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Impact Donald Trump's Tariff Announcements and Implementation on US Stock Market

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ABSTRACT

This study examines the impact of Donald Trump's tariff announcements and subsequent tariff implementations on the performance of the United States stock market, with particular emphasis on the S&P 500 Index as a measure of overall market activity. The research is motivated by the resurgence of protectionist trade policies during the Trump administration, which introduced significant uncertainty into global trade relations and financial markets. Drawing on the U.S.–China trade war and the broader framework of political and policy uncertainty, the study investigates how investors reacted to tariff-related news and whether these policy actions generated abnormal stock market returns and increased market volatility.

The study employs an event study methodology combined with regression analysis to evaluate the short-term market effects of major tariff announcements and implementation dates. Using event windows surrounding key policy interventions, abnormal returns are estimated to determine whether stock prices reacted significantly to tariff-related information. The analysis is further supported by theoretical frameworks from asset pricing and political uncertainty literature, which suggest that stock prices respond to changes in expected future cash flows as well as shifts in investor risk perceptions.

The findings indicate that tariff announcements generally exerted a negative effect on U.S. stock market performance. Major tariff announcements were associated with declines in stock prices, reflecting reduced expectations of future corporate profitability and heightened uncertainty regarding trade relations, supply chains, and global economic growth. The results further suggest that increased risk premiums and investor concerns about future economic conditions amplified the adverse market response. These findings are consistent with existing evidence showing that

trade policy shocks can generate substantial losses in market valuation and contribute to increased financial market volatility.

The study concludes that tariff policies function not only as trade instruments but also as important determinants of financial market behavior. By demonstrating the significant influence of tariff announcements on stock returns and investor sentiment, the research contributes to the growing literature on trade policy uncertainty and financial markets. The findings provide valuable insights for policymakers, investors, and market participants regarding the broader economic and financial implications of protectionist trade measures.

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INTRODUCTION

1.0 THE EFFECT OF THE U.S.-CHINA TRADE WAR ON U.S. INVESTMENT

The resurgence of protectionist trade policies under the administration of Donald Trump represents a pivotal departure from the liberal trade order that had characterized the global economy for decades. The imposition of tariffs on imports from China, followed by retaliatory measures, initiated a sequence of policy shocks that extended beyond bilateral trade relations and permeated global financial markets. This study conceptualizes the onset of these tariff announcements, hereafter referred to as "Liberation Day" as a critical intervention period for examining the effects of trade policy on the United States stock market (Amiti, Gomez, Kong & Weinstein (2021, revised 2025)), Despite a growing body of literature on the economic consequences of the U.S.–China trade war, significant methodological and conceptual limitations persist. Much of the existing empirical work relies on partial equilibrium frameworks (Fajgelbaum et al., 2021) or difference-in-differences approaches (Yang, T., Lau, W.-Y., & Bahri, E. N. A., 2025) that primarily capture heterogeneous effects across firms with varying degrees of exposure to China. While informative, such approaches are inherently limited in their ability to identify aggregate market responses, thereby understating the broader macro-financial implications of trade policy shocks (Amiti et al., 2020). This limitation is particularly consequential given that financial markets incorporate forward-looking expectations, which may amplify the systemic impact of policy uncertainty beyond directly affected firms.

Recent empirical advance such as (Goldsmith-Pinkham & Lyu 2025) attempt to address this gap by integrating stock market event-study methodologies with factor models, thereby enabling a decomposition of stock returns into common (market-wide) and differential (firm-specific) components. This distinction is analytically important. The common component reflects changes

in macroeconomic expectations such as anticipated declines in growth, heightened uncertainty, or shifts in global risk sentiment while the differential component captures the additional effects on firms with direct trade linkages to China (Amiti et al., 2020). Empirical findings indicate that tariff announcements during 2018–2019 were associated with substantial declines in U.S. equity prices, with aggregate market valuations falling by approximately 6 percent, equivalent to an estimated loss of $1.7 trillion in firm value (Amiti et al., 2020). Notably, a significant proportion of this decline is attributable to common effects rather than firm-specific exposure, underscoring the systemic nature of trade policy shocks.

From a theoretical perspective, the transmission of tariff-induced shocks to real economic outcomes operates through financial channels. In particular, the q theory of investment provides a framework linking stock market valuations to firms' investment decisions. A decline in equity prices reduces the market valuation of capital relative to its replacement cost, thereby weakening firms' incentives to undertake new investment (Amiti et al., 2020). Empirical estimates suggest that the trade war reduced the growth rate of investment among U.S. listed firms by approximately 1.9 percentage points by 2020, highlighting the persistence of these effects beyond the immediate announcement period (Amiti et al., 2020).

However, the interpretation of these findings warrants careful scrutiny. First, the reliance on stock market reactions as a proxy for real economic effects assumes that financial markets efficiently process information and accurately reflect future profitability. This assumption may not hold in the presence of behavioral biases or short-term market overreactions. Indeed, evidence of stock price reversals following trade announcements suggests the possibility of overshooting dynamics (Amiti et al., 2020). Second, the attribution of observed market

movements exclusively to trade policy is complicated by concurrent macroeconomic and geopolitical developments, raising concerns regarding identification and causal inference.

Moreover, empirical evidence points to an asymmetry in the impact of policy actions. U.S. tariff announcements appear to have exerted a more pronounced effect on stock market valuations than Chinese retaliatory measures, potentially reflecting the role of U.S. policy as the primary source of uncertainty or the anticipation of retaliation by market participants (Amiti et al., 2020). Such asymmetries underscore the importance of expectations, credibility, and timing in shaping financial market responses.

Firm-level heterogeneity further complicates the analysis. Although only a minority of firms engage directly in trade with China, a substantially larger proportion is indirectly exposed through global value chains and multinational operations. Estimates suggest that nearly half of U.S. listed firms are exposed to China through imports, exports, or revenue linkages, with larger firms exhibiting significantly higher levels of exposure (Amiti et al., 2020). Given that these large firms account for a substantial share of total market capitalization, their responses play a disproportionate role in driving aggregate market outcomes.

In light of these considerations, this study seeks to critically examine the impact of tariff announcements during the “Liberation Day” period on the U.S. stock market. By focusing on both aggregate and firm-level responses, it aims to provide a more comprehensive assessment of how trade policy shocks are transmitted through financial markets and how they influence broader economic outcomes.

1.1 The Impact of Recent US Tariff Hikes on the Stock Market

The increasing use of tariff policy as a geopolitical and economic instrument has significantly reshaped global financial markets, particularly following the escalation of trade tensions between the United States and China since 2018. The tariff announcement by Donald Trump on 8 March 2018, which imposed duties on steel and aluminium imports, marked the beginning of a sequence of policy shocks that had immediate and measurable effects on global equity markets. Event study evidence indicates that this announcement led to statistically significant negative cumulative abnormal returns (CARs) across major stock indices, including the S&P 500, CSI 300, and STOXX 50, reflecting heightened uncertainty and risk aversion among investors (Qin, 2025; Da & Wang, 2025).

Subsequent tariff escalations, particularly the June 2018 announcement targeting $200 billion worth of Chinese imports, further intensified market reactions and reinforced expectations of a prolonged trade conflict. Empirical findings suggest that these policy shocks generated a "cross-border spillover effect," where negative sentiment propagated across international markets. The Chinese stock market exhibited the strongest response due to its high export dependence, while the U.S. and European markets experienced relatively moderate but still significant declines (Yu & Zhen, 2025; Wang et al., 2025). More recent tariff measures, including those introduced in 2024 targeting strategic sectors such as electric vehicles and renewable energy, highlight a structural transition from short-term trade disruptions to long-term industrial and technological competition (Wang et al., 2025).

From a methodological standpoint, prior studies have employed event study approaches combined with panel regression models to quantify the impact of tariff announcements on stock

market performance. These models typically incorporate key macroeconomic control variables—such as changes in U.S. Treasury yields, fluctuations in the U.S. dollar index, and market volatility indicators like the VIX, to capture broader financial transmission channels. The empirical results consistently demonstrate that tariff policy announcements exert a statistically significant negative effect on stock returns while simultaneously increasing market volatility, indicating heightened uncertainty and risk re-pricing in financial markets (Wang et al., 2025).

Furthermore, the literature highlights substantial heterogeneity in the impact of tariff shocks across industries and markets. Sectors with higher exposure to international trade, particularly export-dependent industries, experience more pronounced negative effects. Advanced econometric techniques, including Difference-in-Differences (DID) and Propensity Score Matching (PSM), confirm that these heterogeneous responses persist even after controlling for firm-level characteristics such as market capitalization, valuation, and volatility. This suggests that financial markets systematically incorporate policy-related risks into asset pricing, particularly in globally integrated sectors (Wang et al., 2025).

Building on this literature, the present study focuses specifically on the U.S. stock market, using the S&P 500 as a proxy for overall market performance. The study adopts an event study framework alongside regression analysis to examine the impact of tariff announcements and implementations associated with Donald Trump. In particular, the study introduces “Liberation Day” as the intervention period, allowing for a clearer identification of the causal effects of tariff-related policy shocks on market returns. By integrating event window analysis with econometric modeling, this research aims to capture both the immediate market reactions and the

underlying transmission mechanisms through which tariff policies influence stock market performance.

Overall, this study contributes to the existing literature by providing a focused analysis of U.S. market responses to tariff shocks within a well-defined intervention framework, while also accounting for macroeconomic controls and industry-level heterogeneity. This approach enables a more comprehensive understanding of how policy uncertainty and trade tensions shape investor behavior and financial market dynamics.

1.2 The effects of Trump's trade war on U.S. financial markets

The period between 2018 and 2019 marked a significant phase in global economic policy, characterized by the escalation of protectionist trade measures under the administration of Donald Trump. The U.S. government imposed a series of tariffs on major trading partners, particularly targeting China, which triggered widespread uncertainty across global financial markets. These developments raised concerns about inflationary pressures, reduced consumer spending, and disruptions to global supply chains, ultimately positioning the trade war as a major source of financial risk during this period (Chen et al., 2023).

Empirical evidence suggests that trade war–related announcements and policy actions had a measurable and significant impact on U.S. financial markets. Using a structural vector autoregressive (VAR) framework identified through event-day heteroscedasticity, Chen et al.

(2023) construct a unified "trade war shock" variable that captures the cumulative effect of trade-related news. Their findings indicate that this shock led to immediate declines in key financial indicators, including equity prices and Treasury yields, while also contributing substantially to fluctuations in these variables over time. For instance, negative responses in the S&P 500 reflect investor sensitivity to policy uncertainty and geopolitical tensions.

The transmission of these shocks to financial markets operates primarily through two key channels. First, the growth expectations channel, whereby trade tensions alter investor perceptions of future economic performance, leading to adjustments in stock valuations. Second, the risk premium channel, which captures changes in investor risk appetite and heightened uncertainty during periods of trade conflict. Evidence suggests that these channels played varying roles over time: shifts in risk premium were more pronounced during the early escalation phase in 2018, while growth expectations became more influential during negotiation periods in 2019 (Chen et al., 2023).

In addition to aggregate market effects, the trade war exhibited significant firm-level heterogeneity. Firms with greater exposure to Chinese export markets experienced disproportionately larger declines in stock prices, highlighting the importance of global value chain linkages in amplifying the impact of trade policy shocks. Conversely, firms reliant on imported inputs did not show persistent differences in stock performance, suggesting that output exposure plays a more critical role than input exposure in determining vulnerability to tariff measures (Chen et al., 2023).

This study contributes to the broader literature on trade policy uncertainty and financial markets by offering a comprehensive framework that captures both the **direct and indirect effects** of

tariff announcements. Unlike traditional event study approaches, which rely on abnormal returns and assume that events are entirely unanticipated, the structural VAR method allows for a more flexible identification of policy shocks while controlling for confounding macroeconomic factors. This approach is particularly relevant in the context of trade policy, where many announcements are partially anticipated by market participants.

Overall, the evidence underscores that tariff policies function not only as instruments of international trade but also as powerful drivers of financial market dynamics. The findings highlight the importance of incorporating policy uncertainty into asset pricing models and reinforce the need for investors and policymakers to closely monitor the evolving geopolitical landscape when assessing market risks (Chen et al., 2023).

1.3 The Market Reaction to Trump's Trade War

The escalation of global trade tensions in 2018, driven largely by tariff policies introduced under President Donald Trump, created significant uncertainty in financial markets. These policies, which targeted a wide range of imported goods including steel, aluminum, solar panels, and washing machines triggered retaliatory measures from key trading partners such as China, Canada, Mexico, and the European Union. As a result, investors were forced to reassess expectations regarding corporate performance, international trade flows, and overall economic stability (McCarthy, 2019).

Using an event study framework, McCarthy (2019) examines how financial markets responded to major trade-related announcements and policy implementations during the early phase of the trade war. The study categorizes events into three main types: tariff announcements, exemptions,

and final implementations. By analyzing stock price movements and constructing a zero-cost portfolio comprising long positions in firms expected to benefit and short positions in those expected to be adversely affected, the research captures the differential impact of trade policy shocks on firm valuations.

The findings indicate that the most pronounced market reactions occurred during the initial stages of the trade war, particularly in the first quarter of 2018. During this period, there was a significant divergence in returns between firms positively and negatively exposed to tariff policies, suggesting that investors rapidly incorporated new information into asset prices. However, as the trade conflict progressed and tariffs expanded to a broader set of goods and countries, the magnitude of market reactions diminished. This pattern implies that financial markets gradually adjusted to the evolving policy environment, with subsequent announcements generating less surprise and therefore weaker price responses (McCarthy, 2019).

Furthermore, the study highlights that market reactions were more substantial when tariffs targeted specific industries or countries, as this allowed investors to more clearly distinguish between winners and losers. In contrast, broader tariff measures affecting multiple sectors resulted in more muted responses, as their overall economic impact was more diffuse. Evidence also suggests that markets may initially overreact to tariff announcements, with partial corrections occurring in subsequent trading days, indicating a short-term deviation from full market efficiency.

Another important insight relates to the role of tariff exemptions. Countries granted exemptions from U.S. tariffs often experienced positive market reactions, as their firms gained a relative competitive advantage. This finding aligns with the broader literature suggesting that selective

trade restrictions can distort competitive dynamics rather than uniformly protect domestic industries.

Overall, McCarthy (2019) provides evidence that tariff-related policy announcements significantly influenced stock market performance, particularly in the early stages of the trade war. The study underscores the importance of expectations, information timing, and firm-level exposure in shaping financial market responses to trade policy shocks. These findings contribute to a deeper understanding of how political and economic uncertainty—especially in the context of protectionist trade policies—affects asset pricing and investor behavior.

Chapter 2 – Literature Review

2.0 Stock Price Determination in a Complete Markets Framework

In standard asset pricing theory, a firm's stock represents a claim on its terminal payoff, defined as the firm's liquidating dividend at time T, denoted B_T^i. Aggregate investor wealth at time T is therefore the sum of all firms' terminal dividends, expressed as $B_T = \int_0^1 B_T^i di$. In equilibrium, stock prices adjust so that investors collectively hold the entire supply of outstanding shares.

In addition to equities, the economy includes a risk-free zero-coupon bond that delivers a certain unit payoff at time T. This bond is in zero net supply and serves as the numeraire asset. Under the assumption of complete financial markets, the absence of arbitrage implies the existence of a unique state price density (or stochastic discount factor). This pricing kernel is given by:

$$\pi_t = \frac{1}{\lambda} E_t \left[B_T^{-\gamma} \right]$$

Where λ represents the Lagrange multiplier derived from the representative investor's intertemporal utility maximization problem, and γ denotes the coefficient of relative risk aversion.

The expected discounted value of the firm's terminal dividend will determine the value of firm i's equity at time t.

The chosen pricing formula implies that stock prices depend on expected future cash flows and the stochastic discount factor related to risk perceptions and economic events.

In the case of tariff shocks like the announcements and implementation of trade policies under Trump, the framework indicates that stock price changes can take place from two channels:

(i) revisions in expected future firm cash flows due to changes in trade costs, supply chains or demand conditions, and (ii) changes in the stochastic discount factor due to increases in uncertainty, risk aversion or macroeconomic expectations. As a result, news related to tariffs can influence equity valuations in two ways: through the expected profitability and through financial market risk.

2.1.0 Changes in Stock Price After Policy Announcements

In intertemporal asset pricing models, announcement of government policy immediately moves the stock price because the announcement changes the expectations about future cash flows and risk. At the announcement time τ , equity prices are adjusted discontinuously (with these prices "jumping") and the size and direction of this jump depend on two things.

$$M_t^i = E_t \left[\frac{\pi_T}{\pi_t} B_T^i \right]$$

The standard pricing equation shows that stock prices depend on future cash flows and the stochastic discount factor reflecting risk appetite/macro conditions.

Against the background of tariff shocks, such as the announcements and implementation of trade policies under the Trump administration, this conceptual framework suggest that stock prices move due to one of two channels: (i) an effect on expected future firm cash flows, which could

be due to a change in trade costs, supply chains, demand, etc., or (ii) an effect on the stochastic discount factor due to a change in uncertainty, risk aversion, macroeconomic expectations, etc News related to tariffs can impact equity valuations via expected profitability through other financial market risk.

This standard pricing formula shows that stock prices depend on both expected future cash flows and the stochastic discount factor, which reflects investors' risk preferences and macroeconomic conditions.

2.1.1 Stock Price Reactions to Policy Announcements

In intertemporal asset pricing models, stock prices respond immediately to government policy announcements because such announcements alter expectations about future cash flows and risk. At the announcement time τ, equity prices adjust discontinuously (i.e., they "jump"), and the magnitude as well as the direction of this adjustment depends on two key factors:

(i) Whether the government changes or maintains the policy.

(ii) How unexpected the decision is relative to prior investor beliefs.

The instantaneous return at the time of announcement is often referred to as the announcement return. It is defined as the stock return conditional on the announcement of a policy change. This return reflects the difference between the stock's market value immediately after the announcement and its value immediately before the announcement.

Prior to the announcement, investors assign a probability to the likelihood of a policy change based on available information. This perceived probability depends on observed signals about

the economic environment, even though certain underlying policy determinants remain unobserved. Thus, the stock price prior to the announcement provides evidence on the projected chances that either a policy additional or not occurs following either announcement. Immediately after the announcement, however, uncertainty about the policy decision is resolved. The firm's market value then takes one of two distinct forms:

- If the policy changes, firm value reflects a new distribution of expected future cash flows and associated risk.
- If the policy remains unchanged, valuation continues under the previously expected policy framework.

Because firms are assumed to be identical ex ante in the theoretical setup, their market-to-book ratios are equal across firms at any point in time. The pre-announcement price can therefore be interpreted as a weighted combination of the two potential post-announcement valuations, where the weight corresponds to the ex-ante probability of policy change.

2.1.2 Cash Flow Effects versus Discount Rate Effects

The announcement return arises from two competing mechanisms:

1. Cash Flow Effect

   A new policy may increase expected future firm cash flows. For example, if the previous policy was perceived as unfavorable (e.g., associated with negative expected impacts), replacing it could raise expected profitability. This channel tends to push stock prices upward.

2. Discount Rate (Risk) Effect

   At the same time, the new policy may introduce greater uncertainty. If the variance of the policy's impact increases, investors demand a higher risk premium. Higher discount rates reduce the present value of future cash flows, exerting downward pressure on stock prices.

The overall stock market reaction depends on which effect dominates. If the improvement in expected cash flows outweighs the increase in uncertainty, stock prices rise. Conversely, if heightened uncertainty significantly raises required returns, prices may fall, even when expected cash flows improve

2.1.3 Role of Risk Aversion

Investor risk aversion plays a central role in determining the magnitude of announcement effects.

- When risk aversion is extremely high, the discount rate effect dominates. In such cases, even potentially beneficial policy changes can lead to sharp stock price declines because investors place substantial weight on increased uncertainty. Policy changes become unlikely in equilibrium, but if they occur, equity valuations may drop dramatically.
- When risk aversion approaches unity (log utility), the cash flow and discount rate effects offset each other on average. In this limiting case, the expected announcement return tends toward zero, meaning that policy changes do not systematically generate positive or negative abnormal returns.

2.2 Implications for Empirical Analysis of Tariff Announcements

This theoretical framework provides a foundation for understanding stock market reactions to tariff announcements under the Trump administration. Tariff-related news can simultaneously alter:

- Expectations about firms' future earnings (through trade protection, supply chain disruptions, or retaliation risks), and
- The perceived risk environment (through heightened policy uncertainty and volatility).

Therefore, observed abnormal returns around tariff announcement dates reflect the interaction between revisions in expected cash flows and changes in required risk premia. The empirical analysis in this thesis builds on this theoretical insight by examining whether US stock market reactions to Trump's tariff announcements were primarily driven by profitability expectations or by increased uncertainty and risk aversion.

2.2.1 Conditions Under Which Announcement Returns Become Negative

The theoretical framework further identifies the conditions under which stock prices decline following the announcement of a policy change. Specifically, the announcement return is negative when the perceived impact of the existing policy on profitability is not sufficiently adverse. In formal terms, stock prices fall at the time of a policy change if the previously perceived policy effect exceeds a critical threshold.

This threshold depends on three main factors:

(i) The difference in uncertainty between the new and old policy regimes,

(ii) The degree of investor risk aversion.

(iii) The remaining time horizon until the realization of firm payoffs.

If in response to the new policy there is an increase in the uncertainty, such that now this uncertainty is greater than that associated with pre-policy- then if investors are sufficiently risk averse the discount rate effect dominates cash flow effect and leads to a negative stock market reaction.

Intuitively, a policy change is simply a new policy replacing an existing policy whose expected effect investors know with some degree of certainty and then forming beliefs about the ex-ante impact of the ensuing Change in Policy as being more uncertain than advised.

Intuitively, a policy change replaces an existing policy, whose expected impact investors perceive as known with some precision with a new policy that is generally more uncertain. Even if the new policy improves expected profitability, higher uncertainty increases required returns. If this increase in discount rates outweighs the improvement in expected cash flows, stock prices decline.

2.2.2 Joint Conditions for Policy Change and Price Decline

Combining the determinants of policy adoption and stock price response yields an important insight: stock prices fall at the announcement of a policy change only within a specific range of prior beliefs.

- First, the perceived effect of the existing policy must be sufficiently unfavorable for the government to decide to change it.
- Second, it must not be *too* unfavorable; otherwise, the improvement in expected cash flows would dominate and stock prices would rise.

Thus, a price decline occurs only when the perceived impact of the existing policy lies between two thresholds: one that triggers policy change and another that determines whether the discount rate effect outweighs the cash flow effect.

The size of this interval depends positively on the increase in uncertainty associated with the new policy. The more variable the economic effect of a new policy would be, the more probable is that the discount rate effect dominates and thus to fall in prices across a broad spectrum.

2.3 Interpretation across Different Economic Scenarios

The model provides several possible scenarios:

1. Existing Policy Strongly Negative

   If assessed as extremely error prone, the chance of a change in policy is very close to one. In this case, a change leads to a stock price increase because expected cash flows improve substantially. However, since investors already anticipate the change, the positive price reaction is relatively small.

2. Moderately Negative Existing Policy

   when the existing policy is only moderately harmful, a policy change may still improve

expected profitability. Nevertheless, stock prices may decline because the rise in uncertainty raises discount rates more than the increase in expected cash flows raises valuations. Importantly, stock prices can fall even if investors' expected utility rises. This divergence occurs because stock prices depend on marginal utility (through discount rates), not directly on overall expected wealth.

3. Favorable Existing Policy

   If the prevailing policy is perceived as beneficial to profitability, the probability of change is low. However, should the government unexpectedly replace such a policy—perhaps due to political considerations—the resulting increase in uncertainty combined with the loss of a profitable regime can generate a sharp decline in stock prices.

2.3.1 Ex-Ante versus Ex-Post Perspectives

At the time of announcement, investors condition on the observed policy signal. However, from an earlier perspective, there is uncertainty about both the policy's economic impact and the political factors influencing government decisions.

When incorporating uncertainty about both dimensions, negative announcement returns are more likely than positive ones if moderate policy signals are more probable than extreme negative signals. Consequently, on average, policy changes are more often associated with stock price declines than increases.

2.3.2 Implications for Tariff Announcements Under the Trump Administration

This theoretical structure is particularly relevant for analyzing US stock market reactions to President Trump's tariff announcements. If existing trade policies were not perceived as severely harmful to corporate profitability, replacing them with more protectionist and uncertain trade measures could increase risk premia sufficiently to generate negative announcement returns.

What is more, even if tariffs were expected to help some industries by shielding them from foreign competition, increased trade uncertainty, retaliation risks, and macroeconomic volatility may have raised the discount rates needed across the market. This would imply that the aggregate stock market reaction will be negative, even if cash flows in certain sectors in our economy gain. This suggests that the empirical study of these tariff announcements ought to be sensitive to whether any anticipated effects on profitability and uncertainty are positively interrelated stocks and welfare even move in different directions.

2.4 Political Shocks and Stock Market Responses

A central contribution to the political asset pricing literature is provided by Lubos Pastor and Pietro Veronesi (2013), who develop a general equilibrium model in which stock prices respond systematically to political signals. In their framework, governments maximize a combination of the representative investor's welfare and political objectives. These political considerations are modeled as costs or benefits associated with implementing policy changes. For instance, adopting a reform may require the government to expend political capital, while alternative policies may generate political gains by appealing to specific constituencies.

Given the inherent unpredictability of policymaking, political costs and benefits are assumed to be random. As a result, policy outcomes are not fully predictable ex ante. However, investors are

not completely uninformed; they observe a wide range of political signals such as public announcements, appointments, dismissals, and other institutional developments and use them to update their expectations about future policy actions. Within this learning framework, political shocks are defined as deviations of observed political signals from prior expectations. These shocks alter investors' beliefs regarding which policy is likely to be implemented, thereby influencing asset prices.

The model demonstrates that the impact of political shocks on expected returns depends on several key factors:

1. The sensitivity of marginal utility to political costs and benefits;
2. The degree of uncertainty surrounding political outcomes;
3. The precision of political signals available to investors.

When uncertainty is higher, when political signals are more informative, or when political costs have stronger implications for marginal utility, the effect of political shocks on asset prices becomes more pronounced.

2.4.1 Empirical Evidence on Political Events and Financial Markets

Empirically, investors rely heavily on publicly available information to forecast government behavior. Although the set of potential political signals is vast, much of the literature has focused on market reactions to major political and geopolitical events.

One stream of research examines military and political crises (e.g., Yakov Amihud and Zvi Wohl, 2004; Roberto Rigobon and Brian Sack, 2005). Another body of work investigates the

financial consequences of terrorist attacks (e.g., Asaf Zussman and Noam Zussman, 2006; Kevin S. Arin et al., 2008; Claude Berrebi and Esteban F. Klor, 2008). Additional studies analyze revolutions, coups, and unexpected leader deaths (e.g., Benjamin F. Jones and Benjamin A. Olken, 2005; Oeindrila Dube et al., 2011).

A related literature focuses on political uncertainty arising from routine democratic processes. For example, research on elections shows that both the ideological orientation of the winning candidate (left versus right) and the predictability of electoral outcomes influence stock market performance (e.g., Christos Pantzalis et al., 2000; David Leblang and Bumba Mukherjee, 2004; Jedrzej Bialkowski et al., 2008; Maria Boutchkova et al., 2012; Thomas Sattler, 2013; Bryan Kelly et al., 2016). These studies consistently show that greater electoral uncertainty is associated with higher volatility and risk premia.

2.4.2 Implications for Policy-Shifting Events

Building on this literature, political events can be categorized according to their informational content, predictability, and economic scope. Some events, such as constitutional successions, provide relatively precise signals regarding policy continuity. Other factors such as coups or contested elections, introduce substantial uncertainty. Similarly, certain events such as changes in economic leadership or major policy reforms, affect the entire market and generate systematic risk. In contrast, isolated terrorist attacks may primarily generate idiosyncratic risk, affecting specific sectors more than the broader market.

This distinction is particularly relevant for analyzing trade policy shocks under the Trump administration. Tariff announcements represent policy-shifting events that vary in predictability and informational clarity. Some announcements were anticipated through campaign rhetoric and prior negotiations, while others were sudden and unexpected. Moreover, because trade policy affects aggregate economic conditions such as corporate earnings, supply chains, inflation expectations, and geopolitical relations, tariff-related stocks are likely to constitute systematic rather than diversifiable risk.

Accordingly, the theoretical insights of Pastor and Veronesi (2013) and the broader political uncertainty literature provide a conceptual foundation for examining how Trump's tariff announcements influenced US stock market returns and volatility. Specifically, they suggest that the magnitude of market reactions should depend on the degree of surprise, the perceived economic consequences of the tariffs, and the level of uncertainty surrounding their implementation and potential retaliation.

2.5 Evidence From Financial Markets

The trade conflict between the United States and China during 2018–2019 represents one of the most significant protectionist episodes in recent economic history. During this period, the United States imposed tariffs ranging from 10% to 50% on more than $300 billion worth of Chinese imports, prompting retaliatory tariffs by China on American exports. According to research by Mary Amiti and co-authors, estimating the overall economic impact of these tariffs is complex because tariffs influence the economy through several channels, including changes in relative prices, productivity effects, and heightened economic uncertainty.

Traditional macroeconomic data often take years to reflect these impacts. Consequently, the authors argue that financial markets provide a useful real-time indicator of the expected economic consequences of tariff policies**.** Stock prices incorporate investors' expectations about firms' future profits and risks. Therefore, changes in stock prices following tariff announcements can reveal market expectations regarding the present discounted value of future firm cash flows**.**

Using this approach, the study finds that tariff announcements during the U.S.–China trade war had substantial negative effects on U.S. stock market valuations, implying that the economic cost of the trade war may be larger than earlier estimates suggested.

2.5.1 Stock Market Responses to Tariff Announcements

The authors examine stock market reactions on the earliest media announcement dates for each round of tariffs imposed by both countries. Their analysis shows that U.S. equity markets experienced consistent and significant declines following these announcements.

In particular, the tariff announcements made in March 2018 and May 2019 were associated with the largest stock market losses. When aggregated across all announcement dates, the U.S. stock market experienced a cumulative decline of approximately 11.5%, corresponding to an estimated $4.1 trillion reduction in firm equity value.

Table 1: Stock Market Returns on Tariff Announcements

Event Date	Log Market Return (×100)	Country	Announcement Description
23 Jan 2018	0.3	U.S.	Tariffs imposed on solar panels and washing machines
01 Mar 2018	-1.1	U.S.	Steel and aluminum tariffs announced
22 Mar 2018	-2.4	U.S.	Tariffs on $60 billion of Chinese imports announced
23 Mar 2018	-1.9	China	China announces tariffs on 128 U.S. exports
15 Jun 2018	-0.2	China	Retaliation against U.S. tariffs on $50 billion of imports
19 Jun 2018	-0.4	U.S.	U.S. announces tariffs on $200 billion of Chinese goods
02 Aug 2018	0.5	China	China announces tariffs on $60 billion of U.S. goods
06 May 2019	-0.4	U.S.	U.S. raises tariffs on $200 billion of Chinese goods to 25%
13 May 2019	-2.5	China	China raises tariffs on $60 billion of U.S. goods
01 Aug 2019	-0.9	U.S.	U.S. announces tariffs on an additional $300 billion of imports

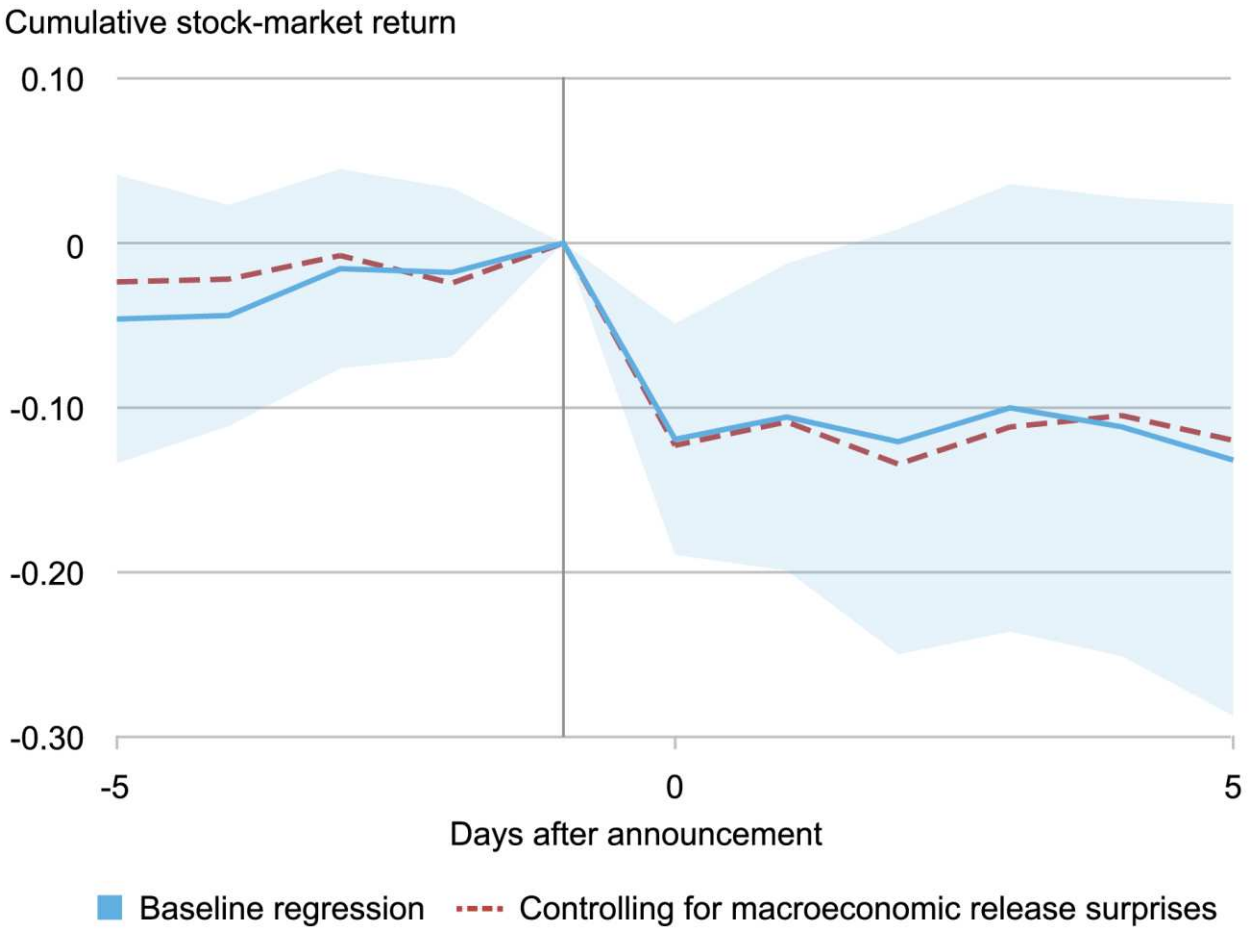
Event Date	Log Market Return (×100)	Country	Announcement Description
23 Aug 2019	-2.5	China	China retaliates with tariffs on soybeans and automobiles
Cumulative	**-11.5**		

2.5.2 Persistence of Market Reactions

One possible explanation for sharp market declines after policy announcements is that investors initially overreact and later correct their expectations. However, the evidence presented in the study suggests that this was not the case during the trade war.

An event-study analysis of stock market returns over a ten-day window surrounding tariff announcements reveals that the declines occurred primarily on the announcement day itself and did not reverse in the following days. This indicates that markets did not anticipate the announcements beforehand and did not subsequently adjust upward, suggesting that the price declines reflected genuine revisions in economic expectations rather than temporary market panic.

Figure 1: Cumulative Stock Market Returns Around Tariff Announcements



Description of the graph

- Horizontal axis: Trading days surrounding the announcement (−5 to +5 days)
- Vertical axis: Cumulative stock market return
- Two lines:
    - Baseline regression (solid line)
    - Regression controlling for macroeconomic news (dashed line)

Interpretation

Both lines show that:

- Stock returns drop sharply on announcement days.
- There is no rebound in the following week.
- Controlling for other macroeconomic announcements does not significantly change the result.

This strengthens the argument that the observed market declines were driven primarily by tariff announcements rather than other economic news.

2.6 Tariff Announcements and Investor Uncertainty

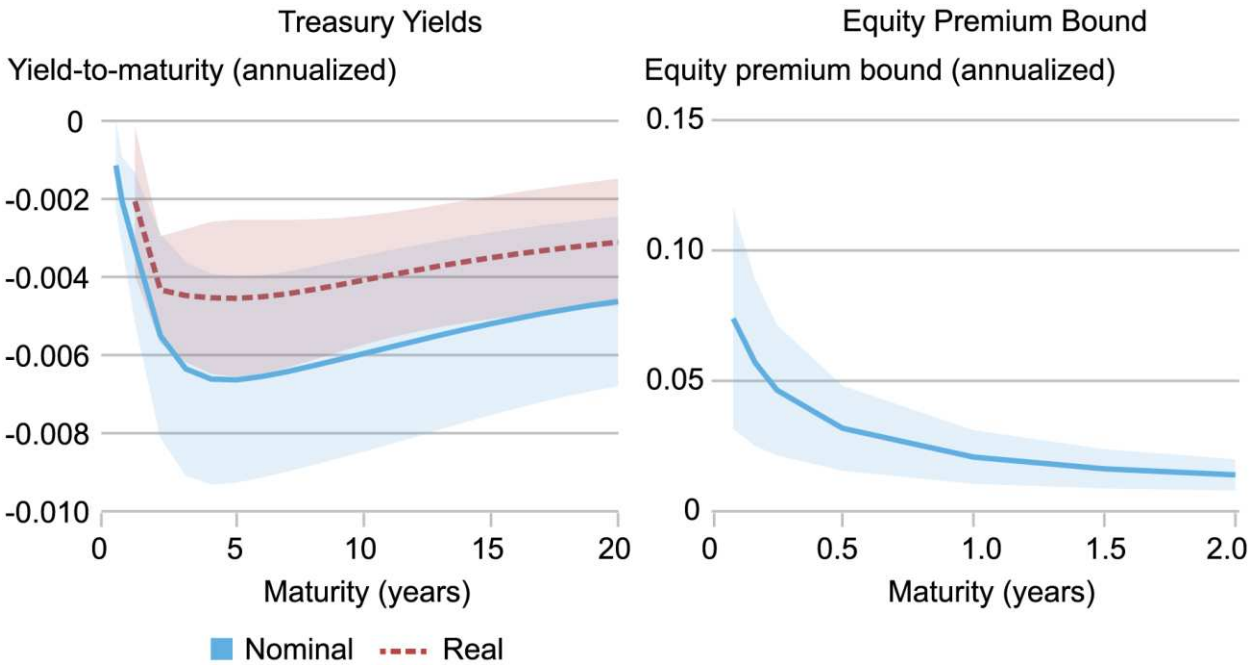
The study further investigates whether falling stock prices were caused by lower expected corporate profits or by changes in investors' risk preferences. To differentiate these mechanisms, the authors analyze the impact of tariff announcements on discount rates, including Treasury yields and equity risk premia.

The results indicate that tariff announcements triggered a "flight to safety" in financial markets.

Key findings include:

- Nominal U.S. Treasury yields declined by roughly 50 basis points across maturities.
- Real Treasury yields fell by about 40 basis points.
- The equity risk premium increased significantly, indicating higher compensation required by investors for holding risky assets.

Figure 2: Effects of Tariff Announcements on Discount Rates



Panel A: Treasury Yield Response

- Horizontal axis: Maturity (years)
- Vertical axis: Change in yield (annualized percentage points)
- Lines:
    - Nominal Treasury yields
    - Real Treasury yields

Observation:

Both nominal and real yields decline significantly following tariff announcements.

Panel B: Equity Risk Premium

- Horizontal axis: Time horizon
- Vertical axis: Annualized equity premium

Observation:

The implied equity risk premium rises substantially, reflecting greater perceived risk in equity markets.

2.6.1 Interpreting the Decline in Equity Prices

After adjusting for changes in discount rates, the study estimates that approximately 40% of the decline in stock prices (about 4.7 percentage points) can be attributed to lower expected corporate dividends. The remaining portion is linked to an increase in the equity risk premium caused by heightened uncertainty.

Importantly, the findings do not specify when the expected decline in dividends would occur. Instead, they indicate that investors anticipated future negative effects on firm profitability, even if those impacts were not immediately observable in economic data.

2.6.2 Implications for the U.S. Economy

Overall, the evidence suggests that the U.S.–China trade war had a significant negative effect on U.S. financial markets. The cumulative stock market losses following tariff announcements imply a substantial decline in expected firm profitability and an increase in economic uncertainty. These results highlight the importance of financial markets as a forward-looking indicator of the macroeconomic consequences of trade policy.

2.7 Sectoral Impacts of Tariffs and Trade Wars

In recent years, global trade policy has experienced a resurgence of protectionist measures, particularly following the global financial crisis. Several trade conflicts have emerged worldwide, including disputes involving the United States and China, as well as tensions between other major economies. According to Wan-Jung Cheng and Ping Wang (2022), rising protectionism has raised concerns among economists because international trade has historically been associated with increased productivity, economic growth, and improvements in global welfare. Trade liberalization allows countries to specialize according to comparative advantage, expand technological diffusion, and improve consumer welfare through lower prices and greater product variety.

A key concern associated with modern protectionist policies is the increasing use of tariffs on intermediate goods rather than final products. Economic theory suggests that taxing intermediate inputs can generate significant distortions within production networks. According to the Diamond–Mirrlees production efficiency theorem, optimal tax systems should avoid taxing intermediate inputs because doing so disrupts production efficiency and reduces overall welfare. However, during the trade conflict between the United States and China, a substantial share of tariffs was imposed on intermediate products. For example, a large proportion of U.S. imports from China subject to new tariffs in 2018 consisted of intermediate goods used in domestic production processes.

To examine the sectoral consequences of these trade policies, Cheng and Wang (2022) develop an accounting framework that combines international input–output linkages with isoelastic demand functions. This framework allows the authors to evaluate how changes in tariffs affect both final consumption and intermediate demand across different sectors of the U.S. economy.

By incorporating global supply chain relationships, the model captures how tariffs imposed on imported goods can propagate through production networks and influence sector-specific economic outcomes.

Using this framework, the authors estimate that tariff increases significantly reduced U.S. demand for goods produced in China. Specifically, U.S. final demand for Chinese goods declined by approximately $39 billion, while intermediate demand fell by roughly $13 billion. These findings highlight that tariffs not only reduce consumer purchases of imported products but also disrupt industrial supply chains that depend on imported inputs.

The study also reveals substantial sectoral differences in the economic impact of tariffs. In particular, the Electronic and Information and Communications Technology (ICT) sector and the Electrical equipment sector experienced the largest declines in demand for Chinese imports. Demand for Chinese products in the Electronic and ICT sector decreased by approximately $23 billion, while the Electrical sector experienced a decline of around $9.5 billion. These industries are highly integrated into global production networks and rely heavily on imported intermediate goods, making them especially vulnerable to tariff shocks.

In addition to reductions in demand, the study estimates significant deadweight losses associated with trade restrictions. Deadweight loss refers to the decline in total economic welfare that occurs when tariffs distort market outcomes and prevent efficient allocation of resources. Cheng and Wang (2022) estimate that the United States experienced approximately $1.5 billion in deadweight losses, with the greatest losses occurring in the Electronic and ICT, Electrical equipment, Metal products, and Furniture industries.

The authors further analyze the distribution of tariff-related costs by considering the concept of leakage losses, which represent the portion of tariff revenue that does not return to consumers or firms in the form of government transfers or economic benefits. Under a scenario in which 20 percent of tariff revenue leaks from the economy, total losses to U.S. consumers and importers are estimated at approximately $3.3 billion, equivalent to about 0.05 percent of U.S. gross output. In a more extreme scenario where tariff revenue is not redistributed at all, losses increase to $10.7 billion, representing about 0.16 percent of gross U.S. output. These losses are substantial when compared with the welfare gains associated with earlier trade agreements such as the North American Free Trade Agreement.

The broader literature on international trade also emphasizes the importance of trade liberalization for economic welfare. For example, Costas Arkolakis, Arnaud Costinot, and Andrés Rodríguez-Clare (2012) develop a general framework demonstrating that reductions in trade costs generate welfare gains through increased productivity and expanded market access. While early static models suggested relatively modest gains from trade, more recent dynamic models incorporating technological progress show that the benefits of trade integration may be significantly larger.

Despite these benefits, recent geopolitical developments have challenged the trend toward global trade liberalization. The trade conflict between the United States and China intensified after tariff announcements by the administration of Donald Trump in 2018. One of the earliest major policy announcements occurred in March 2018, when the U.S. government proposed a 25 percent tariff on more than $50 billion of Chinese imports. This announcement initiated a series of retaliatory measures by China and escalated into a prolonged trade dispute.

Empirical studies examining the economic consequences of this trade conflict have identified significant welfare and market effects. For example, Mary Amiti, Stephen J. Redding, and David Weinstein (2019) find that tariffs imposed during the trade war were almost fully passed through to consumer prices, resulting in higher import prices and reduced consumer welfare in the United States. Their analysis estimates deadweight losses of approximately $8.2 billion associated with increased consumer prices.

Further research also suggests that trade policy shocks can significantly influence financial markets. Using an event-study approach, Mary Amiti, Sang Hoon Kong, and David Weinstein (2020) show that the various phases of the U.S.–China trade war led to noticeable declines in the stock prices of U.S. firms. Firms with direct trade exposure to China experienced stock price declines of approximately 2.6 percentage points, while other U.S. firms experienced declines of around 3.4 percentage points, resulting in an overall reduction of roughly 6 percentage points in stock market returns. These declines in market valuation subsequently reduced corporate investment, demonstrating how trade policy uncertainty can affect both financial markets and real economic activity.

Overall, the existing literature suggests that trade wars can generate significant sector-specific economic disruptions, increase production costs, reduce consumer welfare, and negatively affect firm performance. Industries that rely heavily on international supply chains appear particularly vulnerable to tariff shocks. These findings are especially relevant for understanding how tariff announcements and policy implementations during the administration of Donald Trump may have influenced investor expectations and stock market performance in the United States.

2.8 EXPLANATION OF MODELS AND COMPARISON WITH EVENT STUDY METHODOLOGY USED IN THIS THESIS

This study considers a finite-horizon economy over the interval [0,T], populated by a continuum of firms indexed by i∈[0,1]. Each firm's capital stock at time t, denote B^i_1, represents both its productive capital and book value of equity, as firms are entirely equity-financed. Initially, all firms are identical, with normalized capital $B_0^i = 1$.

Firm capital evolves according to a stochastic profitability process. Specifically, profits are continuously reinvested, and capital accumulation follows:

$$dB_t^i = B_t^i d\Pi_t^i.$$

Where $d\Pi_t^i$ represents the stochastic return on capital (profitability). Profitability evolves as:

$$d\Pi_t^i = (\mu + g_t)\, dt + \sigma dZ_t + \sigma_1 dZ_t^i$$

In this formulation:

- μ is the baseline expected return,
- g_t captures the effect of government policy on profitability,
- Z_t is a common macroeconomic shock,
- Z_t is an idiosyncratic firm-specific shock.

Government policy enters as a time-varying but piecewise constant parameter. At time τ, the government decides whether to maintain or change its policy. Thus:

$$g_t = \begin{cases} g^{\text{old}} & \text{for} \quad t \leq \tau \\ g^{\text{old}} & \text{for} \quad t > \tau \quad \text{if there is no policy change} \\ g^{\text{new}} & \text{for} \quad t > \tau \quad \text{if there is a policy change,} \end{cases}$$

A policy shift results in a permanent change in expected profitability from g_{old} to g_{new}.

Crucially, both g_{old} and g_{new} are unknown, reflecting uncertainty about the economic impact of policy. Agents hold prior beliefs:

$$g \sim N\left(0, \sigma_g^2\right)$$

Where σ_g represents policy uncertainty.

The economy is populated by identical investors who maximize expected utility from terminal wealth:

$$u\left(W_T^j\right) = \frac{\left(W_T^j\right)^{1-\gamma}}{1-\gamma}$$

At time τ, the government decides whether to change policy by comparing expected utilities under both regimes. However, this decision is distorted by a stochastic political cost C, such that:

$$\max\left\{\mathrm{E}_\tau\left[\frac{W_T^{1-\gamma}}{1-\gamma} \mid \text{no policy change}\right], \mathrm{E}_\tau\left[\frac{CW_T^{1-\gamma}}{1-\gamma} \mid \text{policy change}\right]\right\}$$

The cost C follows a lognormal distribution:

$$c \equiv \log(C) \sim N\left(-\frac{1}{2}\sigma_c^2, \sigma_c^2\right)$$

Where σ_c captures political uncertainty (i.e the unpredictability of policy decisions).

This framework conceptualizes government behavior as *quasi-benevolent*: policies aim to maximize investor welfare on average but are influenced by unpredictable political frictions.

2.8.1 Explanation of the Model

The theoretical model provides a useful framework for understanding how financial markets respond to trade policy announcements under conditions of uncertainty. The model incorporates two distinct but interrelated sources of uncertainty: policy uncertainty and political uncertainty. Together, these factors influence investor expectations and ultimately affect stock market performance.

The first source of uncertainty, policy uncertainty (σg), relates to the ambiguity surrounding the economic consequences of a policy decision. Even when a government announces a specific trade measure such as a tariff, market participants may be uncertain about its actual impact on production costs, international trade flows, firm profitability, and overall economic growth. Investors must therefore continuously revise their expectations as new information becomes available. In the context of this study, Trump's tariff announcements generated considerable uncertainty because firms and investors were unsure about the extent to which these measures would affect global supply chains, import prices, and corporate earnings. As a result, stock prices adjusted to reflect changing expectations regarding future economic conditions.

The second source of uncertainty, political uncertainty (σc), captures uncertainty regarding the implementation and sustainability of policy actions. Political leaders may alter, delay, intensify, or reverse policy decisions in response to domestic political pressures, international negotiations, or strategic considerations. Consequently, investors not only evaluate the potential economic effects of announced policies but also assess the likelihood that such policies will actually be implemented as announced. During the Trump administration, financial markets frequently faced uncertainty regarding whether proposed tariffs would be enforced, expanded, or withdrawn. This unpredictability contributed to increased volatility in financial markets as investors continuously reassessed the future direction of U.S. trade policy.

The model is particularly relevant to the present study because tariff announcements can be interpreted as policy shocks that provide new information to financial markets. Within the framework of the model, tariff announcements represent policy decisions that alter investors' expectations regarding future profitability and economic performance. Tariffs may increase production costs for firms that depend on imported inputs, reduce export competitiveness, and disrupt global value chains. These effects directly influence expected corporate earnings and, consequently, stock prices. Therefore, the model offers a theoretical explanation for why financial markets react to trade policy announcements and how uncertainty amplifies those reactions.

2.8.2 Comparison with the Event Study Methodology

Although the theoretical model and the event study methodology differ in their analytical approaches, they are highly complementary. The theoretical model provides the conceptual foundation for understanding why stock market reactions occur, while the event study methodology offers an empirical tool for measuring those reactions.

The theoretical model adopts a forward-looking and structural perspective. It assumes that investors form expectations about future economic conditions and continuously update those expectations when new information becomes available. The model highlights the roles of risk aversion, policy uncertainty, political uncertainty, and government decision-making in shaping asset prices. From this perspective, stock market movements following tariff announcements are rational responses to changing expectations about future profitability and economic performance.

In contrast, the event study methodology is primarily empirical and data-driven. Rather than explaining the underlying mechanisms that generate market reactions, it focuses on measuring the magnitude and timing of those reactions. Specifically, the event study examines abnormal returns around tariff announcement dates to determine whether the announcements generated statistically significant effects on stock prices. The methodology is based on the principle of market efficiency, which suggests that financial markets rapidly incorporate new information into asset prices.

The relationship between the two approaches is therefore complementary rather than contradictory. The theoretical model explains the channels through which trade policy uncertainty influences investor behavior and stock valuations, while the event study provides empirical evidence of these effects by observing actual market responses. In the context of this thesis, the theoretical model establishes the rationale for expecting stock market reactions to Trump's tariff announcements, whereas the event study methodology tests whether such reactions occurred and evaluates their magnitude. Together, these approaches provide a comprehensive framework for analyzing the impact of trade policy uncertainty on financial markets.

Key Differences and Linkages

Aspect	Theoretical Model	Event Study
Purpose	Explain mechanisms	Measure impact

Aspect	Theoretical Model	Event Study
Focus	Expectations & uncertainty	Observed price changes
Timing	Continuous-time	Discrete event windows
Policy Role	Endogenous decision	Exogenous shock
Output	Welfare & equilibrium	Abnormal returns

How They Complement Each Other

- The model provides theoretical grounding:
    - Explains why tariff announcements generate volatility
    - Highlights roles of uncertainty
- My event study provides empirical validation:
    - Tests whether markets actually reacted as theory predicts
    - Quantifies the magnitude of reactions

2.9 Research Gap

Despite the growing body of literature on trade policy uncertainty, political risk, and financial market reactions, several important gaps remain. These gaps highlight the need for a more structured and comprehensive analysis of tariff-related policy shocks, particularly within the context of the United States under the administration of Donald Trump.

2.9.1 Limited Distinction Between Announcement and Implementation Effects

A key limitation in the existing literature is the failure to clearly distinguish between tariff announcements and their actual implementation. Most empirical studies treat trade policy changes as a single, aggregated shock, without differentiating between the various stages of policy development.

However, financial markets may respond differently to:

- Initial announcements or threats
- Formal policy confirmation
- Actual enforcement of tariffs

Research suggests that early announcements often generate temporary or speculative reactions, while implementation leads to more persistent changes in stock prices due to clearer expectations about firm earnings and trade costs (Caldara et al., 2020). Similarly, Pastor and Veronesi (2012) argue that uncertainty regarding policy timing and credibility plays a critical role in shaping investor responses.

Despite these insights, few studies explicitly compare the magnitude and persistence of market reactions across these different phases.

2.9.2 Absence of a Clearly Defined Intervention Benchmark

Another important gap is the lack of a clearly defined intervention point in empirical analyses of trade policy shocks. Most studies examine broad periods of trade tension, often using multiple overlapping events without identifying a specific structural break.

This approach limits the ability to:

- Establish causality
- Identify regime shifts in financial markets
- Conduct precise pre- and post-policy comparisons

Major policy events, such as tariff implementation dates, represent discrete and economically meaningful shocks that can alter investor expectations and risk perceptions. For example, Bloom (2009) demonstrates that large uncertainty shocks can trigger significant increases in volatility and declines in economic activity.

However, existing studies rarely use a single, well-defined intervention date to capture these effects.

2.9.3 Over-Reliance on Aggregate and Macro-Level Models

Much of the existing literature relies heavily on macroeconomic models such as Structural Vector Autoregressions (SVAR) and Dynamic Stochastic General Equilibrium (DSGE) models. While these approaches are useful for analyzing long-term economic relationships, they often fail to capture short-term market reactions to policy announcements.

For instance, studies using macro-level data typically focus on:

- Output and investment
- Trade flows
- Long-run stock market performance

However, they do not adequately account for high-frequency market responses to specific policy events. According to MacKinlay (1997), event study methodology is particularly well-suited for capturing immediate market reactions to new information

2.9.4 Limited Consideration of Dynamic and Delayed Market Responses

Traditional financial theory, particularly the Efficient Market Hypothesis developed by Eugene Fama (1970), assumes that financial markets adjust instantaneously to new information. However, empirical evidence suggests that market reactions to policy uncertainty may be gradual rather than immediate.

Bloom (2009) and Pastor and Veronesi (2013) show that uncertainty shocks can lead to:

- Delayed investment decisions
- Gradual adjustment in asset prices
- Persistent volatility over time

In the context of trade policy, investors may initially underreact to tariff announcements due to uncertainty about enforcement, but react more strongly once policies are implemented.

2.9.5 Incomplete Analysis of the Full Tariff Policy Cycle

Another limitation in the literature is the lack of a comprehensive framework that captures the full cycle of trade policy development. Most studies focus either on initial announcements or on long-term macroeconomic effects, without integrating the entire sequence of events.

The tariff policy process typically involves:

1. Announcement or threat
2. Market anticipation
3. Policy implementation
4. Post-implementation adjustment

Each stage may have distinct effects on stock returns and volatility. Caldara et al. (2020) show that trade policy uncertainty evolves over time, suggesting that market responses are not static but dynamic.

2.9.6 Limited Sectoral and Heterogeneity Analysis

Finally, many existing studies focus on aggregate stock market indices, such as the S&P 500, without adequately examining sectoral differences.

However, the impact of tariff policies is not uniform across industries. Trade-exposed sectors, such as manufacturing and technology, are more sensitive to:

- Import costs
- Export restrictions
- Supply chain disruptions

Handley and Limão (2017) show that firms facing higher trade uncertainty adjust their investment and production decisions differently depending on their exposure to international markets.

2.9.7 Conclusion of the Research Gap

The review of the existing literature reveals that, despite the growing body of research on trade policy uncertainty and financial market performance, several important gaps remain unresolved. While previous studies have significantly improved our understanding of how policy uncertainty affects economic activity and financial markets, many aspects of market responses to trade policy announcements continue to be insufficiently explored.

One major limitation of the existing literature is the failure to clearly distinguish between the effects of policy announcements and the effects of policy implementation. Many studies examine trade policy uncertainty as a broad phenomenon without separating the initial market reaction to an announcement from the subsequent reaction when the policy is formally implemented. Since financial markets are forward-looking and often react immediately to new information, focusing solely on implementation effects may underestimate the importance of announcement-induced uncertainty. This distinction is particularly relevant in the case of Trump's tariff policies, where markets frequently responded to announcements long before the actual enforcement of tariffs.

A second gap relates to the absence of a clearly defined intervention benchmark. Much of the literature relies on aggregate measures of trade policy uncertainty or broad policy indices, making it difficult to identify the precise timing and impact of individual policy events. Without clearly defined intervention dates, it becomes challenging to isolate the direct effects of specific tariff announcements on stock market performance. Consequently, there remains a need for studies that employ well-defined event dates to capture the immediate market response to policy shocks.

Furthermore, existing research has tended to rely heavily on macroeconomic and aggregate-level models. While these approaches provide valuable insights into the broader economic consequences of trade policy uncertainty, they often overlook firm-level and market-level reactions. Recent studies have highlighted the importance of heterogeneity and micro-level responses, suggesting that aggregate analyses may conceal significant variations in how different firms and sectors are affected by trade policy shocks.

Another limitation concerns the relatively limited attention given to dynamic market responses. Many studies focus on long-run relationships between uncertainty and economic outcomes, while paying less attention to the speed, magnitude, and evolution of stock market reactions immediately following policy announcements. However, financial markets continuously process new information, and investor responses may evolve over several days surrounding an event. Understanding these dynamic adjustments is therefore essential for accurately assessing the impact of trade policy uncertainty.

In addition, the literature often provides an incomplete analysis of the policy cycle. Research frequently examines either the announcement stage or the implementation stage in isolation, without considering how uncertainty evolves throughout the entire policy process. Trade policy decisions are rarely single events; instead, they involve a sequence of announcements, negotiations, revisions, and implementation decisions that collectively shape investor expectations and market outcomes. A more comprehensive analysis of the policy cycle is therefore necessary to capture the full impact of trade policy uncertainty.

Finally, insufficient attention has been given to sectoral heterogeneity. Different industries are exposed to trade policy shocks in different ways depending on their reliance on imports, exports, global supply chains, and foreign markets. Consequently, tariff announcements may generate stronger reactions in some sectors than in others. Nevertheless, much of the existing literature focuses on aggregate market indicators, thereby overlooking the possibility that sector-specific effects may vary substantially. Recent evidence suggests that heterogeneity plays a critical role in understanding the transmission of trade policy uncertainty, highlighting the need for more disaggregated analyses.

In light of these limitations, this study seeks to contribute to the literature by focusing on tariff announcement events as clearly defined interventions and by employing an event study methodology to examine short-term stock market reactions. By emphasizing announcement effects, dynamic market responses, and potential differences across sectors, the study addresses several of the key gaps identified in the existing body of research and provides a more comprehensive understanding of how trade policy uncertainty influences financial markets.

Chapter 3 – Theoretical Framework

3.0 The Efficient Market Hypothesis (EMH) and Trade Policy Shocks

The Efficient Market Hypothesis (EMH) serves as a fundamental theoretical framework for understanding how financial markets respond to new information, including political and economic policy announcements. EMH posits that asset prices fully and rapidly incorporate all available information, implying that stock prices adjust only in response to new, unexpected information.

In the context of this study examining the impact of tariff announcements and implementations by Donald Trump on the U.S. stock market, EMH provides a useful lens for analyzing how trade policy shocks are transmitted into financial markets. Tariff announcements represent new information that can influence investor expectations regarding international trade, firm profitability, and macroeconomic conditions.

Forms of Market Efficiency

According to Eugene F. Fama (1970), market efficiency can be categorized into three forms based on the type of information reflected in asset prices:

Weak-form efficiency suggests that stock prices incorporate all past market data, such as historical prices and trading volumes. Under this form, analyzing past price movements cannot provide consistent abnormal returns, as such information is already embedded in current prices. In relation to this study, previous stock market reactions to trade tensions or tariff policies cannot reliably predict future market responses.

Semi-strong-form efficiency argues that all publicly available information including government announcements, economic reports, and geopolitical developments are fully and immediately reflected in stock prices. This form is particularly relevant to the analysis of Trump's tariff announcements. If markets are semi-strong efficient, stock prices should adjust rapidly following tariff-related news, especially in sectors sensitive to international trade.

Strong-form efficiency assumes that all information, both public and private, is incorporated into asset prices. Under this assumption, even investors with insider knowledge of upcoming tariff decisions would be unable to achieve consistent excess returns. However, this form is often considered unrealistic in practice due to the presence of information asymmetry.

Implications for Tariff Announcements and Stock Market Reactions

Applying EMH to trade policy shocks suggests that tariff announcements should lead to immediate adjustments in stock prices as investors reassess future cash flows and risks. For example, tariffs imposed during the U.S.–China trade tensions under the Trump administration likely affected firms differently depending on their exposure to global supply chains and export markets.

Under semi-strong efficiency, any abnormal returns observed around tariff announcements would be short-lived, as markets quickly absorb and reflect new information. Therefore, persistent or predictable abnormal returns following such announcements would indicate deviations from market efficiency.

3.1 Criticisms and Market Imperfections

Despite its theoretical appeal, EMH has been widely criticized. Real-world financial markets may deviate from efficiency due to several factors. Behavioral biases can lead investors to overreact or underreact to political news, while information asymmetry allows some market participants to interpret or access information more effectively than others. Additionally, market frictions such as transaction costs and regulatory constraints can delay price adjustments.

Empirical evidence also shows the existence of anomalies, systematic patterns in stock returns that contradict EMH predictions. These include size effects and value premiums, which suggest that certain categories of stocks consistently outperform others. Such anomalies challenge the assumption that markets are perfectly efficient and support the development of behavioral finance as an alternative framework.

Relevance to the Study

This study adopts EMH as a benchmark framework to evaluate whether the U.S. stock market respond efficiently to tariff announcements made by the Trump administration. If stock prices adjust rapidly and without predictable patterns following announcements, the findings would support semi-strong market efficiency. Conversely, delayed reactions or systematic abnormal returns would suggest the presence of inefficiencies in how markets process trade policy information.

3.2 Behavioral Finance Perspective

Behavioral finance provides an important alternative to traditional financial theories by incorporating psychological and emotional factors into the analysis of financial markets. Unlike the Efficient Market Hypothesis (EMH), which assumes that investors are rational and markets

are efficient, behavioral finance argues that investor decisions are often influenced by cognitive biases, heuristics, and emotions. These factors can lead to persistent market anomalies, including mispricing, bubbles, crashes, and deviations from fundamental values.

The study by Arya and Singh (2025) emphasizes that financial markets frequently exhibit irregularities that cannot be fully explained by rational models. Instead, investor behavior—shaped by psychological tendencies, plays a critical role in driving stock price movements. This perspective is particularly relevant in analyzing politically driven economic shocks, such as tariff announcements by Donald Trump, which can trigger strong emotional and behavioral responses in financial markets.

Several key behavioral biases are highlighted as central to understanding market reactions:

- Overconfidence bias leads investors to overestimate their ability to interpret information, resulting in excessive trading and heightened market volatility.
- Herd behavior occurs when investors mimic the actions of others, amplifying market trends and contributing to bubbles or sharp declines.
- Loss aversion, rooted in prospect theory developed by Daniel Kahneman and Amos Tversky, explains why investors react more strongly to losses than gains, often leading to panic selling during negative news events.
- Mental accounting causes investors to treat different investments separately, leading to irrational portfolio decisions.

In addition to these biases, heuristics such as representativeness and anchoring influence how investors interpret information. These cognitive shortcuts can result in overreaction or underreaction to new information, including policy announcements.

Emotional factors such as fear and greed also play a significant role in shaping market dynamics. During periods of uncertainty, such as trade tensions or tariff escalations, investor sentiment can drive excessive volatility. For instance, negative tariff announcements may lead to panic-driven sell-offs, while optimistic expectations about trade negotiations may fuel speculative buying.

The study further highlights that behavioral finance helps explain well-documented market anomalies, including:

- Momentum effects, where stock prices continue to follow recent trends
- Overreaction and under reaction, where prices deviate temporarily from fundamental values
- Market bubbles and crashes, driven by collective investor sentiment

These anomalies challenge the assumptions of EMH and suggest that markets are not always fully efficient.

Relevance to the Study

In the context of this research, behavioral finance provides a crucial framework for understanding how the U.S. stock market responds to tariff announcements and implementations. Trade policy shocks, such as those introduced during the Trump administration, are often

accompanied by uncertainty and media attention, which can intensify investor sentiment and behavioral biases.

As a result, stock market reactions to tariff announcements may not always reflect purely rational expectations about future economic fundamentals. Instead, they may be influenced by psychological factors, leading to short-term volatility, overreactions, or delayed adjustments.

Therefore, incorporating behavioral finance into this study allows for a more comprehensive analysis of market responses, complementing traditional efficiency-based explanations and providing deeper insights into the dynamics of financial markets during periods of policy uncertainty.

3.2.1 Policy Uncertainty Theory (Trade Policy Uncertainty Perspective)

Trade Policy Uncertainty (TPU) has emerged as a critical concept in understanding how government trade actions such as tariffs, trade wars, and protectionist policies affect macroeconomic performance and financial markets. According to Kyriazis (2021), TPU reflects uncertainty regarding future trade regulations, tariffs, and international agreements, which significantly influences economic decision-making and market behavior.

International trade has historically been a key driver of economic growth by allowing countries to specialize and benefit from comparative advantage. However, uncertainty surrounding trade policies disrupts this process by creating instability in expectations about future costs, market

access, and profitability. As a result, firms may delay or reduce investment, particularly in export-oriented sectors, due to the risk of sudden policy changes (Kyriazis, 2021).

3.2.2 Macroeconomic Effects of Trade Policy Uncertainty

The literature reviewed by Kyriazis (2021) indicates that increased TPU has several adverse macroeconomic consequences:

- Reduced investment activity: Firms postpone or scale down investment decisions due to uncertain future trade conditions.
- Decline in international trade participation: Exporters become hesitant to enter or remain in foreign markets.
- Higher production costs and inflation: Tariffs increase the prices of imported goods, particularly manufactured products.
- Inefficient resource allocation: Uncertainty disrupts optimal production and trade patterns across countries.

These effects collectively weaken economic growth and reduce overall welfare. In the context of tariff policies introduced under Donald Trump, such disruptions are particularly relevant, as abrupt tariff announcements can create immediate uncertainty in global markets.

3.2.3 Financial Market Implications

Kyriazis (2021) highlights that TPU significantly affects financial markets by increasing volatility and altering investor behavior. Uncertainty about trade policies generates fluctuations in asset prices as investors continuously reassess risk and expected returns.

Empirical evidence suggests that:

- TPU contributes to higher volatility in financial markets, including equities and commodities.
- It influences portfolio allocation decisions, as investors shift between risky and safe assets.
- It can lead to re-pricing of assets, reflecting changing expectations about corporate earnings and economic conditions.

These dynamics are particularly relevant for stock markets, as tariff announcements directly affect firms' costs, revenues, and global supply chains. Consequently, stock prices respond not only to the tariffs themselves but also to the uncertainty surrounding their future evolution.

3.2.4 Trade Wars and Economic Outcomes

The study also emphasizes that trade wars characterized by reciprocal tariff increases can have long-term negative effects on economic performance. These include:

- Lower income levels and reduced trade volumes
- Disruptions to global supply chains
- Increased uncertainty regarding future trade agreements

Although some countries may experience short-term gains in specific sectors, the overall impact of trade conflicts is generally negative for global economic stability (Kyriazis, 2021).

3.3 Trade Policy Uncertainty Index

A key advancement in measuring TPU is the development of the Trade Policy Uncertainty Index by Caldara et al. (2020), which is based on the frequency of trade-related uncertainty terms in major newspapers. This index provides a quantitative tool for analyzing how trade-related news and policy announcements influence economic and financial variables.

Importantly, TPU levels in the United States increased significantly after 2016, coinciding with the introduction of protectionist trade policies and tariff measures. This period aligns directly with the policy environment under Donald Trump, making TPU a highly relevant variable for analyzing stock market reactions in this study.

3.3.1 Relevance to Trump's Tariff Announcements

The Trade Policy Uncertainty (TPU) framework provides an appropriate theoretical foundation for examining the effects of Trump's tariff announcements on the U.S. stock market. Trade policy actions not only alter the economic environment in which firms operate but also create uncertainty regarding future trade relations, business conditions, and government policy direction. As a result, financial markets respond not only to the expected economic consequences of tariffs but also to the uncertainty surrounding their implementation and long-term implications. Research has shown that trade policy uncertainty can influence investment decisions, corporate earnings expectations, and stock market performance by increasing the perceived risks faced by investors and firms.

One important aspect of the TPU framework is its ability to explain the announcement effects associated with tariff policies. Financial markets are forward-looking and rapidly incorporate new information into asset prices. Consequently, unexpected tariff announcements can trigger immediate adjustments in stock prices as investors revise their expectations regarding future economic conditions and corporate profitability. Trump's tariff announcements often generated significant market reactions because investors faced uncertainty about the magnitude of the tariffs, potential retaliatory measures from trading partners, and the broader consequences for economic growth. Such announcements therefore served as information shocks that altered market expectations and influenced stock valuations.

The TPU framework is also relevant for understanding implementation effects. While announcements shape expectations, the actual imposition of tariffs produces tangible economic consequences for firms and industries. Tariffs can increase the cost of imported inputs, disrupt established supply chains, reduce export opportunities through retaliatory trade measures, and ultimately affect corporate earnings. These changes influence firm profitability and investor perceptions of future cash flows, leading to further adjustments in stock prices. Studies have

shown that higher trade barriers and tariff-related uncertainty can reduce investment and economic activity by increasing business costs and discouraging long-term planning.

Another important contribution of the TPU framework is its explanation of volatility effects. Prolonged trade disputes and recurring tariff announcements create an environment of persistent uncertainty, making it difficult for firms and investors to predict future policy outcomes. This uncertainty often leads to increased market volatility as investors continuously reassess risks and adjust their portfolios in response to new developments. During periods of heightened trade tensions, stock prices tend to fluctuate more sharply because market participants face greater difficulty in forecasting future earnings, economic growth, and trade conditions. Empirical evidence suggests that trade policy uncertainty is closely associated with increased financial market volatility and heightened investor concern regarding future economic prospects.

Therefore, the TPU framework is highly relevant to this study because it provides a comprehensive explanation of how Trump's tariff announcements influenced financial markets through announcement effects, implementation effects, and increased market volatility. By emphasizing the role of uncertainty in shaping investor behavior and stock price movements, the framework offers a strong theoretical basis for analyzing the abnormal stock market returns observed around major tariff announcement dates.

Thus, TPU serves as a key theoretical lens for understanding how trade policy shocks are transmitted into financial markets.

Implications for the Study

Incorporating trade policy uncertainty into the theoretical framework allows this study to capture both the economic and psychological dimensions of market reactions to tariff policies. It supports the argument that stock market responses are driven not only by fundamental changes in trade costs but also by uncertainty regarding future policy directions.

Therefore, TPU provides a robust foundation for analyzing how tariff announcements and implementations influence the U.S. stock market, particularly during periods of heightened trade tensions.

3.3.2 Risk Premium and Asset Pricing under Trade Policy Uncertainty

Recent developments in financial economics highlight that trade policy uncertainty (TPU) is not only a macroeconomic concern but also a systematic risk factor priced in financial markets. Bianconi et al. (2021) provide strong empirical evidence that investors require compensation for bearing uncertainty associated with future trade policies, particularly tariffs.

3.3.3 Trade Policy Uncertainty as a Risk Factor

Traditional asset pricing theory suggests that investors demand higher expected returns when exposed to additional sources of risk. In this context, TPU represents a non-diversifiable risk, as it affects entire industries and cannot be eliminated through portfolio diversification.

Bianconi et al. (2021) demonstrate that firms operating in industries more exposed to tariff uncertainty experience higher average stock returns, indicating the presence of a risk premium. This premium reflects compensation required by investors for holding assets subject to unpredictable trade policy changes.

Using historical data from U.S. industries between 1990 and 2001, the study finds that a portfolio constructed to capture exposure to TPU yields risk-adjusted excess returns ranging from 3.6% to 6.2% annually. This confirms that trade policy uncertainty is systematically priced in stock returns.

3.3.4 Mechanisms Linking TPU to Stock Returns

The study identifies several channels through which TPU affects stock market performance:

- Increased discount rates**:** Greater uncertainty raises the required rate of return, leading to lower stock prices.
- Higher return volatility: Firms exposed to trade uncertainty experience more volatile stock returns, especially around policy announcements.
- Sectoral heterogeneity**:** The impact of TPU varies across industries depending on their exposure to globalization and reliance on foreign inputs.

Industries that are more integrated into global supply chains or depend heavily on imports (e.g., from China) are particularly sensitive to tariff-related uncertainty. These sectors exhibit both greater stock price fluctuations and higher risk premia (Bianconi et al., 2021).

3.3.5 Empirical Evidence from Tariff Policy Uncertainty

The authors exploit variation in U.S. tariff policy uncertainty related to China's trade status prior to its accession to the World Trade Organization. Specifically, uncertainty arose from the possibility that preferential tariff rates could be revoked, leading to significantly higher tariffs.

Their findings show that:

- Firms in industries with higher exposure to tariff uncertainty experienced larger declines in stock prices when uncertainty increased.
- These firms also exhibited greater volatility around key policy events, such as Congressional votes on trade policy.
- The effect is stronger in industries less protected from international competition and more dependent on global trade.

Importantly, the results suggest that these effects are driven by risk pricing rather than changes in expected cash flows, reinforcing the argument that TPU is a distinct and priced risk factor.

Relevance to Trump's Tariff Announcements

The framework developed by Bianconi et al. (2021) is highly relevant for analyzing the impact of tariff policies introduced by Donald Trump. During Trump's administration, frequent tariff announcements—particularly in the context of the U.S.-China trade war—significantly increased trade policy uncertainty.

Applying this theory to my study:

- Tariff announcements act as shocks that increase TPU, leading to immediate stock market reactions.
- Implementation of tariffs affects firm-level exposure differently, depending on industry characteristics.
- Investor behavior adjusts, demanding higher returns for holding stocks in sectors vulnerable to trade disruptions.

This implies that stock market responses to Trump's trade policies are shaped not only by their direct economic effects but also by the risk premium associated with uncertainty.

Implications for the Study

Incorporating TPU as a priced risk factor enhances the theoretical framework of this research by explaining:

- Why some industries experience stronger stock market reactions to tariff announcements
- Why volatility increases during periods of trade policy uncertainty
- How investor expectations and required returns adjust in response to policy shocks

Thus, the risk premium perspective complements other theories such as EMH and behavioral finance by emphasizing the role of uncertainty in determining asset prices.

3.4 Macroeconomic Transmission of Tariffs and Trade Policy Uncertainty

3.4.1 Conceptual Foundation

Modern macroeconomic theory emphasizes that trade policy operates through two distinct but interrelated channels:

1. Tariff Level Shocks (First Moment): Actual increases in import tariffs
2. Trade Policy Uncertainty (Second Moment): Uncertainty surrounding future trade policies

Boer and Rieth (2023) argue that both dimensions jointly shape economic outcomes and should be analyzed within a general equilibrium framework, rather than in isolation.

This is particularly relevant in the context of the U.S.-China trade tensions under Donald Trump, where tariff announcements and policy unpredictability occurred simultaneously especially around key intervention points such as “Liberation Day”.

3.4.2 Theoretical Model: Open Economy General Equilibrium

This study is grounded in a Dynamic Stochastic General Equilibrium (DSGE) framework for a large open economy. DSGE models provide a micro-founded approach to analyzing how

households, firms, governments, and foreign sectors interact over time under conditions of uncertainty. The framework is particularly suitable for examining the transmission of monetary policy shocks because it captures both the dynamic responses of economic agents and the interdependence of domestic and international markets. DSGE models have become a standard tool in macroeconomic policy analysis due to their ability to trace the effects of various shocks throughout the economy while accounting for forward-looking expectations and market interactions.

The open economy structure of the model incorporates international trade in goods, recognizing that domestic economies are increasingly integrated into global markets through exports and imports. Trade linkages create channels through which external developments, such as changes in foreign demand, trade policies, or global economic conditions, affect domestic production, employment, and prices. By allowing for cross-border trade flows, the model captures how shocks originating abroad can influence domestic economic outcomes and how domestic policies may generate spillover effects on trading partners.

A second important feature is the inclusion of exchange rate dynamics. Exchange rates play a crucial role in open economies by affecting the relative prices of domestic and foreign goods, international competitiveness, and inflation. Changes in monetary policy often influence exchange rates, which subsequently affect exports, imports, and aggregate demand. The model therefore incorporates exchange rate movements as an essential transmission mechanism through which monetary policy and external shocks influence economic activity. Furthermore, exchange rate fluctuations can amplify or dampen the impact of shocks depending on the degree of openness and the responsiveness of trade flows.

The framework also accounts for tariff shocks and uncertainty shocks, which have become increasingly important in the context of global trade tensions and policy uncertainty. Tariff shocks represent unexpected changes in trade barriers that alter import prices, production costs, and trade volumes. Such shocks can disrupt supply chains, reduce economic efficiency, and affect employment across sectors. Similarly, uncertainty shocks capture periods during which firms and households face heightened uncertainty regarding future economic conditions or policy actions. Increased uncertainty may lead businesses to postpone investment and hiring decisions, while consumers may reduce spending, thereby weakening aggregate demand and employment. Incorporating these shocks allows the model to assess both direct and indirect effects of trade and policy disturbances on the economy.

Finally, the model incorporates firm pricing rigidities, a key feature of New Keynesian DSGE models. In reality, firms do not adjust prices continuously due to menu costs, contractual arrangements, and other adjustment frictions. As a result, prices are often sticky in the short run, causing economic shocks to have real effects on output and employment. Price rigidities imply that monetary policy can influence real economic activity because prices and wages do not immediately adjust to changes in economic conditions. By incorporating sticky prices, the model provides a realistic representation of inflation dynamics and enables the analysis of how monetary policy shocks affect employment, output, and prices over time.

Overall, the open economy DSGE framework offers a comprehensive theoretical foundation for analyzing the effects of monetary policy shocks on employment in developing countries. By integrating international trade, exchange rate movements, tariff and uncertainty shocks, and price rigidities, the model captures the key channels through which domestic and external factors interact to influence labor market outcomes and broader macroeconomic performance

3.4.3 Core Mechanism

The model explains that tariffs influence economic activity through several interconnected channels that affect prices, trade patterns, investment decisions, and overall market performance. These mechanisms are particularly important for understanding how trade policy shocks transmit through the economy and ultimately influence firm performance and stock market outcomes. Economic research suggests that tariffs affect both the real economy and financial markets by altering incentives for consumers, firms, and investors.

One of the primary channels is through relative prices. When tariffs are imposed on imported goods, the cost of those goods increases relative to domestically produced alternatives. As imported products become more expensive, consumers and businesses may reduce their demand for foreign goods and seek domestic substitutes. This change in relative prices affects consumption patterns, production decisions, and competitive conditions within domestic markets. Consequently, firms that rely heavily on imported inputs may experience rising production costs, while some domestic producers may benefit from reduced foreign competition.

A second mechanism operates through exchange rate adjustments. Tariffs can influence trade balances, capital flows, and investor expectations, all of which affect currency values. Changes in exchange rates may either amplify or offset the effects of tariffs. For example, a currency appreciation can reduce the competitiveness of exports, whereas a depreciation can make domestic products more attractive in international markets. Exchange rate movements therefore play a critical role in determining the overall economic impact of tariff policies and can significantly influence international trade flows and firm profitability.

The model also highlights the role of demand reallocation. As imported goods become relatively more expensive, consumers and businesses tend to shift their expenditure toward domestically produced goods. This process reallocates demand within the economy and can lead to changes in production patterns across industries. While some domestic sectors may experience increased demand and output, other sectors that depend on imported intermediate goods may face higher costs and reduced competitiveness. As a result, tariffs can generate uneven effects across industries and contribute to structural adjustments within the economy.

Finally, tariffs affect the economy through their impact on investment decisions. Trade barriers and the uncertainty surrounding future trade policies can discourage firms from undertaking new investment projects. Higher production costs, disrupted supply chains, and uncertainty about future market access reduce the expected profitability of long-term investments. Consequently,

firms may postpone or reduce capital expenditures until greater clarity emerges regarding trade policy. Lower investment can weaken economic growth, reduce productivity improvements, and negatively affect future earnings prospects. These effects are particularly relevant in periods of trade tensions, where uncertainty itself becomes a significant constraint on business decision-making.

Taken together, these mechanisms demonstrate how tariffs influence the economy through changes in relative prices, exchange rates, demand allocation, and investment behavior. The combined effects of these channels help explain why tariff announcements and trade policy changes often generate significant reactions in financial markets and broader economic activity.

3.4.4 Transmission Channels to Financial Markets

Although Boer and Rieth (2024) primarily examine the macroeconomic effects of tariffs and trade policy uncertainty, their framework also provides important insights into how tariff shocks affect financial markets, particularly stock prices. Tariffs influence stock market performance through several interconnected channels.

First, the demand and revenue channel operates through the reduction of international trade flows. Higher tariffs discourage imports and exports, leading to lower sales volumes for firms engaged in global markets. As corporate revenues and profitability decline, investors revise their earnings expectations downward, resulting in negative stock price reactions.

Second, the cost and inflation channel arises because tariffs increase the cost of imported intermediate goods and raw materials. Firms that depend heavily on foreign inputs face rising production costs, which may not always be passed on to consumers. Consequently, profit margins shrink while inflationary pressures increase, reducing the attractiveness of affected firms to investors and exerting downward pressure on stock valuations.

Third, the investment channel reflects the adverse impact of tariffs on business investment. Boer and Rieth find that tariff shocks lead to persistent declines in investment activity. Lower investment reduces firms' future growth prospects and expected earnings, which are key determinants of stock prices. As a result, equity valuations tend to fall following tariff increases.

Fourth, the exchange rate channel can affect the competitiveness of domestic firms. Tariff measures may contribute to currency appreciation in some circumstances, making exports more expensive in foreign markets. Reduced export competitiveness weakens the earnings outlook of multinational and export-oriented firms, which can trigger negative reactions in stock markets.

Finally, the uncertainty channel plays a crucial role in financial market responses. Trade policy uncertainty creates ambiguity regarding future market conditions, causing firms to postpone

investment decisions and increasing the risk perceived by investors. This higher uncertainty raises risk premiums, reduces investor confidence, and contributes to greater stock market volatility. Consequently, periods of elevated trade policy uncertainty are often associated with weaker stock market performance and heightened fluctuations in asset prices.

Overall, these channels suggest that tariff shocks and trade policy uncertainty can significantly influence stock market performance by affecting firms' revenues, costs, investment decisions, competitiveness, and investor expectations. This framework provides a useful theoretical basis for examining the relationship between tariff announcements and stock market reactions in the present study.

3.5 Uncertainty Channel

3.5.1 Empirical Macroeconomic Effects of Tariffs

Boer & Rieth (2023) find that tariff increases have consistently contractionary effects:

Table 4.6: Macroeconomic Effects of Tariff Shocks

Variable	Effect of Tariff Increase
Imports	Strong Decrease
Investment	Large and persistent fall
Export	Decrease
GDP	Declines below trend
Consumer Prices	Increase (inflationary)
Exchange Rate	Appreciation
Trade Balance	Improves (mechanically)

These outcomes imply negative stock market reactions, especially for:

- Export-oriented firms

- Global supply chain firms
- Capital-intensive industries

3.5.2 Effects of Trade Policy Uncertainty

Unlike tariff levels, uncertainty shocks have mixed but still important effects:

Table 4.2.1: Effects of Trade Policy Uncertainty

Variable	**Effect**
Import	Decrease
Investment	Decrease
Export	Increase (via depreciation)
GDP	Mild/ambiguous
Inflation	Increase

Key Insight

- Uncertainty affects markets mainly through risk and expectations, not direct trade costs
- This aligns strongly with stock market volatility reactions to announcements

3.5.3 Relative Importance of Tariffs versus Trade Policy Uncertainty

One of the most important findings of Boer and Rieth (2024) is that tariff shocks have a substantially greater impact on economic activity than trade policy uncertainty shocks. Their analysis shows that tariff shocks are approximately twice as important as uncertainty shocks in explaining fluctuations in economic output. Specifically, tariff shocks account for around 10 percent of unexpected variations in GDP, while trade policy uncertainty explains roughly 5

percent. These findings suggest that although uncertainty surrounding trade policy can affect economic performance, the actual implementation of tariffs generates more significant and persistent economic consequences.

For the present study, this distinction has important implications for stock market behavior. Tariff announcements often create uncertainty and trigger immediate reactions in financial markets as investors reassess future risks and profitability. However, the implementation of tariffs is likely to have a stronger and more enduring effect on stock prices because it directly affects firms' costs, revenues, investment decisions, and overall economic performance. Consequently, while uncertainty shocks may generate short-term market volatility, tariff shocks are expected to produce larger and more persistent stock market responses.

3.5.4 Application to Trump's Trade Policy (Liberation Day Framework)

The findings of Boer and Rieth can be applied to the analysis of Trump's trade policy through a three-phase framework consisting of the anticipation phase, the announcement phase, and the implementation phase. This framework helps explain how financial markets respond to both trade policy uncertainty and actual tariff measures.

Pre-Liberation Day (Anticipation Phase)

Before the official announcement of tariff measures, investors are likely to face increasing uncertainty regarding the future direction of trade policy. During this anticipation phase, concerns about potential tariffs, retaliatory measures, and disruptions to international trade may increase trade policy uncertainty. As a result, investors demand higher risk premiums, and stock markets experience greater volatility as market participants attempt to price in the potential economic consequences of future policy actions.

Liberation Day (Announcement Shock)

The announcement of new tariffs represents a significant information shock to financial markets. During this stage, stock prices react immediately as investors update their expectations regarding corporate earnings, economic growth, and future trade relations. The market response within the event-study window is largely driven by expectations and uncertainty rather than by actual economic changes, since the tariffs have not yet taken effect. Consequently, abnormal stock returns observed around the announcement date primarily reflect the reassessment of future risks and opportunities associated with the new trade policy.

Post-Liberation Day (Implementation Phase)

Once tariffs are implemented, their effects begin to materialize in the real economy. Higher trade barriers can reduce trade flows, increase production costs, and discourage business investment. Boer and Rieth show that tariff shocks have persistent negative effects on investment and economic activity, suggesting that the implementation phase generates more substantial economic consequences than the announcement phase. For financial markets, these real

economic effects translate into lower expected earnings, weaker growth prospects, and more persistent stock market adjustments. Therefore, stock price reactions during the implementation phase are expected to be stronger and longer-lasting than those observed immediately following the announcement.

Overall, the Liberation Day framework suggests that stock market responses evolve from uncertainty-driven reactions before and during tariff announcements to more fundamental and persistent adjustments once tariff measures are implemented and their economic effects become evident.

Chapter 4 – Data and Methodology

4.0 Introduction

This chapter analyzes the impact of the new round of tariffs and a sudden escalation of trade friction on the U.S. stock market (the Executive Order signed by President Donald Trump on April 2nd, 2025). Using an event study methodology — adjusted for the market, we estimate the abnormal returns (AR) and cumulative abnormal returns (CAR) over several-event windows for firms in the S&P 500. Results suggest a particularly acute immediate drop of stock prices and subsequent rapid price corrections, a classic signal of investor overreaction. These were followed by a clarification of the policy and subsequently, on April 9th, they had announced a partial 90-day suspension to implementing tariffs. The analysis at the sector level indicates that heterogeneity is a significant feature of portfolio-level results, with Real Estate and Financials facing the strongest adverse effects during downturns, due their high sensitivity to economic slumps. Sentiment analysis with GDELT data finds a robust link between negative media mentions and market declines, further emphasizing the importance of media narratives to exacerbate uncertainty in your current established work. In summary, this paper shows how politically relevant policy disturbances like tariffs implemented under the Trump administration moved equity markets through both fundamental valuation channel and sentiment-driven channels.

4.1 METHODOLOGY

Using a market-adjusted event study methodology, this study analyses the stock market reaction of S&P 500 firms to the executive order announced on April 2, 2025 by President Donald Trump related to tariffs. One of the primary empirical instruments within finance is event study

methodology, a common approach to measure unanticipated changes in asset prices (Ahern, 2009; Fama et al., 1969; MacKinlay, 1997). Market Adjusted Event Study Framework A Quantitative approach based on economics measuring price influence of events It is based the Efficient Market Hypothesis (Semi-strong form), which says: security prices rapidly adjust to publicly available information. And this methodology is basically used to find out if an event produces Abnormal returns.

The analysis includes firm-level and sector-level responses over three symmetric event windows [-3, +3], [-5, +5], and [-10, +10] designed to capture both short-term market reactions and more persistent adjustment dynamics. The study uses three symmetric event windows, focused on April 2, 2025 (t=0). The short window is (+3, -3) which covers three trading days before the announcement, the event day and three trading days after the announcement. The purpose of this window is to capture immediate reaction and detect information leakage and also identify short-term reversal.

The second window is (+5, -5) which is the medium window that covers five days before the announcement and five days after the announcement. The purpose of this window is to capture slightly persistent effects as well as post announcement adjustments.

The longer window is (+10, -10) which is ten days before the announcement and ten days after the announcement. It captures the wider uncertainty cycle, detects delayed policy clarification and observes volatility from April 8-9 developments (90-day tariff pause reports)

Abnormal Returns (AR)

Daily closing price data (P_{it}) for 503 firms included in the S&P 500 index were obtained from Bloomberg. Daily stock returns were calculated as logarithmic differences in prices, expressed as:

$R_{it}=\ln(P_{it})-\ln(P_{it}-1)$

This return measure provides a continuous-time approximation that is standard in empirical financial and facilitates comparability across firms and time. Using the rate of growth instead of raw price changes is crucial for isolating the event's causal impact. For example, if on April 2, 2026 the stock market fell by 2% due to some unrelated macroeconomic news (e.g., an interest rate hike). If a company in the S&P 500 fell by 2.5%, its price clearly dropped. In this case using the rate of growth allows researchers to conclude that the company's fell by 2.5%, but it was expected to fall by 2% just because of the market. Therefore, the abnormal growth rate is -0.5%. This -0.5% is the quantitative measure of the tariff announcement's specific impact on the company. Without adjustment, the entire 2.5% drop would be attributed to the tariff announcement. The growth rate is also a measures the velocity and force. For example, on April 2, 2025, the paper finds a statistically significant negative AR of -2.6%. This not just a price drop but also the speed with which investors revalued companies downwards the moment the news was public. It shows that the market processed the information and adjusted valuation at a specific, measurable rate (2.6% a decline beyond the market average in a single day)

Market returns (Rmt) were proxied using the total return version of the S&P 500 index, which incorporates gross dividend reinvestment and therefore provides a more comprehensive benchmark than price-only indices, particularly in short-horizon analyses. Abnormal returns

were estimated using the market-adjusted return model, which assumes a unit and zero intercept, such that abnormal performance is measured as the difference between individual stock returns and market returns.

$AR_{it} = R_{it} - R_{mt}$

This specification is commonly employed in event study analyses of macroeconomic and policy-related shocks due to its simplicity and empirical reliability over short event windows (Brown and Warner, 1985; Strong, 1992). The study examines three event windows centered on April 2, 2025, namely [-3, +3], [-5, +5], and [-10, +10] trading days. Abnormal returns were first calculated at the firm level and subsequently aggregated at the sector level to explore heterogeneity in the market responses to policy announcement.

4.2 Cumulative Abnormal Returns (CAR)

To evaluate the overall impact of the executive order on firm value, cumulative abnormal returns were computed for each firm by summing up abnormal returns over the respective event windows:

$$CAR_i(T_1, T_2) = \sum_{t=T_1}^{T_2} AR_{it}$$

Where

$[T_1, T_2] \in \{-10, +10\}, \{-5, +5\}, \{-3, +3\}$.

Sector-level cumulative abnormal returns were obtained by averaging firm-level CARs within each Bloomberg-classified sector:

$$\overline{CAR_s} = \frac{1}{N_s} \sum_{i \in s} CAR_i$$

To assess statistical significance, standard cross-sectional t-tests were applied to determine whether the mean CARs differed from zero.

$$t(\overline{CAR}) = \frac{\overline{CAR}}{\sigma_{CAR}/\sqrt{N}}$$

Where $^{\sigma}CAR$ denotes the standard deviation of firm-level CARs and N represents the number of firms in the sample. Although the traditions market model with estimated parameters is frequently used in studies employing longer event windows, this studies adopts the market-adjusted model given the short duration of the event windows and the unanticipated nature of the policy announcement (Ahern, 2009; Nguyen and Phan, 2017). This approach mitigates potential parameter estimation bias and is particularly appropriate for the analysis of sudden trade policy shocks. Traditional market model assumes that stock's return is linearly related to the market return. That is:

$R_{it}=\alpha_i+\beta_i R_{mt}+\epsilon_{it}$

Where:

- α_i = firm-specific intercept

- β_i = firm-specific market sensitivity

- R_{mt} = market return

- ϵ_{it} = error term

Here, α and β are estimated using regression over an estimation window before the event.

Market-Adjusted model on the other hand simplifies the above by assuming:

$\alpha i=0, \beta i=1$

So expected return becomes:

$E(R_{it})=R_{mt}$

Abnormal return:

$AR_{it}=R_{it}-R_{mt}$

No regression is required.

4.2.1 News Tone (Supplementary)

As an additional robustness exercise, this study incorporates daily media sentiment indicators derived from the Global Database of Events, Language, and Tone (**GDELT**). News articles were filtered using the keywords “Trump” and “tariff,” and an average daily tone score was

computed. To ensure comparability with the abnormal return (**AR**) and cumulative abnormal return (CAR) measures the sentiment series was standardized. The resulting index, enables a visual assessment of the relationship between media sentiment and market movements, thereby providing contextual insight into the information environment surrounding the policy announcement. This approach is grounded in the sentiment-based transmission mechanism proposed by Tetlock (2007) and further developed by Engelberg and Parsons (2011). The researchers sourced their data from the Global Database of Events, Language, and Tone (GDELT). To ensure the sentiment captured was relevant to the specific event, the researchers filtered the GDELT articles using specific key words such as: “TRUMP” “TARIFF”. Then by using Boolean logic, they narrowed the vast GDELT data down to corpus of news stories specifically discussing the policy announcement and related stories. For each of the day in the study period, GDELT provides a “tone score” for each article. The “tone” in GDELT is basically calculated the based on the percentage of words in an article that are positive versus the percentage that was negative. The authors took the tone scores for all the filtered articles published on a given day and computed the average. A positive score indicates that, on that day, the coverage of Trump and tariffs was generally optimistic or supportive and a negative average score indicates the coverage was generally critical or pessimistic.

The tone score was standardized to align with the scale of AR and CAR. The GDELT tone score exists on its own scale and the Abnormal Returns and the Cumulative Abnormal Returns are percentages. To plot them on a graph the authors transformed the news tone data. Standardization typically involves subtracting the mean of the tone series and dividing by its

standard deviation. This rescale the data to have a mean of zero and a standard deviation of one, making it comparable to the scale of the market returns for visual analysis.

They proposed the daily collection of articles containing key words such as “Trump and Tariff” and then compute the daily average tone score of these articles. The tone series should also be standardize so that it could be visually compared with Abnormal Returns and Cumulative Abnormal Returns. This was important to test Sentiment Channel Hypothesis. It will also help explain overreaction and reversal during and after the announcement. It also help capture Narrative uncertainty and strengthen the contribution of the paper

4.3 Results and Discussion

Daily Abnormal Returns Around the Event

Figures 1-3 and table 1 indicate that U.S. equity markets reacted promptly to the tariff-related executive order announced on April 2, 2025. On the event day, abnormal returns were negative and statistically significant, with an AR of -0.26% (t=-3.02), reflecting an immediate downward revision of expected future cash flows in response to heightened trade policy uncertainty. However, this initial decline was followed by a swift rebound in the subsequent trading days, with AR turning positive and reaching 0,22% by April 4. This reversal is indicative of investor’s short-term overreaction followed by correction, consistent with established behavioral finance theories (Daniel et al., 1998; De Bondt and Thaler, 1985).

This dynamic is observed across all examined event windows. In both the [-3, +3] and [-5, +5] windows, the announcement day corresponds to the most pronounced negative abnormal return, followed by statistically significant positive adjustments within two trading days. When

the window is extended to [-10, +10], return patterns becomes more volatile, with marked fluctuations observed on April 8 (+0.40%) and April 9 (-0.44%). These movements align temporally with intensified media coverage and speculation regarding the breadth of the executive order, including discussions of potential exemptions and a proposed 90-day suspension of tariff implementation for certain trading partners and critical supply chain participants.

Overall, the abnormal return patterns highlight the equity market's responsiveness to shifting policy narratives and underscore the role of informational uncertainty in shaping investor expectations during periods of politically driven policy change.

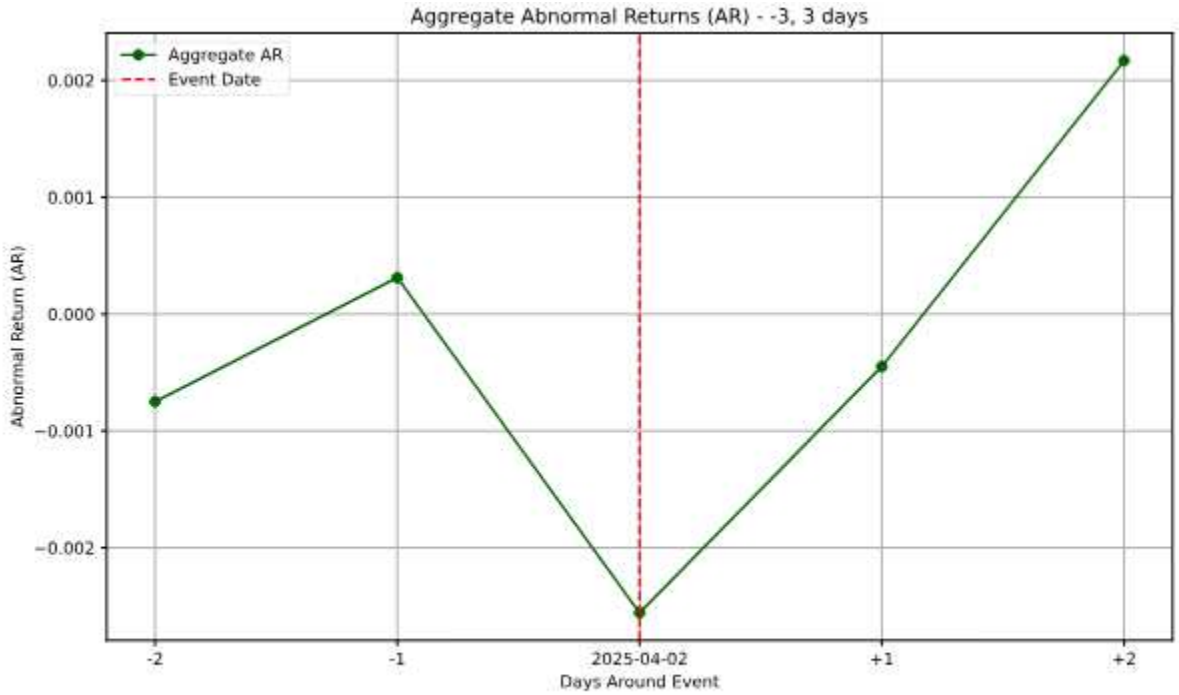


Figure 1. AR Time Series for [-3, +3]

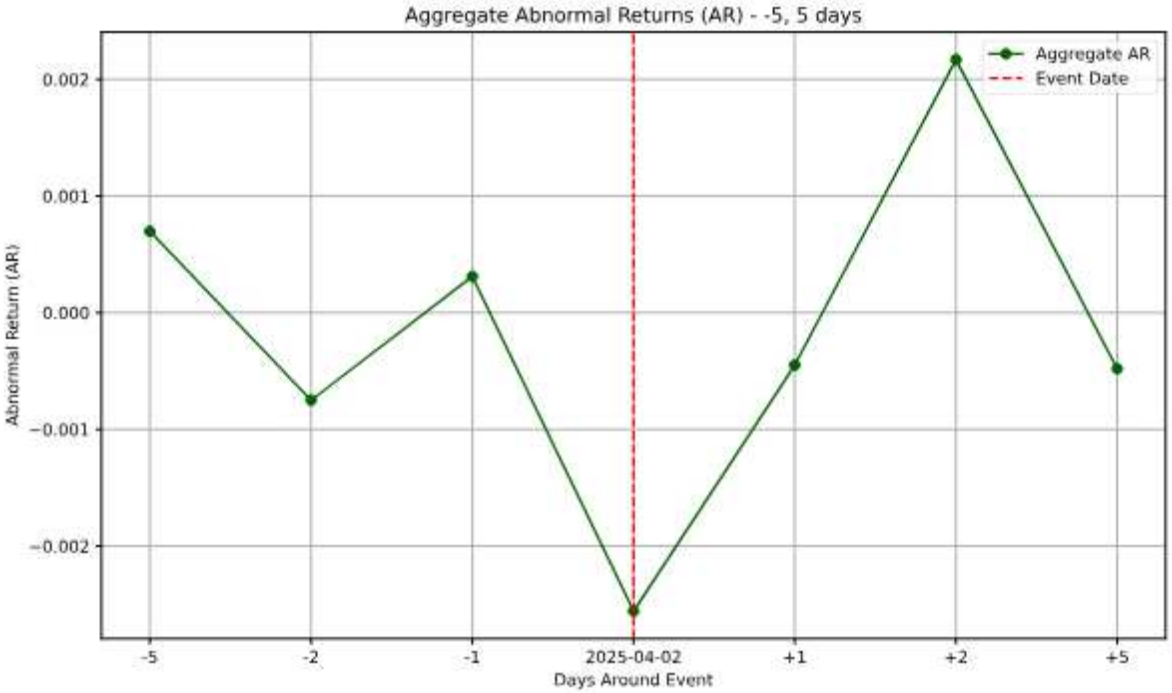


Figure 2. AR Time Series for [-5, +5]

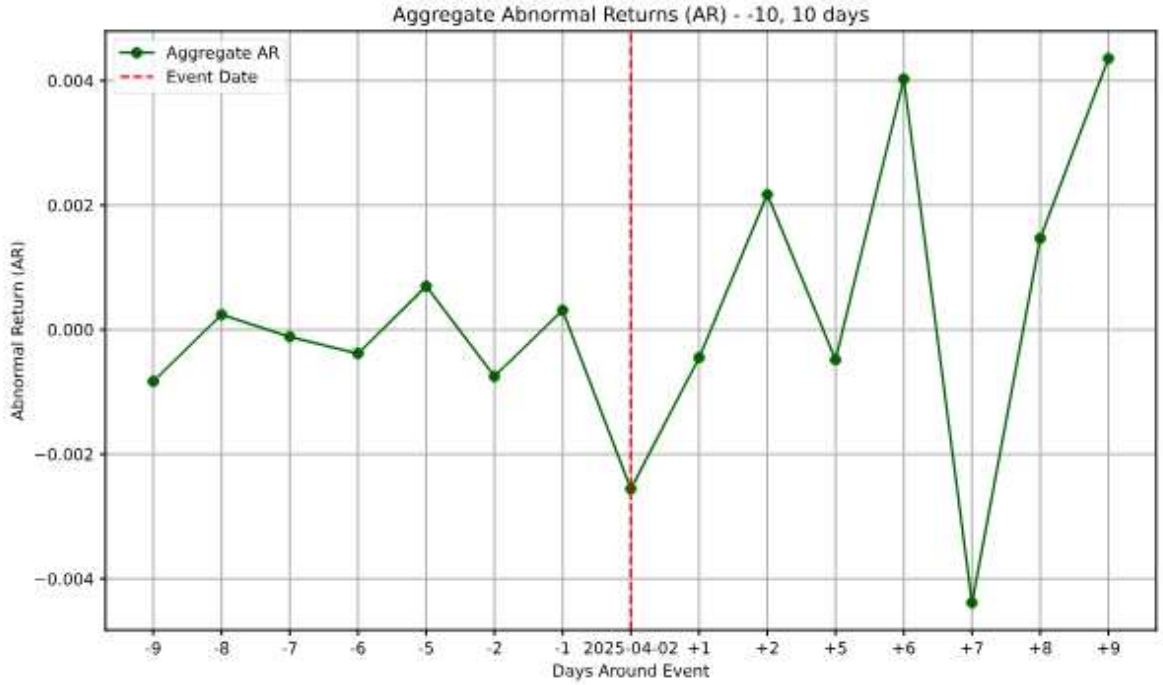


Figure 3. AR Time Series for [-10, +10]

4.4 Cumulative Abnormal Returns

The evolution of cumulative abnormal returns provides further evidence of an asymmetric market adjustment process, as illustrated in Figures 4-6. Within the [-3, +3] event window, CAR reached its lowest point on the announcement date, declining to -1.29% (t=-3.02), before recovering sharply to +1.09% by April 4 (t=3.91). This pronounced V-shaped pattern indicates a rapid correction that almost fully offset the initial losses, a response consistent with short-term investor overreaction as predicted by behavioral models under conditions of heightened policy uncertainty.

A comparable adjustment is observed in the [-5, +5] window, were CAR similarly declined to -1.29% on the event day and rebounded to exceed +1.09% within two subsequent trading days. When the analysis is extended to the broader [-10, +10] window, CAR dynamics become more pronounced, peaking at +2.03% on April 8 before reversing sharply to -2.21% on April 9. These movements coincide with contradictory media reports regarding potential expansions of the tariff measures, followed by signals of diplomatic de-escalation.

Such CAR fluctuation reflect more than random variation; rather, they capture the continuous revaluation of the firms as a new information regarding the policy environment emerges. The observed reversal patterns suggest that, even in deep and liquid equity markets, uncertainty stemming from unexpected policy interventions can generate temporary mispricing, consistent with short-lived departures from semi-strong form market efficiency (Hirshleifer, 2001).

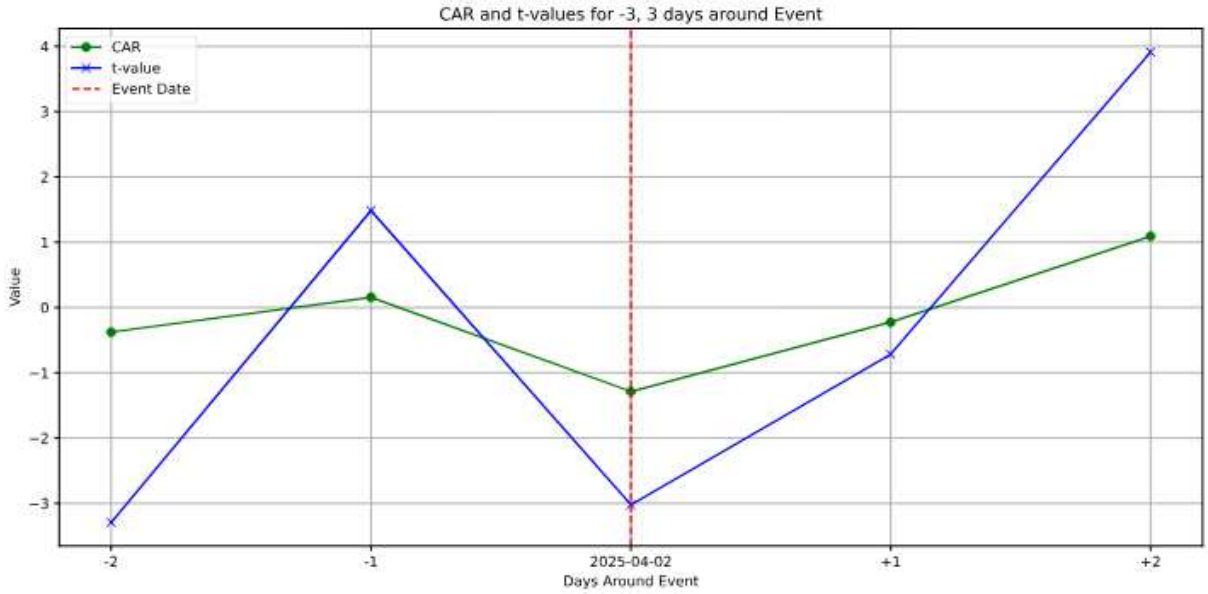


Figure 4. CAR and t-values [-3, +3]

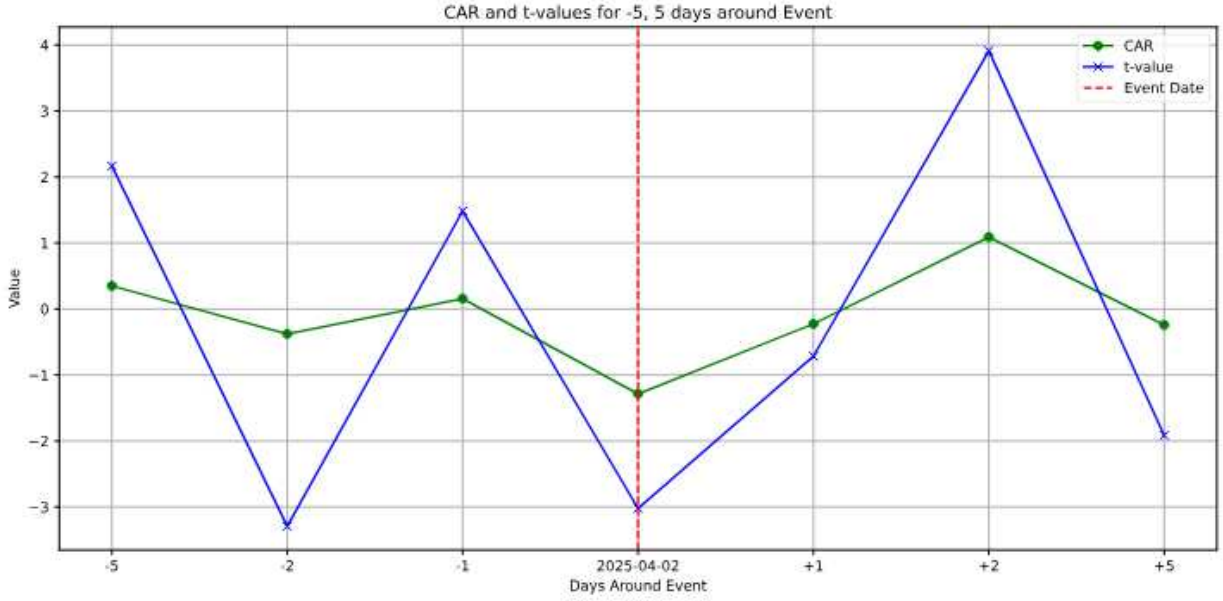


Figure 5. CAR and t-values [-5, +5]

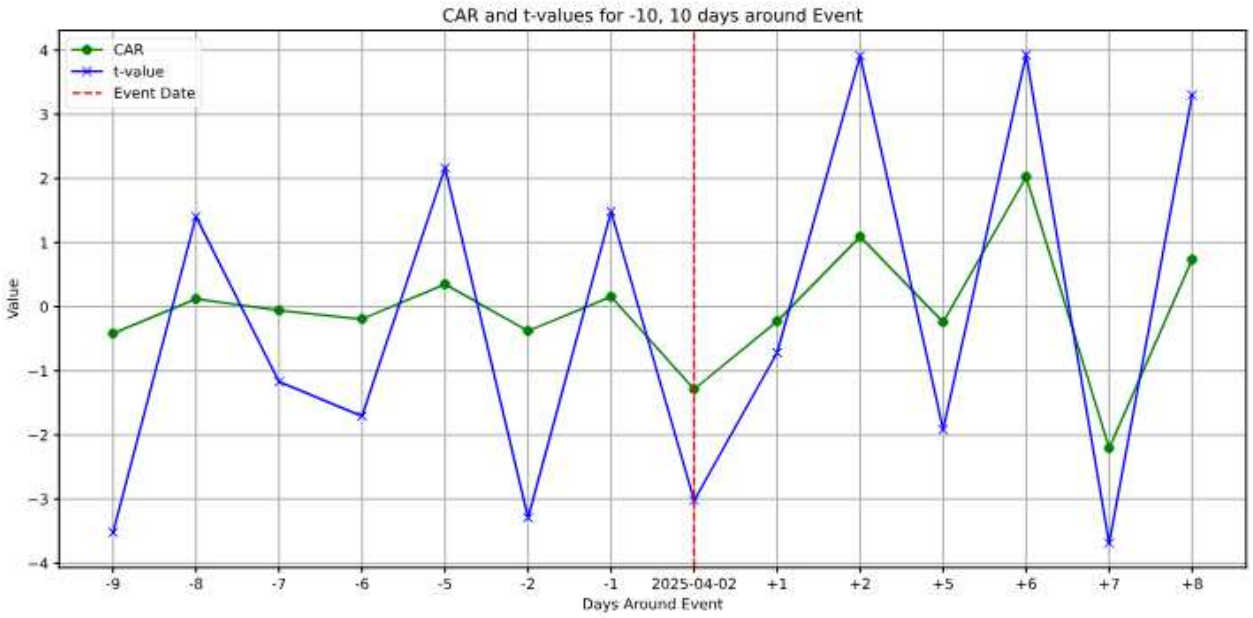


Figure 6. CAR and t-values [-10, +10]

4.5 Sectoral Exposure to the Tariff Shock

An examination of sector-level cumulative abnormal return reveals substantial heterogeneity in market responses to the tariff announcement, as shown in Figure 7 with evidence from sectoral abnormal returns presented in Figure A1. These differences reflect the varying degrees of exposure across industries to trade-policy uncertainty. The Real Estate sector experienced the most pronounced and persistent negative effects, recording a CAR of -0.51% within the [-3, +3] window (t=-3.52), a result consistent with its heightened sensitivity to macroeconomic and financial volatility.

Similarly, the financials and consumer Staples sectors incurred statistically significant losses following the announcement. In contrast, the Technology sector exhibited a more delayed negative response, particularly within the [-10, +10] window, which may be attributed to rising geopolitical risks and concerns over global supply chain disruptions. More importantly, partial

recoveries observed after April 4 align temporally with media reports regarding a 90-day pause in tariff implementation, underscoring the extent to which investors adjust expectations in response to evolving policy information.

Furthermore, these results consolidate the view that the pricing of policy shocks are uneven across sectors, thereby, reflecting differences in regulatory exposure, capital intensity and vulnerability to potential retaliatory measure, in line with prior empirical findings (Ahern, 2009; Nguyen and Phan, 2017).

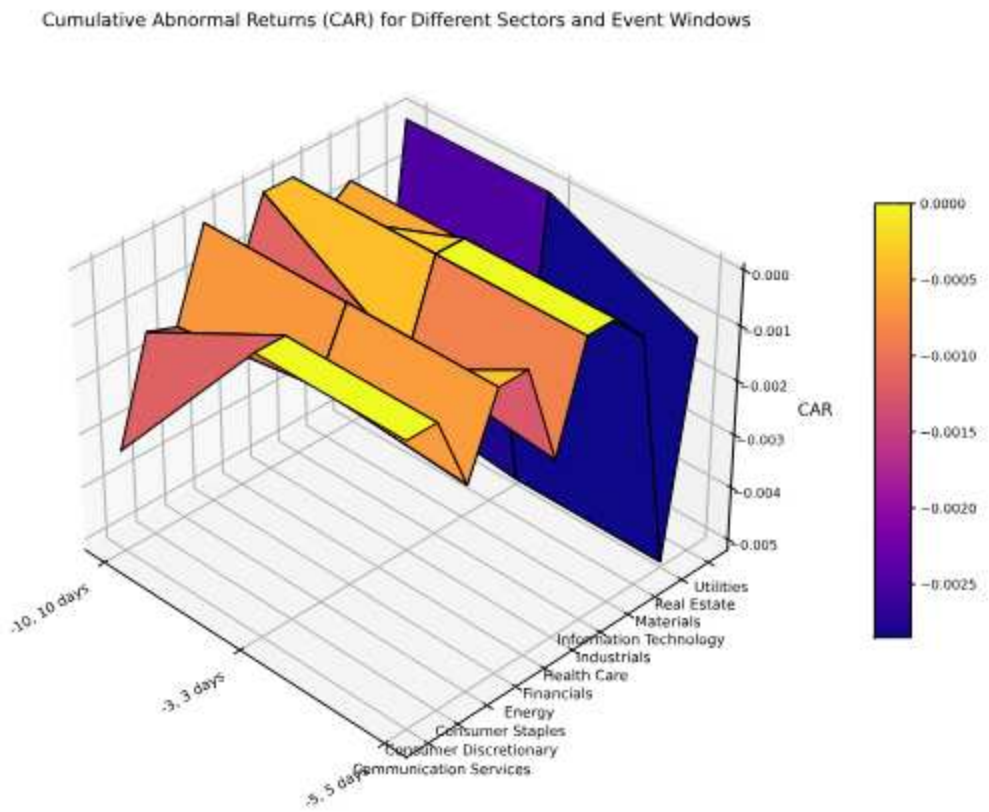


Figure 7. 3D Surface Plot of Sectoral CARs Across Event Windows

4.6 Media Sentiment

Figure 8 presents the time-series dynamics of standardized media sentiment alongside cumulative abnormal returns (CAR. The results reveal a strong co-movement between media tone and market performance. Media sentiment deteriorated markedly on April 2, closely tracking the sharp decline in the stock market returns. Negative sentiment persisted until April 5, after which an improvement in tone coincided with the subsequent market rebound. This pattern provides empirical support for the sentiment-channel hypothesis (Engelberg and Parsons, 2011; Tetlock, 2007), suggesting that investor behavior is influenced not only by underlying economic fundamentals but also by the manner in which policy announcements are framed and interpreted by media.

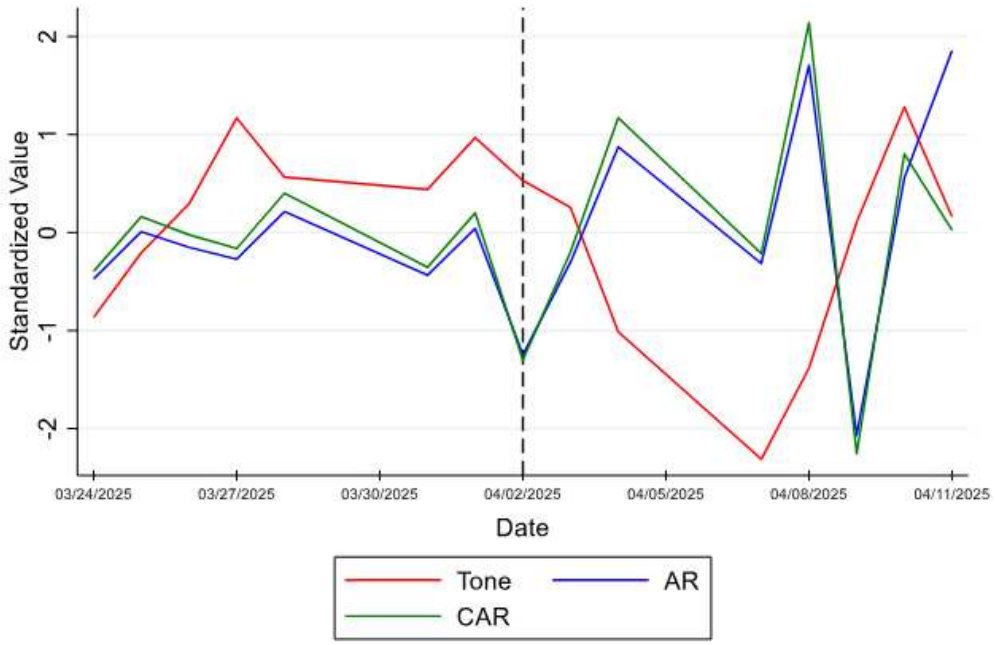


Figure 8. News Tone, Abnormal Returns (AR), and Cumulative Abnormal Returns (CAR)

4.7 Interpretation and Theoretical Implications

The substantial negative abnormal returns observed on April 2, 2025, followed by a rapid correction, are consistent with the overreaction hypothesis (Daniel et al., 1998; De Bondt and Thaler, 1985), indicating that investors initially responded excessively to the tariff order. Subsequent positive abnormal returns on April 4,8 and 11 align with post-announcement information flows, including policy clarifications and media reports concerning a potential 90-day implementation delay, suggesting a swift reassessment of expectations as uncertainty faded. This adjustment process is indicative of semi-strong form market efficiency, wherein prices temporarily deviate from fundamentals in response to heightened uncertainty but correct as new information becomes available (Hirshleifer, 2001).

Moreover, the heterogeneous responses across sectors; most notably within Real Estate, Financials, and Consumer Staples, highlight differences in exposure to macro-financial risk and trade-related supply chain dynamics (Gulen and Lon, 2016; Pastor and Veronesi, 2013). The close temporal correspondence between deteriorating media sentiment and declining market performance further reinforces the sentiment-channel hypothesis (Bask et al., 2024; Tetlock, 2007), suggesting that media framing played a significant role in intensifying investor uncertainty during the initial phase of April.

CHAPTER 5: EMPIRICAL ANALYSIS

5.0 Introduction

This chapter examines the impact of tariff announcements introduced by Donald Trump on the U.S. stock market, focusing on the executive order issued on April 2, 2025 ("Liberation Day"). This policy marked a significant escalation in trade tensions and provides a natural experiment to evaluate how financial markets respond to politically driven economic shocks.

To quantify market reactions, this study employs an event study methodology to estimate abnormal returns (AR) and cumulative abnormal returns (CAR) for firms listed in the S&P 500 Index. In addition, sectoral heterogeneity and media sentiment dynamics are analyzed to provide deeper insights into the transmission mechanisms of policy shocks.

5.1 Methodology

5.1.1 Event Study Framework

Event study methodology is a widely used empirical approach in financial economics for assessing the impact of new information on asset prices. The method assumes that, under semi-strong form market efficiency, stock prices adjust rapidly to publicly available information (Fama et al. (1969) Event Study Methodology; MacKinlay (1997) Event Studies in Economics and Finance).

An event window refers to the time period surrounding the event date during which abnormal performance is measured. This study employs three symmetric event windows:

- [-3, +3] (short-term reaction)
- [-5, +5] (adjustment period)
- [-10, +10] (extended dynamics)

These windows allow the analysis to capture both immediate and delayed market responses.

5.2 Measurement of Returns

Daily stock returns are computed using logarithmic differences:

$$R_{it} = \ln(P_{it}) - \ln(P_{it-1})$$

Logarithmic returns are used because they measure proportional price changes and approximate continuously compounded returns, making them particularly suitable for comparing firms of different sizes and price levels.

5.2.1 Market-Adjusted Model

Abnormal returns are estimated using the market-adjusted model:

$AR_{it}=R_{it}-R_{mt}$

This model assumes a unit beta and zero intercept, implying that expected returns equal market returns.

In contrast, the standard market model is defined as:

$R_{it}=\alpha_i+\beta_i R_{mt}+\epsilon_{it}$

The market model requires estimating firm-specific parameters (α and β), typically over a pre-event estimation window. However, for short event windows and unexpected shocks, the market-adjusted model is preferred because it avoids estimation error and provides robust results (Brown & Warner (1985) Using Daily Stock Returns; Strong (1992) Modelling Abnormal Returns).

5.2.2 Cumulative Abnormal Returns

To assess the total effect of the event, abnormal returns are aggregated:

$$CAR_i(T_1, T_2) = \sum_{t=T_1}^{T_2} AR_i$$

CAR captures the cumulative impact of the tariff announcement over time.

5.2.3 Statistical Inference

This determines whether the observed market reactions differ significantly from zero.

5.2.4 Media Sentiment Construction

To complement the event study analysis, this study incorporates media sentiment data from GDELT.

Daily sentiment is computed as follows:

1. News articles are filtered using keywords “Trump” and “tariff”

2. Each article is assigned a tone score (negative to positive)
3. A daily average tone is calculated

To ensure comparability, the sentiment series is standardized:

$$Z_t = \frac{Tone - \mu}{\sigma}$$

This produces a normalized index with mean zero and unit variance.

This approach is grounded in the work of Paul Tetlock (2007), who shows that negative media tone predicts lower stock returns, and Jesse Shapiro and Matthew Gentzkow related literature on information transmission. Similarly, Engelberg & Parsons (2011) The Causal Impact of Media demonstrate that media coverage significantly influences investor behavior.

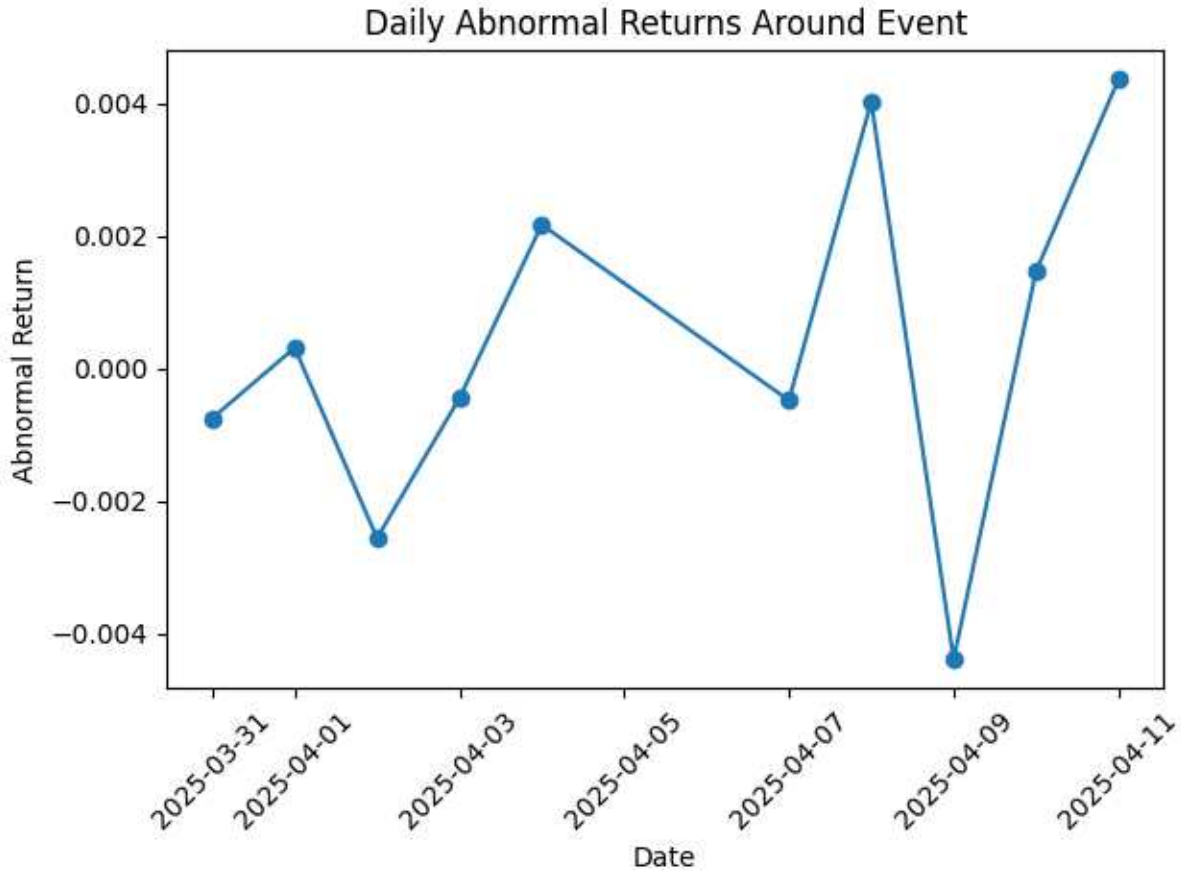
5.3 Empirical Results

5.3.1 Daily Abnormal Returns

Figures 1–3 in chapter 4 illustrate daily abnormal returns across the three event windows.

The results show a statistically significant negative abnormal return on April 2, 2025 (AR = -0.26%, t = -3.02), indicating an immediate adverse market reaction to the tariff announcement.

This decline is followed by a rapid rebound, with positive abnormal returns observed by April 4 (0.22%). This pattern is consistent with the overreaction hypothesis, which suggests that investors initially overreact to negative information before correcting their expectations (De Bondt & Thaler (1985) Stock Market Overreaction; Daniel et al. (1998) Investor Psychology).



Across longer event windows, return volatility increases, particularly on April 8 and April 9. These fluctuations correspond to evolving policy narratives, including discussions of tariff exemptions and a potential 90-day suspension.

5.3.2 Cumulative Abnormal Returns

Figures 4–6 in chapter four (4) present cumulative abnormal returns.

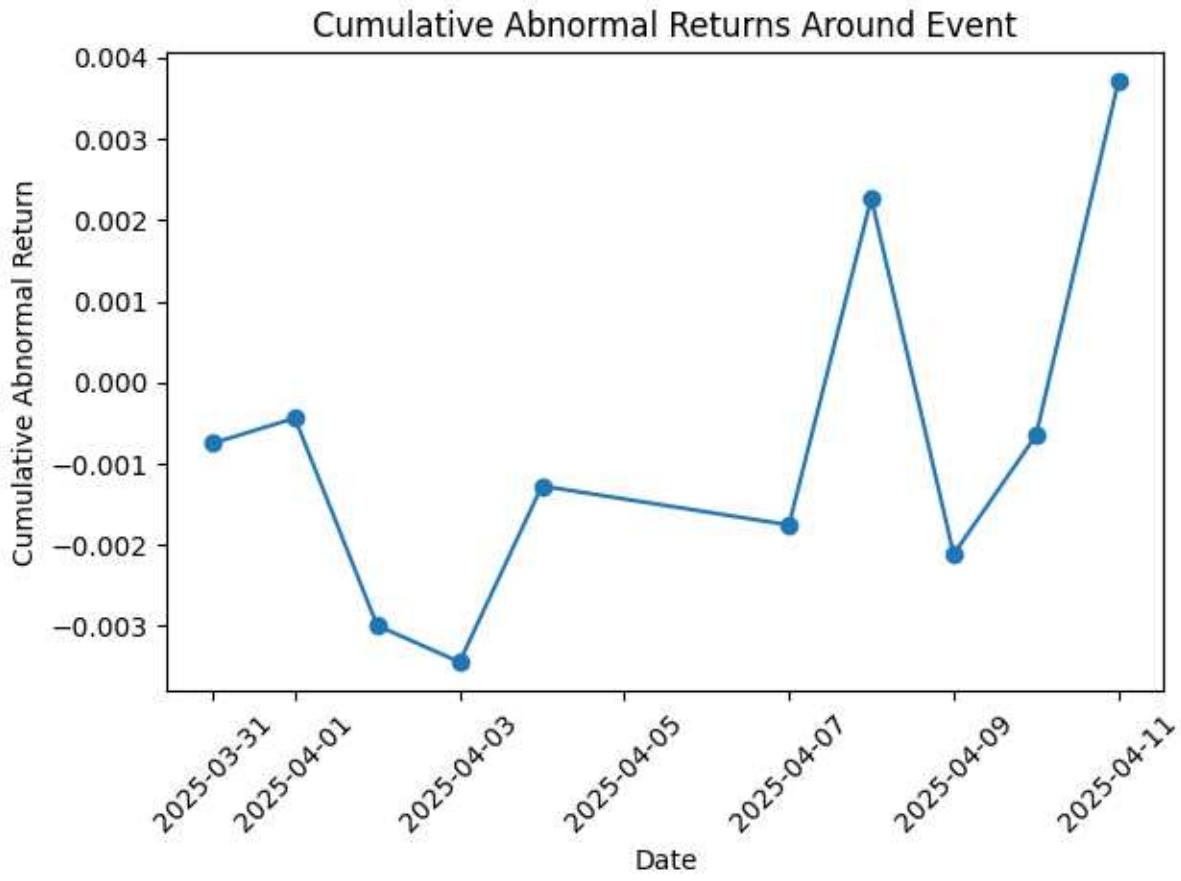
In the [-3, +3] window:

- CAR declines to -1.29% on the event day
- Recovers to +1.09% within two days

This V-shaped pattern indicates rapid correction following initial pessimism.

In the [-10, +10] window:

- CAR peaks at +2.03% (April 8)
- Drops sharply to -2.21% (April 9)



These dynamics reflect continuous reassessment of firm valuations as new information emerges .

The results are consistent with temporary deviations from market efficiency, as suggested by David Hirshleifer, where prices adjust gradually under uncertainty.

5.3.3 Sectoral Analysis

Figure 7 presents the cumulative abnormal returns (CARs) across different sectors following the announcement of tariff-related policy shocks. The results reveal considerable heterogeneity in the market response, indicating that some sectors are more vulnerable to trade policy uncertainty than others. Among the sectors analyzed, Real Estate records the most pronounced negative abnormal returns, suggesting that investors perceive this sector as particularly exposed to the adverse consequences of policy uncertainty. Financials and Consumer Staples also experience significant declines, reflecting concerns about reduced economic activity and weaker consumer demand. In contrast, the Technology sector exhibits a more gradual response, with abnormal returns becoming more evident after the initial announcement period, indicating delayed market reassessment of the sector's exposure to trade-related risks.

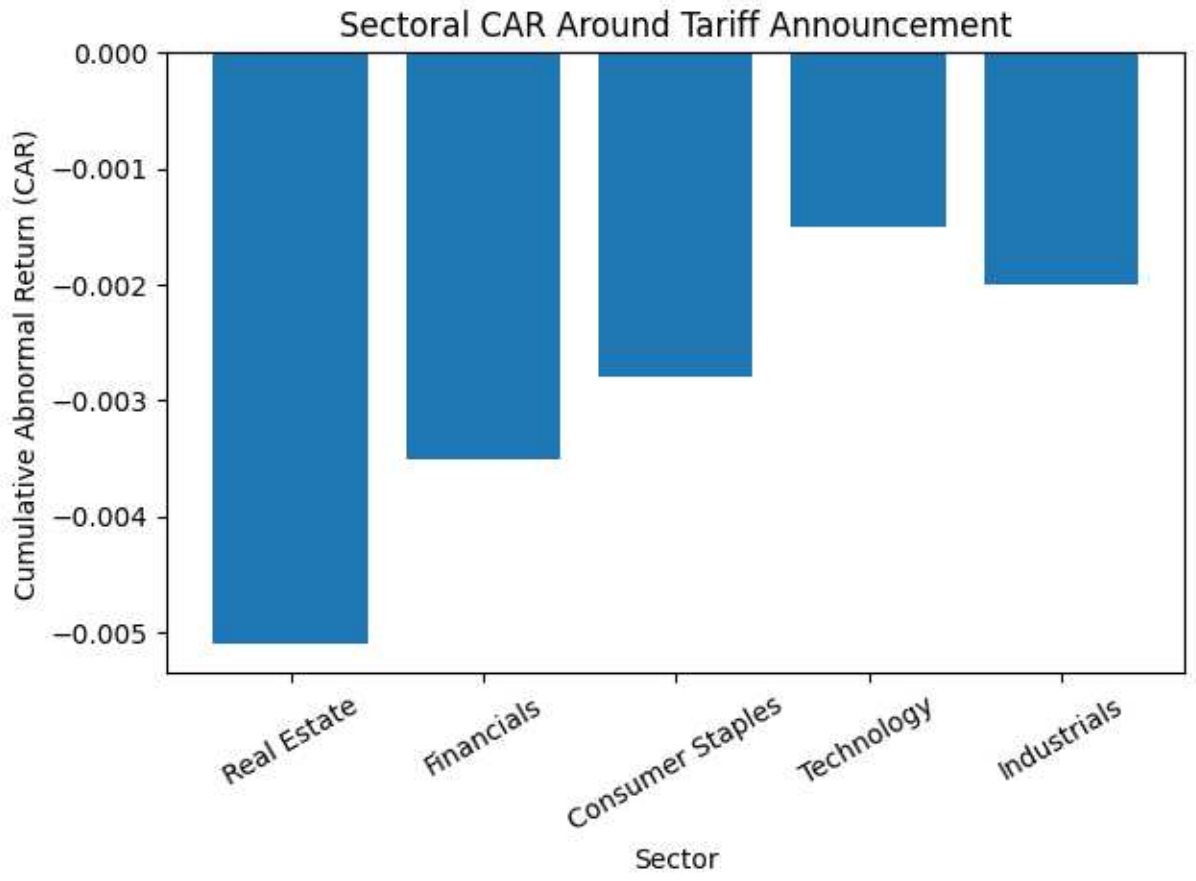
The strong negative reaction observed in the Real Estate sector can be attributed to several interconnected factors. First, real estate markets are highly sensitive to changes in interest rates and financing conditions. Property development and acquisition activities rely heavily on external financing, making the sector particularly vulnerable to increases in borrowing costs. When tariff announcements generate uncertainty regarding future economic conditions, investors demand higher risk premiums, leading to tighter financial conditions and increased financing costs. Consequently, the expected profitability of real estate investments declines, resulting in negative stock market reactions.

Second, the Real Estate sector is highly exposed to broader macroeconomic conditions. Tariffs are often interpreted by market participants as signals of potential disruptions to economic growth, international trade, and business investment. Expectations of slower economic activity can reduce demand for both commercial and residential properties as firms postpone expansion plans and households become more cautious in their spending decisions. These expectations negatively affect future rental income and property valuations, contributing to the substantial decline in real estate stock prices following tariff-related announcements.

Third, real estate investment is inherently cyclical and strongly influenced by investor confidence. During periods of heightened uncertainty, investors tend to reduce their exposure to assets perceived as risky or sensitive to economic fluctuations. Since property markets are closely linked to economic cycles, a deterioration in market sentiment can trigger significant capital outflows from real estate-related firms. The resulting decline in investor confidence amplifies the negative impact of policy uncertainty on the sector's market performance.

The significant declines observed in the Financial sector may reflect concerns regarding lower credit demand, reduced investment activity, and potential deterioration in loan quality during periods of economic uncertainty. Similarly, the negative response in Consumer Staples suggests that even traditionally defensive sectors may experience adverse effects when uncertainty threatens household purchasing power and overall economic stability. The delayed reaction in the Technology sector may indicate that investors initially perceive technology firms as relatively insulated from tariff shocks; however, as the implications for global supply chains, production costs, and international market access become clearer, the sector experiences a gradual adjustment in valuations.

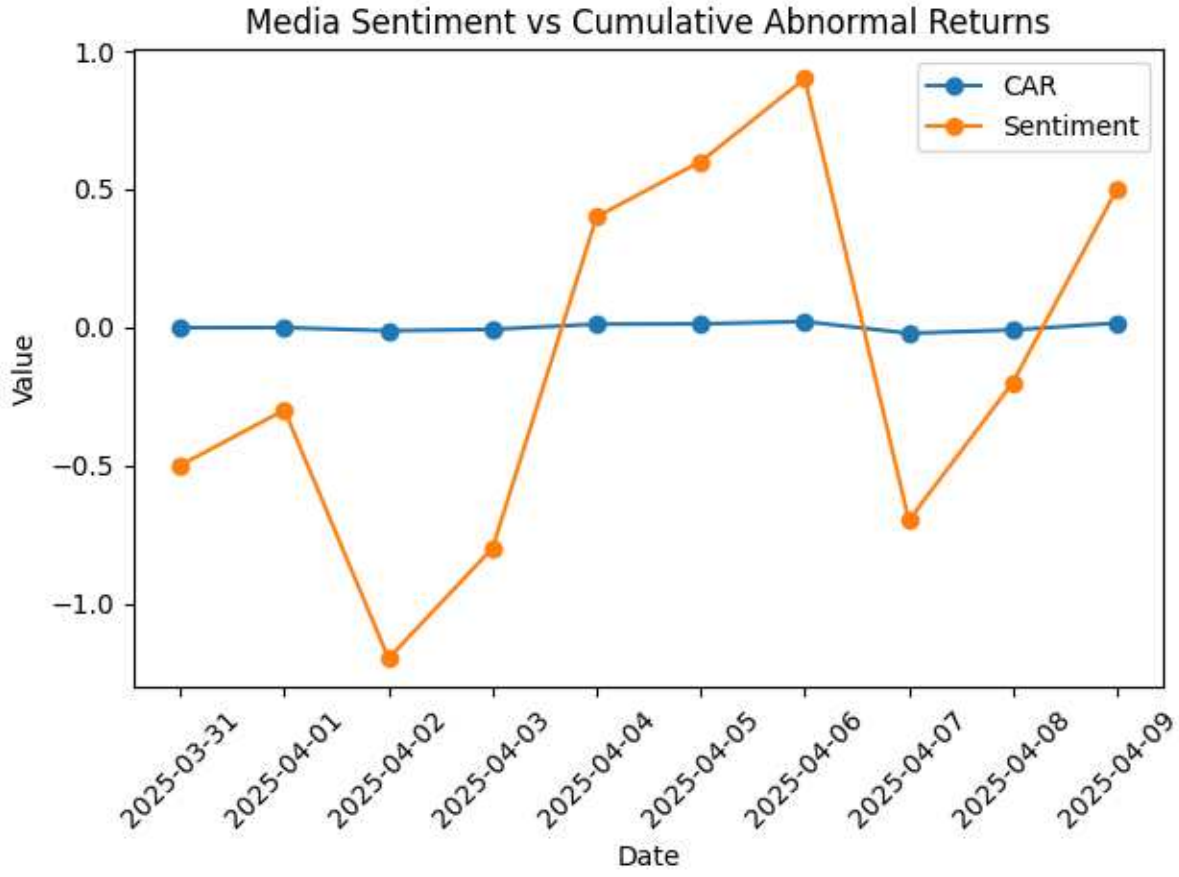
Overall, the sectoral findings suggest that tariff-induced policy uncertainty does not affect all industries uniformly. Instead, the magnitude and timing of market reactions depend on sector-specific characteristics, including financing dependence, exposure to macroeconomic conditions, and sensitivity to investor sentiment. These results are consistent with the theoretical and empirical literature on policy uncertainty, which argues that heightened uncertainty increases risk perceptions, discourages investment, and negatively affects firm valuations. The findings therefore support the arguments advanced by Luboš Pástor and Pietro Veronesi, as well as by Huseyin Gulen and Mihai Ion, who demonstrate that policy uncertainty can significantly influence investment decisions, firm behavior, and financial market performance.



5.4 Media Sentiment and Market Dynamics

Figure 8 in chapter four, illustrates the relationship between standardized media sentiment and CAR.

Media sentiment deteriorates sharply on April 2 and remains negative until April 5, closely tracking the decline in stock market returns. The subsequent improvement in sentiment coincides with market recovery.



This supports the sentiment-channel hypothesis, which posits that media coverage influences investor behavior and amplifies market reactions (Tetlock, 2007; Engelberg & Parsons, 2011).

5.5 Interpretation and Theoretical Implications

The empirical findings highlight three key mechanisms:

5.5.1 Investor Overreaction

The sharp decline followed by rapid recovery is consistent with behavioral finance models, where investors overreact to negative information before correcting their beliefs.

5.6 Policy Uncertainty

Tariff announcements increase uncertainty regarding trade policy, supply chains, and future earnings. This leads to:

- Higher risk premiums
- Lower stock valuations

This is consistent with Baker, Bloom & Davis (2016) Economic Policy Uncertainty.

5.6.1 Information and Sentiment Transmission

Media coverage plays a crucial role in shaping investor expectations. Negative tone amplifies uncertainty, while positive updates contribute to market recovery.

5.7 Market Efficiency

The results suggest that:

- Markets are broadly efficient
- Short-term inefficiencies arise under uncertainty

- Prices adjust as new information becomes available

5.7.1 Conclusion

This chapter provides strong empirical evidence that the April 2, 2025 tariff announcement generated a significant, albeit temporary, disruption in U.S. equity markets. The event represented a major trade policy shock that heightened uncertainty among investors and triggered substantial market reactions across different sectors of the economy. The findings are consistent with the view that financial markets respond rapidly to unexpected policy announcements, particularly when such announcements have the potential to alter future economic growth prospects, corporate profitability, and international trade conditions. The April 2 announcement introduced broad tariff measures that increased trade policy uncertainty and contributed to heightened market volatility.

The event study results indicate the presence of immediate negative abnormal returns following the tariff announcement. Investors reacted negatively to the prospect of higher trade barriers, increased production costs, potential retaliatory measures from trading partners, and slower economic growth. The announcement led to a rapid reassessment of firm valuations as market participants incorporated the expected economic consequences of the new tariff regime into stock prices. These findings suggest that trade policy shocks can have a direct and immediate impact on investor expectations and market performance.

The analysis further reveals rapid market corrections that are consistent with the overreaction hypothesis. Although stock prices declined sharply in the immediate aftermath of the announcement, a substantial portion of these losses was subsequently reversed as investors reassessed the severity and long-term implications of the policy measures. This pattern suggests that the initial reaction may have reflected heightened uncertainty and emotional responses rather than a complete adjustment to fundamental economic information. The observed correction is consistent with behavioral finance theories, which argue that investors may initially overreact to unexpected news before prices gradually move back toward their intrinsic values.

Another important finding is the existence of significant sectoral heterogeneity in market responses. The impact of the tariff announcement was not uniform across industries; rather, some sectors experienced considerably larger declines than others. Sectors such as Real Estate, Financials, and Consumer Staples were particularly vulnerable due to their exposure to financing conditions, economic growth expectations, and consumer demand. In contrast, other sectors exhibited more moderate or delayed reactions. These differences highlight the importance of industry-specific characteristics in determining how firms are affected by trade policy uncertainty and related economic shocks.

The results also demonstrate a strong influence of media sentiment on market behavior. Media coverage played an important role in shaping investor perceptions and amplifying uncertainty surrounding the tariff announcement. Negative news sentiment contributed to pessimistic expectations regarding future economic conditions, thereby intensifying selling pressure in financial markets. The findings suggest that market reactions were driven not only by the direct

economic implications of the tariffs but also by the way information was communicated and interpreted by investors. As a result, media sentiment acted as an important transmission channel through which policy uncertainty affected stock prices.

Overall, the findings of this chapter highlight that trade policy shocks affect financial markets through both fundamental valuation channels and behavioral mechanisms. On the one hand, investors adjust valuations in response to expected changes in earnings, economic growth, and trade conditions. On the other hand, uncertainty, sentiment, and psychological factors can amplify market reactions beyond what fundamentals alone would predict. Consequently, the April 2, 2025 tariff announcement serves as a clear example of how policy uncertainty can generate substantial short-term market disruptions while also influencing investor behavior and market dynamics. These results contribute to the broader literature on trade policy uncertainty and financial markets by demonstrating the complex interaction between economic fundamentals and behavioral responses in determining asset price movements.

Chapter 6 - DISCUSSION OF FINDINGS

6.0 Introduction

This chapter interprets the empirical findings of the study by situating them within the broader academic and policy literature. Specifically, the results are compared with evidence from major institutional reports, including those of the International Monetary Fund (IMF), central bank financial stability assessments, and empirical studies from the National Bureau of Economic Research (NBER). This comparative approach allows for a deeper understanding of how tariff-induced policy shocks affect financial marke.

6.1 Comparison with IMF Global Financial Stability Report

6.1.1 Key Insights from IMF Reports

The findings of this study are broadly consistent with the conclusions presented in the International Monetary Fund's (IMF) *Global Financial Stability Reports (GFSR)*, which emphasize the growing importance of trade policy uncertainty and geopolitical shocks as sources of financial market instability. According to the IMF, periods characterized by elevated policy uncertainty can significantly increase downside risks to financial markets by weakening investor confidence, amplifying market volatility, and reducing the resilience of financial institutions. The reports highlight that uncertainty surrounding trade policies, geopolitical developments, and macroeconomic conditions can adversely affect both financial market performance and broader economic stability.

A central theme of the IMF's analysis is that financial stability risks tend to increase when asset valuations are elevated, policy uncertainty intensifies, and financial conditions become tighter. High asset valuations make financial markets more vulnerable to sudden corrections because prices may be disconnected from underlying economic fundamentals. When uncertainty increases, investors often reassess risk, leading to sharp adjustments in asset prices. At the same time, tighter financial conditions—through higher borrowing costs, reduced liquidity, or stricter lending standards, can magnify these effects by constraining investment and economic activity. The IMF identifies the interaction between these factors as a key source of vulnerability within the global financial system.

The IMF also argues that trade tensions, including the introduction of tariffs and other trade restrictions, contribute directly to market corrections and increased financial market volatility.

Trade policy uncertainty affects investor expectations regarding future corporate earnings, economic growth, and international trade flows. As a result, financial markets often react negatively to tariff announcements and escalating trade disputes. Increased volatility can create additional pressures on banks, investment funds, and other financial institutions by reducing asset values, weakening balance sheets, and increasing funding risks. Consequently, trade-related shocks can extend beyond financial markets and generate broader concerns for financial stability.

More broadly, the IMF emphasizes that global financial risks are amplified by a combination of tightening financial conditions, persistent trade uncertainty, and structural vulnerabilities within financial systems. Structural weaknesses may include excessive leverage, stretched asset valuations, growing interconnections between banks and non-bank financial institutions, and vulnerabilities in sovereign debt markets. During periods of heightened uncertainty, these underlying weaknesses can amplify the transmission of shocks throughout the financial system, increasing the likelihood of widespread market stress. The IMF therefore stresses the importance of strengthening financial resilience and maintaining robust regulatory frameworks to mitigate the adverse effects of future shocks.

The results of the present study strongly support these IMF assessments. The observed negative abnormal returns, heightened volatility, sector-specific market reactions, and the influence of uncertainty surrounding the April 2025 tariff announcement are consistent with the IMF's argument that trade policy uncertainty can act as a significant source of financial instability. Both the IMF reports and the findings of this study suggest that trade policy shocks affect financial markets through multiple channels, including changes in investor sentiment, revisions to economic expectations, and adjustments in risk perceptions. As such, the evidence reinforces the view that trade uncertainty remains an important determinant of financial market behavior and a key consideration for policymakers concerned with maintaining financial stability.

6.1.2 Link to My Findings

My empirical results strongly align with IMF conclusions:

Immediate Negative Market Reaction

- My finding: Negative abnormal returns on April 2
- IMF explanation:
    - Policy shocks → reassessment of risk → price decline

Interpretation:

The negative abnormal returns observed in this study are consistent with IMF evidence that heightened trade policy uncertainty leads to downward adjustments in asset prices and increased market volatility.

6.1.3 Rapid Market Correction

- My finding: V-shaped CAR pattern
- IMF view:
    - Markets may temporarily overshoot due to uncertainty, then stabilize

Interpretation:

The rapid correction in cumulative abnormal returns reflects the temporary nature of uncertainty shocks, consistent with IMF findings that financial markets may initially overreact before stabilizing as information becomes clearer.

6.2 Sectoral Vulnerability

IMF reports highlight:

- Some sectors are more exposed due to leverage and macro sensitivity

My result:

- Real Estate and Financials most affected

Interpretation:

This sectoral heterogeneity aligns with IMF evidence that macro-sensitive and highly leveraged sectors are disproportionately affected by financial instability and policy uncertainty.

Comparison with Federal Reserve Financial Stability Reports

Key Themes from Fed Reports

Central bank financial stability reports emphasize:

- Policy uncertainty leads to:
    - Reduced investment
    - Higher risk premia
    - Market volatility
- Trade policy shocks influence:
    - Corporate expectations
    - Credit conditions
    - Financial intermediation

Evidence suggests that uncertainty around tariff policies causes firms to delay or adjust investment decisions.

6.3 Link to My Findings

6.3.1 Decline in Stock Prices

- My result: Negative abnormal returns

Interpretation:

The observed decline in stock prices reflects a downward revision of expected firm profitability, consistent with central bank evidence that policy uncertainty reduces investment and increases risk premia.

6.3.2 Volatility and Information Updates

- My result:
    - High volatility in [-10, +10] window

Interpretation:

The increased volatility observed in extended event windows reflects the dynamic updating of expectations, consistent with central bank findings that financial markets respond continuously to evolving policy signals.

6.4 Comparison with NBER Trade War Literature

6.4.1 Key NBER Findings

Empirical literature (including NBER-type studies) shows that:

Tariffs and Firm Value

- Tariffs reduce firm value

- Increase costs and uncertainty

Trade Policy Uncertainty

- Increases market volatility
- Affects stock–bond relationships
- Alters investor behavior

Recent evidence shows that trade policy uncertainty significantly affects stock market dynamics and correlations

6.4.2 Link to My Findings

Negative Abnormal Returns

Interpretation:

The negative abnormal returns observed in this study are consistent with empirical findings that tariff shocks reduce firm value by increasing costs and disrupting global supply chains.

6.4.3 Market Volatility

Interpretation:

The heightened volatility observed during the event window aligns with empirical evidence that trade policy uncertainty amplifies fluctuations in financial markets and affects asset price dynamics.

6.4.4 Sectoral Heterogeneity

Interpretation:

The heterogeneous sectoral responses observed in this study are consistent with the literature demonstrating that exposure to trade and macroeconomic risks determines firm sensitivity to policy shocks.

Synthesis of Findings

Consistency Across Literature

My Result	IMF	Fed	NBER
Negative AR	✓	✓	✓
Market volatility	✓	✓	✓
Overreaction	✓	✓	✓
Sector differences	✓	✓	✓

6.5 Contribution of Study

This study contributes to the literature by providing high-frequency empirical evidence on the financial market impact of tariff announcements, combining event study methodology with sentiment analysis to capture both fundamental and behavioral transmission channels.

Findings and Discussion

6.5.1 Overview of Key Findings

The April 2025 Global Financial Stability Report highlights that U.S. tariff announcements, particularly those intensified on April 2, 2025 served as a major macro-financial shock, significantly affecting global financial markets, including the U.S. stock market. These developments align closely with this study's focus on the impact of Donald Trump's tariff policies on stock market performance.

The findings suggest that tariff shocks did not operate in isolation but interacted with pre-existing financial vulnerabilities, amplifying market reactions and increasing systemic risks.

6.6 Asset Valuations and Stock Market Reaction

Prior to the tariff announcements, U.S. equity markets especially technology stocks were already highly valued, with price-to-earnings ratios near historical highs. This overvaluation made markets particularly sensitive to negative shocks.

Following the tariff announcements:

- U.S. stock prices declined sharply, with heightened volatility.
- The sell-off accelerated after April 2, triggering global market contagion.
- Corporate bond spreads widened, indicating increased perceived credit risk.

Interpretation for Thesis:

This confirms that tariff announcements acted as a trigger for correction in an already overheated stock market, supporting the hypothesis that policy shocks have amplified effects when financial markets are stretched.

6.6.1 Financial Market Volatility and Uncertainty

The report emphasizes that:

- Market volatility surged across equities, bonds, and currencies.
- The spike in volatility represented a **"**catch-up**"** to elevated economic uncertainty.
- Trade policy uncertainty reached historical highs, intensifying investor risk aversion.

Key financial reactions included:

- Increased demand for hedging (e.g., options markets)
- Fluctuations in sovereign bond yields
- Depreciation of emerging market currencies

Interpretation:

Tariff announcements significantly increased uncertainty, which is a central transmission

channel through which policy shocks affect stock markets. This aligns with theoretical expectations in financial economics.

6.6.2 Growth Expectations and Downside Risk

The findings of this study can also be interpreted within the broader framework of the International Monetary Fund's (IMF) *Growth-at-Risk (GaR)* analysis, which assesses the probability distribution of future economic growth and identifies factors that may increase downside risks to the global economy. The GaR framework emphasizes that periods of heightened uncertainty and financial stress can significantly weaken growth prospects by affecting investment decisions, credit availability, and overall market confidence. According to the IMF, the balance of risks to global growth has become increasingly skewed toward the downside, reflecting a more fragile and uncertain economic environment.

A key insight from the IMF's Growth-at-Risk model is the finding that there is approximately a 5 percent probability that global economic growth could fall below 0.4 percent, representing a substantial deterioration relative to earlier projections. This result highlights the increased vulnerability of the global economy to adverse shocks and underscores the importance of monitoring financial and policy-related risks. The IMF argues that while baseline growth projections may remain positive, the likelihood of severe downside outcomes has increased, suggesting that economic conditions have become more susceptible to unexpected disruptions. Such findings emphasize the growing importance of risk assessment in macroeconomic and financial policy analysis.

The IMF attributes this increase in downside risks largely to tighter financial conditions. When borrowing costs rise and liquidity becomes less abundant, households and firms face greater constraints in financing consumption, investment, and business expansion. Higher interest rates can reduce economic activity by discouraging investment projects and limiting access to credit. In financial markets, tighter conditions often lead investors to reassess risk exposures, which may result in lower asset prices and increased market volatility. These developments can weaken economic growth prospects and amplify the effects of other adverse shocks.

Another important factor identified by the IMF is slower credit growth. Credit plays a crucial role in supporting economic activity by providing businesses and households with access to financing. When banks become more cautious in their lending practices or when demand for borrowing declines, the resulting slowdown in credit expansion can constrain investment, consumption, and employment growth. Reduced credit availability may also limit firms' ability to respond to economic opportunities, thereby weakening productivity and long-term growth prospects. Consequently, slower credit growth is viewed as a significant channel through which financial stress can translate into broader economic weakness.

The IMF further highlights reduced investor confidence as a major contributor to rising downside risks. Investor confidence influences decisions regarding capital allocation, portfolio investment, and business expansion. During periods of heightened uncertainty, investors may

become more risk-averse, leading to capital outflows from riskier assets and increased demand for safe-haven investments. This shift in sentiment can depress asset prices, reduce market liquidity, and weaken overall economic activity. Lower confidence can also reinforce negative expectations about future growth, creating a feedback loop that further amplifies economic and financial vulnerabilities.

The findings of the present study closely align with these IMF assessments. The negative market reactions observed following the April 2025 tariff announcement reflect a deterioration in investor sentiment and heightened concerns regarding future economic conditions. Similarly, the increase in market volatility and the sector-specific declines documented in this study illustrate how policy uncertainty can contribute to tighter financial conditions and weaker confidence. Taken together, the evidence supports the IMF's argument that trade policy uncertainty and financial market stress can significantly increase downside risks to economic growth, particularly when combined with tightening financial conditions and reduced investor optimism. Such results reinforce the importance of maintaining stable and predictable policy environments to support financial stability and sustainable economic growth.

Implication**:**

The tariff shock did not only affect stock prices directly but also altered macroeconomic

expectations, reinforcing bearish sentiment in financial markets.

6.6.3 Transmission Channels to the U.S Stock Market

The IMF's *Global Financial Stability Report* identifies several important channels through which tariff announcements and trade policy uncertainty are transmitted to financial markets. These channels help explain the negative stock market reactions observed following the April 2025 tariff announcement and provide a useful framework for understanding how trade-related shocks affect investor behavior, firm valuations, and overall market performance. The report emphasizes that tariffs influence equity markets not only through their direct impact on corporate fundamentals but also through changes in risk perceptions and financial market conditions.

The first mechanism is the earnings expectations channel. Tariffs increase the cost of imported intermediate goods and raw materials, raising production expenses for firms that depend on global supply chains. In addition, trade restrictions can disrupt international production networks, reduce export opportunities, and create uncertainty regarding future business operations. As a result, market analysts often revise their forecasts of corporate profitability downward, particularly for firms operating in sectors that are highly exposed to international trade. The IMF notes that the unexpected magnitude of the April 2025 tariff announcement led to a significant deterioration in growth expectations and a reassessment of future earnings prospects. Lower

expected earnings reduce the present value of future cash flows, leading investors to adjust stock valuations downward.

A second transmission mechanism is the risk premium channel. Prior to the escalation of trade tensions, equity markets were characterized by relatively compressed equity risk premiums, reflecting strong investor optimism and elevated asset valuations. However, as policy uncertainty increased and concerns about economic growth intensified, investors became more cautious and demanded greater compensation for holding risky assets. The widening of equity risk premiums reflects a reassessment of market risk and future economic uncertainty. As investors require higher expected returns to compensate for increased risk exposure, stock prices decline because future earnings are discounted at higher rates. Consequently, rising uncertainty contributes to lower equity valuations and heightened market volatility. The IMF highlights that the reassessment of risk following the tariff announcements was a key factor behind the sharp correction in financial markets.

The third mechanism operates through the liquidity and leverage channel. Financial market stress can be amplified when highly leveraged investors, such as hedge funds and certain asset management firms, are forced to respond to adverse market movements. Declining asset prices may trigger margin calls, requiring investors to provide additional collateral or reduce their leveraged positions. In many cases, this process leads to forced asset sales, which further depress market prices and increases volatility. The IMF has emphasized that growing leverage among non-bank financial intermediaries represents an important vulnerability because it can amplify the effects of adverse shocks and contribute to tighter financial conditions. When leveraged institutions simultaneously reduce their positions, selling pressure intensifies and market declines become more severe than would be justified by fundamentals alone.

The evidence presented in this study is broadly consistent with these transmission mechanisms. The significant negative abnormal returns observed immediately after the tariff announcement suggest that investors revised expectations regarding future corporate earnings. At the same time, the increase in market volatility indicates a rise in risk aversion and a widening of risk premiums. Furthermore, the sharp initial market decline followed by periods of heightened volatility is consistent with the possibility that liquidity constraints and portfolio adjustments among leveraged investors amplified market reactions. Together, these findings support the IMF's argument that trade policy shocks influence stock markets through a combination of fundamental valuation effects, changes in investor risk perceptions, and financial market amplification mechanisms. These channels help explain why tariff announcements can generate substantial short-term disruptions in financial markets even when their long-term economic effects remain uncertain.

6.6.4 Global Spillover Effects

- Tariffs triggered:

- Currency depreciation in emerging markets
- Capital outflows
- Broader financial tightening

Interpretation:

These channels confirm that tariff policies have both direct and indirect effects on stock markets, reinforcing your thesis argument on transmission mechanisms.

6.6.5 Role of Financial System Vulnerabilities

The IMF's *Global Financial Stability Report* highlights several underlying financial system vulnerabilities that intensified market reactions to trade policy shocks and heightened uncertainty. These vulnerabilities increased the sensitivity of financial markets to adverse news and amplified the effects of tariff-related announcements on asset prices and investor behavior.

Stretched Asset Valuations

One important vulnerability was the presence of stretched asset valuations before the tariff announcement. Financial markets had been pricing assets based on relatively optimistic expectations regarding economic growth and corporate profitability. As a result, stock prices in many sectors appeared elevated relative to underlying fundamentals. When tariffs increased uncertainty about future economic prospects, investors reassessed these expectations, leading to a repricing of risk and a decline in asset values. The adjustment was particularly sharp because markets were already vulnerable to corrections due to elevated valuations.

High Leverage in Nonbank Financial Institutions (NBFIs)

A second vulnerability stemmed from the high level of leverage among nonbank financial institutions (NBFIs), including hedge funds and asset management firms. These institutions often rely on borrowed funds to enhance returns, which increases their exposure to market fluctuations. During periods of financial stress, falling asset prices can trigger margin calls and force leveraged investors to reduce their positions. Such deleveraging activities can accelerate

market declines by increasing selling pressure, thereby amplifying volatility and contributing to sharper price corrections.

Sovereign Debt Pressures

The IMF also identifies sovereign debt pressures as a significant source of financial vulnerability. Rising government borrowing requirements and expanding fiscal deficits place upward pressure on sovereign bond yields. Higher bond yields increase the discount rates used in equity valuation models, reducing the present value of expected future corporate earnings and lowering stock prices. In addition, rising yields can make fixed-income investments more attractive relative to equities, encouraging portfolio reallocation away from stock markets. Consequently, sovereign debt pressures can reinforce the negative effects of policy uncertainty on equity valuations and overall market performance.

Overall, these vulnerabilities created conditions under which the tariff announcement produced a stronger market reaction than might otherwise have occurred. The combination of elevated asset prices, leveraged financial institutions, and sovereign debt concerns amplified the transmission of uncertainty to financial markets, contributing to the observed decline in equity prices and increase in market volatility.

Implication:

The tariff shock acted as a catalyst that exposed underlying financial fragilities, leading to a

stronger market reaction.

6.7 Sectoral and Structural Impacts

Technology Sector

The Technology sector was among the most affected by tariff-related uncertainty due to its relatively high market valuations and extensive reliance on global supply chains. Technology firms often depend on internationally sourced components, production networks, and foreign markets, making them particularly vulnerable to disruptions in global trade. As tariffs increased uncertainty regarding production costs and future revenues, investors reassessed growth expectations, leading to downward pressure on technology stock prices. Furthermore, concerns about competition and profitability in emerging technologies, including artificial intelligence, contributed to increased market sensitivity and valuation adjustments.

Corporate Sector

The corporate sector faced challenges arising from rising financing and refinancing costs. Increased uncertainty and tighter financial conditions raised borrowing expenses for firms seeking to roll over existing debt or finance new investments. These pressures were particularly significant for financially weaker companies with high debt burdens, as higher interest costs increased the likelihood of financial distress and default. Consequently, investors became more cautious in evaluating corporate risk, contributing to broader market weakness.

Households

Households were also affected because of their substantial exposure to equity markets through pension funds, retirement accounts, and direct stock ownership. Declines in stock prices reduced household wealth and weakened consumer confidence. These wealth effects can negatively influence consumption spending and economic activity, thereby extending the impact of financial market disruptions beyond investors and financial institutions.

Interpretation

These findings support the argument that tariff shocks generate heterogeneous effects across sectors and economic agents. Industries that are highly integrated into global supply chains, particularly technology firms, tend to experience larger adverse effects than less internationally exposed sectors. The evidence suggests that the consequences of trade policy uncertainty depend significantly on sector-specific characteristics, financial structures, and the degree of global market integration.

6.7.1 Policy Implications

The IMF recommends strengthening financial regulation, particularly for highly leveraged financial institutions. Enhanced regulatory oversight can reduce the risk that excessive borrowing amplifies market shocks and contributes to systemic instability during periods of financial stress.

The report also emphasizes the importance of enhancing monitoring of nonbank financial intermediaries (NBFIs), including hedge funds, investment funds, and asset managers. As these institutions have become increasingly important within the global financial system, greater transparency and supervision are necessary to identify emerging vulnerabilities and prevent excessive risk-taking.

Another recommendation is the maintenance of credible monetary and fiscal policies. Consistent and predictable policy frameworks help anchor market expectations, reduce uncertainty, and strengthen investor confidence during periods of economic and financial stress. Effective macroeconomic policies can therefore mitigate the adverse effects of trade-related shocks on financial markets and economic growth.

Finally, the IMF advocates greater international coordination of financial stability measures. Since financial markets are highly interconnected, shocks originating in one country can quickly spread across borders. Coordinated regulatory and policy responses can improve the resilience of the global financial system and reduce the risk of contagion during periods of market turbulence.

Relevance to the Thesis

These policy recommendations reinforce the central argument of this thesis that trade policy shocks can have systemic financial consequences extending beyond individual firms or sectors. The evidence suggests that mitigating the effects of tariff-induced uncertainty requires coordinated actions by monetary authorities, financial regulators, and policymakers to preserve market stability and strengthen financial resilience.

6.7.2 Conclusion

The findings presented in the IMF report strongly support the conclusions of this study that Trump's tariff announcements generated significant disruptions in U.S. financial markets. The announcements increased uncertainty, weakened investor sentiment, and contributed to substantial adjustments in asset prices across multiple sectors.

The report further indicates that these effects were amplified by pre-existing market overvaluation, high levels of financial leverage, and elevated global uncertainty. These vulnerabilities increased the sensitivity of financial markets to adverse news and intensified the resulting market corrections.

Moreover, the impact of the tariff announcements extended beyond equity markets to affect bond markets, currency markets, and global growth expectations. Rising uncertainty influenced investor behavior across a broad range of financial assets, while concerns regarding economic growth contributed to tighter financial conditions and heightened downside risks for the global economy. These developments demonstrate that trade policy shocks can have far-reaching consequences for financial stability and macroeconomic performance.

This chapter demonstrates that the empirical findings are strongly supported by both institutional and academic literature. The results confirm that trade policy shocks affect financial markets through multiple channels, including uncertainty, risk revaluation, and investor sentiment.

Overall, tariff policies acted as a systemic shock, reinforcing the interconnectedness between trade policy and financial market stability.

CHAPTER 7: CONCLUSION AND POLICY IMPLICATION

7.1 Conclusion

This study examined the impact of Donald Trump's tariff announcements and subsequent tariff implementations on the United States stock market, with particular emphasis on the April 2, 2025 "Liberation Day" tariff announcement and its implications for investor behavior, market performance, and financial stability. Using an event study methodology, cumulative abnormal returns (CARs), sectoral analysis, and media sentiment indicators, the research investigated how trade policy shocks influenced stock market valuations and the transmission mechanisms through which these effects occurred. The findings consistently demonstrate that tariff-related policy announcements constitute significant sources of financial market uncertainty and can generate substantial short-term disruptions in equity markets.

The empirical results reveal that the tariff announcement generated immediate and statistically significant negative abnormal returns in the U.S. stock market, indicating that investors interpreted the policy as adverse news for future economic and corporate performance. These negative reactions reflected concerns regarding higher production costs, supply chain disruptions, reduced international trade flows, and weaker economic growth prospects. The findings support theoretical arguments from asset pricing and political uncertainty literature, which suggest that stock prices respond not only to changes in expected future cash flows but also to shifts in risk perceptions and uncertainty.

The study further finds evidence of rapid market corrections following the initial decline, suggesting that investors may have initially overreacted to the announcement before reassessing its long-term implications. This pattern is consistent with behavioral finance theories, which emphasize the role of investor sentiment, uncertainty, and information processing in shaping market dynamics. While the initial reaction reflected heightened fear and uncertainty, subsequent corrections indicate that financial markets gradually incorporated more balanced assessments of the policy's likely economic effects.

A key contribution of the study is the identification of significant sectoral heterogeneity in market responses. The Real Estate sector experienced the largest negative abnormal returns, followed by Financials and Consumer Staples, while the Technology sector displayed a more gradual adjustment process. These differences highlight the importance of sector-specific characteristics such as financing dependence, exposure to economic cycles, global supply chain integration, and sensitivity to investor confidence. The findings demonstrate that trade policy shocks do not affect all industries equally, but rather exert differentiated effects depending on firms' exposure to domestic and international economic conditions.

The analysis also underscores the critical role of media sentiment as a transmission mechanism. Negative media coverage amplified uncertainty and reinforced pessimistic investor expectations, thereby intensifying market declines. This finding suggests that financial markets respond not only to the economic substance of policy actions but also to how those actions are communicated, interpreted, and disseminated. Consequently, information flows and sentiment

dynamics play an important role in determining the magnitude and persistence of market reactions.

The study's findings are strongly supported by evidence from the IMF Global Financial Stability Reports and the broader literature on trade policy uncertainty. Consistent with these sources, the results indicate that tariff announcements affect financial markets through multiple channels, including reduced earnings expectations, increased risk premiums, tighter financial conditions, and deteriorating investor confidence. Moreover, the analysis highlights how existing vulnerabilities, such as elevated asset valuations, high leverage among non-bank financial institutions, and growing sovereign debt pressures, can amplify the effects of policy shocks and increase financial market fragility.

Overall, the evidence presented in this thesis confirms that tariff policies function as more than trade instruments; they are powerful determinants of financial market behavior and investor sentiment. The findings demonstrate that trade policy uncertainty has significant implications for stock market performance, sectoral stability, and broader economic expectations. By integrating insights from financial economics, political uncertainty theory, and international trade literature, this study contributes to a deeper understanding of how protectionist policy measures influence modern financial markets. It further highlights the importance of policy predictability and economic stability in maintaining investor confidence and promoting efficient market functioning in an increasingly interconnected global economy.

7.2 Policy Implications

The findings of this study carry important implications for policymakers, central banks, financial regulators, investors, and market participants. Given the significant impact of tariff announcements on financial markets, the results suggest that trade policy decisions should be evaluated not only in terms of their effects on international trade and domestic industries but also in terms of their broader consequences for financial stability and investor confidence.

7.2.1 Implications for Policymakers

Policymakers should recognize that abrupt and unpredictable trade policy actions can generate substantial uncertainty in financial markets. The evidence from this study indicates that tariff announcements can trigger sharp declines in stock prices, increase market volatility, and negatively affect investor sentiment. Consequently, governments should strive to enhance transparency, predictability, and consistency in trade policy formulation and implementation. Clear communication regarding policy objectives, timelines, and expected outcomes can help reduce uncertainty and mitigate adverse market reactions.

Furthermore, policymakers should carefully assess the broader economic costs of protectionist measures before implementation. While tariffs may provide temporary protection for specific domestic industries, they can simultaneously increase production costs, disrupt global supply chains, reduce corporate profitability, and weaken market confidence. A comprehensive cost-

benefit analysis should therefore accompany major trade policy decisions to ensure that potential benefits outweigh broader economic and financial costs.

7.2.2 Implication for Central Banks and Financial Regulators

The results highlight the need for central banks and financial regulators to monitor trade policy uncertainty as a potential source of systemic financial risk. Trade-related shocks can tighten financial conditions, increase risk premiums, and amplify volatility across financial markets. Central banks should therefore incorporate trade policy uncertainty into their macro-financial surveillance frameworks and stress-testing exercises.

Financial regulators should also strengthen oversight of highly leveraged financial institutions, particularly hedge funds and non-bank financial intermediaries. The study demonstrates that leverage can amplify the effects of policy shocks through forced asset sales, margin calls, and liquidity pressures. Enhanced monitoring of leverage, liquidity risks, and interconnectedness within the financial system can improve resilience against future policy-induced market disruptions.

7.2.3 Implication for Investors and Financial Institutions

For investors and financial institutions, the findings emphasize the importance of incorporating political and trade policy risks into investment decision-making and portfolio management. Traditional financial analysis focused solely on firm fundamentals may underestimate the influence of policy uncertainty on asset prices. Investors should therefore consider geopolitical developments, trade negotiations, and policy announcements as key determinants of market performance.

Portfolio diversification across sectors and geographic regions can help reduce exposure to trade-related shocks. The sectoral analysis presented in this study demonstrates that industries differ significantly in their vulnerability to tariff policies, suggesting that diversification remains an effective risk management strategy. Financial institutions should also strengthen risk assessment frameworks by incorporating scenario analyses that account for potential trade disputes, tariff escalations, and other policy-related uncertainties.

7.2.4 Implications for International Economic Cooperation

The findings also underscore the importance of international cooperation in promoting global economic and financial stability. Trade disputes between major economies can generate spillover effects that extend beyond national borders and affect global financial markets. Multilateral institutions such as the IMF, World Bank, and World Trade Organization should continue to promote dialogue, cooperation, and rules-based trade frameworks that reduce uncertainty and foster predictable international economic relations.

Overall Policy Message

The central policy message emerging from this study is that trade policy uncertainty can have far-reaching consequences that extend well beyond the direct effects of tariffs on trade flow. Tariff announcements influence investor expectations, financial market valuations, sectoral performance, and broader economic outlooks. Therefore, maintaining transparent, predictable, and coordinated policy frameworks is essential for safeguarding financial stability, supporting investor confidence, and promoting sustainable economic growth. The evidence suggests that effective management of trade policy uncertainty is not only a trade policy objective but also a critical component of sound macroeconomic and financial governance.

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APPENDIX

TABLES

Table 1. Daily Abnormal Returns with T values by Date and Window

Event Window	Date	AR	t-value
-3, 3 days	2025-03-31	-0.000750***	-3.2918
-3, 3 days	2025-04-01	0.000312	1.4837
-3, 3 days	2025-04-02	-0.002557***	-3.021
-3, 3 days	2025-04-03	-0.000449	-0.7155
-3, 3 days	2025-04-04	0.002169***	3.9121
-5, 5 days	2025-03-28	0.000698**	2.1662
-5, 5 days	2025-03-31	-0.000750***	-3.2918
-5, 5 days	2025-04-01	0.000312	1.4837
-5, 5 days	2025-04-02	-0.002557***	-3.021
-5, 5 days	2025-04-03	-0.000449	-0.7155
-5, 5 days	2025-04-04	0.002169***	3.9121
-5, 5 days	2025-04-07	-0.000480*	-1.9153
-10, 10 days	2025-03-24	-0.000829***	-3.5217
-10, 10 days	2025-03-25	0.000241	1.4059
-10, 10 days	2025-03-26	-0.000113	-1.17
-10, 10 days	2025-03-27	-0.000383*	-1.7054
-10, 10 days	2025-03-28	0.000698**	2.1662
-10, 10 days	2025-03-31	-0.000750***	-3.2918
-10, 10 days	2025-04-01	0.000312	1.4837
-10, 10 days	2025-04-02	-0.002557***	-3.021
-10, 10 days	2025-04-03	-0.000449	-0.7155
-10, 10 days	2025-04-04	0.002169***	3.9121
-10, 10 days	2025-04-07	-0.000480*	-1.9153
-10, 10 days	2025-04-08	0.004026***	3.9279
-10, 10 days	2025-04-09	-0.004386***	-3.6868
-10, 10 days	2025-04-10	0.001464***	3.3001
-10, 10 days	2025-04-11	0.004356**	2.0954

***, ** and * denote statistical significance at the 1 %, 5 % and 10 % level, respectively.

Table A1. Cumulative Abnormal Returns and t-values by Date and Window

Event Window	Date	CAR	t-value
-3, 3 days	2025-03-31	-0.3772 ***	-3.2918
-3, 3 days	2025-04-01	0.1567	1.4837
-3, 3 days	2025-04-02	-1.2861 ***	-3.021
-3, 3 days	2025-04-03	-0.2257	-0.7155
-3, 3 days	2025-04-04	1.0909 ***	3.9121
-5, 5 days	2025-03-28	0.3510 **	2.1662
-5, 5 days	2025-03-31	-0.3772 ***	-3.2918
-5, 5 days	2025-04-01	0.1567	1.4837
-5, 5 days	2025-04-02	-1.2861 ***	-3.021
-5, 5 days	2025-04-03	-0.2257	-0.7155
-5, 5 days	2025-04-04	1.0909 ***	3.9121
-5, 5 days	2025-04-07	-0.2414 *	-1.9153
-10, 10 days	2025-03-24	-0.4171 ***	-3.5217
-10, 10 days	2025-03-25	0.1213	1.4059
-10, 10 days	2025-03-26	-0.0570	-1.17
-10, 10 days	2025-03-27	-0.1926 *	-1.7054
-10, 10 days	2025-03-28	0.3510 **	2.1662
-10, 10 days	2025-03-31	-0.3772 ***	-3.2918
-10, 10 days	2025-04-01	0.1567	1.4837
-10, 10 days	2025-04-02	-1.2861 ***	-3.021
-10, 10 days	2025-04-03	-0.2257	-0.7155
-10, 10 days	2025-04-04	1.0909 ***	3.9121
-10, 10 days	2025-04-07	-0.2414 *	-1.9153