LITERATURE REVIEW AND COMPETITOR ANALYSIS

MScFE Capstone Project

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Problem Statement:

This research proposes to study whether members of Congress (and their spouses/immediate family) continue to outperform the market with their personal stock and options trades even after the 2012 STOCK Act imposed mandatory public disclosure within 45 days. Earlier academic studies found large pre-2012 alphas (≈6–12% per year). Post-2012 results have been mixed and mostly limited to data ending 2020–2022. The project extends the analysis through the end of 2025, a period that includes the COVID market shock, the 2022 Inflation Reduction and CHIPS Acts, the AI boom, and the 2024–2025 Trump administration transition — all events with major legislative involvement. The research asks the following questions:

1. Using disclosure-date timing (the only truly exploitable timing for outsiders), do congressional trades still generate statistically significant positive cumulative abnormal returns (CARs) in the days and weeks after public filing?
2. Which subgroups (party affiliation, committee membership, trade size, options vs. stock, sector) show the strongest (or weakest) performance?
3. Can a realistic "copy-trading" (mimetic) portfolio that buys/sells on the first trading day after public disclosure outperform standard factor benchmarks net of transaction costs through 2025?

The primary objective is to perform an intensive Exploratory Data Analysis (EDA) that measures the number of cumulative abnormal returns (CARs) accessible to the market post-disclosure by congress, and to determine certain congressional subgroups that perform consistently better than the S&P 500. Specific objectives include:

- Temporal Return Analysis: Compute and plot the Cumulative Abnormal Return (CAR) of all trades of the congress between a constant timeframe with a 95% confidence interval to find whether the mean of the returns is statistically significant or not.
- Subgroup Performance Profiling: Compare the returns of Democrats and Republicans and House and Senate on plots to identify the difference in the median performance and the number of outliers (risk).
- Optimized portfolio for individuals: Using modern techniques and machine learning to develop a smart portfolio for individuals.

Introduction

In the past decade several new retail investment platforms were created, in order to differentiate themselves they use advertising promoting abnormal returns, two of them, Autopilot and Quiver Quantitative are focused on Congressional Trading and its abnormal returns. This type of trade has been scrutinized in recent years and the question on whether Congressmen trade on insider information is ongoing. The Stop Trading on Congressional Knowledge (STOCK) Act of 2012 aimed to curb potential insider trading by requiring timely public disclosure of congressional stock transactions.

Pre-STOCK act research established evidence of outperformance before the Act, attributing it to informational advantages, while the Post-Act studies present more nuanced and contradictory results, reflecting the challenge of separating skill from privileged information under mandatory transparency. This research. Overall, the literature reveals a shift from strong pre-Act alphas to mixed or absent post-Act outperformance.

Pre 2012 STOCK Act

The very beginning studies on congressional trading outperformance were introduced by Alan J. Ziobrowski et al. in 2004. According to the research “Abnormal Returns from the Common Stock Investments of the U.S. Senate”, they found that the average return of portfolios from Senators is 12% higher than the market, which is a remarkable performance even compared to the corporate insiders and professional hedge fund managers at that time. In their following study “Abnormal Returns from the Common Stock Investments of the U.S. House of Representatives” in 2011, they found the rate is reduced to 6% compared to the market, which is still relatively higher than the market benchmark. They also found that the stocks held by Senators had an abnormal return of around 25% within the Senators' holding period. However, after the Senators sold stocks, these stocks had a zero abnormal return in the following year. It indicates that the Senators had perfect timing for buying and selling stocks even though they are not professional traders. These politicians’ transactions often foresaw the legislative achievements, which led Ziobrowski and his associates to believe the politicians had used the advantage of private information to achieve personal gain. Their research’s another interesting finding is that the Democratic representatives’ portfolios significantly outperformed the Republican representatives’ portfolios. Our project will explore whether this phenomenon still exists in the current market. We believe these two studies have a great impact on the publication of the Stop Trading on Congressional Knowledge (STOCK) Act of 2012. In addition, Ziobrowski’s research has introduced two methods of measuring the abnormal returns: the CAPM return and Fama-French return. Nowadays, researchers still use these metrics when assessing the effectiveness of the current transparency requirements.

Post 2012 STOCK Act

Mandatory disclosure within 45 days was designed to remove the informational asymmetry advantage by making congressional trades available to the public. The following studies have similar opinions on the effectiveness of the STOCK ACT.

Based on the research “RELIEF RALLY: SENATORS AS FECKLESS AS THE REST OF US AT STOCK PICKING”(2020), in terms of the dataset from 2012 to 2020, Belmont et al. found that the Senators’ buys and sells both underperformed the market at one month, three months, six months horizons by around 10-30 basis points. It implies that the transparency requirements for the disclosure were effective in discouraging politicians’ informed trading and gain from non-public information.

Apart from the comparison between politicians’ portfolio performance and the market, Huang and Xuan(2017) focused more on the comparison between the pre-ACT period and the post-ACT period. Their research “‘Trading’ Political Favors: Evidence from the Impact of the STOCK Act“ demonstrated that the politicians were able to predict the firms’ mergers and surprisingly earnings and revenue; however, this phenomenon had disappeared after the publication of the STOCK ACT. It also suggests that the STOCK ACT limits the politicians’ power to earn investment gains through private information.

Moe et. Ma (2023) in a research using congressional stock trading data for 2014-2022, found a positive relationship between economic policy uncertainty and short-term abnormal returns of congress members’ stock purchases, adjusted for S&P 500, size (year-end market capitalization) or Fama-French 12-industry benchmarks adding that positive association is stronger among stocks of industries that are more intertwined with policies set by Congress members.

Sell and Houston found in 2024 that stocks purchased by Congressmen significantly underperformed over the following two months. Dependents and Republican Congressmen exhibit superior stock-picking ability and limited evidence that large purchases by representatives outperform smaller trades.

In 2024 Herron and Popescu investigated stock trades of members of the United States Congress from July 2012 through March 2023 finding that Congress members herd, but their patterns differ markedly from those of institutional investors. Congress members follow their own trades over others’ trades by a ratio of 61 to 1. Furthermore, while congressional buys earn small abnormal returns, their magnitude decreases when Congress members herd.

Blonien and al. (2025) performed a study on whether trades made by members of Congress outperform by combining survey-elicited beliefs with a hierarchical Bayesian model of abnormal returns, showing that profitable trading does occur but are infrequent and concentrated during key periods. Their survey showed that respondents believe two-thirds of members trade on private information, with expected profits of 36% per informed trade.

Fischer and Sacerdote (2025) tracked Congressional returns on the stock market over time, focusing on the returns of the top 15 stock traders by volume. The study found that while Congress does not significantly outperform the market at any point in time, mean buy-and-hold abnormal returns for both Congress writ large and high-volume traders have increased at the 20-, 60-, and 127-day benchmarks.

Wai and Zhou transaction-level data on US congressional stock trades, we find that lawmakers who later ascend to leadership positions perform similarly to matched peers beforehand but outperform them by 47 percentage points annually after ascension.

The 2023-2025 New Challenge

Several post-STOCK ACT studies only collect data before 2020 or 2021, which missed some recent developments and changes in the market, such as the COVID aftermath and stimulus checks, artificial intelligence boom and some technology section related legislation. Furthermore, few studies have built real-world copy-trading portfolios using public disclosure data. The major practical constraint is that there is an obvious 45-day time gap between the disclosure date and the transaction date. Under this circumstance, many studies focused on the analysis of transaction date performance which is impossible for normal individual traders to follow. Only the disclosure date can be observed by the individuals, so whether to analyze the return based on the disclosure date or the transaction date makes a big difference for individual investors.

By analyzing Table 1, it can be inferred that when studying the congress as a whole, little overperformance is found post STOCK Act, but for smaller populations such as party leaders and high volume trades there are abnormal returns.

This project will focus on these challenges during the high-volatility regime during 2020-2025, analyzing both the congress as a whole but also separated leaders and committee members.

Table 1: Summary of literature review

Paper	Authors (Year)	Data Period	Sample	Methodology	Key Results
Abnormal Returns from the Common Stock Investments of the U.S. Senate	Ziobrowski et al. (2004)	1993–1998	U.S. Senators' common stock trades	Calendar-time portfolios; CAPM & Fama-French adjustments	Senators outperformed by ~12% annually; strong timing evidence
Abnormal Returns from the Common Stock Investments of Members of the U.S. House of Representatives	Ziobrowski et al. (2011)	Pre-2012 (specific years aligned with disclosures, ~2000s)	U.S. House Members' common stock trades	Mimic portfolios from disclosures; CAPM & Fama-French	House outperformed by ~6% annually; positive on buys
Relief Rally: Senators as Feckless as the Rest of Us at Stock Picking	Belmont, Sacerdote, Sehgal, & Van Hoek (2020)	2012–March 2020	U.S. Senators' trades	Wharton Research Data Services' Event-study Tool;	No skill post-Act; slight underperformance (10–50 bps)
"Trading" Political Favors: Evidence from the Impact of the STOCK Act	Huang & Xuan (2017, updated 2023)	Pre- and post-2012 STOCK Act	Politician-connecte d firms (via stock ownership)	Pre/post comparison of predictive power for firm events (earning, mergers, revenue)	Pre-Act predictability & favors disappeared post-Act
Congressional Stock Trades and Economic Policy Uncertainty	Moe & Ma (2024)	2014–2022	Congressional members' stock purchases	Regressions of AR on EPU index; multiple benchmarks	Positive EPU-AR link, stronger in policy-sensitive sectors
Short-term Market Performance of Congressional Stock Trades	Sell & Houston (2024)	Post-2012	Stocks purchased by Congressmen (including dependents)	Cumulative Abnormal Event-study of 2-month returns (CAR); subgroup analysis (party, dependents, trade size)	Overall underperformed; superior performance by Republicans, dependents, and large trades

Congressional Herding	Herron & Popescu (2024)	July 2012–March 2023	Stock trades of U.S. Congress members	Herding measures (own vs. others' trades ratio); abnormal returns on buys	Strong herding on own trades (61:1); small positive abnormal returns on buys, reduced when herding
Should the Public be Concerned about Congressional Stock Trading?	Blonien et al. (2025)	Post-Act	Congressional trades; combined with survey data	Bayesian modeling + survey beliefs	Infrequent profitable trades; perceived as often informed
Taking Stock of Democracy: Abnormal Returns of High-Profile Members of Congress	Fischer & Sacerdote (2025)	Post-2012 (over time)	Congressional stock returns; focus on top 15 traders by volume	Buy-and-hold abnormal returns at various horizons (e.g., 20-, 60-, 127-day)	No significant overall outperformance; mean BHAR increasing at longer horizons, especially for high-volume traders
"Captain Gains" on Capitol Hill	Wei & Zhou (2025)	Pre- and post-leadership ascension (transaction-level)	U.S. lawmakers ascending to leadership positions vs. matched peers	Transaction-level comparison of performance before/after ascension	Similar performance pre-ascension; ~47 percentage points annual outperformance post-ascension

Competitor Analysis

The current research project does not seek to propose a novel methodology but it is rather a comparison and validation by what has been found in previous research and advertised by investment companies Autopilot and Quiver Quant.

Quiver Quantitative is an alternative data source for non institutional investors founded in 2020 (Quiver Quantitative). It focuses on government data such as Congressional Trading, Government Contracts and Election Fundraising. As a selling point Quiver highlights notable congressional trades in newsletters and blog posts. Examples include:

> *Thomas R. Carper bought $CRWD, a cybersecurity company, in late November '20. About 2 weeks after this purchase, it was announced that the US had been hit with what was described as the worst-ever hack on the US government. Thousands of companies and some government departments were hit, including the US energy department, which is responsible for managing nuclear weapons. CRWD rallied ~50% in the month following this purchase.*
>
> *Carper made another interesting purchase, buying $MOS (a fertilizer company) in mid January '22. Russia was the largest exporter of fertilizer prior to the Ukraine invasion, causing the price of fertilizer, and thus shares of MOS to increase by ~70% in 2 months.* (Quiver Quantitative)

Autopilot is a platform where retail investors can invest in funds similarly to an investor in a hedge fund, amongst the many options Autopilot has and strongly advertises funds that track congressional trades, most notoriously Nancy Pelosi and other high profile politicians (Autopilot).

One limitation of both Quiver Quantitative and Autopilot is STOCK Act's 45-day (or less) disclosure delay, this lag can reduce potential profitability, particularly when market movements are driven by timely news related to legislation, contracts, or geopolitical events. Additional concerns include selection and survivorship bias in the promoted examples in choosing to track top-performers.

Group Github Repo:

https://github.com/AaronLyu95/Congress_Trading

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