



CHINA'S ENERGY VULNERABILITY IN THE STRAIT OF HORMUZ REGION (2018-2025): IRAN SANCTIONS, AND GULF INSTABILITY IN THE POST-COVID ERA.

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Abstract

Strait of Hormuz continues to be one of the key strategic maritime chokepoints worldwide, ensuring the passage of more than 20% of global oil supplies. With China being the largest crude oil importer, stability within the Strait is critical to securing both economic growth and security interests. The period from 2018 to 2025 has seen several developments that exposed vulnerabilities of global energy supply chains, including tanker attacks in the Gulf, US sanctions on Iran, increasing regional tensions, and disruptions of international energy trade due to the coronavirus pandemic.

Increasingly complex security landscape in the Gulf illustrates the connection between strategic competition, interdependence, and vulnerability in energy supply. Within the scope of Geopolitical Security Theory and Complex Interdependence Theory, the impact of increased insecurity in the region on China's growing energy security needs in relation to Gulf countries will be analysed. Despite growing economic partnerships and investment projects in the region, including the Belt and Road Initiative, geopolitical challenges still pose risks to energy supply safety. Consequently, the Strait of Hormuz remains both a critical energy lifeline and a strategic vulnerability within China's broader energy security framework.

Key words: Energy security, Strait of Hormuz, China–Iran relations, Iran sanctions, Maritime chokepoint, Complex interdependence, Tanker warfare, Gulf geopolitics, Belt and Road Initiative, Post-COVID instability, Renewable energy transition

1. Introduction

China relies heavily on a critical maritime route such as Strait of Hormuz for oil imports and faces increasing threats from regional conflicts, economic sanctions targeting key players, and disruptions caused by global health crises. These challenges jeopardize energy stability and compel strategic responses to maintain an uninterrupted resource flow through this volatile corridor. The Strait of Hormuz is a narrow and strategic waterway essential for global oil transit. Tanker attacks refer to deliberate assaults on oil transport vessels that disrupt the supply chain. Iran sanctions are economic restrictions aimed at curbing Iran's oil exports, while Gulf instability encompasses political and military tensions that impact regional security and energy flow.

China's energy vulnerability in the Strait of Hormuz region (2018–2025) is shaped by several interconnected themes. US–Iran tensions have escalated tanker warfare and maritime insecurity, disrupting vital oil shipments. Iran sanctions have influenced China's energy strategy, pushing it to diversify its sources and invest in renewables. The Red Sea and Gulf instability intensified post-COVID, complicating regional security. Sino-Iranian relations have deepened, prompting China's strategic response to safeguard energy access amid growing Gulf energy dependence and geopolitical volatility in the region.



1.1. Research Gap

There exist studies on the topics, energy security of China, Iran sanctions, Gulf geopolitics, maritime insecurity, etc. independently. But the research gap that exist for this study is the lack of research on how combination of all these including the tanker warfare, post pandemic regional instability, sanction impact on China's energy security in the Strait of Hormuz between 2018-25.

1.2. Research Problem

This research addresses China's structural vulnerability to the energy geopolitics in the Strait of Hormuz (2018-25). The research seeks to analyse how intensified geopolitical developments such as the deteriorating U.S. Iran relations, new sanctions, proxy wars, etc. endangers China's oil and gas import chains through a strategically uncontrollable chokepoint.

1.3. Research Objectives

1. To analyse China's structural energy vulnerability arising from its dependence on the Strait of Hormuz by applying the Geopolitical Security Theory.
2. To examine how China's complex interdependence with Iran and the Gulf states has influenced its energy security strategy and foreign policy responses between 2018 and 2025.
3. To critically evaluate the effectiveness of China's multidimensional policy responses including energy diversification, strategic petroleum reserves, renewable energy transition, and diplomatic engagement in mitigating energy vulnerabilities associated with the Strait of Hormuz during 2018-2025.

1.4. Hypothesis

H1: China's continued reliance on the Strait of Hormuz for the transportation of crude oil and other hydrocarbons constituted a persistent structural energy security vulnerability throughout the 2018-2025 period.

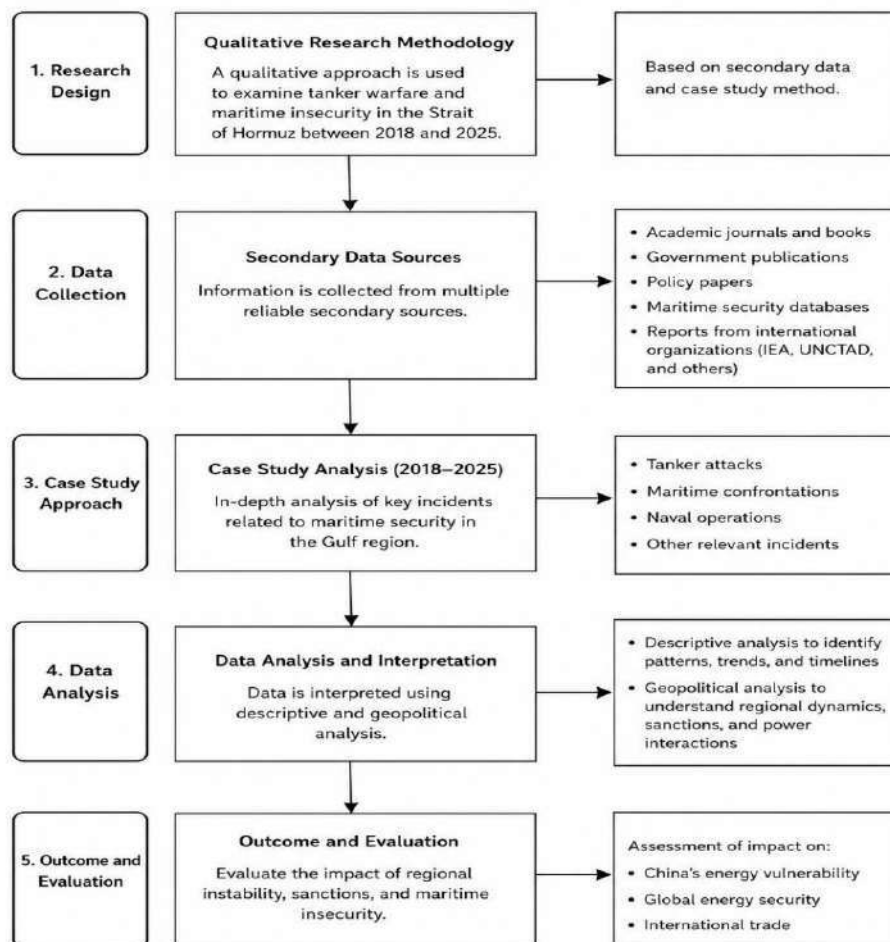
H2: The reimposition of U.S. sanctions on Iran after 2018 did not eliminate China's access to Iranian oil but instead encouraged the development of alternative procurement and transportation mechanisms, thereby increasing the complexity and vulnerability of its energy supply chain.



H3: Despite expanding its economic engagement with Gulf states, China lacked sufficient geopolitical and military influence to ensure uninterrupted energy flows through the Strait of Hormuz during periods of regional instability.

2. Research Methodology

This study employs a qualitative research methodology to examine tanker warfare and maritime insecurity in the Strait of Hormuz between 2018 and 2025. The research is based on secondary data collected from academic journals, books, government publications, policy papers, maritime security databases, and reports from international organizations such as the International Energy Agency (IEA) and UNCTAD. A case study approach is adopted to analyse key incidents, including tanker attacks, maritime confrontations, and naval operations in the Gulf region. The data is interpreted through descriptive and geopolitical analysis to evaluate the impact of regional instability, sanctions, and maritime insecurity on global energy security and international trade.





3. Theoretical and Conceptual Framework

The Geopolitical Security Theory combines the elements of political geography theory, security theory and energy security theory in order to examine how interaction between spaces, competition over resources and international relations create vulnerabilities of a state (Hu & Ge, 2014; Mohapatra, 2017). Geopolitical Security Theory has its focus on the role of perceptions, realities and intersubjective in creating as well as maintaining security among states (Hu & Ge, 2014). "Energy security is defined as a country able to obtain stable, adequate, and economic energy supply to meet demand" (Hu & Ge, 2014, p. 5688). When the theory is applied to China's Strait of Hormuz energy security, it provides key insights into its shortcomings. Energy Security is increasingly becoming an accepted issue that positions strong influence in interstate relations and in the creation of international norms (Mohapatra, 2017). The oil dependence of China, especially when relying on strategic chokepoints represents an increased competition in geopolitics owing to tanker warfare, Iran sanctions and instability in the region. A materialistic approach to security issues highlights the importance of geography and resource control in world power politics (Deudney, 2000).

The Complex Interdependence Theory was originally developed by Robert O Keohane and Joseph Nye. Complex interdependence is considered as an aspect of liberal IR theory, whereby Keohane and Nye underscore the economic and technological connectivity that forces countries to engage in multilateral cooperations. The idea is particularly relevant to energy vulnerability that China possesses which is caused by its dependence on the oil transport through the Strait of Hormuz. A new direction in the elaboration of complex interdependence theory is by applying network theory, since it proves that interdependency can extend beyond state interactions and largely impacts the configuration of conflict (Dorussen et al., 2016). Hence the tanker attacks and economic sanctions imposed on Iran during the post-COVID period have effects on China not because it suffers independently but because of the interconnectedness of its energy system with others. "The global economy is much more interdependent today than it was 40 years ago. As a result, there is a widening appreciation that we need new theoretical tools to understand how complex interdependence arose, how it operates, and where it might be headed." (Oatley, 2019, p. 957). In the context of China's vulnerability is with regard to energy supplies from the Persian Gulf to Strait of Hormuz due to tanker attacks and sanctions imposed upon Iran and post-COVID instability in the Gulf region until 2025 (Oatley, 2019).

4. US-Iran Tension and Gulf Geopolitics

The period between 2018 and 2025 marks a critical phase in US-Iran tensions and Gulf Geopolitics, characterized by significant policy shifts, regional conflicts, and evolving alliances. This section has attempted to explain how the domestic and regional dynamics of Gulf states, especially Iran, influence world politics and how China, using a pragmatic approach, began to establish relations with Gulf countries, which has limited the influence of



the USA over West Asia. In the post-Cold War era, the USA began to spread its influence over West Asia, mostly by providing security and forming several alliances. Iran was one of the main allies of the USA and was considered an important pillar of the USA's foreign policy. However, after the Islamic Revolution of 1979, the relationship became strained when Iran withdrew from the alliance, attacked the USA embassy, and held delegates hostage. The USA responded by imposing economic and political sanctions and pressuring European Countries to discontinue business with Iran. In 2015, the Joint Comprehensive Plan of Action was signed between Iran and the P5+ countries to improve relations. After the nuclear deal, the Rouhani government faced criticism from conservative officials and the Iranian public. The United States and allies had still viewed Iran as an irresponsible actor. During this period, Iran fulfilled its nuclear deal commitments to gain minimal economic benefits while expanding its regional strategic depth. In 2018, under President Trump, the US's withdrawal from the JPCOA escalated hostilities by reinstating stringent sanctions. The "maximum pressure" campaign heightened Gulf states' security concerns, leading to closer military cooperation with the US against perceived Iranian threats. (Galbraith, 2018)

In response to these pressures, Iran resumed advanced uranium enrichment, which resulted in increased enrichment levels, restricted international inspections, and bolstered its proxy networks in Iraq, Syria, Yemen, and Lebanon. The 2020 assassination of General Qasem Soleimani marked a significant escalation, triggering widespread geopolitical consequences and military clashes. Iran reoriented its foreign policy towards the east, particularly with China, to bolster its economy through Chinese support. By joining the Belt and Road Initiative (BRI), Iran aimed to attract Chinese investment for infrastructure development and become a regional transport hub, facilitating its economic recovery. The Goreh-Jask oil pipeline, launched in 2021, is crucial for Iran, especially given the significant US naval presence in the Persian Gulf. This development highlights Iran's strategic pivot in foreign policy from Western to Eastern alliances to enhance its situation. Similarly, other Gulf nations are increasingly aligning with Eastern powers, particularly China, thereby reducing the USA's influence in West Asia. (Saleh & Yazdanshenas, 2023)

Gulf states have increasingly assumed a more prominent role both regionally and globally, enhancing their involvement in the world system. In reaction to rising military tensions between Israel and Iran, these states expressed their disapproval of violations of Iranian sovereignty, backed ceasefire initiatives, and advocated for renewed diplomatic talks with Gulf support. Additionally, the UAE and Saudi Arabia have addressed global health challenges by offering humanitarian aid and relief to the hardest-hit nations. On Arab, regional, and international platforms, the Gulf states have consistently promoted unified political positions based on mutual respect, non-interference in domestic matters, and shared strategic interests. (Basma & Iman, 2025). These developments illustrate the application of international relations theories, such as pragmatism and balance of power, where countries try to focus on their



national interests and make alliances with countries that follow the opposite ideology. Pragmatism now outweighs ideology.

5. Iran Sanctions and Chinese Energy Strategy

China's energy insecurity is not a recent development, but a deep structural condition rooted in decades of industrial demand and growing import dependence. (Zhang, 2011) established that China's rapid economic growth produced a massive increase in oil imports, creating serious concerns about energy security as the country became dependent on the Strait of Malacca through which nearly three quarters of its oil imports flow a chokepoint it does not politically control. (Zhao and Chen 2014) extended this through a supply chain perspective, identifying four compounding pressure points import dependence, the Malacca bottleneck, price volatility, and underdeveloped tanker capacity arguing that a disruption in one-dimension cascades rapidly through the others. Together, both studies establish that China's vulnerability to external supply shocks is structurally embedded, making any disruption to Gulf supply routes an immediate threat to national economic stability.

The reimposition of sanctions against Iran following the US withdrawal from the Joint Comprehensive Plan of Action in May 2018 represented the single biggest disruption to Chinese energy supply from Iran since the reforms. According to (Nakhli et al. 2021), Iranian oil exports fell from around 2.5 million barrels per day to just 0.33 million barrels per day after the termination of sanction waivers in April 2019 a decrease of over 85 percent within twelve months. The same study further identifies that major Chinese banks reduced Iranian oil transactions to preserve their access to the American financial system, revealing that dollar dominance over global trade settlement represented an equally significant leverage point as physical supply disruption. This financial pressure compounded with the simultaneous US-China trade war and the COVID-19 pandemic, creating overlapping layers of stress across Chinese energy supply chains.

Instead, Beijing embarked on creating a complex and multi-layered structure of evasion. According to (Downs 2025), the main strategy involved the use of independent teapot refineries in Shandong province, as the privately-owned facilities have absolutely no exposure to US finance, meaning secondary sanctions are far less effective and by 2025, teapots imported 90 percent of Iranian crude shipped into China. In addition, the development of a maritime evasion framework entailed ship-to-ship transfers in waters near Malaysia, spoofed transponders, falsified documents, and payments made via Chinese yuan accounts rather than via SWIFT (Downs, 2025). The relationship received a formal framework in the form of the Comprehensive Strategic Partnership concluded in March 2021, which, according to (Charap et al. 2022), foresaw investments worth 400 billion dollars in the Iranian economy by China over 25 years in return for guaranteed supplies of cheap oil.

The common ground reached by the literature is a simple conclusion the sanction policy of America did not succeed in breaking apart China and Iranian oil. (Downs 2025) enlightens that the most significant barrier to enforcement is that China has become Iran's only major consumer, and Washington no longer possesses the multilateral leverage it had in 2012.



6. Red Sea and Gulf Instability in the Post- COVID Era

There is a substantial amount of literature on the interplay between the maritime security, energy vulnerability and strategic competition in the Red Sea especially of the post-COVID Era. The vulnerability of Gulf Cooperation Council (GCC) states caused by their reliance on hydrocarbon revenues, along with the fluctuating oil prices following the outbreak of virus, had resulted in the critical importance of uninterrupted passage of maritime energy across the Red Sea and Hormuz Strait. Emphasised about the growing influence of China as a major player in the Gulf, both in terms of its energy consumption and investments. (Doshi, 2021) Unlike who emphasizes China's emerging challenge to U.S. maritime hegemony, (Tashjian, 2020) states Beijing's Iran sanction policies reflecting a pragmatic energy interest than just ideological opposition. "The Persian Gulf holds two-thirds of global oil and natural gas resources and serves as an energy transportation hub, with around 21% of global oil shipped from the region." (Tashjian, 2020, p. 1) The Chinese dimension has been deeply examined which explains how the Chinese concerns regarding the energy security have led to determine a practical policy conducted by Beijing recalibrating China's position regarding the Iran sanctions. It stands by the terms of neither challenging the US maritime supremacy nor abandoning the energy partnerships with Tehran. With nearly 55% of the China's oil supplies going through the Persian Gulf, it portrays the balancing between both economic and diplomatic interactions with Iran and avoiding a conflict atmosphere with the US naval dominance in the region. Such a policy will have direct consequences with the regional stability due to China's heavy strategic reliance on energy imports. (Tashjian, 2020) Simultaneously, (Jiang, 2022) identifies how democratic erosion during has empowered authoritarian states, thereby intensifying a greater rivalry in the Red Sea region. This consolidation had destabilized the region instead of stabilizing by removing democratic constraints and strengthened proxy actors (Jiang, 2022). The most significant impact of the Red Sea security because of the COVID can be seen in the ISDO Report of 2026. The analysis of the report put forth those attacks conducted by Houthis, since the late 2023 with the logistical and intelligence help of Iran have shut down the Red Sea and Bab- el- Mandeb transit to 35-40 percent compared to the pre- crisis period. The consequences can be seen in the increase of a thousand more nautical miles for the ships from Asia to Europe who had been forced to travel via the Cape of Good Hope. Future global stability requires a comprehensive diplomatic mechanism which directly addresses the underlying Iran- Israel tensions rather than just merely enhancing the operational responses during the COVID Era (ISDO, 2026). The approach to global shipping supply chains which is observed through the Red Sea Disruptions, is the proof of how political risks affects the system's vulnerabilities. The risk management practices such as route diversification and technology based maritime domain awareness are indications of the reaction towards the Gulf unrest. (Kollias, 2025)



7. China's Growing Gulf Energy Dependence and the Growth of Renewables

The dependence of China on energy sources from the Gulf became the most striking element in its energy security policy. With the economic boom in China in the wake of the industrial revolution of the late 1970s, the production of domestic energy could no longer keep up with the growing need for it, making China more dependent on energy imports. According to Erica (Downs 2026), in 2025, Gulf producers supplied around 42 percent of the crude oil consumed in China, with another 12 percent being supplied by Iranian crude which has been under sanctions and relabeling measures. Therefore, the dependence of China on energy flows from the Gulf can be understood. Moreover, this means that the Gulf region has become extremely important to China, not only for the provision of energy resources but also from a broader geopolitical point of view.

From a strategic perspective, however, the Gulf takes another dimension when one considers the straits of Hormuz. (Downs 2026) stated that approximately half of the Chinese import of crude oil and about one-third of the import of LNG pass through this strait. The problems associated with the tanker incidents in 2019, worsening relations between the United States and Iran, and the constant possibility of blocking access to the waterway demonstrate the hazards related to external dependence of the energy supply system.

However, despite the fact that the Chinese government has sought to lessen the threats associated with energy insecurity through energy stocks, diversification, and relationships based on contracts, according to (Downs 2026), these actions cannot completely resolve the issue of the importation of energy resources from an insecure political area.

Energy instability in the 2023-2025 timeframe was not an active threat; it was a potential danger which was finally revealed during the Strait of Hormuz crisis. The energy supply problems during the crisis itself lies outside of this study's timeframe. Any geographical chokepoint for economic activity presents with it the potential for economic uncertainty in event of problems with it. Therefore, although there were no superficial issues or blockages in the Hormuz supply chain in the given time-frame, Chinese policy makers grasped the energy vulnerability present in Beijing's energy supply framework as a valid threat.

This makes it necessary to grasp the meaning of transition to renewable energy in China. As mentioned in the (China-Gulf Renewable Energy Policy Note 2025), it can be claimed that China's choice of renewable energy was dictated by its environmental problems as well as the desire to lower the vulnerabilities resulting from oil imports. Energy security is the main factor contributing to the Chinese transition to renewable energy because there is always the opportunity to use internal energy resources unaffected by conflicts in international relations (China-Gulf Renewable Energy Policy Note, 2025). In addition, the tendency towards the development of alternative energy sources by the Chinese government is greatly related to the development of the country's economy. The transition of China from its Old Three exports towards the New Three consisting of electrical cars, lithium-ion batteries, and photovoltaic solar cells demonstrates that China strives to become an innovator in the field of innovative



technologies in energy resources usage. At the same time, the Persian Gulf states also apply renewable energy sources to develop their economy in the future, according to programs like Saudi Vision 2030, Qatar National Vision 2030, and Kuwait Vision 2035 (China-Gulf Renewable Energy Policy Note, 2025).

As stated by (Li-Chen Sim and Steven Griffiths 2024), these changes affect the energy cooperation model that had been used before, which is based on consumer/producer relations where the Gulf states provided hydrocarbons for China and China used them. However, the development of renewable energy sources brought changes in this pattern. As a result, Chinese firms have become important actors in the production of solar energy in the Gulf, even as they depend on China for technological innovation and diversification (Sim & Griffiths, 2024). In conclusion, the findings of Erica Downs (2026), Li-Chen Sim and Steven Griffiths (2024), among other recent studies on China's engagement with renewable energy and China-Gulf relations, show that China is not withdrawing from the Gulf but rather shifting its strategy, moving away from dependence on oil towards a relationship based on energy and technological Interdependence.

8. Sino-Iranian Relations

According to the theory of power transition, nations in a transnational context are placed in a hierarchical structure based on their size of power and accepting their place in the ranking is skewed by the unacceptably high motivation of other nation-states. Various researchers (Dorsey, 2014) have asserted that the Chinese intervention has occurred as the filling of a vacuum" a transition of power left by US withdrawal in light of "America First" policies taken recently. The US withdrawal from Afghanistan being followed by the Wakhan Corridor Project makes this line of reasoning clear as day. Relations between Beijing and Tehran are impacted greatly by fluctuations in Sino-American relations. (Saleh, 2023).

Therefore, we can describe the position of Iran, China, and the United States as similar to a triangle. Cracks in Sino-American relations result in Iran growing closer to one of the two major powers (in the modern landscape, China). On the other hand, the cooling of rifts between Beijing and Washington results in Iran being left out, as can be seen in China's historical United Nations Security Council

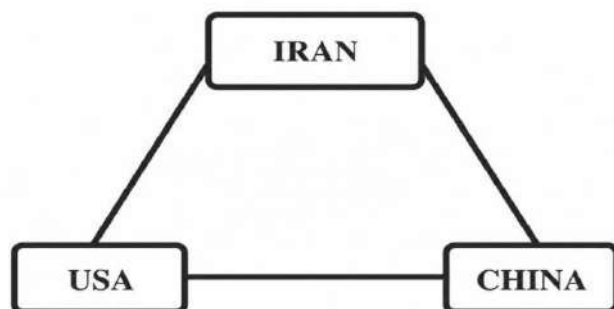


Figure 2.



voting records, where they consistently voted against Iran's nuclear program.

Saleh (2023) asserts that

Iran's 'Look to the East' and China's 'March West' policies are mutually beneficial. Iran views China, an illiberal yet well-developed country, as an economic ideal while China views Iran as a mechanism to increase their economic leverage in the Middle East.

MacGillivray (2019) adds more nuance to this simplified network, showing that growth in Sino-Saudi relationships can be historically linked to weaker

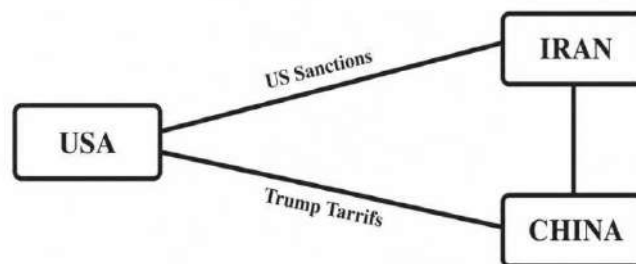


Figure 3.

ties between Beijing and Tehran. The Kingdom of Saudi Arabia, being regional rivals with the Islamic Republic, impact the scope of Iran's rapport with the PRC. The most notable actions between Iran and China have been the Belt and Road Initiative (BRI). (Gondal 2024) notes that the Belt and Road Initiative (BRI), also popularly known as 'The New Silk Road' is not merely an economic partnership it is a method of expansion of the Chinese political sphere of influence, creating close collaborations and dependences with Chinese firms, creating asymmetric partnerships. She further notes that the Iran-China "Comprehensive Strategic Partnership" agreement is of great significance, with an estimated worth of \$400 billion, making 10 percent of the total BRI budget. The agreement is based in a competition with the development of the Chabahar Port on the Makram coast. (Gondal, 2020)

Sino-Iranian relations revolve around three main pillars. (Parchami, 2022)

These are –

- Energy
- Military Co-operation
- Commerce (Trade)

Iran and China, although ideologically dissimilar, find themselves together on account of Iran's 'pariah' status owing to US-enforced sanctions, coupled with China's positioning as the new competitor to the United States following the disintegration of the Soviet Union. To Iran, Chinese investment signifies Iranian involvement in the anti-US axis, whereas pragmatists praise it as a lifeline for the infrastructure-depleted and heavily sanctioned nation.



Iran tries to portray the dynamic as an “equal partnership,” but the jarring reality of the asymmetric relationship is visible to not just experts, but politicians in Iran. The question of cooperation with China has become a hot-topic issue in Iranian politics, with the former Supreme Leader (clearly) being in favor of Oriental collaboration. As per (Shariatinia & Azizi2019), whereas Iran’s understanding of the 2021 agreement is that of a pathway to a strategic partnership with a potential ally, which is not completely reciprocated. However, this claim of Iranian strategic plan is not unanimously accepted. (Forough 2020)’, points out that the relationship between the two is referred to by both parties as a “Comprehensive Strategic Partnership” notably, not an ‘Alliance’. Forough highlights this term, claiming that it is therefore uncertain whether Iran views China as a potential ally or merely a temporary pivot due to the US Sanctions.

9. China’s Risk Mitigation and Contingency Planning

China’s energy insecurity has deep structural roots. Having become a net oil importer in 1996, Beijing’s dependence on maritime supply routes grew alongside its economy (Paszak, 2021). Former President Hu Jintao’s 2003 identification of the ‘Malacca Dilemma’ established the organizing concept for subsequent energy security doctrine, recognizing that China’s concentration of imports through chokepoints it does not control constitutes a first-order strategic liability (Paszak, 2021). The Strait of Hormuz has emerged as the sharpest node of this vulnerability: the Columbia University Center on Global Energy Policy estimates that 45 to 50 percent of China’s crude oil imports and nearly one third of its LNG transit the Strait, while China and India together account for approximately 44 percent of total Hormuz export volumes (Columbia University CGEP, 2026; China Briefing, 2026). The Diplomat frames this as ‘geographic as much as economic’ a function of where hydrocarbons are produced rather than bilateral political conditions highlighting a deeper contradiction between China’s diversification efforts and its continued dependence on a maritime system secured by strategic competitors (The Diplomat, 2026).

China’s SPR programme, initiated in 2004, has generated sustained academic interest. Quantitative modelling literature employing dynamic programming and computable general equilibrium approaches established cost-minimising stockpiling trajectories, treating supply disruption probability and macroeconomic loss as core parameters (ScienceDirect, 2012). A January 2025 law formalised integration of government and commercial stocks under a unified national reserves framework (Enerdata, 2025). Plans announced in August 2025 target storage exceeding one billion barrels sufficient for three months of net imports with Sinopec and CNOOC tasked with adding 169 million barrels across eleven sites (Enerdata, 2025). Geospatial analytics firm Kayrros placed total stored volumes at 1.39 billion barrels as of early 2026, providing meaningful short-term disruption cover (Columbia University CGEP, 2026). The key scholarly debate concerns duration adequacy: the buffer is finite, and prolonged closure beyond its window would require successful bypass routing or demand destruction. The China-Pakistan Economic Corridor attracts the most contested literature in the field. The theoretical bypass case is clear Gwadar Port, 600 kilometres from Hormuz, could receive



Middle Eastern crude for northward pipeline transit to Xinjiang, circumventing both Hormuz and Malacca. However, the most rigorous empirical assessment, published in the *Journal of Contemporary China*, concludes that the overland connection is ‘beset with difficulties because of geographical, economic and security problems,’ with Beijing’s motivations characterised as primarily geopolitical rather than geo-economic (Tan, 2018). Operational data support this scepticism: Gwadar’s busiest year recorded just 22 ship calls (Iran Open Data, 2026). The scholarly consensus holds that China’s chokepoint dependence has increased rather than decreased since 2003 despite sustained infrastructure investment (Paszak, 2021).

A distinct literature examines China’s management of Hormuz risk through economic entanglement with Gulf producers. The *Journal of Contemporary China*’s 2024 study of Chinese economic diplomacy toward GCC states identifies energy access, market expansion, and great power status demonstration as overlapping objectives, framing Beijing’s engagement explicitly as ‘economic statecraft’ drawing on Baldwin (1985) and Norris (2010) (Toksabay, 2024). The 2023 China-brokered Saudi-Iran normalisation is treated as a key revealed preference, converting Beijing’s role as the region’s largest energy customer into de-escalation leverage directly serving its Hormuz calculus (Iran Open Data, 2026). BRI infrastructure investment creates mutual dependencies incentivizing supply continuity under stress (ResearchGate, 2025).

Emerging literature increasingly frames China’s renewable energy build-out as structural energy security strategy. The Carnegie Endowment’s 2026 analysis argues that China’s energy security ‘runs through the electrification of everything’ rather than through Hormuz, with systematic decarbonization shrinking the volume of crude requiring substitution in any closure scenario (Carnegie Endowment for International Peace, 2026). The Oxford Institute for Energy Studies similarly notes that China’s significant energy system buffers including alternative fuels in the power sector provide partial insulation. Beijing’s post-crisis research commissioning, including joint COSCO-university analysis of chokepoint supply chain effects, reflects an institutional internalization of this long-horizon mitigation logic (South China Morning Post, 2026).

10. Findings and Analysis

1. **Energy Chokepoint Dependency through the Structure:** China has been highly dependent on its crude oil supply lines which have been the energy points throughout which about 40-45 percent of the crude passes. These points include the Strait of Hormuz and Bab-elMandeb which are clearly not under any kind of political control. This concentration of energy points places a key vulnerability, and any threat to it becomes a strategic vulnerability in terms of geographical security.
2. **Supply Chain Fragmentation induced by Sanctions:** The exit of U.S. from the JCPOA in 2018 has led to 85% reduction in the export of Iranian oil within a year. This made it imperative for China so as to build shadow logistics via Shandong teapot refining facilities and through ship-to-ship transfer. This illustrates the impact of a geopolitical rivalry on third countries dependent on the region’s energy resources.



3. Asymmetric Maritime Threats: The attacks on tankers, drone attack, disruption of the Houthi campaigns from 2023-25, etc. have proven how vulnerable maritime trade within the vital chokepoints. Non- state actors supported by regional nations demonstrated capabilities to inflicted damage on the energy security of the world.
4. Interdependence Constraints and Limited Risk Mitigation: The economic relationship of China and Gulf state partners makes way for a limit in strategic independence even when

it employs risk mitigations. However, none of the strategies guarantee Hormuz immunity within the 5-10 years of time period.

Indeed, the observations such as above has highlighted a basic contradiction between the two concepts of- geopolitical security and complex interdependence. If we observe from geopolitical perspective, China's insecurity can be explained based on the dependency of energy supplies from outside on transit passage that it cannot control, along with the competition for influence in the region by the U.S. and Iran and proxy conflicts that involves tanker warfare. On the other hand, according to the theory of complex interdependence, the fact that China does not possess necessary capabilities to solve the problems related to the question of nature of the economic connections that ties China and Gulf suppliers to each other and to the global energy market. The attempts made by China in order to diversify its energy sources and conclude agreements show how it tries to rebuild its system of interdependence but not to abandon as a whole. However, the paradox of the fact that China's increasing economic leverage in the gulf is not sufficient to exercise geopolitical and military pressure in its interests still lies.

11. Conclusion

American actions in the Strait of Hormuz seek to undermine Chinese energy security in the newest encounter in the series of indirect economic clashes between Beijing and the Western Global Order. The crisis in West Asia presses a magnifying glass to China's high dependency on Iranian oil imports. Resource competition and geography often give rise to vulnerabilities in a nation's economy and politics. The Strait of Hormuz, a chokepoint in the trade of crude oil, provide one such point of economic failure. The underlying concept here is the complex interdependence theory- just as no man is an island, no country is self-sustainable. The globalized world of the 21st century necessitates multilateral trade and commerce, which allow for the ceasing of such economic activities, whether that be through sanctions or blockades, an effective form of political deference. Coming to Iran, it is important note its status as a pariah state. Following its withdrawal from the JCPOA in 2018, it has borne the brunt of devastating economic sanctions. This economic sidelining resulted in the formation of a foreign policy best termed as pragmatic realism. The assassination of General Qassem Soleimani was the pivot pushing Iran into China's sphere of influence. This has been marked by a significant economic deal signed between the two countries in 2021 as part of the Belt and Road Initiative. To get



around sanctions placed on Iran, China has, in the past, used small institutions termed as ‘teapot refineries’ in order to bypass the US dollar-based global economy. China’s import dependence forms, in the present day, a significant issue, particularly considering the constant instability in the Middle East. In order to counter this, China has been aggressively pushing for the inclusion of renewable technologies, providing subsidies and promoting the development of Electric Vehicles and Lithium-ion batteries. Moreover, it has also been stockpiling its reserves to

address the threat of being cut off from imports. Whether a prolonged conflict in the Middle East would significantly impact China is an unanswerable question without knowledge of Chinese energy capabilities. There are no winners in a war, and the one in Iran, which stretches out into the sphere of almost all of the States across the world, acts as an economic race to ruin, to see whether China’s need for coal can devastate them on the economic and political stage.

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