



Strait of Hormuz Risk and Oil Market Volatility (2024)

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Abstract

Strait of Hormuz is a world's watercourse, one of the main watercourses which provides links to various markets in Asia with some 20% of world's oil supply being transited through this watercourse. The way has raised concern around the world – and in the delicate politics of the Gulf area in 2024 amidst multiple conflicts. As the main objective of this study, it takes an overall view of the impacts of above mentioned risks on volatility of oil market globally. This paper seeks to explain the geopolitical reasons given for the perceived difficulties in transshipment in the waters, analyse how the threat affects the price of the oil and finally the effects on the overall market volatility and business activity. The method used in this work was pure qualitative and secondary data with collected from literature search the Academic journals, Government Publications, Industry Publications and analysed the previous few years (new) secondary data. In sailing, especially in the wake of the oil price swings, a lot of things can make a difference as is clearly shown through the results of this study, all the variables and disruptions due to geopolitical issues. The results indicate that minor events, which are increasing the risk of oil flows through the waterway, are capable of causing significant oil price surges and lengthy duration for prices to decline. Higher oil price volatility in turn is likely to make other markets more volatile and perhaps even a source of macro-economic and business issues like financial market volatility or inflation. Even after this research, it is clear that the strategic significance of the Strait of Hormuz for global energy security especially concerning oil resources will continue to be one of the basic grounds for increasing oil price volatility, hence necessitating an international cooperation and alternative routes for energy supplies to the ever growing and connected world's economy.

Keywords: Strait of Hormuz, Geopolitical Risk, Oil Market Volatility, Energy Security, Supply Disruptions

Introduction

The Strait of Hormuz is one of the world's strategic straits, and is vital for the passage of a significant percentage of the world's oil exports. It has served a very important purpose in the international trade, and lately in the transport of oil; and international and economic studies have focussed on its importance. The volatility of this region has a direct impact on the worldwide oil production, the confidence in market and energy security. But critical energy

transmission routes are not only vulnerable to disruptions from an energy supply vantage point, but importantly impact energy supply in international markets, Emily Sheppard and (Leslie, 2020) highlight. (Kim, 2021) Provided in his study a proof that price and price sentiment movement are immediate response to any oil supply disruptions. The importance of the acute role played by the Strait is higher in the prognosis of the world bodies like the (IEA, 2022), (WB, 2023) and (OPEC, 2024) . Tensions in recent years in the Strait of Hormuz have triggered concerns on its security relating to oil transportation, an element that is also routed through this strait. Sanctions, threats to the sea, army presence all year and political tensions are the key factors contributing to the uncertainty of the global oil markets. (Aastveit, 2023) Think that amongst the important factors that can help explain the present oil price volatility of the energy markets could be geopolitical shocks based on their study finding. Similarly, uncertainty due to conflicts is swiftly affecting markets in commodity and financial markets as shown in (Aloui, 2020). Market expectations and speculations as indicated by (Liu, 2024) can dynamically bring about the change in prices. In addition, Cong Liu also highlights the importance of sea lanes in the world's main watercourses and two scholars of (Wang, 2021) and (Guo, 2022) regard the sea lanes as an important factor to determine the international oil price. Geopolitical Instability and Oil Market Volatility is one of the crucial fields in the Economics and Internationals Relations. Oil is not only a financial issue, but a strategic issue – this can impact countries' foreign policy, behaviour and influence power dynamics in the world. Energy politics is still at the core of international strategic competition and especially in oil-rich areas (Colgan, 2021) postulates. In the event of commodity producing countries being affected by such conflicts, it will be highlighted in the state's uncertainty in a commodity oriented market as suggested by (Mohaddes, 2022). Based on the results obtained from the study on a long-term horizon, (Akadiri, 2023) also draw the conclusion that the oil prices are indeed correlated with Extended Geopolitical Unrest in long time horizon. While later, (Zadmehr, 2023) and (Mansour, 2024) add to the literature on the risk to security arising from the chokepoints and how these risks might be contributing to existing major political and economic problems. In 2024, on the back of increasingly troubled waters in the Middle East, and energy supply security, the Strait of Hormuz is the subject of much discussion around the world. In the midst of the strategic tensions building throughout the area the unknown risks of “disruption of oil flows” stemming from the military conflict and diplomatic controversies have become a concern. The (WB, 2023) and (OPEC, 2024) also emphasizing the significance of the repercussions that could manifest if there is a threat towards the straight in terms of the market stability. Interest in the Strait of Hormuz risk and its potential impact on the oil market volatility had risen more than ever before; however there is limited knowledge on the relation between latest geopolitical events and oil market volatility under the impact of SH risk. The majority of the research works have covered general aspects of an oil shock and/or given specific shocks to past oil ‘boutique’. (Shepard, 2020) & (Pratson, 2020) reported of the need to have more specific research towards strategic choke points within the transit sector. Some frameworks are needed as mentioned by (Aastveit, 2023) here in relation to Market responses and geopolitics which should be strategized taking into account real-time factors. (Aloui, 2020), (Mohaddes, 2022) respectively refer to the home of political issues in the field of energy, economy and security. So, the aim of this research is to consider the relationship of geopolitical risks of the Strait of Hormuz, and the fluidity of the world's oil market in the current international system.

Research Methodology

This research is qualitative and Secondary source are used in collecting this data. Appropriate information is taken from academic papers, books, policy papers and credible international news reports. The study is descriptive and analytical in nature to understand the sectarian politics in Bahrain from 2011-2013. Content analysis of the data is used to provide insights on themes such as political exclusion, state response and regional influence. Using the approach,

in-depth knowledge of how the sectarian dynamics affected on the political stability during the selected period could be attained.

Review of Literature

As the significance of the use of the Strait on crude oil transport – risking it could be said – increased, so has work on this subject coming in from all corners intensified in the past several years! Any type of disturbance or strain in this area couldn't be termed a warning bell, but it would certainly be an alarm bell in terms of the supply of oil on the most deprived sea lane, market stability and the like. Recent studies have taken uncertainty as a direct factor influencing oil prices and, in this chokepoint, there are geopolitical risks. However, strategic energy routes can cause mistrust in the energy supply chain, and act as a 'market force' (Shepard & Pratson 2020). In addition, an oil price spike due to an oil supply shock is also likely to be anticipated (Seung-Hoon Kim, 2021). The World Bank and the Organization of the Petroleum Exporting Countries (OPEC) have also pointed out that energy security is a huge worry for the world in the wake of the years of 2022, 2023 and 2024 (respectively) in which there was a turbulence in the Gulf region. Conversely, there has been a couple publications recently that have taken a look at the geopolitical consequences as well as what it does to the oil market volatilities, and the finance/economics of the oil market. The number of protests and the number of times the oil markets have been hit by oil extractions, as well as the discourses on their impacts and fear/uncertainty have increased exponentially in both markets. The works of Knut Are Aastveit (2023) show that geopolitical shock have an impact on oil markets, as it increases the price uncertainty and make oil markets more unstable. Likewise, Chaker Aloui (2023) emphasize that uncertainty brought about by wars gets into the financial and commodity markets and consequently turns out to have overall economic effects. In addition, satellite factors, such as investor expectations, speculations (especially stressed by Yue Liu, 2021) and the "general confidence" of the world market are responsible for the volatility of oil price. Finally, Jeff D. Colgan (2021) argues that even today, at least in the oil-rich regions, the politics of energy still shape international actions and behavior – this is what is referred to as 'global energy politics. Kamiar Mohaddes (2022) emphasise that the security and uncertainty in different energy markets in the world is related to competition between energy and other resources, political conflict in countries, security issues etc. Further, in his paper titled, the effect of oil price volatility on geopolitical volatility Akeem Akadiri is equally coming out with the same conclusion that volatility in the oil price is linked to the existing geopolitical volatility. But if it has broader implications (economically it would be to the detriment of the Gulf, maritime security in general), then the eastern Mediterranean could turn into a great theatre as Ali Zadmehr wrote above. Besides, a number of arguments allude to the fact that the current situation of oil markets is extremely volatile owing to a surge in military tension in the geopolitically important region, Ahmed Mansour (2024) and Hassan Gaffor (2025) have hinted geopolitics is key in understanding the dynamics of oil markets.

Importance of the Strait of Hormuz

Global Energy Lifeline

One third of the world's sea lanes converge in it and it is also one of the world's busiest marine shipping lanes, The Strait of Hormuz. It provides the exporting energy-producing countries in the Gulf with an opportunity to tap into regions of the world that are across the ocean "Asia, Europe and North America". Hence, sometimes it is termed as "global energy lifeline." (IEA, 2022) pointed out that disturbances on this road to energy stability jeopardize the stability of the whole world. Other reasons are an increase in the amount of trading as noted by the (WB, 2023), "choke points" as Hormuz etc. In the above-mentioned report of OPEC (2024), it was rightly pointed out that the Gulf crude oil is crucial to meet the 'legitimate crude oil requirements' of the world. Disruptions in addition, lead to dropped trust in the marketplace,

thus driving up the worldwide uncertainties pointed out by (Shepard, 2020). (Kim, 2021) started to validate the effects of energy corridor at the global and reducing the price fluctuations as well.

Economic Dependence on the Strait

Smooth flow of oil in Hormuz can be used for a host of countries. The world economy is extremely vulnerable to any disturbance in the region, because of this dependency. If it moves a little bit off-centre then goodbye to goods even the tiniest of political shifts would lead to a shortage. The (IEA, 2022) know that they would be the nations directly hit hardest by Oil Chaos amongst the import countries of oil this time round. (WB, 2023) also announced that the energy insecurity can also cause the decline in economic growth in the world. A balance price scenario would be possible too for the (OPEC, 2024) at the same time as the Gulf countries' supply is stabilised. As pointed out by (Pratson, 2020), dependence on energy by the country in turn prompts markets to react quicker during a crisis. (Kim, 2021) Have verified the impacts in terms of dependency with regard to the Price Shocks.

Geopolitical Risk and Regional Instability

Nature of Geopolitical Risks

The Strait of Hormuz possesses geopolitics problems, such as the potential of military tensions, naval skirmishes, sanctions and regional rivalries. Such risks add an element of uncertainty to the world energy markets. (Aastveit, 2023) provides a view towards the unusual short-term impacts that geopolitics have on the oil price. The uncertainties that can be created when the political conflict spills from the entire region, and consequently its repercussion is not invisible worldwide in each commodity market, are clearly overlapped in (Aloui, 2020). The unexpected development of crises as noted by (Liu, 2024) might have been an exacerbation to the investors' expectations that lead to volatility. In this regard Liu (2024) is particularly significant in emphasising that maritime security threats are particularly important—not just in the price of oil, but in general. According to (Zadmehr, 2023) the risks related to insecurities at Chokepoints are also risks to the world economy.

Regional Power Competition

Of course, Strait of Hormuz is one of the highly geopolitically competitive areas between the regional and the global powers as well. Competing between the states for energy pipelines and to maximize locations. More troops in the area will be engaged in this competition, and “political tensions.” With the help of (Mohaddes, 2022) it is related that the regional competitions are associated with the world's economic safeties. However (Akadiri, 2023) provided a consistent prices history of oil in a strategic region which has always been prone to fluctuation of the oil price.

Oil Market Volatility and Supply Disruptions

Supply Shock Mechanism

While in one instance it might be expected there is a little tussle, that is the Strait of Hormuz where supplies could be disrupted if one is thought to be possible. There have been instances when it was only a rumour that war was impending and prices kept in step with the rumour. In the short term there is a supply shocks as stated by (Kim, 2021) which is related to the response of oil market. Showed by (Shepard, 2020), trade routes can be severely influenced and affects the provisioning of goods all over the world. The oil markets are prone to oil supply threat, this was confirmed by the (IEA, 2022). With the supply not guaranteed, therefore the inflation pressures get increased according to the (WB, 2023) in all regions. Stability of supply is also

very important to guarantee stability of prices. Such as (Mansour, 2024) suggest that in today's technologies affords the markets greater sensitivity to conflict.

Uncertainties and fluctuating prices are discussed in this section

There is one thing in Retail which is 100% sure and that without any doubt is the customers have got no certainty in terms of price of the product. When the “teapotenko” is “teachoo” the price of oil can then rise and fall and it does! As soon as they learn is an unlimited battle or something that doesn't work they aren't hesitant to obtain that. The consequences are price variations of oil in the world oil market. Can't be sure about any time related uncertainty like (Kim, 2021) time uncertainty when it comes to price spiked-moments. In the following paper, (Pratson, 2020) will try to understand the effect of “typical” perturbations” on market behaviours. (Liu, 2024) argues the relation between the Volatility and Speculation; during the crisis, people have a higher involvement in Speculation thus narrowing the Volatility of crises. How it influences the energy market (instability) is applied in the same way in the long run: in the long run, there will be the same instability in the energy market as well. (Guo, 2022) don't disagree, but they argue that there should be energy market instability in the long run as well, which will stem from the uncertainty.

Financial Market Spillover Effects

Transmission to Global Economy

It's not just the oil industry that is being ravaged by an oil oil crisis. This applies even in the case of share markets; looks at inflation rate, world trade figures. An important factor of a distal shock is that it can be global in nature like described by (Aastveit, 2023) that can create a geopolitical shock, or a stable financial sector may create a shock. (Aloui, 2020) indeed demonstrate that the spillovers are, in fact, at the level of the financial systems as a result of commodity shocks. (Liu, 2024) note these links of investor behaviour and oil prices to the world markets. As for the implications of the price of energy shocks, (Mohaddes, 2022) state that the impact will be on macroeconomic stability as well. The results implication can be seen that volatility in the results affects the investors' sentiment negatively to have long term investment which corroborates the findings of (Akadiri, 2023).

Investor Behavior and Speculation

With its enormously, Puccini, Spokes is making the oil market more volatile This implies that speculations may come about, and extremely volatile prices can occur. (Liu, 2024) illustrates the psychological impact of expectations on the action taken in the oil market. As uncertainty will always be a factor in a situation as highlighted in the research by (Aastveit, 2023) this will be adding to the financial insecurities. As a result, (Aloui, 2020) point out the effect of panic trading on the volatility of trading. The price volatility to worsen as (Guo, 2022) state, remains to this day, an area of speculation. How to shift focus from “one side of the equation” towards a shared understanding of the impact that geopolitical events and investor response have had in 2024 will be a major topic of discussion in the 5th Edition of Global Investment Outlook Forum.

2024 Geopolitical Developments and Market Response

Rising Regional Tensions

The meme of ‘threat to the Strait of Hormuz’ has been loquacious in 2024, however, as the geopolitical battle on the gulf continues. The both markets of these developments oil are more sensitive than ever because of the military clashes, political tensions and other factors, according to a projection made by (IEA, 2022). The prices worldwide suffer each time that

there is a disruption, even if small, (OPEC, 2024) maintains. In the current context, (Mansour, 2024) comments on the close tie between the ongoing warfare and energy and global markets.

Global Market Sensitivity

The predictions of the International Energy Agency (IEA) suggest that in the Gulf, flaring will be even more noticeable almost now rather than happening as outlined above. Nowadays, market response is becoming more and more volatile and quick in order to tackle the market demand, according to (Gaffor, 2025). This implies “geopolitics” is a determinant in oil markets and that it “matters.”

Conclusion

As extensive oil transportation and security world of energy industry is heavily reliant on its passage, it has continued to be a key chokepoint of the World. Study resulted in the following findings: Oil market has been identified to be at significant risk from a number of factors in the region including Regional wars, Military tensions, sanctions and maritime disruptions in Africa. But, the conclusion is that despite this there is also potential for disruption from the uncertainty in the world oil markets and the abrupt rise in oil prices and economic turmoil in the Strait. The sharpness of geopolitical weather of Gulf in the perspective of ‘globalisation and interdependence’ of oil market the study also highlights. Hence the strategic relevance of the strait of Hormuz, as an important link of the globalization of economics, and political stability. Based on Neorealist theory, this study also theorises that the theory of strategic competition & security dynamic among the states in the “gulf region” can be gained and by applying geopolitical risk & supply shock mechanism, the political dynamics in the “gulf region” and economics aspect can be understood. The lesson is that the oil markets now are even more fragile and, in this region, even more apparent is the trend of military jousting and chaos. This brings negotiations on economic and financial matters into a mix with changes to the Strait of Hormuz, and the energy security of the world. The study highlights the need for energy transportation route diversification, maritime security and an international cooperation in the future geopolitical crises to minimise impact on the world's oil markets.

Recommendations

- To improve relations between the governments in maritime security is the best method to ensure safety in shipping of oil in the area, the official added.
- The one aspect that needs to be considered is how to delve into other energy supply sources, thus lowering the risk of energy supply passing through one choke-point for oil importing countries.
- The greater should implore them to work for diplomacy and dialogue between the Gulf countries and put an end to the tension rise and military weaponisation of the Gulf area.
- But they should know not to do so and be mindful of the potential geographical swings and confusion if there will be military escalation in the Gulf as that can increase and worsen the situation.
- The exporters of oil have to find other ways to export their oil (apart from the Strait of Hormuz), so that they are not hit too badly if it is paralysed.
- The policy makers should strive to move from their current use of emergency oil purely as a buffer to cope with oil shocks to a purpose to stable the domestic oil market in an oil shock ways.
- There is need to introduce and insert the reality of the geopolitics in the energy growing regions to the conception of ‘risk assessment’, of the financial sector and EIC on a case-by-case basis.
- Being able to coordinate region state on Intelligence sharing/exchange, maritime monitoring etc. would be important to ensure the energy infrastructures are not attacked.

- International energy agencies are always constantly looking for methods to monitor the geopolitical risk and has early warning systems to alert of potential energy supply disruptions.
- To further empirical analysis controlled with more recent data and new analytical frameworks to harness the geopolitical risk/volatilities of the oil market would be the focus of future studies.

Limitations

- The limited access to real-time data may affect the accuracy of the study.
- Increase geopolitical changes can make findings quickly outdated.
- The Oil price volatility is affected by many factors beyond the Strait of Hormuz.
- The study's only focus on 2024 limits long term analysis.
- The dependency on secondary data may introduce bias.
- Investor perceptions of risk are difficult to quantify accurately.
- The study does not account for military conflicts or security incidents that are unexpected, may occur after the research period.
- The differences in data sources and reporting methods may affect the consistency of the findings.
- The research does not fully reflect the impact of alternative energy sources on global oil demand.
- Government policies and sanctions imposed during 2024 may affect oil prices in ways not fully captured by the study.
- The study may not fully explain the regional differences in how countries respond to disruptions in the Strait of Hormuz.

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