The impact of US reciprocal tariff announcements on global stock markets: an event study analysis

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Abstract

This study examines the impact of the April 2025 US reciprocal tariff announcement on the stock markets of 47 countries using an event study methodology. Analyzing daily index returns across multiple event windows, we find significant negative cumulative abnormal returns (CAAR = -1.43%, $p<0.01$) over the [-7,+10] window, with the strongest reactions occurring within three days post-announcement. Affected countries experienced more severe declines (CAAR = -2.40%) than unaffected nations, while developed markets (-3.55%) showed greater vulnerability than emerging markets. Robustness tests confirm these findings across alternative methodologies. The results demonstrate that reciprocal tariffs, which explicitly incorporate retaliation mechanisms, generate stronger market reactions than unilateral measures, with implications for investors, policymakers, and multinational corporations navigating trade policy uncertainty.

Keywords: *Reciprocal tariffs; Event study; Stock market reactions; Trade policy shocks; Market efficiency; Emerging markets; Developed markets.*
JEL Classification: *F13, F14, G14, G15*

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1. Introduction

On April 2, 2025, the United States government announced a new round of reciprocal tariffs, modifying trade duties to reflect retaliatory measures from trading partners and realigning them with perceived economic imbalances (White House, 2025). This policy shift targeted a broad range of countries, including major trading partners such as China, the European Union, India, and others[1]. The announcement followed an earlier round of tariffs announced in February-March 2025, signaling an escalation in trade protectionism (Rao et al., 2025). Given the interconnected nature of global financial markets, such trade policy shocks can have significant spillover effects, influencing investor sentiment and stock market performance across both developed and developing economies.

The World Trade Organization (WTO) expressed concerns over the potential disruption to global trade flows, warning of possible retaliatory measures and heightened market volatility[2]. Against this backdrop, this study examines the impact of the US tariff announcement on the stock market indices of 47 countries, classified as developed and developing markets according to MSCI criteria. By employing an event study methodology, we assess how different markets reacted to the news, considering multiple event windows to capture both immediate and delayed market responses.

[1] https://www.thehindu.com/news/international/trump-reciprocal-tariff-full-list-of-targeted-countries-map/article69407402.ece
[2] https://www.wto.org/english/news_e/news25_e/tfore_16apr25_e.htm

Event studies are widely used in finance and economics to measure the impact of exogenous shocks on asset prices (Mackinlay, 1997). The efficient market hypothesis (Fama, 1970) suggests that stock prices rapidly incorporate new information, allowing researchers to isolate the effect of specific events by analyzing abnormal returns around the announcement date. Trade policy shocks, such as tariff impositions, can influence market expectations by altering future cash flows, supply chain dynamics, and corporate profitability (Amiti et al., 2019; Baker et al., 2016; Handley & Limão, 2017).

Theoretical models in international trade, such as those exploring trade wars (Grossman & Helpman, 1994), predict that tariffs can lead to welfare losses, market distortions, and increased uncertainty. Financial markets, acting as forward-looking indicators, may react negatively to protectionist measures due to anticipated declines in trade volumes, higher input costs, and reduced corporate earnings (Handley & Limão, 2017). However, the magnitude and direction of market reactions may vary depending on a country's exposure to US trade, its economic resilience, and investor perceptions of retaliatory risks. Existing research on trade policy shocks and stock market reactions provides mixed evidence. Studies such as those by Qin et al. (2022) find that trade war announcements lead to significant negative abnormal returns. Conversely, some markets exhibit resilience or even positive returns (He et al., 2020).

Event studies on earlier US tariff impositions, such as those during the 2018-2019 US-China trade war, document varying market responses across sectors and geographies (Egger & Zhu, 2021; Rao et al., 2025; Zhong et al., 2024). However, few studies have examined the effects of reciprocal tariffs that explicitly incorporate retaliation mechanisms, as seen in the April 2025 announcement. Additionally, prior literature has often focused on individual countries or regions (Pandey, 2025), leaving a gap in comprehensive cross-country analyses comparing developed and emerging market reactions.

This study contributes to the literature in several ways. First, we analyze the market impact of the April 2025 US reciprocal tariff announcement, which introduced a unique mechanism accounting for trading partner retaliation—a dimension less explored in prior studies. Second, by examining 47 countries across both developed and developing markets, we provide a broader perspective on how different economies respond to trade policy shocks. Third, unlike studies focusing on a single event window, we assess market reactions across varying time frames (from [-1, +1] to [-7, +10]), allowing us to distinguish between immediate and prolonged effects. Last, our findings offer insights for policymakers, investors, and multinational corporations on the financial market consequences of escalating trade tensions.

The remainder of the paper is structured as follows: Section 2 discusses the data and methodology, Section 3 presents the empirical results, and Section 4 concludes the study.

2. Data and methodology

This study employs an event study methodology (Brown & Warner, 1985) to analyze the impact of the US reciprocal tariff announcement on April 9, 2025, on the stock market indices of 47 countries, classified as developed and emerging markets according to Morgan Stanley Capital International (MSCI).[3] The daily closing prices of sample indices were collected from www.investing.com, while the MSCI All Country World Index (ACWI) served as the market benchmark for estimating normal returns. Although the official announcement was made on April 2, 2025, the event date for empirical analysis was set as April 3, 2025 (the next trading day), as the policy was disclosed after the market hours.

[3] https://www.msci.com/indexes/index-resources/market-classification

The estimation window spans 252 trading days (approximately one year) preceding the event window to ensure robust parameter estimation (Kumari et al., 2025; Pandey, Ananda, et al., 2024; Pandey, Rajesh, et al., 2024). Multiple event windows were examined to assess both immediate and prolonged market reactions, including [-1, +1], [-3, +3], [-5, +5], [-7, +7], and the baseline window of [-7, +10]. Following prior studies (Gupta, 2017; Mundi & Yadav, 2023), the market model was used to estimate normal returns, where the relationship between an individual index and the MSCI ACWI was modeled using ordinary least squares (OLS) regression.

The market model forms the basis for estimating normal returns, where the expected return for security *i* on day *t* is given in Equation (1).

$$E(R_{i,t}) = \alpha_i + \beta_i R_{m,t} + \varepsilon_{i,t} \quad (1)$$

where $R_{i,t}$ represents the log return of index i, $R_{m,t}$ is the corresponding return of the MSCI ACWI benchmark, α_i and β_i are security-specific parameters estimated via OLS regression over a 252-day estimation window, and $\varepsilon_{i,t}$ is the error term. Abnormal returns (AR) are then calculated as in Equation (2).

$$AR_{i,t} = R_{i,t} - (\hat{\alpha}_i + \hat{\beta}_i R_{m,t}) \quad (2)$$

For hypothesis testing, we aggregate abnormal returns both cross-sectionally and temporally. The average abnormal return (AAR) across N securities for each event day t is computed as in Equation (3).

$$AAR_t = \left(\frac{1}{N}\right) \sum_{i=1}^{N} AR_{i,t} \quad (3)$$

The cumulative abnormal returns (CAR) are examined over multiple event windows ([-7,10], [-7,7], [-5,5], [-3,3], and [-1,1]) as in Equation (4).

$$CAR_i\,(t_1, t_2) = \sum_{t=t_1}^{t_2} AR_{i,t} \quad (4)$$

The corresponding cumulative average abnormal return (CAAR) is given in Equation (5).

$$CAAR(t_1, t_2) = \sum_{t=t_1}^{t_2} AAR_{i,t} \quad (5)$$

To determine statistical significance, the cross-sectional t-tests were conducted, with the null hypothesis stating that the tariff announcement did not affect stock returns (CAAR = 0). Additionally, the sample was stratified into developed and emerging markets to examine differential effects, with two-sample t-tests employed to compare reactions across these groups.

3. Findings and discussion

The empirical analysis reveals substantial market reactions to the US reciprocal tariff announcement, with notable variations across country groups and time horizons. As evidenced in Table 1, the full sample of 47 countries exhibited statistically significant negative cumulative average abnormal returns (CAAR) of -1.43% ($p<0.01$) over the [-7,+10] event window, indicating sustained adverse market effects. The most pronounced declines occurred in the immediate aftermath of the announcement, with average abnormal returns (AAR) reaching -2.06% on t+2 and -2.75% on t+4, both significant at the 0.1% level. These results align with theoretical predictions from Grossman and Helpman's (1994) trade policy framework, which anticipates welfare losses and market distortions from protectionist measures.

Table 1. The daily AAR and CAAR for different samples for the -7,10 event window

	All sample (N = 47)		Affected (N = 31)		Unaffected (N=15)		Developed (N = 23)		Emerging (N = 24)	
Days	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**
t-7	0.06	0.06	0.17	0.17	-0.16	-0.16	0.05	0.05	0.06	0.06
	(0.42)	(0.15)	(0.98)	(0.35)	(-0.69)	(-0.24)	(0.28)	(0.1)	(0.31)	(0.11)
t-6	0.12	0.18	0.19	0.36	-0.05	-0.20	0.18	0.23	0.06	0.13
	(0.88)	(0.49)	(1.08)	(0.78)	(-0.2)	(-0.34)	(0.97)	(0.47)	(0.32)	(0.24)
t-5	-0.06	0.12	-0.22	0.13	0.28	0.08	-0.19	0.04	0.07	0.19
	(-0.43)	(0.36)	(-1.29)	(0.31)	(1.26)	(0.15)	(-1.03)	(0.09)	(0.34)	(0.4)
t-4	0.01	0.13	-0.08	0.05	0.23	0.31	-0.04	0.00	0.07	0.26
	(0.09)	(0.43)	(-0.47)	(0.13)	(1.02)	(0.62)	(-0.23)	(0.00)	(0.33)	(0.58)
t-3	-0.80***	-0.67**	-1.18***	-1.13***	-0.13	0.18	-1.13***	-1.13***	-0.48**	-0.22
	(-5.88)	(-2.45)	(-6.80)	(-3.25)	(-0.58)	(0.41)	(-6.12)	(-3.06)	(-2.42)	(-0.56)
t-2	0.58***	-0.09	0.60***	-0.53	0.61***	0.79**	0.49***	-0.64**	0.66***	0.44
	(4.27)	(-0.37)	(3.46)	(-1.76)	(2.69)	(2.02)	(2.67)	(-2.00)	(3.34)	(1.28)
t-1	-0.47***	-0.55***	-0.48***	-1.01***	-0.48**	0.31	-0.49***	-1.12***	-0.45**	0.00
	(-3.43)	(-2.88)	(-2.75)	(-4.10)	(-2.12)	(0.98)	(-2.64)	(-4.31)	(-2.24)	(-0.01)
t	-0.38***	-0.93***	-0.59***	-1.60***	0.09	0.40	-0.49***	-1.61***	-0.27	-0.28
	(-2.79)	(-6.86)	(-3.39)	(-9.19)	(0.40)	(1.79)	(-2.65)	(-8.75)	(-1.37)	(-1.39)
t+1	-1.31***	-2.24***	-1.66***	-3.26***	-0.63***	-0.23	-1.85***	-3.46***	-0.80***	-1.07***
	(-9.68)	(-11.69)	(-9.57)	(-13.27)	(-2.82)	(-0.73)	(-10.04)	(-13.28)	(-4.02)	(-3.83)
t+2	-2.06***	-4.30***	-2.56***	-5.82***	-1.20***	-1.43***	-2.54***	-6.00***	-1.61***	-2.68***
	(-15.19)	(-18.31)	(-14.74)	(-19.34)	(-5.33)	(-3.67)	(-13.75)	(-18.79)	(-8.09)	(-7.80)
t+3	1.36***	-2.94***	2.22***	-3.61***	-0.28	-1.71***	1.51***	-4.48***	1.22***	-1.46***
	(10.05)	(-10.84)	(12.76)	(-10.37)	(-1.23)	(-3.80)	(8.22)	(-12.16)	(6.14)	(-3.68)
t+4	-2.75***	-5.69***	-3.97***	-7.58***	-0.57**	-2.28***	-4.63***	-9.11***	-0.96***	-2.42***
	(-20.29)	(-18.77)	(-22.85)	(-19.49)	(-2.54)	(-4.53)	(-25.11)	(-22.11)	(-4.81)	(-5.44)
t+5	2.20***	-3.50***	3.08***	-4.49***	0.62***	-1.67***	3.21***	-5.90***	1.23***	-1.19**
	(16.20)	(-10.52)	(17.73)	(-10.56)	(2.74)	(-3.02)	(17.42)	(-13.07)	(6.19)	(-2.44)
t+6	-0.15	-3.65***	-0.26	-4.75***	0.03	-1.63***	-0.29	-6.20***	-0.01	-1.20**
	(-1.11)	(-10.16)	(-1.47)	(-10.33)	(0.15)	(-2.74)	(-1.60)	(-12.71)	(-0.06)	(-2.29)
t+7	1.02***	-2.62***	1.30***	-3.45***	0.53**	-1.10	1.41***	-4.79***	0.65***	-0.55
	(7.53)	(-6.84)	(7.48)	(-7.02)	(2.35)	(-1.73)	(7.66)	(-9.18)	(3.27)	(-0.98)
t+8	0.70	-1.92***	0.85***	-2.60***	0.48**	-0.62	0.96***	-3.82***	0.46**	-0.10
	(5.19)	(-4.72)	(4.91)	(-4.98)	(2.13)	(-0.92)	(5.23)	(-6.91)	(2.29)	(-0.16)
t+9	0.53	-1.40***	0.53***	-2.07***	0.58***	-0.04	0.67***	-3.15***	0.39	0.29
	(3.87)	(-3.25)	(3.05)	(-3.76)	(2.58)	(-0.06)	(3.64)	(-5.41)	(1.94)	(0.46)
t+10	-0.03	-1.43***	-0.33	-2.40***	0.67***	0.63	-0.39**	-3.55***	0.31	0.60
	(-0.25)	(-3.18)	(-1.90)	(-4.16)	(2.99)	(0.85)	(-2.13)	(-5.8)	(1.56)	(0.91)

Notes: ***, **, and * indicates p< 0.001, p< 0.01, and p< 0.05, respectively.

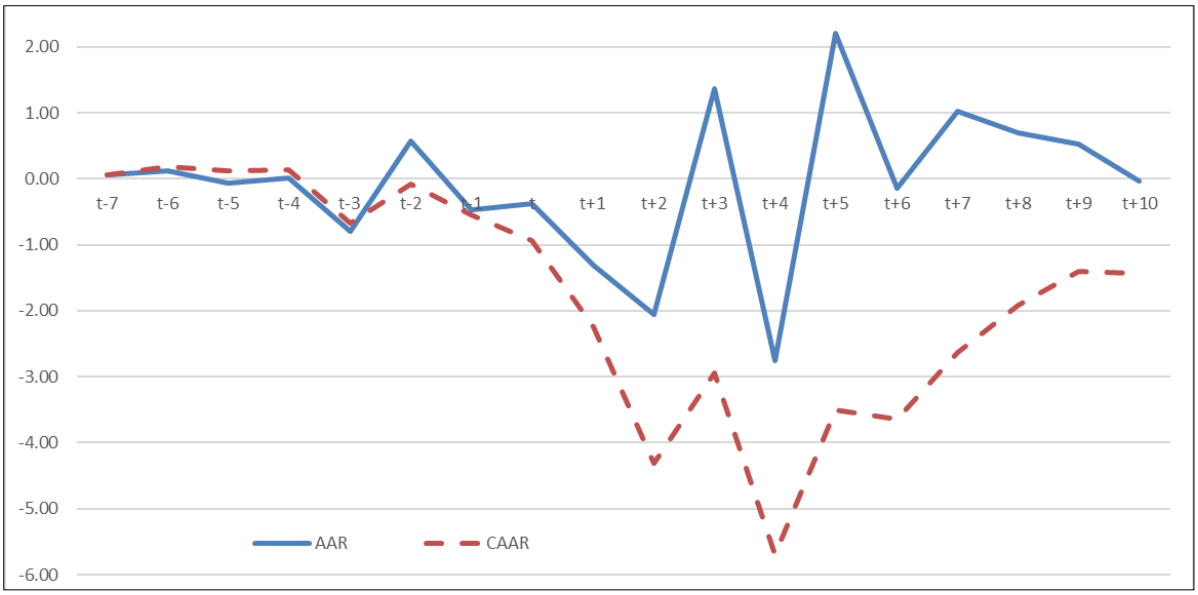

Figure 1. The daily AAR and CAAR for the entire sample around the -7,10 event window

Disaggregated analysis reveals important cross-country heterogeneity in market responses. Affected countries, representing 31 of the sample nations, suffered significantly stronger declines (CAAR = -2.40%, $p<0.001$) compared to unaffected trading partners (CAAR = +0.63%, insignificant). This differential impact supports the hypothesis that markets more exposed to US trade flows faced greater uncertainty regarding retaliatory measures and supply chain disruptions. The developed markets subgroup (N=23) experienced particularly severe reactions (CAAR = -3.55%, $p<0.001$), likely reflecting their deeper integration into global value chains as described by Handley and Limão (2017). In contrast, emerging markets demonstrated relative resilience (CAAR = +0.60%, insignificant), potentially due to domestic market insulation or expectations of trade diversion benefits.

Temporal analysis of market responses, illustrated in Figures 1-3, reveals three distinct phases of reaction. The pre-announcement period (t-3 to t-1) showed significant volatility, with AAR reaching -0.80% on t-3 ($p<0.001$), suggesting either information leakage or speculative positioning ahead of the formal policy declaration. Figures 1, 2 and 3 illustrate the dynamics of stock market responses surrounding the April 2025 tariff announcement. Figure 1 captures pre-event volatility, highlighting increased uncertainty possibly due to information leakage or speculative positioning scattered days before official disclosure. Figure 2 displays the immediate market reactions within the first few days, indicating sharp declines, particularly in affected and developed markets, with abnormal returns peaking on days +2 and +4 post-announcement (-2.06% and -2.75%, respectively). Figure 3 shows the longer-term market effects, where negative abnormal returns persist, especially in developed economies, suggesting ongoing uncertainty and adjustment processes. These figures emphasize that market reactions are swift and intense immediately after the announcement but can diminish or sustain, depending on market resilience and perceptions of trade policy stability. The immediate post-announcement window (t to t+2) witnessed the most severe market contractions, with CAAR plunging to -4.30% ($p<0.001$), consistent with Fama's (1970) efficient market hypothesis regarding rapid information incorporation. The subsequent recovery phase (t+3 onward) featured partial rebounds, including a significant 1.36% AAR on t+3 ($p<0.001$), as markets began differentiating between sectors and countries better positioned to adapt to the new trade regime.

Table 2 presents the cumulative abnormal returns (CARs) for developing countries across multiple event windows surrounding the US reciprocal tariff announcement. The results

reveal significant heterogeneity in market reactions. India and Indonesia showed strong positive returns in the [-7,+10] window (5.01% and 7.25%, respectively), suggesting these markets may have benefited from trade diversion or domestic insulation. In contrast, Taiwan (-8.03%), Hungary (-3.85%), and China (-2.31%) experienced significant declines, reflecting their higher exposure to US trade flows. Notably, Turkey and Mexico exhibited asymmetric responses, with Turkey showing strong positive returns in shorter windows (4.93% in [-5,+5]) but Mexico displaying resilience in longer windows (6.92% in [-7,+10]). The varying significance levels across windows (e.g., Egypt's -4.26% in [-3,+3] vs. insignificant longer-window returns) highlight how market reactions evolved over time. These differential responses underscore the importance of country-specific factors like trade composition, macroeconomic stability, and policy buffers in determining tariff shock impacts.

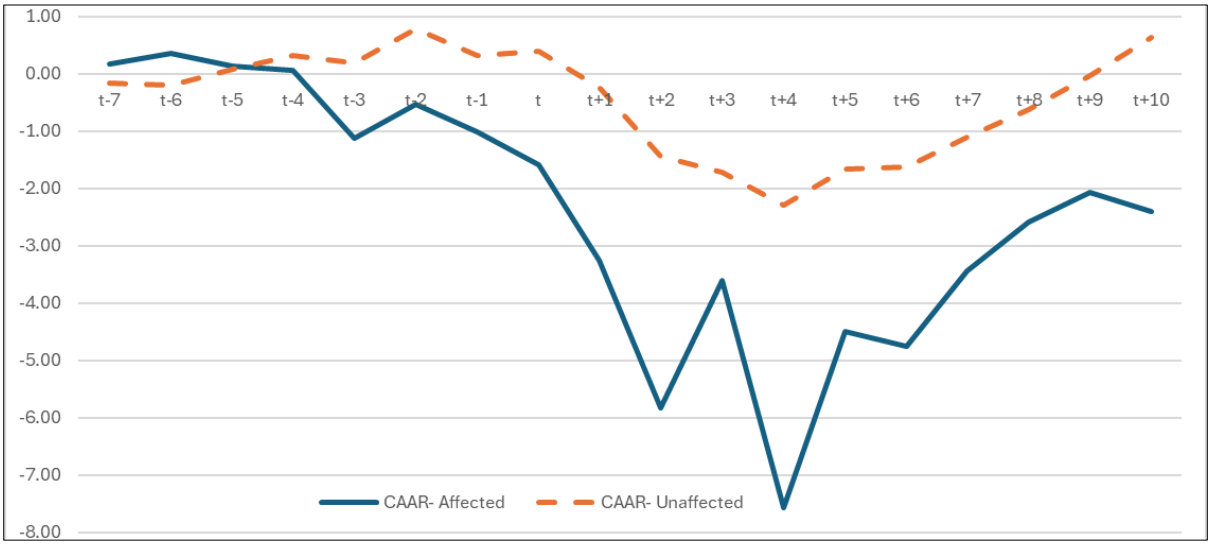

Figure 2. The daily CAAR for the affected and unaffected samples around the -7,10 event window

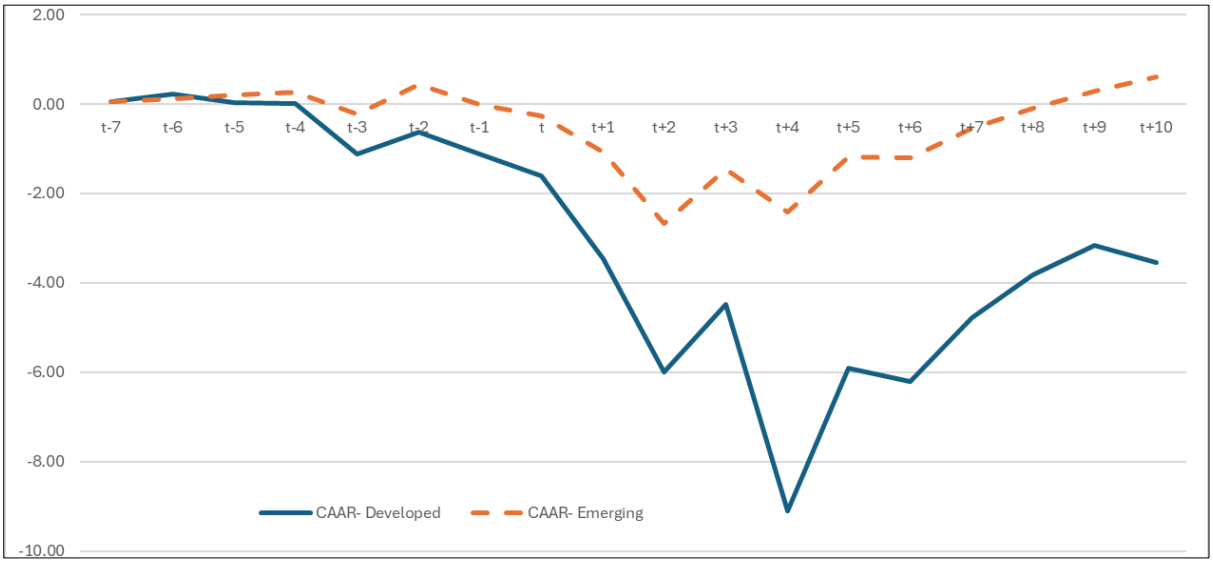

Figure 3. The daily CAAR for the developed and developing countries around the -7,10 event window

Table 3 demonstrates uniformly negative CARs for developed countries, with particularly severe declines in Hong Kong (-9.59%), Denmark (-12.27%), and Switzerland (-7.48%) over the [-7,+10] window. The consistency of negative returns across all major European economies (e.g., Germany: -3.76%, France: -5.11%) reflects their deep integration into global value chains and vulnerability to trade policy uncertainty. The UK (-2.07%) and US (-2.41%) showed relatively milder impacts, possibly due to their larger domestic markets. Israel

(3.56%) was a notable outlier, likely due to its export composition. The stronger significance in shorter windows (e.g., Singapore's -10.67% in [-3,+3]) suggests rapid price adjustments, aligning with market efficiency theories. These results contrast with Table 2's mixed outcomes, emphasizing how developed markets, despite stronger institutions, face greater systemic risks from trade wars due to their interconnectedness. The pervasive negativity across windows and countries underscores the global spillover effects of US tariff policies.

Table 2. Cumulative abnormal returns of developing countries

Country	[-7,10]	[-7,7]	[-5,5]	[-3,3]	[-1,1]
Greece	-0.96	-2.43***	-6.02***	-4.26***	-1.14
	(-1.13)	(-2.87)	(-7.12)	(-5.03)	(-1.35)
Turkey	-1.33	-1.61	4.93***	5.08***	1.75
	(-0.90)	(-1.09)	(3.34)	(3.44)	(1.19)
India	5.01***	1.49*	-2.02**	-1.45*	1.34
	(5.82)	(1.73)	(-2.35)	(-1.69)	(1.55)
Brazil	1.32	0.76	-1.85**	-2.21***	0.37
	(1.57)	(0.90)	(-2.19)	(-2.62)	(0.44)
Hungary	-3.85***	-5.19***	-5.10***	-3.33***	-4.98***
	(-4.70)	(-6.32)	(-6.22)	(-4.06)	(-6.08)
Egypt	-0.75	0.21	-1.38	-4.26***	-3.15**
	(-0.47)	(0.13)	(-0.87)	(-2.70)	(-2.00)
Malaysia	0.06	-0.38	-0.80	-2.22***	1.26*
	(0.09)	(-0.59)	(-1.25)	(-3.47)	(1.97)
United Arab Emirates	1.36***	0.78	0.51	0.30	-1.24**
	(2.75)	(1.57)	(1.04)	(0.62)	(-2.50)
Colombia	3.19***	-1.02	-1.96*	-0.89	3.03***
	(2.98)	(-0.96)	(-1.84)	(-0.83)	(2.84)
Czech Republic	0.01	-0.30	-0.84	-3.35***	-5.00***
	(0.01)	(-0.39)	(-1.09)	(-4.30)	(-6.43)
Indonesia	7.25***	6.53***	5.68***	5.35***	-0.54
	(7.12)	(6.41)	(5.59)	(5.25)	(-0.53)
South Korea	-1.29	-2.68**	-2.58**	-2.31**	3.38***
	(-1.11)	(-2.31)	(-2.23)	(-1.99)	(2.92)
Kuwait	-0.70	-3.28***	-2.84***	-0.64	-4.11***
	(-0.83)	(-3.89)	(-3.37)	(-0.76)	(-4.88)
Philippines	0.25	0.52	1.13	1.30	0.73
	(0.23)	(0.49)	(1.05)	(1.21)	(0.68)
Qatar	-0.40	0.12	0.43	1.83***	-0.02
	(-0.72)	(0.23)	(0.78)	(3.31)	(-0.04)
Chile	4.21***	0.77	-0.42	-3.23***	1.07
	(5.99)	(1.09)	(-0.59)	(-4.59)	(1.52)
Peru	0.26	-0.72	-2.78***	-2.86***	-3.55***
	(0.34)	(-0.95)	(-3.69)	(-3.79)	(-4.70)
Mexico	6.92***	2.99***	1.82**	0.03	0.94
	(7.75)	(3.35)	(2.03)	(0.04)	(1.06)
Thailand	-0.66	-1.00	-2.60***	-5.82***	-0.81
	(-0.82)	(-1.24)	(-3.24)	(-7.24)	(-1.01)
China	-2.31*	-2.69**	-3.34***	-4.56***	-6.37***
	(-1.96)	(-2.28)	(-2.83)	(-3.86)	(-5.39)
South Africa	2.99***	1.78**	-1.30*	-1.67**	-5.80***
	(4.02)	(2.39)	(-1.75)	(-2.24)	(-7.80)
Saudi Arabia	1.52**	0.84	1.11	-3.24***	-4.07***
	(2.24)	(1.23)	(1.63)	(-4.77)	(-5.98)
Taiwan	-8.03***	-7.02***	-8.51***	-7.51***	-6.00***
	(-5.34)	(-4.67)	(-5.66)	(-5.00)	(-3.99)
Poland	0.30	-1.73*	-2.79***	-1.36	-3.46***
	(0.30)	(-1.69)	(-2.72)	(-1.32)	(-3.37)

Notes: ***, **, and * indicates $p< 0.001$, $p< 0.01$, and $p< 0.05$, respectively.

Table 3. Cumulative abnormal returns of developed countries

Country	[-7,10]	[-7,7]	[-5,5]	[-3,3]	[-1,1]
Netherlands	-3.00***	-5.19***	-6.70***	-3.44***	-2.13***
	(-4.80)	(-8.30)	(-10.73)	(-5.50)	(-3.40)
Austria	-5.96***	-8.45***	-10.04***	-6.02***	-4.83***
	(-7.12)	(-10.10)	(-12.00)	(-7.20)	(-5.77)
Belgium	-3.78***	-5.70***	-7.45***	-3.69***	-2.40***
	(-5.57)	(-8.40)	(-10.99)	(-5.44)	(-3.54)
France	-5.11***	-6.00***	-7.17***	-4.52***	-2.68***
	(-6.73)	(-7.91)	(-9.44)	(-5.95)	(-3.53)
Germany	-3.76***	-5.53***	-5.81***	-3.27***	-2.80***
	(-4.92)	(-7.23)	(-7.59)	(-4.28)	(-3.65)
United Kingdom	-2.07***	-4.14***	-6.69***	-5.20***	-3.66***
	(-3.86)	(-7.73)	(-12.50)	(-9.71)	(-6.84)
Italy	-4.03***	-7.25***	-8.36***	-7.45***	-5.20***
	(-4.85)	(-8.72)	(-10.05)	(-8.96)	(-6.26)
Hong Kong	-9.59***	-10.61***	-10.71***	-13.76***	-12.46***
	(-6.05)	(-6.69)	(-6.75)	(-8.68)	(-7.86)
Spain	-0.87	-3.62***	-5.65***	-5.01***	-2.58***
	(-1.08)	(-4.51)	(-7.04)	(-6.24)	(-3.21)
Ireland	-4.01***	-4.77***	-6.82***	-2.42***	-2.34***
	(-4.51)	(-5.37)	(-7.68)	(-2.72)	(-2.64)
New Zeland	0.74	0.51	-0.10	-1.86***	0.50
	(1.03)	(0.72)	(-0.15)	(-2.61)	(0.70)
Japan	-2.79*	-1.25	-5.59***	-5.91***	1.53
	(-1.83)	(-0.82)	(-3.66)	(-3.87)	(1.00)
Denmark	-12.27***	-8.05***	-9.85***	-2.08	-3.85**
	(-7.34)	(-4.81)	(-5.89)	(-1.25)	(-2.30)
Finland	-4.84***	-6.72***	-8.16***	-5.31***	-3.03***
	(-6.85)	(-9.51)	(-11.54)	(-7.52)	(-4.29)
Sweden	-6.19***	-7.68***	-8.08***	-5.87***	-3.54***
	(-8.33)	(-10.33)	(-10.86)	(-7.90)	(-4.76)
Norway	-4.88***	-5.11***	-7.79***	-4.86***	-5.97***
	(-6.46)	(-6.76)	(-10.30)	(-6.43)	(-7.89)
Portugal	1.23	-1.34*	-4.98***	-4.29***	-1.71**
	(1.58)	(-1.72)	(-6.37)	(-5.48)	(-2.18)
Australia	0.43	-0.78	-1.55**	-3.16***	-0.84
	(0.61)	(-1.10)	(-2.19)	(-4.47)	(-1.19)
Canada	0.53	-1.62***	-3.06***	-1.25***	-0.59
	(1.30)	(-3.96)	(-7.50)	(-3.07)	(-1.45)
Switzerland	-7.48***	-9.41***	-10.25***	-6.79***	-3.90***
	(-11.29)	(-14.20)	(-15.47)	(-10.25)	(-5.89)
Singapore	-5.01***	-9.83***	-8.25***	-10.67***	-1.26**
	(-8.24)	(-16.17)	(-13.56)	(-17.55)	(-2.07)
Israel	3.56***	2.33***	2.19**	4.39***	0.11
	(4.05)	(2.65)	(2.49)	(4.99)	(0.13)
United States	-2.41***	0.11	-0.25	-0.69	-1.38***
	(-5.27)	(0.25)	(-0.55)	(-1.50)	(-3.01)

Notes: ***, **, and * indicates p< 0.001, p< 0.01, and p< 0.05, respectively.

Robustness checks across alternative methodologies, detailed in Appendix 1 and Appendix 2, confirm the stability of these findings. The precision-weighted CAAR for the [-7,+10] window remained statistically significant at -1.6% ($p<0.05$), while non-parametric tests, including the Corrado rank and Wilcoxon specifications, validated the results under different distributional assumptions. Notably, the [-3,+3] event window showed particularly strong effects (CAAR = -3.6%, $p<0.001$), emphasizing the rapidity of market responses to trade policy shocks. These results extend the findings of Amiti et al. (2019) and Qin et al. (2022) by

demonstrating that reciprocal tariffs, which explicitly incorporate retaliation mechanisms, generate more severe market reactions than unilateral trade measures.

The findings carry important implications for both theory and policy. The efficient but varied market responses across countries support the view that financial markets serve as sensitive indicators of trade policy impacts, while the persistent negative CAARs suggest ongoing uncertainty about long-term trade realignments. The disproportionate impact on developed markets underscores the vulnerability of highly integrated economies to trade disputes, highlighting the need for transitional policy measures during periods of trade policy turbulence. The relative stability of unaffected countries' markets provides empirical support for the trade diversion hypothesis advanced by He et al. (2020), suggesting that some economies may benefit from trade policy conflicts through redirected commerce.

The divergent responses among countries are primarily driven by differences in trade exposure and domestic economic characteristics. Indonesia demonstrated resilience or positive reactions owing to limited direct trade with the U.S. and domestic market insulation. Taiwan experienced substantial declines, reflecting its high reliance on U.S. exports and supply chains. Germany's deep integration into the global manufacturing and automotive sectors magnifies its susceptibility, while Israel’s smaller trade volume with the U.S. buffers its response.

To reduce such vulnerabilities, policymakers can proactively diversify trade portfolios and foster regional agreements, allowing emerging markets to leverage trade diversion by seeking new partners or strengthening regional ties during periods of tension. For investors, maintaining a diversified portfolio and closely monitoring trade policy developments are essential. Sectoral and regional diversification helps mitigate risks from protectionist measures, particularly in countries with high U.S. trade dependence. Ultimately, policymakers should focus on building domestic economic resilience and broadening trade relationships, while investors can benefit from dynamic risk assessments aligned with the evolving landscape of trade negotiations.

Several limitations warrant consideration in interpreting these results. The focus on aggregate indices necessarily masks important sectoral variations in tariff impacts, while the market model's linearity assumptions may not fully capture nonlinear responses to escalating trade tensions. Future research could productively examine firm-level heterogeneity in tariff responses and investigate threshold effects in trade policy shocks. Nevertheless, the study provides compelling evidence that reciprocal tariff announcements generate significant and heterogeneous market reactions, with important implications for investors, policymakers, and corporate strategists navigating an increasingly complex global trade environment.

4. Conclusion

This study provides comprehensive evidence that the US reciprocal tariff announcement in April 2025 had a significant impact on global equity markets, with effects varying systematically across country characteristics. Three key findings emerge. First, markets reacted swiftly and negatively to the announcement, consistent with the efficient market hypothesis, but the persistence of abnormal returns suggests ongoing uncertainty about the long-term consequences of reciprocal trade measures. Second, the differential impacts between affected and unaffected countries, and between developed and emerging markets, highlight how trade exposure and economic integration mediate the consequences of protectionist policies.

The findings extend our understanding of trade policy shocks in several ways. By focusing on reciprocal tariffs - a relatively understudied but increasingly important policy tool - the analysis reveals that markets price in not just direct tariff effects but also anticipated

retaliation dynamics. The results also demonstrate that market reactions contain valuable information about the expected distributional consequences of trade wars, with more trade-dependent economies showing greater sensitivity.

These insights carry important practical implications. For investors, the results underscore the importance of monitoring trade policy developments and considering country-level exposure in portfolio allocation decisions. For policymakers, the evidence suggests that reciprocal tariffs may impose particularly severe short-term costs on financial markets, even as their long-term strategic value is debated. The relative resilience of emerging markets points to potential diversification benefits during trade conflicts.

Future research could build on these findings by examining sectoral variations in tariff impacts, analyzing firm-level adaptation strategies, and investigating how market reactions predict subsequent real economic effects. Nevertheless, this study establishes that reciprocal tariff announcements represent significant financial market events with meaningful consequences for global capital allocation and economic policymaking.

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Appendix 1. Robustness test to check the significance of the daily AARs using different statistical tests

		(Patell, 1976)	(Cowan, 1992)		(Brown & Warner, 1985)	(Boehmer et al., 1991)	(Corrado & Zivney, 1992)	(Kolari & Pynnonen, 2011)		(Kolari & Pynnönen, 2010)		(Hall, 1992)	(Wilcoxon, 1945)
Day	**AAR**	**Patell Z**	**Gen. Sign Z**	**Sign Z**	**Csect T**	**StdCSect T**	**Rank Z**	**Gen. Rank T**	**Gen. Rank Z**	**Adj. Patell T**	**Adj. StdCSect T**	**Skew. Corrected T**	**Wilcoxon**
-7	-0.002	-0.650	-0.212	-0.146	-0.970	-0.501	0.094	0.047	0.073	-0.423	-0.321	-1.185	555.0
-6	0.002	1.259	1.247	1.313	1.250	1.157	0.838	0.974	1.512	0.819	0.741	1.173	704.0
-5	0.001	0.207	0.955	1.021	0.542	0.219	0.210	0.276	0.429	0.135	0.140	0.542	623.0
-4	-0.001	-0.115	-0.212	-0.146	-0.536	-0.156	-0.265	-0.274	-0.425	-0.075	-0.10	-0.523	532.5
-3	-0.009	-7.163***	-4.296	-4.230	-6.184***	-5.336***	-3.302***	-3.456***	-5.361***	-4.657***	-3.417**	-6.122***	115.5***
-2	0.004	3.448***	3.873***	3.938***	2.173*	3.071**	2.321*	2.576*	3.998***	2.242*	1.967	1.630	910.0***
-1	-0.001	-1.054	-1.671$	-1.605	-0.649	-0.939	-0.824	-0.958	-1.488	-0.685	-0.601	-0.606	441.0
0	-0.000	-0.701	0.080	0.146	-0.137	-0.586	-0.337	-0.382	-0.593	-0.456	-0.375	-0.116	542.5
1	-0.020	-13.664***	-4.880***	-4.814***	-5.978***	-7.586***	-4.403	-4.408	-6.837***	-8.883***	-4.858	-9.007***	82.0***
2	-0.018	-16.339***	-3.129**	-3.063**	-4.430***	-4.849	-2.637**	-2.863**	-4.442***	-10.623***	-3.106**	-4.040***	213.0***
3	0.008	8.213***	2.414*	2.480*	1.863$	2.714**	2.032*	1.873$	2.906**	5.339***	1.738	1.630	790.0*
4	-0.024	-18.227***	-2.254*	-2.188*	-3.887***	-4.014***	-1.968*	-2.498*	-3.875***	-11.850***	-2.571*	-3.499***	244.0***
5	0.022	18.509***	3.873***	3.938***	6.074***	5.557***	3.218**	3.316***	5.143***	12.034***	3.559***	5.642***	988.5***
6	-0.002	-1.737	-0.504	-0.438	-1.208	-1.273	-0.665	-0.771	-1.196	-1.129	-0.815	-1.207	466.5
7	0.011	9.107***	5.331***	5.397***	9.030***	8.703***	4.041***	4.697***	7.282***	5.921***	5.573***	9.029***	1093.0***
8	0.007	6.361***	3.581***	3.647***	5.049***	5.328***	2.772**	3.121**	4.841***	4.135	3.412**	4.753	947.5***
9	0.005	4.425***	3.289***	3.355***	4.739	5.055***	2.353*	2.981**	4.626***	2.877**	3.237**	4.409***	936.5***
10	-0.000	-0.241	-0.795	-0.729	-0.064	-0.222	-0.148	-0.159	-0.248	-0.157	-0.142	-0.093	582.5

Notes: ***, **, and * indicates p< 0.001, p< 0.01, and p< 0.05, respectively.

Appendix 2. Robustness test to check the significance of the CAARs of different event windows using different statistical tests

Event Window	**CAAR**	**Precision Weighted CAAR**	**Patell Z**	**Csect T**	**Sign Z**	**Gen. Sign Z**	**StdCSect T**	**Rank Z**	**Gen. Rank T**	**Adj. Patell Z**	**Adj. StdCSect T**	**Gen. Rank Z**	**Skew. Corrected T**	**CDA T**
-7,10	-0.018	-0.016	-1.971*	-3.149**	-1.896	-1.962*	-3.273**	0.785	-2.142*	-1.281	-2.096*	-3.323***	-3.365**	-2.072*
-7,7	-0.030	-0.028	-4.882***	-5.698***	-3.647***	-3.713***	-5.460***	-0.387	-3.280**	-3.174**	-3.497**	-5.089***	-6.496***	-3.766***
-5,5	-0.038	-0.038	-8.107***	-6.677***	-4.814***	-4.880***	-6.713***	-1.802	-3.987***	-5.270***	-4.299***	-6.183***	-6.597***	-5.631***
-3,3	-0.036	-0.034	-10.304***	-6.839***	-5.981***	-6.047***	-8.185***	-2.819**	-4.901***	-6.699***	-5.241***	-7.597***	-10.648***	-6.736***
-1,1	-0.021	-0.020	-8.902***	-4.955***	-3.355***	-3.421***	-5.764***	-3.598***	-3.467***	-5.787***	-3.692***	-5.379***	-5.761***	-6.013***

Notes: ***, **, and * indicates p< 0.001, p< 0.01, and p< 0.05, respectively.