



The Impact of the Israeli-Palestinian Geopolitical Conflict on Global Financial Markets

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Abstract. This study examines the global market reaction triggered by the Israeli-Palestinian geopolitical conflict on October 7, 2023. This study uses the event study method. Research data for commodities such as gold, Brent oil, and crude oil was taken from investing.com. Meanwhile, for the global market, several stock indices are taken, such as the Dow Jones Index (USA), IDX Composite (Indonesia), Nikkei 225 (Japan), Hang Seng (Hong Kong), and DAX (Germany). The research period was 85 days, consisting of a 65-day estimation period and a 20-day window period. The date of the Israeli-Palestinian geopolitical conflict, October 7, 2023, falls on a Sunday when all stock markets are closed. The division into window periods is ten days before the conflict event and ten days during the conflict. This research reveals that global markets (DJI Index, IDX, Nikkei, Hang Seng, and DAX) and commodities (Gold, Brent Oil, and Crude Oil) reacted to the Israeli-Palestinian geopolitical conflict during the window period. This is indicated by the significant results during the window period below 5%. Based on the difference test on the average abnormal returns, there is no significant difference between the average abnormal returns before and during the conflict. The results prove that the Israeli-Palestinian geopolitical conflict affects global markets and several commodities because it allows for a reaction to the conflict, thus providing a reference for market players to secure their assets during the conflict. However, responses to the situation were similar before and during the conflict.

Keywords: Event Study, Financial Market, Geopolitical Risk

1 Introduction

The Israeli-Palestinian conflict, which has not subsided and even erupted into a political war, has significantly contributed to the volatility of financial assets worldwide because it has resulted in widespread economic uncertainty and disruption, as well as increasing geopolitical tensions and increasing the risk of global instability. Many geopolitical tensions have triggered wild fluctuations in crude oil, gold, and equity market prices in recent years [1]. The geopolitical dangers posed by the Israeli-Palestinian war have had a significant impact in several ways, including on oil, gold, and stock prices. As a result, geopolitical risk has overtaken economic risk to become the most critical factor driving

global financial health.

Globally, investor confidence has been shaken by the pandemic and conflicts, resulting in markets experiencing unprecedented negative returns [2]. This condition creates a crisis of confidence among investors, with many unsure where to invest due to volatility and uncertainty in the market [3], how this situation will play out, and how it will impact the global economy [4].

Many studies look at how elections, government changes, political upheaval, civil strife, and terrorist attacks impact economic and financial performance [5]. Most studies have shown that the impact on stock market returns is negative. When there is apparent conflict or injustice that could potentially lead to war, changes in oil prices cause changes in global GPR [6]. We hypothesize that gold can also be a hedge against global geopolitical risks. This is because gold is considered a protective asset against financial turmoil, particularly financial turmoil. Li et al. [7] found evidence that gold is also used as a hedging instrument against geopolitical risk (GPR).

This research examines whether geopolitical risks impact global stock markets, crude oil, and gold. We also compared outcomes during and before the conflict. This study is significant for policymakers, portfolio managers, and investors as it helps them find better diversification opportunities and ways to minimize portfolio risk during periods of conflict. The main finding of this research is that the global stock, crude oil, and gold markets reacted to the geopolitical conflict between Israel and Palestine. Additionally, the Israeli-Palestinian GPR risk changed significantly during the conflict compared with the pre-conflict period.

2 Literature Review

Many factors, including geopolitical risk, can cause uncertainty. These risks and policy and economic uncertainty form the "uncertainty trinity," which hurts economic activity [8]. According to Caldara and Iacoviello [9], geopolitical risks are "associated with war, terrorist acts, and tensions between countries that affect the normal and peaceful course of international relations. The Russian-Ukrainian war, the global financial crisis, and the COVID-19 pandemic have caused global economic chaos. Recently, the world has been shaken again by the heating up of political relations between Israel and Palestine, resulting in the outbreak of war between the two countries. This has caused panic in markets, such as commodity and equity markets, and also influenced fluctuations in world oil and gold prices. An open war between Israel and Palestine would have a significant impact on the global economy because many other countries are also involved indirectly in supporting one of the parties. In the following section, we review relevant research on the impact of geo-political risks on stock, oil, and gold returns before and after the outbreak of the Israeli-Palestinian war.

The effect of volatility on various financial assets has been a widely discussed research topic in the existing literature. Volatility is essential for analyzing risk in financial markets; however, volatility cannot be observed directly. Volatility is significant in analyzing risks in financial markets; however, volatility cannot be observed directly. Previous studies showing the uncertainty that occurs during global events, one of which was the COVID-19 pandemic, showed a significant decline in global equity values, which created lousy sentiment for investors [10] and had a significant impact on liquidity and market shocks. In the relevant market [11]. Another

study shows that escalating a similar conflict between Russia and Ukraine significantly increases uncertainty in agricultural, metals, and energy markets [12]. So, from the various global financial events above, according to many studies, when there is economic uncertainty, the volatility of financial assets will increase, including in the current conditions of the Israeli-Palestinian war.

Kanjilal and Ghosh [13] investigated changes in equity and gold prices after the 2008 global financial crisis and found that the relationship between oil and gold prices was irregular and asymmetric. The study also found that investors can switch between gold and oil to diversify their portfolio risk. Because the relationship between gold and oil is more dependent on governments, it is only sometimes stable and, therefore, changes over time [14].

Exploring the intricate relationship between gold, oil, and equity prices, a topic of significant interest among researchers has gained prominence recently. This surge in attention can be attributed to the volatile swings in commodity and equity prices, often triggered by various crises [15]. Shifts further influence these price fluctuations in macroeconomic indicators such as inflation, market interest rates, and exchange rates [16]. Over the years, empirical evidence has consistently demonstrated a robust correlation between oil, gold, and equity prices, with all three reacting sharply to geopolitical shifts [17]. Notably, the 2008 financial crisis and the COVID-19 pandemic in March 2020 serve as stark reminders of the market's vulnerability, with equity markets experiencing significant downturns [18].

Moreover, the Russo-Ukrainian war has underscored the role of geopolitical shifts in shaping market dynamics. This conflict has prompted investors to seek refuge in safe havens, anticipating a rise in the prices of oil and gold [16]. Commodity markets, known for their agility and sensitivity, have responded swiftly and robustly to these geopolitical tensions [19]. The significance of oil and gold in this context cannot be overstated. Beyond their physical utility value, they are highly liquid and represent the most significant commodities in commodities trading, further amplifying their influence on market behavior.

Oil, gold, and equity price movements have significant economic and financial effects [20]. Price changes in equity markets impact investment, consumption, industrial production, and portfolio management [21]. This is because investors take advantage of price movements, an important indicator of wealth growth. Price changes are the only way for investors to profit from trading commodities. Therefore, prices in commodity markets, including oil and gold, are significant for investors [22]. Investors often choose gold to protect against hyperinflation and unforeseen circumstances [23]. To reduce risk and diversify their portfolios, investors often switch between gold, oil, and equities or invest in a combination of the three [24]. In understanding the impact of geopolitical risks on finance, such as stocks, oil, and gold during the turbulent period of the Israeli-Palestinian war, this research will contribute to the existing literature.

Research on geopolitical risks has been carried out, and the results vary. Several studies have been conducted, one of which is Shaik et al. [25] examining the "Impact of geopolitical risk on stocks, oil, and gold returns during GFC, COVID-19, and Russian-Ukraine War" that GPR has different variations. It was higher during the Russian-Ukrainian war than the COVID-19 period and was shown to have the most minor variation during the GFC period. WTI crude oil and DJGI index were observed to have high variations during the GFC and COVID-19 periods, followed by the Russian-

Ukrainian war. Gold has proven resilient and remains a haven during these significant disruptive events. Other results from research by Izzeldin et al. [26] show the instantaneous reaction of global stock markets to the Russian-Ukrainian war, indicating that investors interpreted the invasion as real news. This is very different from the GFC or Covid-19 crisis, where there was a slow response. Crisis duration metrics suggest that the severity of the Russia-Ukraine war has been muted compared to the GFC or COVID-19. Researchers attribute this to market expectations that the war will not be prolonged. The findings for commodity markets align with the stock market findings except for one aspect: intensity. Commodities, in general, have similarly weathered the Russia-Ukraine war crisis to the Covid-19 and GFC crises. However, the crisis intensity values for certain commodities indicate the intense ongoing pressure on this asset group and the economy, given the strategic importance of some of these commodities. The Islamic stock index and ESG index showed higher volatility than other financial assets before the Covid-19 outbreak. The study also found that all assets became more volatile during the coronavirus. However, gold was important during the Covid-19 pandemic as a protective asset against market shocks. Additionally, Islamic equities and ESG indices show relatively lower risks than conventional stocks and other alternative assets during the war.

3 Data and Samples

This research uses secondary data for an observation period of 85 days consisting of a 65-day estimation period and a 20-day window period divided into ten days before the conflict event and ten days after. The date of the Israeli-Palestinian geopolitical conflict is October 7, 2023, which falls on a Sunday when all stock markets worldwide are on holiday. Research data for commodities such as gold, Brent oil, and crude oil was taken from investing.com. Global market data takes stock indices such as the Dow Jones Index (USA), IDX Composite (Indonesia), Nikkei 225 (Japan), Hang Seng (Hong Kong), and DAX (Germany).

4 Measuring Geopolitical Risk

The geopolitical risk variable is proxied by an index created and developed by Caldara and Lacoviello [9] and available on their website (www.matteoiacoviello.com). According to Caldara and Lacoviello [9], geopolitical risk is "the threat, realization and escalation of adverse events related to war, terrorism and any tension between countries and political actors that affects the peaceful course of international relations." The geopolitical risk index (GPR) was created by calculating the frequency of articles mentioning adverse geopolitical events and related risks each month. The articles were retrieved from the electronic archives of 10 newspapers via automatic text melting. Searches in the automatic text algorithm are arranged into eight categories, namely C1 (Threat of War), C2 (Threat of Peace), C3 (Military Development), C4 (Nuclear Threat), C5 (Nuclear Threat), C6 (Start of War), C7 (Escalation War), and C8 (Acts of Terror).

5 Result and Discussion

This research examines the reaction of global markets and commodities to the Israeli-Palestinian geopolitical event. The first step is calculating abnormal returns for each sample of global markets, commodities, and geopolitical risks, proxied using the GPR index developed by Caldara and Lacoviello [9]. Next, an abnormal return regression test was carried out using SPSS version 25 to see whether the test contained a reaction in each global market and commodity when geopolitical conflict occurred. Before the abnormal return regression test, a data normality test (Shapiro-Wilk Test) was carried out.

Table 1. Data Normality Test

Period	Shapiro-Wilk			Conclusion
	Statistic	df	Sig.	
H-10	0.869	8	0.146	Normal
H-9	0.843	8	0.081	Normal
H-8	0.897	8	0.273	Normal
H-7	0.940	8	0.606	Normal
H-6	0.920	8	0.430	Normal
H-5	0.898	8	0.276	Normal
H-4	0.704	8	0.003	Abnormal
H-3	0.818	8	0.044	Abnormal
H-2	0.973	8	0.922	Normal
H-1	0.782	8	0.018	Abnormal
H+1	0.939	8	0.602	Normal
H+2	0.831	8	0.060	Normal
H+3	0.849	8	0.093	Normal
H+4	0.871	8	0.153	Normal
H+5	0.941	8	0.622	Normal
H+6	0.885	8	0.211	Normal
H+7	0.864	8	0.130	Normal
H+8	0.944	8	0.651	Normal
H+9	0.979	8	0.958	Normal
H+10	0.802	8	0.030	Abnormal

Source: Processed Data, 2024

In Table 1, you can see abnormal data in the H-4, H-3, H-1, and H+10 periods. For non-normal data, the regression test uses the One Sample Wilcoxon Signed-rank test, and normal data uses the One Sample T-Test.

Table 2. Abnormal Return Regression Test

Period	Sig.	Conclusion
H-10	0.000	Reacted
H-9	0.000	Reacted
H-8	0.000	Reacted
H-7	0.000	Reacted
H-6	0.000	Reacted
H-5	0.000	Reacted
H-4	0.012	Reacted
H-3	0.012	Reacted
H-2	0.000	Reacted
H-1	0.012	Reacted
H+1	0.000	Reacted
H+2	0.001	Reacted
H+3	0.000	Reacted
H+4	0.000	Reacted
H+5	0.000	Reacted
H+6	0.000	Reacted
H+7	0.000	Reacted
H+8	0.000	Reacted
H+9	0.000	Reacted
H+10	0.012	Reacted

Source: Processed Data, 2024

In Table 2, the regression test results showed a reaction for the period studied before and after the Israeli-Palestinian geopolitics. This can be seen from the significance value below 5%. The Israeli-Palestinian geopolitical conflict causes the entire global market to react, proving that it affects the stock market in a country and commodity. This conflict should be stopped so there is no prolonged conflict that could harm the global market. The geopolitical conflict between Israel and Palestine has often occurred, but in 2023, it will happen again.

Before the difference test, a data normality test was carried out for abnormal average return (AAR) data before and after the geopolitical conflict. The different test found that the AAR before the data was not expected because the normality test results had a

significance value of 0.004 (< 0.05). Meanwhile, the AAR was expected after obtaining the data because the significance value was 0.872 (> 0.05). Looking at the normality test results, two data are related to each other, but one is usually distributed, and the other is not, so a different test was carried out using the Non-Parametric Two Related Samples Wilcoxon Test.

Table 3. The Difference Test uses the Two Related Sample Wilcoxon Test

	AAR_After – AAR_Before
Z	-.255 ^b
Asymp. Sig. (2-tailed)	<u>0.799</u>

Source: Processed Data, 2024

Table 3 shows the results of the difference test, which explains that there is no difference before and after the geopolitical conflict due to asymmetry. The significance is 0.799 (> 0.05). Global and commodity markets generally reacted similarly before and after the conflict. The conflict has had a significant impact on all global markets and commodities.

Acknowledgments. The Israeli-Palestinian geopolitical conflict has a significant impact on the economy of all countries. Especially countries that have bilateral relations with the two countries currently in conflict. The United Nations (UN) should stop this conflict by inviting developed and developing countries to recommend stopping this geopolitical conflict. Several studies have shown that war conflicts affect countries in conflict and countries around the conflict, especially the economic effects within a country. Geopolitical risk is a very significant contributor to uncertainty. Risk, together with economic and policy uncertainty, forms the 'uncertainty trinity' which hurts economic activity [8]. This research has several areas for improvement, especially the selection of global stock markets, which only use five market indices and three commodities. The next drawback is that the selection period still needs to be longer. This is because the Israeli-Palestinian geopolitical conflict is still ongoing today. In future research, researchers suggest using more and varied indices and commodities. Apart from that, the period can be extended much longer.

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