

Oil price volatility from Hormuz tensions and its cascading effect on India's inflation, fiscal deficit, and rupee stability

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ABSTRACT

This study examines the potential macroeconomic consequences of a prolonged disruption in the Strait of Hormuz on the Indian economy. As one of the world's most important maritime chokepoints, the Strait facilitates a significant share of global crude oil and liquefied natural gas trade. Given India's heavy dependence on imported energy from the Gulf region, any disruption in this route could have far-reaching economic implications. The findings suggest that higher crude oil prices would increase production and transportation costs, resulting in imported cost-push inflation, reduced industrial output, slower GDP growth, widening trade and current account deficits, depreciation of the Indian rupee, and weaker employment generation across sectors such as manufacturing, logistics, tourism, agriculture, and MSMEs. The way ahead are long-term energy security that requires continued diversification of energy imports, greater investment in renewable energy, stronger strategic reserves, and enhanced international cooperation.

Keywords: Strait of Hormuz ,Oil Price Volatility, Macroeconomic Stability, Energy Security, Geopolitical Risk

Introduction

Located between Oman and Iran, the Strait of Hormuz serves as the primary connection between the Persian Gulf, and the Gulf of Oman and the Arabian Sea. It is one of the world's most important oil transit points because of the vast amounts of energy sources that flow through this waterway. At its narrowest point, the Strait is only about 21 miles (33 kilometres) wide, but the space of just this small waterway is vital to the flow of crude oil, natural gas, and other goods. The area is a vital trade route, and site of constant military disputes.

The sheer volume of energy trade that transits through this relatively small corridor is phenomenal. In 2025, an average of 20 million barrels per day of crude oil and oil products shipped through the Strait making it one of the key oil transit points of the world. Throughout 2025 alone, nearly 15 million barrels of crude oil and condensate per day were shipped through the Strait which accounts for about 34% of the world's total crude oil trade. Much of these exported oil is intended for delivery to China, India, South Korea and Japan. The strait serves as the primary export route for oil shipped from Saudi Arabia, the UAE, Kuwait, Qatar, Iraq, Bahrain, and Iran. About 93% of Qatar's LNG exports and 96% of the UAE's LNG exports are shipped through the Strait. Combined, this is about 19% of the world's total LNG trade. Even a brief closure of this chokepoint can lead to significant delays and rising costs in supply chain operations and, ultimately, potentially raise global energy prices. Most crude oil that transits through the Strait has no alternative exit from the region.

The geopolitical relevance of the Strait of Hormuz can be directly linked to the fact that Iran lies along its northern edge. Combined with the narrowness of the Strait, lack of other sea lanes, limited overland bypasses, and historically problematic circumstances occurring during warfare, the Strait is considered a major chokepoint and source of constant worry regarding global oil and natural gas markets. Iran's capacity to threaten or shut down this passage is a critical element of Iran's confrontation with the West, particularly the United States.

Increasingly severe sanctions on Iran and the energy sector of the country have often heightened U.S.-Iran tensions surrounding the Strait of Hormuz. This tension spiked when President Trump announced the U.S. Withdrawal from the JCPOA (Joint Comprehensive Plan of Action) in 2018. The President reinstituted broad sanctions on Iran's energy, shipping, and shipbuilding sectors. Iranian officials threatened to close the waterway in April 2019 after Trump rescinded the waivers which allowed for the import of Iranian oil by countries around the world, drastically reducing oil revenues for Tehran.

The long pattern of this confrontation is extensive. Iran has been threatening to shut down this crucial waterway on and off for decades. During the Iran-Iraq war between 1980 and 1988, in 2012 during times of harsh western sanctions, and between 2023 and 2024 Iran seized three ships on and near the Strait as a response to U.S sanctions.

During the Iran-Iraq War (September 1980 – August 1988), commercial ships from both sides were attacked. This event is referred to as the 'Tanker War' although the waterway was never completely shut down.

This pattern reached its peak when the Iran-U.S. Confrontation over the Strait escalated at the start of 2026. On 28 February 2026, Israel and the United States launched an assault on Iran's

nuclear and ballistic missile program which killed Iranian Supreme Leader Ali Khamenei. The aftermath resulted in Iran closing down its section of the Strait of Hormuz, the world's busiest chokepoint for oil, natural gas, and other products. Ship traffic in the region fell by 70% after U.S.-Israeli military operation went into effect, wreaking havoc on energy markets and causing widespread delays to global shipping routes that transport about one-fifth of the world's oil and natural gas supply.

The Strait of Hormuz is at the crossroads of energy security, military strategy, and geopolitical rivalry. Knowing its importance and Iran-U.S. Dynamics behind it is fundamental to understand how vulnerable the global energy market is and how deep any prolonged blockage of this very narrow channel would be.

Literature review and background

The strategic significance of this geographic bottleneck is due to the enormous scale of energy commodities shipped on a daily basis. This translates into 20 percent of global consumption of petroleum liquids and more than one-quarter of all traded seaborne crude oil. The global energy network has no viable alternative for this specific trade. Although regional pipeline bypasses exist-such as the East-West pipeline connecting Saudi Arabian oil fields to the Red Sea and the United Arab Emirates' Abu Dhabi Crude Oil Pipeline connecting Abu Dhabi oil fields to Fujairah, all these pipelines' capacities combined amount to merely 13 percent of the Strait's typical daily traffic. Therefore, any military friction or blockade within the Strait immediately generates unrecoverable deficits on the global market and causes huge price volatility on international markets.

Five member states of the Organization of Petroleum Exporting Countries (OPEC), Saudi Arabia, Iraq, the UAE, Kuwait and Iran, use this single channel to export over 93 percent of all their oil and condensate. Asia alone consumes most of these energies, representing approximately 84 percent of oil and 83 percent of LNG shipped through the Strait. This represents a systemic vulnerability for the large Asian economies, most critically China, India, South Korea and Japan. China, as the world's largest importer of seaborne crude, receives nearly 37.7 percent (more than 5.4 million bpd) of oil passing through the Strait. China has also imported massive volumes of LNG from Qatar to satisfy its booming city and industrial sector. Meanwhile, India shows an even higher internal dependency, 14.7 percent of crude oil, representing 40 percent of national oil imports, 65 percent of natural gas and a 90 percent of residential LPG, all coming from the Persian Gulf. Indian refineries are forced to actively shift towards purchasing alternate "sour crudes" from Russian Ural crude from further sea routes in the event of a geopolitical disruption in the Strait.

East Asian economies share a similar existential vulnerability on this bottleneck. South Korea receives roughly 12 percent of crude oil flowing through the Strait. This is a critical vulnerability because 81 percent of its national energy consumption is entirely supplied by imports. Japan is a high-risk recipient as 10.9 percent of crude oil shipped from the Strait goes to Japan. It is a country with no domestic energy resources and 87 percent of its total energy consumption dependent on imports of fossil fuels. Past experiences suggest that even a partial disruption of shipping in the Strait may lead to 'spot LNG' prices surging by over 170 percent in Japan, which could send ripple effects of inflationary shocks to Japanese manufacturing and high-tech sectors. The severe dependence on the Hormuz strait for these four major super powers indicate the potential for an easy cascaded energy crisis across Asia.

Research gap and methodology

This paper would research the impact of the current conflict between Iran, USA, and Israel on oil importing countries of Asia. What would the impact of this blockade have on the inflation rate of these economies? How would these economies address this issue, as solving it is not in their control but the impact is far reaching? What would the impact of the cascading effect of the war have on the GDP, employment and the manufacturing sector of developing economies like India?

The methodology adopted would be of the mixed method type that would use both quantitative and qualitative analysis in understanding the impact on various macroeconomic indicators for developing economies like India. The data would be collected from authentic sources and a qualitative explanation would be rendered.

Analysis

Among the most important impact of the crisis are the various macroeconomic indicators, namely:

Inflation

India's dependence on imported crude oil makes the economy particularly vulnerable to geopolitical disruptions in West Asia. According to the Reserve Bank of India, India's crude oil import dependency increased from 77.6% in FY 2013–14 to 88.2% in FY 2024–25 because domestic production has failed to keep pace with rising energy demand.

Table 1 – level of inflation (2026)

YEAR / MONTHS	LEVEL OF INFLATION
January	2.75
February	3.21

March	3.48
April	3.48
May	3.93

Source - Ministry of Statistics and Programme Implementation. (2026). *Consumer Price Index (CPI)*.

Government of India. <https://www.mospi.gov.in/themes/product/9-consumer-price-index-cpi>

The inflationary impact of such a blockage would begin with the rise in domestic fuel prices. Although the Government of India may temporarily reduce excise duties or provide subsidies to protect consumers from sudden price shocks, prolonged disruptions cannot be fully absorbed through fiscal measures resulting in higher retail prices paid by households and businesses alike. This would directly affect the price of essential commodities such as petrol, diesel and cooking gas, increasing the cost of living for millions of Indian households.

However, the impact of a Hormuz blockage extends far beyond the fuel sector. Higher fuel prices significantly increase transportation and logistics costs across the economy. Since India relies heavily on road transport for the movement of agricultural produce, manufactured goods and consumer products, an increase in diesel prices raises freight charges throughout the supply chain. Businesses facing higher transportation costs generally pass these additional expenses on to consumers through higher retail prices. Consequently, commodities that have no direct relationship with petroleum products—including vegetables, fruits, packaged foods, medicines and household essentials—also become more expensive. This chain reaction creates *cost-push inflation*, where rising production and distribution costs rather than excessive consumer demand become the primary driver of increasing prices.

According to the RBI Bulletin (July 2025), using data from FY 2009–10 to FY 2023–24, a 10% increase in global crude oil prices could increase India's headline Consumer Price Index (CPI) inflation by approximately 20 basis points (0.20 percentage points), depending on the extent of government intervention through fuel taxation and subsidies.

More recently, the Russia–Ukraine conflict in 2022 demonstrated how disruptions in global energy markets can accelerate inflation even without a direct interruption of the Strait of Hormuz. According to the Reserve Bank of India Annual Report 2022–23, India's average Consumer Price Index (CPI) inflation increased to 6.7% during FY 2022–23, exceeding the RBI's upper tolerance limit of 6% for several months. Although multiple factors contributed to this increase, elevated international crude oil prices played a significant role by increasing transportation costs, manufacturing expenses and food prices throughout the economy. This episode illustrates that even partial disruptions in global oil markets can generate widespread inflationary pressures in India.

Agriculture in India depends heavily on diesel-powered irrigation pumps, tractors, harvesters and the transportation of produce from farms to wholesale markets. In addition, petroleum products influence the production and distribution costs of fertilisers. According to the International Fertilizer Association (2024), natural gas remains the primary feedstock for nitrogen-based fertilisers, while petroleum products contribute significantly to manufacturing and transportation costs. Consequently, a disruption in the Strait of Hormuz would increase agricultural production costs, which farmers may ultimately pass on to consumers through higher food prices. Since food and beverage accounted for approximately 45.86% of India's Consumer Price Index (Combined) basket under the 2012 base year adopted by the Government of India, sustained increases in food prices would significantly contribute to overall inflation.

The manufacturing sector would face similar challenges. Industries such as cement, steel, chemicals, plastics, textiles and automobiles rely extensively on petroleum products either as fuel, raw materials or transportation inputs. As production costs increase because of higher imported crude oil prices, firms would either absorb lower profit margins or transfer these additional costs to consumers through higher selling prices. Consequently, inflation would spread beyond energy products to manufactured goods across the economy.

Another important consequence of a blockage in the Strait of Hormuz would be its effect on inflation expectations. Inflation expectations refer to what households, businesses and investors believe inflation will be in the future. According to the Reserve Bank of India Inflation Expectations Survey of Households (March 2025), expectations regarding future inflation significantly influence consumer spending, saving decisions and wage negotiations. If households anticipate prolonged increases in fuel and food prices following a disruption in the Strait of Hormuz, workers may demand higher wages while businesses may increase prices in anticipation of rising future costs. These behavioural responses can further intensify inflationary pressures even before the complete impact of higher crude oil prices is reflected throughout the economy.

The inflationary impact would not be distributed equally across all sections of society. Low-income households would be affected more severely because a larger proportion of their monthly income is spent on essential goods such as food, cooking gas and public transportation. Any increase in LPG refill prices or food prices would therefore reduce their real purchasing power significantly. In contrast, higher-income households are generally better able to absorb temporary increases in essential expenditure without substantially altering their consumption patterns. *Consequently, a blockage in the Strait of Hormuz would not only increase inflation but also widen economic inequalities by placing a disproportionate burden on economically vulnerable sections of society.*

Although fiscal measures and monetary policy can reduce the immediate impact of such a shock, they cannot completely offset the inflationary consequences of a sustained disruption in one of the world's most important energy transit routes. Therefore, maintaining uninterrupted access to crude oil supplies passing through the Strait of Hormuz remains crucial for India's macroeconomic stability, energy security and the purchasing power of Indian households.

GDP

Gross Domestic Product (GDP) is the most important indicator of a country's economic performance, representing the total monetary value of all final goods and services produced within an economy over a specific period. Since energy serves as a fundamental input for production, transportation and consumption, any disruption in crude oil supplies has significant implications for economic growth.

The manufacturing sector, which contributes approximately 17% of India's Gross Value Added (GVA) during FY 2024–25, would be among the first sectors to experience the effects of higher crude oil prices. Manufacturing output would slow, reducing its overall contribution to India's GDP.

Higher fuel prices would also affect the services sector, which accounted for approximately 55% of India's Gross Value Added in FY 2024–25, making it the largest contributor to the Indian economy. Industries such as aviation, logistics, tourism, e-commerce and retail depend heavily on transportation networks that rely on petroleum products. A sustained increase in aviation turbine fuel and diesel prices would increase operating costs for airlines, transport companies and logistics providers. These additional costs would ultimately be passed on to consumers in the form of higher ticket prices, freight charges and delivery costs. As the cost of services increases, consumer demand may weaken, reducing overall economic activity within the sector.

Another important transmission channel is household consumption. Private Final Consumption Expenditure (PFCE) consistently accounts for nearly 60% of India's GDP, making household spending the single largest component of economic growth. A disruption in oil supplies would result in less disposable income and a lowering of aggregate demand thereby slowing GDP growth.

Investment, another major component of GDP, would also be adversely affected. Rising crude oil prices increase production costs and create uncertainty regarding future business conditions, making firms more cautious about expanding their operations. Businesses are less likely to invest in new factories, machinery or infrastructure when input costs remain volatile and profit margins become uncertain. According to the Reserve Bank of India's Annual Report 2024–25, investment

decisions are highly sensitive to macroeconomic uncertainty, inflationary pressures and fluctuations in energy prices.

Foreign investment may also be affected during periods of geopolitical uncertainty resulting in increased global financial market volatility, prompting many international investors to move their funds towards relatively safer assets such as U.S. Treasury securities. Such risk-averse behaviour has historically resulted in temporary capital outflows from emerging economies, including India. Although India's strong domestic market and long-term growth prospects continue to attract foreign investment, prolonged geopolitical instability may delay new investment decisions and reduce short-term capital inflows. Lower foreign investment would affect sectors such as manufacturing, infrastructure and technology, thereby slowing economic activity and reducing GDP growth.

The aviation and tourism sectors are particularly vulnerable to rising energy prices because aviation turbine fuel (ATF) constitutes a significant proportion of airline operating costs. During periods of elevated crude oil prices, airlines generally respond by increasing ticket prices to recover higher fuel expenses. As air travel becomes more expensive, both domestic and international passenger demand declines, reducing tourism-related economic activity. Hotels, restaurants, transport operators and other service providers that depend on tourism would also experience lower revenues. Since tourism supports millions of direct and indirect jobs in India, a slowdown in this sector would have wider implications for consumption, employment and GDP growth.

As India is one of the world's fastest-growing major economies, with strong growth driven by domestic consumption, infrastructure development and manufacturing. Programmes such as Make in India, the Production Linked Incentive (PLI) Scheme, and large-scale investments in transport and logistics infrastructure depend upon stable energy supplies and predictable production costs. A sustained increase in oil prices would slow down the pace of industrialisation and economic transformation.

Despite these challenges, certain structural strengths would help India withstand the economic impact better than during previous oil shocks. India has diversified its sources of crude oil imports over the past decade, increased its strategic petroleum reserves and expanded the use of renewable energy. Furthermore, the Indian economy is increasingly driven by domestic demand and the services sector, reducing its dependence on external demand compared to many export-oriented economies. These factors would not eliminate the economic consequences of a blockage in the Strait of Hormuz but could reduce the severity of its impact relative to earlier decades.

Balance of Payments

The Balance of Payments (BOP) is a systematic record of all economic transactions between the residents of a country and the rest of the world during a given period. It consists primarily of the *Current Account*, which records trade in goods and services, income and transfers, and the *Capital and Financial Account*, which records foreign investments, loans and other capital flows.

Table 2 – Current account balance of India (FY 2025-26)

QUARTER	CURRENT ACCOUNT BALANCE
Q1 (April – June 2025)	-2.4
Q2 (July – September 2025)	-12.3
Q3 (October – December 2025)	-13.2
Q4 (January – March 2026)	+7.1

Source - Reserve Bank of India. (2026, June 8). *Developments in India's Balance of Payments during the fourth quarter (January–March) of 2025–26*. <https://www.rbi.org.in/>

A higher oil import bill would widen India's merchandise trade deficit. According to the Reserve Bank of India Annual Report 2024–25, petroleum imports constitute one of the largest contributors to fluctuations in India's merchandise trade balance.

A larger Current Account Deficit does not necessarily indicate economic weakness, particularly for a rapidly growing economy such as India. However, if the deficit expands primarily because of rising import costs rather than productive investment, it increases the country's dependence on foreign capital inflows to finance external payments. This makes the economy more vulnerable to changes in global financial conditions. Consequently, maintaining stable energy supplies is essential.

When the Current Account Deficit widens because of rising oil import costs, India must attract sufficient foreign capital in the form of Foreign Direct Investment (FDI), Foreign Portfolio Investment (FPI), external commercial borrowings or foreign exchange reserves to finance the deficit. During periods of heightened geopolitical uncertainty, however, global investors often become more risk-averse and shift their investments towards comparatively safer assets such as U.S. Treasury securities. Such capital outflows reduce the availability of foreign capital in emerging economies, making it more difficult for countries like India to finance an expanding Current Account Deficit.

Although a blockage in the Strait of Hormuz would create significant pressure on India's Balance of Payments, the severity of its impact would depend on the country's ability to adapt to changing global energy markets. Over the past decade, India has taken several measures to strengthen its external sector resilience by diversifying crude oil suppliers, expanding Strategic

Petroleum Reserves (SPRs) and increasing investments in renewable energy. India has also imported crude oil from countries such as the United States, Russia and Brazil in addition to its traditional suppliers in the Gulf region. While these measures reduce dependence on any single source of crude oil, they cannot completely eliminate India's reliance on the Strait of Hormuz because a substantial proportion of oil imported from Gulf countries continues to transit through this maritime passage.

The availability of Strategic Petroleum Reserves would provide temporary relief during the initial stages of a supply disruption. India has established underground petroleum storage facilities at locations including Visakhapatnam, Mangalore and Padur to strengthen its energy security. These reserves are intended to supply crude oil during emergencies, allowing the country to maintain refinery operations while alternative import arrangements are made. However, Strategic Petroleum Reserves are designed as a short-term buffer rather than a permanent solution.

The services sector, which has consistently generated a surplus in India's Current Account through exports of information technology, financial services and business process outsourcing, could partially offset the deterioration in the merchandise trade balance. However, while the continued growth of services exports would strengthen India's external position, it would be unlikely to fully compensate for a sharp and sustained increase in the crude oil import bill resulting from a prolonged disruption in the Strait of Hormuz.

The Balance of Payments would reflect the combined effects of rising oil import costs, widening trade deficits, exchange rate pressures, changes in capital flows and higher shipping expenses. Although India's stronger foreign exchange reserves, diversified import strategy and expanding services sector provide greater resilience than during previous oil shocks, these strengths would only moderate the external sector challenges created by a prolonged blockage in the Strait of Hormuz.

Exchange rate

The exchange rate represents the value of one country's currency relative to another. For India, the exchange rate between the Indian Rupee (INR) and the U.S. Dollar (USD) is particularly significant because crude oil imports are predominantly invoiced and settled in U.S. dollars.

India imports nearly 88% of its crude oil requirements (FY 2024–25), with a substantial proportion sourced from Gulf countries whose exports pass through the Strait of Hormuz. A weaker Rupee would, in turn, make imported crude oil even more expensive in domestic currency terms, creating a self-reinforcing cycle of rising import costs and currency depreciation.

Table 3 – USD/INR Reference Exchange Rate (Last Working Day of Each Month)

MONTHS (2026)	USD / INR reference rate (₹ per US\$)
January	91.50
February	90.56
March	92.22
April	94.43
May	95.20
June	94.60

Source - Reserve Bank of India. (2026). *Reference Rate Archive*. Reserve Bank of India. <https://www.rbi.org.in/scripts/referenceratearchive.aspx>

Depreciation of the Indian Rupee would have significant macroeconomic consequences. Since India imports not only crude oil but also products such as liquefied natural gas, electronic components, machinery and certain industrial raw materials, a weaker currency would increase the domestic cost of these imports. Higher import costs would raise production expenses across several sectors, contributing to cost-push inflation throughout the economy. Consequently, the depreciation of the Rupee would amplify the inflationary effects already created by higher global crude oil prices, making it more difficult to maintain domestic price stability.

The Reserve Bank of India plays an important role in maintaining orderly conditions in the foreign exchange market. Although the exchange rate in India is primarily market-determined, the RBI intervenes when necessary to reduce excessive volatility by buying or selling foreign currency using its foreign exchange reserves. Persistent intervention by the RBI over an extended period could reduce reserve levels if higher import payments and capital outflows continued simultaneously.

The impact on exports, however, would be more complex. In theory, a depreciating domestic currency makes a country's exports relatively cheaper in international markets, thereby improving export competitiveness. However, this advantage may be limited during a Strait of Hormuz disruption because many Indian export industries rely on imported petroleum products, chemicals and intermediate goods for production. Higher energy and input costs could offset much of the price advantage created by a weaker Rupee. As a result, export growth may not increase sufficiently to compensate for the rising import bill, limiting the positive effect of currency depreciation on India's trade balance.

Exchange rate volatility would also increase financial uncertainty for businesses engaged in international trade. Importers would face difficulty estimating future costs because fluctuations in the value of the Rupee would affect the amount payable for overseas purchases. Similarly, exporters receiving payments in foreign currencies could experience uncertainty regarding future

earnings when converted into Indian Rupees. Such volatility often encourages businesses to use financial instruments such as forward contracts and currency derivatives to hedge against exchange rate risk. However, hedging increases operating costs and may not be affordable for many small and medium-sized enterprises, thereby increasing their financial vulnerability during periods of external economic shocks.

The banking and financial sectors would also experience indirect effects. Commercial banks with exposure to foreign currency loans or companies dependent on imported raw materials may face increased credit risks if borrowers struggle to meet higher repayment obligations resulting from currency depreciation. Similarly, firms that have borrowed in foreign currencies would require more Indian Rupees to service their debt, increasing financial liabilities and reducing profitability. Therefore, the impact of exchange rate depreciation would extend beyond trade and influence financial stability within the broader economy.

India is better positioned today to withstand external shocks than during previous oil crises because of improvements in its macroeconomic fundamentals. The country possesses substantial foreign exchange reserves, follows a flexible exchange rate regime and has diversified its sources of crude oil imports over the past decade. In addition, stronger financial regulation and a more resilient banking system have improved India's ability to respond to periods of global uncertainty. These structural improvements provide policymakers with greater flexibility to manage exchange rate volatility without resorting to drastic policy measures.

The continued internationalisation of the Indian Rupee may also provide additional resilience in the future. In recent years, the Reserve Bank of India has encouraged the settlement of certain international trade transactions in Indian Rupees. Although the U.S. dollar remains the dominant currency for global crude oil trade, expanding the use of the Rupee in international commerce could gradually reduce India's dependence on foreign currencies for selected transactions. While this initiative is unlikely to eliminate exchange rate pressures arising from a major disruption in the Strait of Hormuz, it represents an important long-term strategy for strengthening India's external financial position.

Employment

Employment is one of the most important indicators of economic well-being because it directly influences household income, consumption and overall living standards. India's manufacturing sector would be among the first to experience employment pressures. A sustained increase in crude oil prices would significantly increase operating costs, reducing profitability and limiting production. While large firms may initially absorb part of these higher costs, prolonged financial pressure could lead companies to postpone expansion plans, reduce overtime work or slow new

recruitment. Consequently, employment generation within the manufacturing sector would weaken, particularly for contractual and temporary workers who are generally more vulnerable during periods of economic uncertainty.

The Micro, Small and Medium Enterprise (MSME) sector would be particularly affected. According to the Ministry of Micro, Small and Medium Enterprises (2024–25), MSMEs contribute approximately 30% of India's GDP and provide employment to over 28 crore people across manufacturing, services and trade. These enterprises typically operate with limited financial reserves and are therefore more vulnerable to sudden increases in transportation costs, electricity expenses and raw material prices. Many MSMEs may find it difficult to absorb rising production costs while remaining competitive in the market. Consequently, some firms may reduce production, postpone hiring or temporarily lay off workers until business conditions improve.

Employment in the transportation and logistics sector would also experience considerable pressure. Since transportation serves as an essential link connecting agriculture, manufacturing and retail trade, slower activity in this sector would have indirect employment effects throughout the economy.

The aviation and tourism industries would face similar challenges. Aviation turbine fuel represents one of the largest operating costs for airlines. As demand weakens, businesses within these sectors may reduce seasonal hiring, postpone expansion plans or operate with smaller workforces, thereby slowing employment growth.

The agricultural sector, which continues to employ a significant proportion of India's workforce, would also experience indirect employment pressures following a blockage in the Strait of Hormuz. Rising diesel prices would increase cultivation and transportation costs, reducing farmers' profit margins. Small and marginal farmers, who often operate with limited financial resources, may postpone investment in improved equipment or reduce the hiring of seasonal labour during sowing and harvesting seasons. Consequently, employment opportunities in rural areas could decline, particularly for casual agricultural workers.

The construction sector would face similar challenges because it relies heavily on fuel-powered machinery, transportation of construction materials and energy-intensive industries such as cement and steel. Higher diesel prices would increase the cost of transporting raw materials to construction sites, while elevated production costs for cement and steel would raise overall project expenses.

Employment in export-oriented industries may also weaken. If international buyers shift their orders to countries with lower production costs, Indian exporters may experience reduced

demand for their products. In response, firms may slow recruitment, reduce overtime or postpone capacity expansion, thereby limiting employment opportunities within export-oriented manufacturing industries.

Another important consequence would be its impact on the informal sector. According to the Periodic Labour Force Survey (PLFS) 2023–24, a substantial proportion of India's workforce is employed in informal or unorganised occupations that generally lack formal employment contracts and social security benefits. Unlike larger businesses, many informal enterprises have limited ability to absorb higher costs or increase prices without losing customers. Consequently, their earnings may decline even if employment is retained, reducing household purchasing power and overall economic welfare.

Regional disparities may also widen. States with greater dependence on manufacturing, exports, logistics or tourism such as Gujarat, Maharashtra, Tamil Nadu and Karnataka may experience a more noticeable slowdown in employment growth. Despite these challenges, India's labour market possesses several strengths that could reduce the severity of long-term employment losses.

Limitations

This study has several limitations that should be considered while interpreting its findings. First, the research relies primarily on secondary data obtained from government publications, international organizations, research institutions, and credible news sources. As the geopolitical situation surrounding the Strait of Hormuz continues to evolve, some data and forecasts may change over time. Second, the study adopts a qualitative approach and does not employ econometric modelling or statistical simulations to quantify the precise magnitude of the economic effects of a potential disruption. Instead, it examines the likely transmission mechanisms through which higher oil prices could influence inflation, trade, economic growth, and employment in India. Third, the analysis is based on a hypothetical scenario of a prolonged disruption in the Strait of Hormuz. The actual economic impact would depend on several uncertain factors, including the duration of the disruption, global crude oil prices, government policy responses, strategic petroleum reserve utilization, and the availability of alternative energy supply routes. Finally, due to time and data constraints, the study does not compare India's experience with that of other major oil-importing economies or assess sector-specific impacts using firm-level data. Future research could address these limitations through quantitative modelling, cross-country comparisons, and updated datasets as new information becomes available, thereby providing a more comprehensive understanding of the long-term economic implications of disruptions in the Strait of Hormuz.

Conclusion and the way ahead

The Strait of Hormuz is one of the world's most strategically important maritime chokepoints, making its stability essential for global energy security and international trade. This study demonstrates that any prolonged disruption in the Strait would have significant economic implications for India due to its heavy dependence on imported crude oil and liquefied natural gas from the Gulf region. Higher energy prices would increase production and transportation costs, leading to inflationary pressures, slower economic growth, reduced industrial output, and challenges for sectors such as manufacturing, agriculture, aviation, logistics, and small businesses. Although India has strengthened its resilience through strategic petroleum reserves, diversified crude oil imports, renewable energy investments, and government initiatives to improve infrastructure and domestic manufacturing, these measures can only partially mitigate the effects of a major geopolitical disruption. Therefore, ensuring long-term energy security *requires continued diversification of energy sources, expansion of strategic reserves, greater investment in clean energy, and stronger international cooperation.* Overall, the study concludes that while India has become better prepared to manage external energy shocks, the Strait of Hormuz will continue to remain a critical factor influencing the country's economic stability and sustainable development.

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