor or lower		Sales Bachelor or lower		Purchases Masters or higher		Sales Masters or higher	
	Equal	Weighted	Equal	Weighted	Equal	Weighted	Equal	Weighted
MKT-RF	1.0594***	1.1485***	1.0591***	1.0855***	1.0541***	1.0508***	1.0880***	1.0368***
	(99.04)	(65.71)	(127.02)	(62.10)	(59.42)	(76.55)	(69.93)	(94.72)
CAPM Alpha	-0.0006	-0.0096	-0.0052	-0.0025	0.0172	0.0298	0.0020	0.0378**
	(-0.05)	(-0.33)	(-0.38)	(-0.09)	(0.83)	(1.33)	(0.12)	(2.11)
MKT-RF	1.0407***	1.1420***	1.0407***	1.0797***	1.0323***	1.0367***	1.0596***	1.0420***
	(99.92)	(74.41)	(78.00)	(66.26)	(69.81)	(85.20)	(75.99)	(93.90)
SMB	0.1568***	-0.0390	0.1675***	-0.0262	0.2887***	0.2001***	0.3080***	-0.0634***
	(8.09)	(-1.26)	(8.10)	(-0.80)	(12.23)	(8.17)	(14.83)	(-2.84)
HML	-0.0620***	-0.3011***	-0.0194	-0.2431***	0.2459***	0.1993***	0.1167***	-0.0411***
	(-4.43)	(-16.52)	(-1.39)	(-12.56)	(19.23)	(13.79)	(8.47)	(-3.12)
Fama-French Alpha	0.0006	-0.0030	-0.0049	0.0028	0.0116	0.0253	-0.0007	0.0387**
	(0.05)	(-0.12)	(-0.41)	(0.11)	(0.84)	(1.30)	(-0.06)	(2.18)
Sectoral Index-RF	0.9870***	1.0841***	0.9872***	1.0205***	0.9812***	0.9943***	1.0144***	0.9836***
	(116.84)	(69.00)	(113.50)	(63.26)	(79.56)	(83.67)	(68.17)	(113.68)
Sectoral Alpha	0.0021	-0.0096	-0.0026	-0.0001	0.0199	0.0319	0.0048	0.0398***
	(0.14)	(-0.33)	(-0.17)	(-0.00)	(0.92)	(1.54)	(0.26)	(2.63)

*For each portfolio and variable, the Table presents the regression coefficient and the t-statistics below in the brackets. The asterisks indicate significance level according to the demarcation: *** significance at 1% level, ** significance at 5% level, * significance at 10% level.*

Table 4.6.1

Calendar-Time Portfolios Regression Results According to CAPM, Fama-French Three-Factor and Sectoral Index Models for the House Common Stock Purchase and Sale Samples in Equal and Trade-Value Weighting Schemes, with Differentiation by Committee Assignments.

	Purchases Economic Committees		Sales Economic Committees		Purchases Military Committees		Sales Military Committees	
	Equal	Weighted	Equal	Weighted	Equal	Weighted	Equal	Weighted
MKT-RF	1.0392***	1.0759***	1.0879***	1.1085***	1.1145***	0.9913***	1.0816***	0.9241***
	(127.66)	(84.70)	(115.76)	(75.41)	(44.98)	(39.93)	(96.31)	(52.00)
CAPM Alpha	0.0173	0.0164	-0.0129	-0.0042	0.0391	0.0678	-0.0046	0.0279
	(1.30)	(0.79)	(-0.84)	(-0.18)	(0.85)	(1.32)	(-0.25)	(0.96)
MKT-RF	1.0267***	1.0706***	1.0633***	1.1043***	1.0781***	0.9686***	1.0569***	0.9129***
	(85.38)	(82.43)	(133.48)	(76.51)	(45.50)	(40.12)	(116.84)	(57.18)
SMB	0.1767***	0.0539**	0.2618***	-0.0072	0.4142***	0.3304***	0.2875***	19.38***
	(10.41)	(2.06)	(16.33)	(-0.25)	(8.77)	(6.49)	(15.79)	(6.03)
HML	0.1774***	0.0109	0.0873***	-0.1419***	0.2072***	0.3475***	0.1602***	26.36***
	(17.21)	(0.71)	(9.22)	(-8.28)	(8.52)	(13.01)	(14.91)	(13.90)
Fama-French Alpha	0.0133	0.0161	-0.0150	-0,0011	0.0343	0.0600	-0.0083	0.0220
	(1.53)	(0.78)	(-1.18)	(-0.05)	(0.79)	(1.27)	(-0.57)	(0.86)
Sectoral Index-RF	0.9660***	1.0133***	1.0141***	1.0450***	1.0362***	0.9296***	1.0122***	0.8718***
	(108.65)	(89.19)	(105.30)	(79.33)	(47.68)	(42.20)	(93.01)	(53.60)
Sectoral Alpha	0.0200	0.0187	-0.0101	-0.0019	0.0420	0.0701	-0.0020	0.0298
	(1.29)	(0.94)	(-0.60)	(-0.08)	(0.89)	(1.37)	(-0.10)	(1.05)

*For each portfolio and variable, the Table presents the regression coefficient and the t-statistics below in the brackets. The asterisks indicate significance level according to the demarcation: *** significance at 1% level, ** significance at 5% level, * significance at 10% level.*

4.5. Education Differentiated Portfolio Analysis

Table 4.5.1 presents the results of calendar-time portfolios regressions differentiated by the highest attained degree of Members of the House. The groups are divided into those with a Bachelor's degree or lower, those with a Master's degree or higher, including J.D. degrees and PhD degrees. For the lower educated group all of the alpha coefficients across all models are statistically insignificant, suggesting that the constructed portfolios did not generate significant abnormal returns. Similarly, in the higher educated group's results, the alpha coefficients are mostly statistically insignificant, indicating no abnormal returns, except for the equal-weighted sale portfolio where the alpha is significant at the 5% level across all three models. Similarly to the results of full sample analysis, this would suggest that the higher educated Members tended to divest from their larger investments before the peak returns could have been achieved. The results of the analysis underscores that regardless of the educational background, Members do not achieve significant abnormal returns, as indicated by the statistical insignificance of the alpha coefficients across most portfolios. Even when the alpha coefficients were statistically significant, their interpretation in the context of the created portfolios, further disproved the theory of informed trading. This suggests that Members, irrespective of their highest attained degree, do not possess nor are more likely to act on material non-public information that would enable them to outperform the market consistently.

4.6. Committee Assignments Differentiated Portfolio Analysis

The results presented in Table 4.6.1 provide insights into the calendar-time portfolio regressions differentiated by the committees to which Members were assigned during their tenures in the 116th and 117th Congress. The first group, labelled as the Military Committees sample, consists of trades by Members who served on at least one of the following committees: Homeland Security, Foreign Affairs, Armed Services, and Permanent Select on Intelligence. The second group, labelled as Economic Committees, includes trades by Members who served on at least one of the following committees: Ways and Means, Energy and Commerce, Financial Services, and Appropriations. This division was chosen to approximate the potentially larger streams of information these Members might have been exposed to in relation to two macroeconomic events that took place between years of 2020 and 2023.

The first event is the COVID-19 pandemic, where committee Members serving on more economically oriented committees would be expected to possess early information about the development of the pandemic and its economic implications. The second group of Members, serving on more military-oriented committees, would be expected to have early information on the development of the Russo-Ukrainian war. However, it should be noted that the timeframes for analysing these subsets of trades are not centred around their specific event dates but instead cover a longer period, thus limiting the interpretation of the effect of those events on the trades' performance.

The analysis results indicate that, regardless of the committee assignments investigated, Members did not achieve abnormal returns, as evidenced by the statistical insignificance of the alpha coefficients across both groups and all models. This suggests that Members did not possess or act on material non-public information that would enable them to consistently outperform the market in the long run, despite their assignments to relatively more influential and informationally-rich committees.

5. Conclusions

5.1. Discussion

The comprehensive analysis across various models and sub-samples consistently indicates that Members of the House of Representatives did not achieve abnormal returns from their trades. Statistically significant alpha coefficients, where present, indicate underperformance rather than superior returns. This finding is robust across different weighting schemes, models, and sample selections, suggesting that Members did not possess or act on material non-public information that would allow them to achieve abnormal returns in the long run. Whether considering the full sample, member-weighted portfolios, or differentiation by political party affiliation, political experience, or educational background, the absence of abnormal returns holds. This robustness underscores the reliability of the findings and suggests that the observed patterns are not artifacts of specific sample biases or selection methods.

It is important to note that the Trade-Weighted Sale Portfolio samples exhibited notable characteristics, particularly among the general Members sample and highly educated Members sample. In these groups, the significant alpha coefficients pointed to underperformance of this particular portfolio, indicating that Members tended to divest from their larger investments before peak returns were achieved. This behaviour suggests a lack of informed trade timing in their sale transactions. To further examine the presence of abnormal returns in politicians' trades, an alternative analytical approach could be considered. Instead of focusing on the behaviour of stock prices post-sale, future research could investigate the price behaviour prior to the sale transactions, during the period when politicians held the stocks. Analysing this period could provide deeper insights into whether their sales were influenced by non-public information or were simply the result of reaching strategic price targets, portfolio rebalancing or liquidity needs. Furthermore, this approach could help determine whether the stocks provided Members with statistically significant abnormal returns immediately prior to the sale, offering a clearer picture of whether Members benefited from insider knowledge during the holding period.

Furthermore, the conducted analysis revealed significant differences in investment strategies between Democrats and Republicans. Democrats favoured buying small companies and selling large companies when using the Value-Weighting scheme, while Republicans showed a preference for less aggressive and value-oriented stocks regardless of whether they were purchasing or selling. In terms of value premium, Republicans consistently preferred value stocks for both purchases and sales. In contrast, Democrats tended to buy value stocks and sell growth stocks. These differences highlight varying risk tolerances and investment philosophies between the two parties, which influenced their portfolio selections. Despite these differences, no abnormal returns were detected in any of the portfolios at the 5% significance level. While at 10% level Trade-Weighted Republican Purchase sample exhibited statistically significant alphas across all models, the low T-statistics don’t allow to reject the null hypothesis at the accepted significance level. This overperformance of the Republican’s trades, although

its economic significance is limited, could be an effect of the party holding majority both in the House and the Senate during the 114th and 115th Congresses. This might have allowed Republicans to better establish themselves and utilize existing connections and informal structures while trading during the following congresses.

The results from the Member-Weighted Portfolio Analysis suggest that high-volume traders may have influenced the findings in the full sample analysis. By adjusting for the weight of each Member's portfolio, it was revealed that high-frequency traders might be responsible for some of the apparent differences in regression coefficients. This adjustment highlights the necessity of accounting for trading volume in future analyses to avoid potential biases. To further enhance this approach, future studies could focus on analysing the trade samples of Members who trade in larger than average volumes. This could help determine if there is a correlation between the number of transactions made and the existence of abnormal returns. Conclusions drawn from Tables 4.1.1 and 4.2.1 suggest that high-volume traders are the main contributors to the statistically significant alphas observed in the Trade-Weighted Sale Portfolio for General Member's sample. This phenomenon could be attributed to the overconfidence effect described by Barber and Odean (2001), which leads to poorer trade performance due to poor market timing. However, this explanation should not apply to the similar results shown in Table 4.5.1, where the Trade-Weighted Sale Portfolio of more educated Members also underperforms the market. Studies by Graham, Harvey, and Huang (2009), as well as Van Rooij, Lusardi, and Alessie (2011), highlight the existence of positive effect of education on portfolio performance. The results obtained here contradict this claim, as the positive statistically significant alpha coefficients for the Trade-Weighted Sale Portfolio indicate market underperformance. This suggests that educated Members tend to exit their large positions before these positions reach peak returns. In summary, while the alphas in both above-mentioned samples indicate underperformance, by re-running the analysis and combining more than one criterion on which a sample was built, a more detailed analysis could shed light on the notable cases of the general Members' Trade-Weighted Sale Portfolio and the Trade-Weighted Sale Portfolio of highly educated Members. Combining this with the new analytical approach discussed in the second paragraph of Section 5.1 could provide valuable insights.

The general findings of the study align with research conducted after the introduction of the STOCK Act, which aimed to curb insider trading by Members of Congress. The lack of abnormal returns observed in this study suggests that the STOCK Act effectively reduced the use of non-public information for personal gain. This conclusion further discredits claims made by some financial influencers that Members consistently achieve abnormal returns through their trades. This study underlines, that assuming the 365 days price history analysis period, Members didn’t achieve abnormal returns, thus copying their investment strategies would not provide any investor with abnormal returns.

The research further shows that global economic and political events, such as the COVID-19 pandemic and the Russo-Ukrainian war, did not seem to positively influence Members' ability to outperform the market. This finding implies that even during significant global disruptions, Members' trading performance did not benefit from any privileged information, further supporting the conclusion of no informed trading. Furthermore, no statistically significant positive abnormal returns were found, and the potentially broader information streams available to Members did not translate into superior trading performance. This conclusion is reinforced by the Committee Assignment Differentiated Portfolio Analysis, which showed no abnormal returns in the long run for Members serving on committees with expertise related to COVID-19 and the Russo-Ukrainian war.

The study's findings resonate with the strong version of the Efficient Markets Theory, which asserts that stock prices fully incorporate all available information, rendering it impossible for any investor, including politicians with potential access to non-public information, to achieve consistent abnormal returns. The comprehensive analysis, involving different regression models and portfolio weightings, indicates that the Members of the House did not capitalize on non-public information for their trades. This suggests that the market efficiently integrates such information into stock prices, preventing any systematic advantage. These results reinforce the validity of the strong form of EMT.

The evidence suggests that Members of the House of Representatives either lacked material non-public information, were deterred by the political and legal risks associated with insider trading, or did not know how to effectively act on any information they possessed. This comprehensive analysis supports the integrity of Members' trading activities, indicating that their investment decisions were based on public, already priced-in information, rather than any unfair advantage.

The study employed an innovative index-based model to assess Members' trade performance relative to the sectors of the economy that the traded companies represent. This approach allowed for a more detailed examination and provided substantial evidence against the claim of superior stock selection abilities by Members. Previous studies primarily focused on whether politicians could outperform the market as a whole, either through strategic sector allocation or selecting companies that outperform the broader economy. In contrast, the Sectoral Index model enabled the determination that Members do not possess specific information that would allow them to select 'winners' even within specific sectors in which they might have greater expertise and exposure to through committee assignments.

The study is based on trade information derived from a first-hand source - the PTR filings of the Members of the House of Representatives, providing a true and unbiased dataset of transactions matching the criteria of the study. A specially-created Python program allowed for automatic and semi-automatic processing of two and a half thousand files, resulting in the identification of more than eight thousand transactions that met the initial criteria. This method enabled the discovery of discrepancies and errors in the reported transactions, such as incorrect future transaction dates and misclassified asset

types. The data analysis was conducted with utmost care, involving the creation, merging, and filtering of large datasets based on different criteria, resulting in analysis of 44 portfolios' returns history. The process included handling thousands of stock price history datasets and building a flexible calendar-time portfolio event study analysis program, which can be reused in different studies using different assumptions and criterions. This meticulous approach ensured the reliability and accuracy of the findings, reinforcing the conclusion that Members do not possess or act on material non-public information to achieve abnormal returns.

In conclusion, this paper aimed to offer valuable insights into the magnitude of abnormal returns achieved by politicians and to provide an initial screening of the qualities and actions influencing these returns. By building on existing literature both in the realm of corporate and politicians' insider trading, and employing established methodologies, this research contributes to a deeper understanding of politicians' trading behaviour. The results disprove the theory of informed trading amongst the Members of the House of Representatives in the period 2020-2023, regardless of the division into subsamples based on personal qualities of Members.

Despite lack of abnormal returns in the investigated period, I call for improved transparency in the reporting of transactions, including the disclosure of precise holding periods of stocks and auditing the filings to ensure the quality, accuracy and timeliness of provided disclosures. To enhance transparency, the possibility of submitting manually filled filings should be eliminated. The ultimate goal should be to create a widely accessible, detailed, and audited database of transactions made by politicians. Such a database would serve to further deter illegal and ethically questionable trading practices and allow the general public to access and analyse the trades efficiently, without effectively gatekeeping this knowledge behind technical obstacles of extracting aggregate data.

5.2. Limitations

The research is confined to measuring the effect of subsample selection on the statistical presence and magnitude of abnormal returns predicted by three models. By defining subsamples based on criteria derived from corporate insider trading literature, this study aimed to uncover novel insights and theoretical frameworks regarding the underlying drivers of abnormal returns in politicians' trades. I encourage future researchers to utilize regression analysis to quantitatively assess the correlations between politicians' actions, business affiliations, personal attributes, and the magnitude of abnormal returns achieved. Further research could be conducted based on the methodology established by Hillier et al. (2015), providing more insights into the politicians' effect on the performance of portfolio and thus possibly identify individuals who statistically are doing better than markets on average.

It is important to acknowledge that this research is limited to analysing subsamples of U.S. common stock transactions, restricting the interpretation of results to a single asset class and one country of origin. The emergence of new investment products not considered during Ziobrowski et al.'s (2004; 2011) research suggests that politicians may have adopted more sophisticated strategies for achieving abnormal returns, such as using derivatives or alternative investments. Additionally, it is worth highlighting that the research is based on the trades made by not only the politicians but also their spouses and dependent children.

Furthermore, exploring how the asset composition of U.S. politicians' portfolios change before the public announcement dates of significant macroeconomic events, such as lockdowns or geopolitical developments, could provide valuable insights. Analysing the timing, quantities and direction of transactions involving U.S. treasuries and stocks related to these events may illuminate politicians' reactions to theoretically unexpected developments and their potential exploitation of non-public information.

Lastly, it is important to acknowledge that this research focuses on assessing the presence of abnormal returns in the general sample and subsamples of trades made by politicians over the long term. The decision to define the holding period as 365 calendar days means that the interpretation of results relies on the assumption that politicians held their stocks continuously for this extended period. However, as mentioned in the Section 3 of the paper, defining the actual holding period for each trade is impossible with the available data. Given this limitation, future research could benefit from analysing the same subsamples of trades using shorter holding periods. Studies by Karadas (2019, 2021), referenced in the Literature Review, suggest that politicians might trade on time-sensitive information, potentially leading to portfolio outperformance in shorter-term holding periods. This insight is particularly relevant when examining trades by Members who served on committees closely tied to significant economic and political events, such as the Russo-Ukrainian war and the COVID-19 pandemic. In these cases, employing shorter holding periods and using traditional event study methodologies, centred around specific globally significant dates, might reveal statistically significant results, providing a more nuanced understanding of the potential presence of abnormal returns in these specific contexts.

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7. Appendices

Appendix A – Description of Supplementary Material

General description: all datasets included in the supplementary material provide quantitative data in percentage points, unless otherwise specified.

1. All_mappings.ipynb – Python code used to download and process the PTR files, extracting trades matching the criteria of the study. Uses following files as input: '2020.xml', '2021.xml', '2022.xml', '2023.xml'. Outputs an initial list of trades, to be later supplemented with manually processed transactions and politicians' qualities dataset. The more in-depth description of the code is provided inside of the code file as comments to sections of the code.
2. 2020.xml – XML file downloaded from the website of the Clerk of The House of Representatives containing list of all disclosures filed in 2020, used as an input in All_mappings.ipynb.
3. 2021.xml – XML file downloaded from the website of the Clerk of The House of Representatives containing list of all disclosures filed in 2021, used as an input in All_mappings.ipynb.
4. 2022.xml – XML file downloaded from the website of the Clerk of The House of Representatives containing list of all disclosures filed in 2022, used as an input in All_mappings.ipynb.
5. 2023.xml – XML file downloaded from the website of the Clerk of The House of Representatives containing list of all disclosures filed in 2023, used as an input in All_mappings.ipynb.
6. trades_and_politicians.xlsx – provides the final qualitative dataset on transactions that fit the criteria of the study, with data either manually or automatically inputted. This file has been augmented with additional qualitative information about the members who conducted identified trades, providing a comprehensive dataset used as an input for analysis in 'Portfolio_Creation_and_Analysis.ipynb'.
7. Portfolio_Creation_and_Analysis.ipynb – Python code used to create portfolios of trades according to the set criteria and to further conduct tests and regressions on the created portfolios. Uses following files as input: 'trades_and_politicians.xlsx', 'F-F_factors_and_rf.xlsx', 'filtered_prices_2.xlsx'. Used to output the following files: 'politicaly_active_for.xlsx', 'education.xlsx', 'member_weighted.xlsx', 'party_affiliation.xlsx', 'committees.xlsx', 'all_trades.xlsx', and 'OLS_results.xlsx'. The more in-depth description of the code is provided inside of the code file as comments to sections of the code.
8. filtered_prices_2.xlsx – provides panel data of adjusted closing price returns history of companies under the scope of the study and the indices used. Includes companies' and indices'

qualitative data, used in the ‘Portfolio_Creation_and_Analysis.ipynb’ for matching the sector of the company with the sectoral index and other data quality checks.

9. F-F_factors_and_rf.xlsx – provides data on risk-free-rate and returns on theoretical Fama-French portfolios, used as an input in ‘Portfolio_Creation_and_Analysis.ipynb’.
10. 'all_trades.xlsx' – portfolio returns history for all trades across purchase and sale sample and two weighting schemes. Consists of total of 4 portfolio price returns history. Outputted from Portfolio_Creation_and_Analysis.ipynb code and used there to run regressions and obtain the part of 'OLS_results.xlsx'.
11. 'member_weighted.xlsx' - portfolio returns history for all trades across purchase and sale sample and two weighting schemes. When computing the returns, special weighting was used, assigning equal weights to portfolios of trades firstly grouped by politicians, ensuring that each politician is represented by their own daily portfolio returns, before computing the value-weighted and equal weighted purchase and sale samples. Dataset used to conduct robustness check against possible sample bias where high volume traders might skew the results. Dataset consists of total of 4 portfolio price returns history. Dataset outputted from Portfolio_Creation_and_Analysis.ipynb code and used there to run regressions and obtain the part of 'OLS_results.xlsx'.
12. 'politicaly_active_for.xlsx' - portfolio returns history for all trades across purchase and sale sample and two weighting schemes, further divided into portfolios differentiated by the length of political tenure defined as the time that has elapsed between the politician’s first election and the start of the respective congress. The three groups created are: less than 5 years (short tenure), between 5 and 24 years (medium tenure), and more than 24 years (long tenure). Dataset consists of total of 12 portfolio price returns history. Outputted from Portfolio_Creation_and_Analysis.ipynb code and used there to run regressions and obtain the part of 'OLS_results.xlsx'.
13. 'education.xlsx' - portfolio returns history for all trades across purchase and sale sample and two weighting schemes, further divided into portfolios differentiated by highest attained education degree. Groups differentiated by education are: Members who obtained a Bachelor degree or lower, Members who obtained Masters or higher including J.D. and doctoral degrees. Dataset consists of total of 8 portfolio price returns history. Outputted from Portfolio_Creation_and_Analysis.ipynb code and used there to run regressions and obtain the part of 'OLS_results.xlsx'.
14. 'party_affiliation.xlsx' - portfolio returns history for all trades across purchase and sale sample and two weighting schemes, further divided into portfolios differentiated by political party affiliation. Dataset consists of total of 8 portfolio price returns history. Outputted from Portfolio_Creation_and_Analysis.ipynb code and used there to run regressions and obtain the part of 'OLS_results.xlsx'.

15. 'committees.xlsx' - portfolio returns history for all trades across purchase and sale sample and two weighting schemes, further grouped into portfolios differentiated by committee assignments. The first group, labelled as the Military Committees sample, consists of trades by Members who served on at least one of the following committees: Homeland Security, Foreign Affairs, Armed Services, and Permanent Select on Intelligence. The second group, labelled as Economic Committees, includes trades by Members who served on at least one of the following committees: Ways and Means, Energy and Commerce, Financial Services, and Appropriations. Dataset consists of total of 8 portfolio price returns history. Outputted from Portfolio_Creation_and_Analysis.ipynb code and used there to run regressions and obtain the part of 'OLS_results.xlsx'.
16. 'OLS_results.xlsx' – dataset containing final results of all 44 regressions. Contains coefficients values, t-statistics values, p-values and r-squared values, used to create tables in the Section 5. 'Results' of the paper. Uses following files as input to create the results: 'politicaly_active_for.xlsx', 'education.xlsx', 'member_weighted.xlsx', 'party_affiliation.xlsx', 'committees.xlsx', 'all_trades.xlsx', 'F-F_factors_and_rf.xlsx'. Outputted from Portfolio_Creation_and_Analysis.ipynb code.