Araştırma Makalesi / Research Article

Heterogeneous Market Reactions of the G20 Stock Markets to the Hamas-Israel War

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Abstract

This study aims to examine the impact of the Hamas-Israel conflict on G20 stock markets and gold prices by employing an event study approach. The results show a continuous decline of the stock markets in the following 10 working days in the aftermath of the attack. The country-wise findings indicate that there are no significant abnormal returns in any stock market on the first day following the conflict. For longer event windows (+3, +5, +10), China, France, Germany, India, Italy, Mexico, South Africa, Türkiye, and the US exhibited negative and significant cumulative abnormal returns (CARs), while Argentina and Russia had positive and significant CARs. The findings also reveal that gold preserves its role as a safe-heaven asset during high tension periods.

Keywords: *Geopolitical conflicts, Gold, Hamas-Israel war, Stock market returns*

JEL Codes**:** *G0, G1, G2, G4*

Hamas-İsrail Savaşına Karşı G20 Borsalarının Heterojen Piyasa Tepkileri

Öz

Bu çalışma, Ekim 2023 tarihinde gerçekleşen Hamas-İsrail çatışmasının G20 ülkelerinin borsa endeksleri ve altın fiyatları üzerindeki etkisini incelemeyi amaçlamaktadır. Çalışmada olay etüdü yöntemi kullanılmıştır. Sonuçlar Hamas saldırıları ardından gelen 10 iş günü boyunca G20 borsalarında sürekli bir düşüş yaşandığını ortaya koymaktadır. Ülke bazında sonuçlar, çatışmayı takip eden ilk gün herhangi bir borsa endeksinde anlamlı anormal getiri bulunmadığını göstermektedir. Daha uzun olay pencerelerinde (+3, +5, +10) Çin, Fransa, Almanya, Hindistan, İtalya, Meksika, Güney Afrika, Türkiye ve ABD borsalarında negatif ve anlamlı kümülatif anormal getiriler, Arjantin ve Rusya'da ise pozitif ve anlamlı kümülatif anormal getiriler tespit edilmiştir. Ayrıca bulgular, altının çatışma döneminde geleneksel güvenli liman rolünü koruduğunu göstermektedir.

Anahtar Sözcükler: *Altın, Borsa Endeks Getirisi, Jeopolitik çatışmalar, Hamas-İsrail savaşı*

JEL Kodları: *G0, G1, G2, G4*

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Extended Summary

Geopolitical conflicts generate uncertainty in the global economy, often resulting in widespread disruption across markets. Financial markets tend to respond rapidly to such events, with impacts that can be both immediate and enduring. The unexpected Hamas attack on Israel in early October 2023, followed by Israel's declaration of war, had a significant impact on global financial markets, triggering volatility in asset prices. Investors are deeply concerned about their portfolios as any conflict in the Middle East may lead to price fluctuations and have a negative impact on global markets.

Stock markets typically respond to geopolitical conflicts in two distinct phases. During the pre-war phase, rising tensions and the increasing likelihood of war tend to push stock prices down. However, once the conflict officially begins, stock prices often rebound. In the event of a surprise war, the onset of the conflict tends to intensify the decline in stock prices. This phenomenon is known as the "war puzzle" (Brune et al., 2015). One explanation for the war puzzle is that in well-publicized events like the Gulf War or the Iraq War, stock markets are seen as long-term weighing machines, reflecting the collective expectations of millions of investors worldwide (Klement, 2021). However, the influence of geopolitical crisis on stock markets is quite complex. While stock markets generally have sufficient time to incorporate the ups and downs of the geopolitical conflict in stock prices, surprise wars may not allow for a full assessment of their impact, leading to short-term market reactions such as correction in stock markets. The onset of the war can trigger a sudden sell-off in stocks, as investors shift their focus to safe-heaven assets such as gold, bonds, and other commodities.

This study examines the impact of the Hamas-Israel conflict on the stock markets of G20 countries and gold prices within the framework of surprise war by employing the event study. The results show a continuous decline of stock markets in the following 10 working days in the aftermath of the attack. The country-wise findings indicate that there is no significant abnormal returns (ARs) in any stock market on the first day following the conflict. For longer event windows (+3, +5, +10), China, France, Germany, India, Italy, Mexico, South Africa, Türkiye, and the US had negative cumulative abnormal returns (CARs), while Argentina and Russia exhibited positive and significant CARs. The results also reveal that investors shift their investments towards safe-haven assets, particularly gold, in tension times, remaining cautious with the risk-off sentiment.

The results offer important insights for investors and policymakers, seeking to understand how geopolitical events impact market dynamics. The findings underline the significance of short-term fluctuations in stock markets and potential shifts in investor confidence following geopolitical conflicts. Investors should follow smart investment strategies to manage geopolitical challenges in structuring their portfolios Policymakers must adopt a comprehensive approach to maintain market stability during geopolitical crises. This includes introducing stabilizing measures in stock markets to manage investor responses.

1. Introduction

Geopolitical events create uncertainty on the global economy, leading to destructive effects across markets. Financial markets treat geopolitical shocks, i.e. conflicts between nations, regional wars, and terrorist attacks, as beta events, and react them rapidly as these events potentially affect asset valuation and portfolio allocation by directly influencing market risk and investor sentiment. Depending on the nature of the event, geopolitical tension differently affects markets and financial assets and generate short-term to long-lasting consequences. Although it is hard to predict long-term impact of geopolitical events, it is relatively easy to observe how capital markets respond to these significant crisis.

While not all conflicts have a global financial impact, the recent escalation of the Hamas-Israel conflict is of profound significance. The conflict began in early October 2023 with a surprise attack by Hamas on Israel, followed by Israel's declaration of war. This development raised serious concerns about the global economy and had a significant impact on financial markets, resulting in notable fluctuations in asset prices. Given the heightened geopolitical tensions in the Middle East, investors—especially sensitive to such risks—have become increasingly worried about their portfolios amid the potential for further market volatility (Hassan et al., 2022; Pandey et al., 2023; Pandey et al., 2024). Geopolitical risk that dominates the market sentiment also drives capital flow to safe-haven assets that are relatively stable in crisis times, offering a degree of safety to investors.

Although Hamas has carried out attacks on Israel in the past, the recent attack on October 7, 2023, turned out to be a surprise war. The tension of the situation was further intensified by the Israil's disproportionate response, warranting special attention to better understand its potential long-lasting effects. As the tension surrounding the Hamas-Israil conflict continue to rise, it becomes increasingly important to analyze how this war is affecting global stock markets. This study investigates the market reaction of the stock markets in the G20 countries from September 14, 2022, to October 20, 2023 by employing an event study approach, to explore whether the conflict has a notable impact on global stock markets. The timeframe was ± 10 days around the event date, with an estimation window of 250 trading days. The study examines market reactions to the Hamas-Israel conflict across the event day, and post-event windows. The findings show that on the first day following the event, no significant abnormal returns (ARs) were observed. For longer event windows (+3, +5, +10), China, France, Germany, India, Italy, Mexico, South Africa, Türkiye, and the US experienced negative and significant cumulative abnormal returns (CARs), while Argentina and Russia exhibited positive and significant CARs. The findings also indicate that investors shift their preferences towards safe-haven assets, particularly gold, remaining cautious with the risk-off sentiment.

This study makes three key contributions to the existing literature. First, it builds on previous research that focused on market reactions to the Hamas-Israel conflict at the firm and sector levels by examining stock market responses across G20 countries, recognizing their crucial roles in the global economy. Second, by including both developed and emerging markets within the G20, the study highlights their distinct reactions to shared shocks such as geopolitical conflicts. Finally, the research provides valuable insights for investors and policymakers managing geopolitical risks. As countries become more involved in conflicts, the likelihood increases that investors will withdraw from stock markets and move towards safe-haven assets. Our findings hold importance in two ways: they guide investors in developing effective diversification strategies by understanding the financial impact of ongoing war conditions, and they offer a practical case for analyzing global market responses, facilitating comparisons with similar events in other regions.

Our paper has the following structure: section 2 reviews the literature, section 3 presents the data and methodology, section 4 provides the empirical findings, and finally section 5 concludes.

2. Literature Review

Cross-national geopolitical conflicts affect global risk perception, leading to higher fluctuation on financial markets. The subsequent tightening of global financial conditions can pose challenges for economies susceptible to external vulnerabilities due to the loss of confidence of investors dominated by risk aversion sentiment (Boubaker et al., 2022; Ijaz et al., 2025). Harjoto and Rossi (2023) emphasize the critical role of investor sentiment in driving market behavior during crises. The negative investor sentiment led by the uncertainty of geopolitical crisis may cause a sharp decline in stock prices, whereas a resolution of the conflict can restore the investor confidence. In this regard, investors usually shift their investments into safe-haven assets amid heightened geopolitical tension. Mo et al. (2024) state that geopolitical conflicts exacerbate market volatility, resulting in long-term effects on portfolio allocation. Hostilities in the conflicting regions particularly influence multinational companies that have operations in these regions. Any interruption led by a geopolitical conflict may cause stock prices of these firms to decline.

Stock markets typically respond to geopolitical conflicts in two distinct phases. During the pre-war phase, rising tensions and the increasing likelihood of war tend to push stock prices down. However, once the conflict officially begins, stock prices often rebound. In the event of a surprise war, the onset of the conflict tends to intensify the decline in stock prices. This phenomenon is known as the "war puzzle" (Brune et al., 2015). One explanation for the war puzzle is that in well-publicized events like the Gulf War or the Iraq War, stock markets are seen as long-term weighing machines, reflecting the collective expectations of millions of investors worldwide (Klement, 2021). However, the influence of geopolitical crisis on financial markets is quite complex. While stock markets generally have sufficient time to incorporate the ups and downs of the conflict into stock prices, surprise wars may not allow for a full assessment of its impact, leading to short-term market reactions such as a flight to safety and correction in stock markets. The onset of the war can trigger a sudden sell-off in stocks, as investors shift their focus to safe-heaven assets.

Studies on the relationship between geopolitical conflicts and financial markets has attracted significant attention from academia as such conflicts have complex impacts on stock markets and asset prices. Berkman et al. (2011) analyze 447 geopolitical crises and indicate the significance of understanding political crisis in discussing the volatility of stock returns. Schneider and Troeger (2006) examine how major political conflicts from 1990 to 2000 affected global financial markets and indicate that conflicts had a negative effect on these markets, but the extent of the impact depends on the severity of the event. Using daily stock returns from a sample of 94 countries from January 2022 to March 2022, Boungou and Yatie (2022) investigate the impact of the Ukraine–Russia war on global financial markets by using panel data analysis and identify a negative effect of the war on world stock markets due to heightened investor uncertainty and adverse market reactions.

Focusing on firms across multiple countries, with particular emphasis on those geographically proximate to the conflict zone, Sun et al. (2022) examine stock market reactions to the Russian invasion of Ukraine on February 24, 2022 by employing an event study, and found that firms in regions adjacent to the battlefield and within the EU countries experienced significant negative CARs, while firms in more geographically distant countries were not significantly affected. Yousaf et al. (2022) analyze the impact of the Russia-Ukraine war on G20 and other equity markets by using an event study, revealing a significant negative effect. Similarly, Das et al. (2023) investigate the impact of the Ukraine–Russia conflict on European stock markets, focusing on nine EU countries and Russia over the period of November 2021 to May 2022 and provide strong evidence of a negative effect of the conflict on stock returns. Federle et al. (2022) explore the impact of the Russian invasion of Ukraine on stock market using an event study and focusing on a sample of 54 countries at varying distances from Ukraine, as well as firm-level data (16,929 firms) in neighboring countries and reveal a clear proximity penalty, where countries closer to Ukraine experienced significantly lower equity returns.

The severity of the ongoing Hamas-Israel conflict arise immediately after the spread of the Russia-Ukraine war and has raised concerns about the possible consequences of the conflict on the fragile economies, motivating many scholars to focus on the impact of that war on financial markets. Comprising 24 emerging and 23 developed markets, and applying the market model, Goyal and Soni (2024) investigate the impact of the October 2023 Hamas-Israel conflict on global equity markets and identify a heterogeneous impact: emerging markets and the overall global equity market experienced significant negative ARs on the event day, whereas developed markets showed no significant negative response. Country-level analysis show diverse outcomes, with Poland notably exhibiting strong positive CARs in the short and long-term windows, highlighting varied market sensitivities to geopolitical shocks. Recently, Martins (2024) examines the impact of the October 2023 Hamas-Israel conflict on the global financial markets using an event study and finds negative ARs in the Middle East equity markets, while major economies such as China, Europe, and the US exhibited no significant ARs. The study also finds significant positive ARs in the commodity and bond markets following the escalation of the geopolitical risk. These findings suggest that, on average, bond, gold and other commodities act as safe-heaven hedge instruments against equities during geopolitical conflicts. Using a sample of 71 global stock markets and employing an event study, Pandey et al. (2024) explore the role of national happiness in shaping market resilience to geopolitical shocks for the Hamas-Israel conflict and indicate that, while the overall market response was negative, stock markets in countries with higher levels of national happiness were more resilient to the shock. In contrast, markets in the EU, Middle East, and Africa region demonstrated greater vulnerability. These findings highlight the significance of geographic proximity and national well-being in influencing how financial markets respond to geopolitical crises. Using the market model with an estimation window of 140 days, Bhattacharjee et al. (2025) investigate the impact of the Hamas–Israel conflict on global financial markets, with a particular focus on how the stock markets of Israel's 23 key trading partners responded to the outbreak of the war and identify heterogeneous market responses influenced by economic interdependence and geographic proximity. Notably, countries such as Austria, Greece, Egypt, Palestine, and Israel experienced significant negative ARs, reflecting their close economic and regional connections to the conflict. In contrast, Argentina, Japan, and Chile showed significant positive market reactions, while the remaining countries exhibited minimal and insignificant effects.

Building on these research, this study seeks to contribute to the literature by examining the market reactions triggered by the intensification of the Hamas-Israel conflict to assess its potential impacts on market returns in the stock markets of the G20 countries.

3. Data and Methodology

3.1. Methodology

Following prior studies (Boubaker et al., 2015; Liu et al., 2023; Pandey et al., 2023; Pandey & Kumari, 2021; Yousaf et al., 2022), this study uses the event study methodology to examine the effect of the Hamas attack on the daily market returns of the stock indices. The mean-adjusted model was used to calculate the daily excess returns. Brown and Warner (1980, 1985) demonstrate that the performance of the mean adjusted model is statistically similar to market model in typical event study settings. They argue that the added complexity of the market model does not yield significantly better abnormal return (AR) estimates, especially for short event windows. If the market model is mis-specified—due to incorrect beta estimates, non-linearities, or omitted variables—it can bias AR estimates. The mean adjusted model avoids this risk by not relying on market-related parameters.

In the previous studies, the estimation period usually range from 100 to 300 days, while the event period is between 2 and 121 days (Chang et al., 2018). The event date is designated as t = 0, and the mean-adjusted model was estimated over a 250-day period, spanning from t = -270 to t = -20 relative to the event. ARs were calculated as shown in Equation 1. In assessing the statistical significance of the event period, in accordance with Brown and Warner (1985), a standardized abnormal return (SAR) was employed. This involves normalizing each AR by its standard deviation (SD) during the estimation period.

$$AR_t = R_t - \bar{R} \tag{1}$$

$$\bar{R} = \frac{1}{250} \sum_{t=-270}^{-20} R_t \tag{2}$$

$$SAR_t = \frac{AR_t}{SD(AR_t)} \tag{3}$$

To study how quickly the market absorbed the news, ARs were aggregated through the event window [0, T2]. The test statistics for CAR (tCAR) is calculated as follows:

$$CAR = \sum_{t=0}^{T_2} AR_t \tag{4}$$

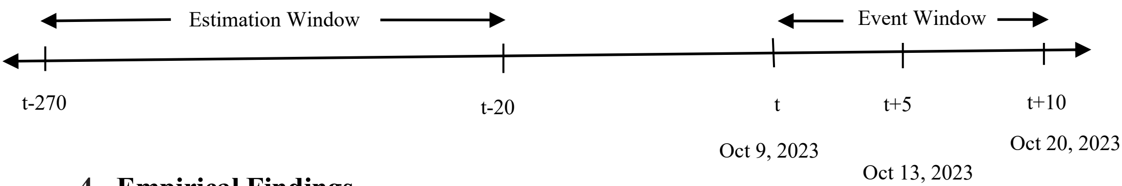
$$t_{CAR} = \frac{CAR}{SD(CAR)} \tag{5}$$

If the test statistics are greater than the critical value of +/- 1.96, we reject the null hypothesis, suggesting that the Hamas-Israel conflict significantly impacts the index returns (Aksoy & Yilmaz, 2024).

3.2. Data

We used the daily prices of the stock indices for G20 countries as shown in Table 1. The G20 countries were selected due to their significance in the world economy as they account for 85% of the global GDP, 75% of the international trade, and two-third of the global population (OECD, 2024). We only consider trading days in the analysis and gathered data from Datastream. Our data covers the period of September 14, 2022 to October 20, 2023. The daily market returns were calculated as the logarithmic difference in the index value relative to the closing value of the preceding day. Figure 1 presents the event timeline, where the event date is represented by t. Although the conflict started with the attack of Hamas on October 7, 2023, a non-trading day, October 9 is designated as the event day, as it is the first trading day in the stock markets after the breakout of the conflict.

Figure 1
Event Timeline



4. Empirical Findings

Table 1 gives the list of the G20 countries and benchmark indices for the stock markets and Table 2 presents the ARs and CARs. Figure 2 compares the effect of the surprise war on the market returns of stock indices from 10 days before the event day to 10 days after the event, while Figure 3 shows the ARs and CARs after the event day.

Table 1
Stock Market Indices of the G-20 Countries

Country	Indices	Abbreviation	Economic Status of the Country
Argentina	S&P MERVAL INDEX	ARGMERV	Developing
Australia	S&P/ASX 200	ASX200I	
Brazil	BRAZIL BOVESPA	WIBRAZL	Developing
Canada	S&P/TSX COMPOSITE INDEX	TTOCOMP	Developed
China	SHANGHAI SE COMPOSITE	CHSCOMP	Developed
France	FRANCE CAC 40	FRCAC40	Developed
Germany	DAX PERFORMANCE	DAXINDX	Developed
India	CNX NIFTY (50)	INNSE50	Developing
Indonesia	IDX COMPOSITE	JAKCOMP	Developing
Italy	FTSE MIB INDEX	FTSEMIB	Developed
Japan	NIKKEI 225 STOCK AVERAGE	JAPDOWA	Developed
Mexico	MEXICO IPC (BOLSA)	MXIPC35	Developing
Russia	MOEX RUSSIA INDEX	RSMICEX	Developed
Saudi Arabia	SAUDI TADAWUL ALL SHARE (TASI)	TDW	Developing
South Africa	FTSE/JSE ALL SHARE	JSEOVER	Developing
South Korea	KOREA SE COMPOSITE (KOSPI)	KORCOMP	Developing
Türkiye	BIST NATIONAL 100	TRKISTB	Developing
UK	FTSE 100	FTSE100	Developed
USA	DOW JONES INDUSTRIALS	DJINDUS	Developed

The findings show that none of the stock market indices had statistically significant ARs on the event day (t=0). According to Table 2, over the 3-day event window, Brazil, Argentina, Australia, Canada, Japan, Russia, and the US had significant positive CARs, while China experienced significant negative CARs. Over the 5-day event window, Argentina and Japan showed significant positive CARs, while Türkiye experienced significant negative CARs. Over the 10-day event window, Argentina and Russia had significant positive CARs, while China, France, Germany, India, Italy, Mexico, South Africa, Türkiye, and the US exhibited significant negative CARs. These findings underscore the complex nature of market responses to geopolitical events and align with the work of Tosun and Eshraghi (2022), who highlight investors' heightened sensitivity to such events. In times of geopolitical tension, investors typically adopt a risk-averse approach and adjust their portfolios to mitigate potential losses.

Figure 2

The Stock Index Returns of the G-20 Countries (-10, +10)

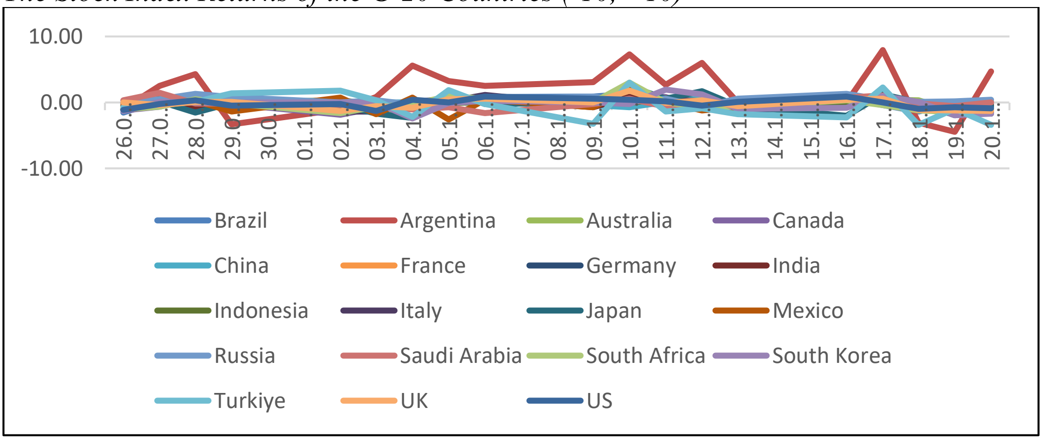
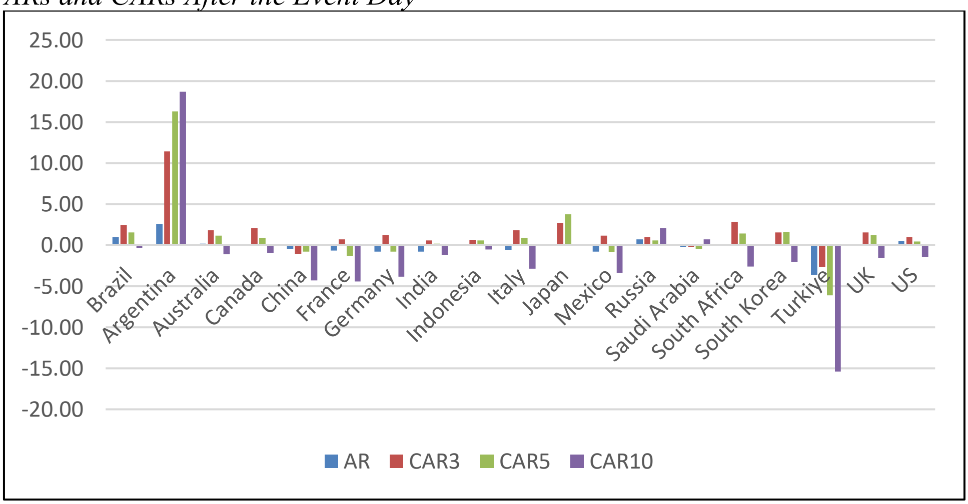


Figure 3

ARs and CARs After the Event Day



The effects of the surprise war extend beyond financial markets, impacting both developed and developing countries alike, and underscoring the far-reaching economic consequences of geopolitical conflicts on a global scale. Australia, Canada and Japan are regarded as stable economies, attracting risk-averse investors during geopolitical crises. The Hamas-Israel conflict led to an increase in geopolitical risk at the oil-producing region, resulting in an increase of oil, gas, and commodity prices (Martins, 2024). This vulnerability benefited commodity-exporting countries such as Argentina and Brazil, whose economies rely heavily on agricultural and energy exports (Bona & Páez, 2022). Russia, a major exporter of oil and gas, also benefited from the raising energy prices, despite its political isolation. All these countries' geographical and political distance from the conflict zone further contributed to positive investor reaction, positioning them as relatively safe destinations for capital reallocation. In contrast, as a net importer of oil and other commodities, China is particularly vulnerable to energy price shocks. The emergence of negative CARs over the 10-day window suggests a delayed market response, reflecting a gradual reassessment of the conflict's geopolitical and economic effects—particularly for highly integrated European economies such as France, Germany, and Italy. This delayed reaction indicate that the EU failed to present a united voice against Israel's policies.

Table 2

ARs, and CARs After the Event Day

Country	AR	t_{AR}	CAR3	t_{CAR3}	CAR5	t_{CAR5}	CAR10	t_{CAR10}
Brazil	0.94	0.76	2.44	4.73*	1.53	1.80	-0.35	-0.42
Argentina	2.56	1.05	11.41	4.44*	16.26	5.63*	18.68	4.41*
Australia	0.19	0.24	1.79	4.59*	1.17	1.94	-1.11	-1.44
Canada	-0.04	-0.05	2.04	3.06*	0.92	1.08	-0.99	-1.11
China	-0.45	-0.55	-1.05	-2.50*	-0.77	-1.13	-4.29	-5.86*
France	-0.64	-0.66	0.73	0.51	-1.28	-1.00	-4.40	-4.38*
Germany	-0.77	-0.83	1.19	0.90	-0.81	-0.62	-3.86	-3.68*
India	-0.79	-1.24	0.60	0.69	0.16	0.24	-1.19	-2.21*
Indonesia	0.05	0.09	0.65	1.74	0.59	1.94	-0.52	-1.00
Italy	-0.58	-0.54	1.80	1.28	0.88	0.72	-2.90	-2.62*
Japan	-0.08	-0.08	2.74	2.19*	3.73	3.05*	0.00	0.00
Mexico	-0.81	-0.91	1.19	0.85	-0.86	-0.68	-3.37	-3.31*
Russia	0.73	0.72	0.98	2.36*	0.54	0.93	2.08	4.00*
Saudi Arabia	-0.21	-0.27	-0.24	-0.37	-0.50	-1.02	0.68	1.19
South Africa	-0.07	-0.07	2.84	1.63	1.44	0.95	-2.60	-2.06*
South Korea	-0.06	-0.06	1.53	1.27	1.64	1.39	-2.01	-1.60
Türkiye	-3.63	-1.58	-2.70	-0.84	-6.09	-2.61*	-15.43	-6.91*
UK	-0.06	-0.08	1.58	1.46	1.22	1.33	-1.60	-1.65
US	0.52	0.57	0.98	5.08*	0.44	1.05	-1.47	-2.24*

The symbol "*" denotes the statistical significance at the 0.05 level.

These findings suggest that both economic structure and geopolitical positioning played vital role in shaping market reactions to the Hamas-Israel conflict. As shown in

Table 2, most of the G20 stock indices fell in the following 10 days after the attack. This decline may be explained by the decreasing expectation for a peaceful resolution between the parties and increasing fears for the risk of spillover effects of the conflict. Thus, the results imply heterogeneous market responses influenced by economic interdependence and geographic proximity which is in line with the findings of prior studies (Bhattacharjee et al., 2025; Ijaz et al., 2025; Pandey et al., 2024).

The results indicate that the surprise war significantly and negatively affected both developed and emerging markets in the G20 countries during the 5 to 10 days window, except Argentina and Russia. This is in line with the findings of prior studies (Bhattacharjee et al., 2025; Shroff et al., 2025). The international policy and trade relationship with Israel could be attributed to such an impact in these countries. Moreover,the political dynamics such as foreign policy choices and crony capitalism, can influence the nature of economic ties and results for Pan-American nations like Argentina. These two countries have also the highest Jewish population among other emerging markets in the G20 with a population size of 171,000 and 132,000 Jewish people, respectively (The Jewish Virtual Library, 2024). The positive CARs in these countries might have generated due to positive sentiment of the Jewish investors against the conflict. On the other hand, in European stock markets, although the stock indices have not shown significant changes in the following 3 days after the event, the following 10 days were shaped by the increasing impact of uncertainty and decreasing hope for a peaceful resolution, implying a higher pressure on the stock markets, and hence, reflected by negative returns. One of the reasons for the European political turmoil lies in the European policy response to the conflict. Amid the growing humanitarian disaster and the intensity of Israel's military operations, European governments hesitancy and even in some cases support for Israel have fueled tension in the societal level (Patrick, 2023). This situation has increased the social unrest with its impacts on the stock markets.

Table 3

ARs and CARs for gold

		t-statistics
CAR-10	-4.01	-4.87*
CAR-5	0.90	1.36
CAR-3	1.41	1.92
AR	1.16	1.41
CAR3	2.02	4.43*
CAR5	4.48	4.83*
CAR10	8.04	10.07*

The symbol "*" denotes the statistical significance at the 0.05 level.

As gold is a safe instrument, and its demand is notably affected by the presence of geopolitical risks as documented by many studies (Chkili, 2022; Triki & Maatoug, 2021), it is evident to measure the reaction of gold prices to the attack of Hamas and afterwards. Table 3 presents the ARs and CARs for gold. On the event day (t=0), the gold market did not exhibit a significant AR in parallel to the stock markets. For longer event windows (+3, +5, +10), the CARs were significant and positive, reaffirming the status of gold as safe-haven asset to invest during high tension times. This result corroborates the findings of prior studies (Ijaz et al., 2025; Shroff et al., 2025; Wu et al., 2023).

5. Conclusions

Geopolitical conflicts send shockwaves through global financial markets, altering investor sentiment and asset prices. The reaction of stock markets to geopolitical conflicts is a complex interplay of several factors. It often acts as a weighing machine in the long term, but short-term reactions may occur due to unexpected circumstances. The Middle East is a region that has been a focus of global attention. With raising tension in this region, it is critical to consider the potential impact of a Middle Eastern conflict on stock markets. On this respect, the unprecedented attack by Hamas to Israel was not only significant by its nature but also ignited a far disproportionate response by Israel. This study examines the effect of the Hamas-Israel war on the G20 stock markets by employing the event study and covering the period of September 14, 2022 to October 20, 2023.

The findings underscore the significant role of geopolitical uncertainties in shaping market dynamics. The results show a continuous decline of the stock markets in the following 10 working days in the aftermath of the Hamas attack. highlighting the susceptibility of these markets to geopolitical risks. On the event day, none of the stock market indices exhibited significant ARs. Over the 3-day event window, Brazil, Argentina, Australia, Canada, Japan, Russia, and the US had significant positive CARs, while China experienced significant negative CARs. Over the 5-day event window, Argentina and Japan showed significant positive CARs, while Türkiye had significant negative CARs. Over the 10-day event window, Argentina and Russia exhibited significant positive CARs, while China, France, Germany, India, Italy, Mexico, South Africa, Türkiye, and the US had significant negative CARs. These results indicate that most of the G20 stock markets were adversely affected from the Hamas-Israel conflict on the post event days. On the other hand, gold shows positive ARs, reaffirming its status as safe-haven asset during crises.

The findings of this study provide valuable insights for investors and policymakers, emphasizing the significance of short-term fluctuations and the possibility of shifts in investor confidence following geopolitical tensions. The negative ARs over the 5 to 10-days window shows the volatile responsiveness of the global stock markets to geopolitical events. Thus, investors should follow dynamic investment strategies to manage geopolitical challenges in structuring their portfolios. For policymakers, ensuring market stability during geopolitical crises requires a multi-faceted approach. Primarily, they should implement stabilizing policies for equity markets by setting up circuit breakers and enhancing crisis communication protocols to manage delayed investor reactions. Secondly, they should incorporate geopolitical stress testing to improve the resilience of financial institutions during conflict periods. Additionally, promoting safe-haven asset integration in institutional portfolios, and improving cross-border coordination among the G20 regulators would help mitigate contagion effects.

We acknowledge that the present study has some limitations. First, this study uses aggregate stock market indices that may limit the ability to observe sector-specific dynamics—despite the likelihood that certain sectors (e.g. energy, defense, tourism) are more sensitive to geopolitical shocks. Similarly, while our approach of using G20 stock market indices ensures broader comparability and may reduce the influence of regional market anomalies, it may understate region-specific dynamics. Future research could consider supplementing global benchmarks with region-focused indices or sector-specific approaches to capture localized and sectoral effects more robustly. Second, this study focuses on relatively short- and medium-term event windows (+3, +5, +10 days), which may not fully capture longer-term or delayed market responses to geopolitical events. It is crucial to acknowledge that temporal factors may lead to varied reactions over extended periods. Markets may exhibit delayed adjustments as geopolitical tension evolves. Future research could adopt longer event windows to analyze the magnitude of response to capture temporal response variation over different time horizons for robust risk management. Third, this research concentrates solely on gold as a safe-haven asset, thereby overlooking other flight-to-safety instruments such as bonds, other precious metals, and commodities, FX rates and cryptocurrencies. Future studies may extent the coverage of safe-haven assets to generate more refined results. Finally, this study does not incorporate investor sentiment data or media coverage analysis, which can play a significant role in shaping market behavior during the periods of geopolitical uncertainty.

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