ANALYSIS

21(69), July 1, 2014

ISSN 2278–5469 EISSN 2278–5450

Discovery

# Investment climate and rising insurance premiums in the energy industry

**Vrushal T Ghoble**

Assistant Professor, Jai Hind College, Mumbai University, Mumbai, India

**Correspondence to:** Assistant Professor, Jai Hind College, Mumbai University, Mumbai - 400098, India. E-mail: vrushal_jnu@yahoo.co.in

**Publication History**

Received: 17 May 2014

Accepted: 20 June 2014

Published: 1 July 2014

**Citation**

Vrushal T Ghoble. Investment Climate and Rising Insurance Premiums in the Energy Industry. *Discovery*, 2014, 21(69), 140-144



**General Note**

Article is recommended to print as color digital version in recycled paper.

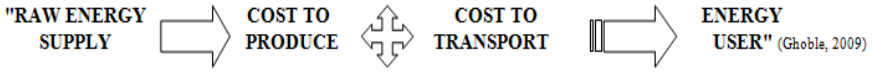
**ABSTRACT**

Around two - third of the world's oil trade (crude oil & refined products) moves through tankers and other carriers. Oil transported by sea flows through fixed routes. Also, in the recent years the growth of new oil and gas exporting countries has increased. Even then, the Gulf region remains an energy hub for the global consumers at large. However, when the importing countries undergo huge risks and investment, these imports have no longer remained safe. External threats like piracy, civil war or terrorism have threatened the secure transit of energy supplies. This paper investigates the importance of energy transits, the volume of energy traded through them and hydrocarbon as a lifeline for the world. The paper holds an opinion that the few routes in the world act as a basic infrastructure and its security is essential. However, as the global demand for energy moves up, the concerns for energy security of these tankers and carriers passing through these routes will become ever more critical. Thus, the insurance costs in the energy industry will be increasing, regardless of the volume traded. The past decade have seen serious rise in piracy and terrorist activities causing immediate threat for these supplies. This has tripled the risk doubling the insurance costs for the tankers and other LNG carriers. The insurance premiums have further added to the high oil prices. For instance, for a typical supertanker carrying about two million barrels of oil, the rate raised to $ 450,000 a trip from $ 150,000, adding about 15 cents a barrel to the delivered cost of the oil and that is just for the ship; the cargo is insured separately. The paper will further study the cost of re-routing the oil tankers through safe routes.

**Keywords:** tankers, carriers, piracy, insurance premiums.

## 1. INTRODUCTION

Energy being vital for the world economy, stopping its flow will substantially affect the global functioning. Today, the energy market is globalizing and the energy suppliers and consumers have grown and diversified. David A. Deese defines energy security as a condition in which a nation perceives a high probability that it will have adequate energy supplies (including, traditional sources such as firewood, and plant and animal residues that are frequently not traded in the market place) at affordable prices (Deese, 4 (3): 140). The cost of energy is simplified in the below representation.




Hydrocarbons are the remains of plants and animals - compressed in sedimentary rock such as sandstone, limestone and shale. Its extraction, transformation and use, cause major environmental and safety problems. Energy, if threatened by any political factors international or domestic, would result into scarcity and price rise (Ghoble, 2009). To avoid these disruptions and insecurity, the global governments have formulated substitute policies such as, nuclear, solar, wind and other alternative sources of energy. Around two - thirds of the world's oil trade (crude oil & refined products) moves through tankers and other carriers. Oil transported by sea flows through fixed routes, most important being the Strait of Hormuz and the Strait of Malacca. For that, huge tankers called VLCC (Very Large Crude Carriers) and ULCC (Ultra Large Crude Carriers) are employed. Other types of tankers are Medium Range (MR), Panamax (large tankers that can fit through the Panama Canal), Aframax, and Suezmax (large tankers that can fit through the Suez Canal). As new discoveries are made, much of this oil continues to flow from the Middle East and passes through the two Straits. In a scenario where, millions of dollars are at stake in terms of import and insurance of crude and related refined products, the importing countries from the West and the East alike face huge risks. As these imports have no longer remained safe, threats like piracy threatens the secure transit of energy supplies in the straits.

## 2. ENERGY FLOW - LINES

Global oil consumption grew by a below - average 0.6 million barrels per day (b/d), or 0.7 %, to reach 88 million b/d, while, natural gas consumption grew by 2.2 % (BP, June 2012). In 2011, total world oil production amounted to approximately 87 million barrels per day (bbl/d), and over one - half was moved by tankers on fixed maritime routes (EIA, 2012). The Strait of Hormuz is an important chokepoint due to its daily flow of 15.5 million barrels leading out of the Persian Gulf, while the Strait of Malacca is a key chokepoint in Asia with an estimated 13.6 million bbl/d flow, linking the Indian and Pacific Oceans, are two of the world's most strategic chokepoints (Lubin, 2011). The maximum size of a vessel that can make passage through the Strait is referred to as Malaccamax. The strait is not deep enough (at 25 meters or 82 feet) to permit some of the largest ships (mostly oil tankers) to use it. Oil flows from different straits is simplified (Table 1; EIA, 2012). "An estimated 1 million bbl/d of crude oil and refined petroleum products flowed northbound through the Suez Canal. An estimated of 3.2 million bbl/d flow through the Strait of Bab el-Mandab, which is a chokepoint between the horn of Africa and the Middle East. An estimated of 2.9 million bbl/d flows through the Bosporus Strait. An important route connecting the Pacific Ocean with the Caribbean Sea and Atlantic Ocean is the Panama Canal with the flow of 0.8 million bbl/d. Lastly, an estimated 3.3 million bbl/d flow through the Danish Straits" (Ibid).

## 3. MARITIME ENERGY INVESTMENT AND TRADE

Today, tankers have made the global transport of oil and gas feasible, mainly because they are low cost. Along the way to their destination, these tankers pass through important straits. Safeguarding these straits is important to maintain stable prices. Any disruptions in supplies might soar oil prices, also raising the prices of other commodities. These disruptions could be due to many reasons, i.e. accidents or pirates who extort huge sums from these companies. In a situation where any of these straits are closed, the global economy will virtually come to a standstill. For instance, surface to surface missiles can sink tankers, consequently, in a war scenario, closing Hormuz or Malacca doesn't seem difficult.

Between 1995 - 2006, the Chinese companies invested at least $ 27 bn in overseas upstream projects (Paik, 2007). Some of the Asian economies such as Korea, Japan, Australia, Malaysia, India and Thailand's investments are US $ 13.8 bil., US $ 12 bil., US $ 11.9

bil., US $ 8 bil., US $ 7.9 bil. and US $ 3 bil. respectively (Ernst & Young). According to GlobalData, "North America is expected to witness the highest capex globally, with $ 254.3 billion ... Asia-Pacific to follow very closely with a capex of $ 253.1 billion, while the Middle East and Africa are forecast to spend $ 229.6 billion" (Global Data, August 2012). In 2010 the costs incurred in oil and gas property acquisition, exploration and development activities can be seen in the table 2 (BASF, 2010).

**Table 1**
(EIA, 2012).
Estimated Volume of Crude Oil and Petroleum Products Transported Through World Chokepoints (in mil. b/d) (2007-2011)

| Location | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|
| **Bab el - Mandab** | **4.6** | **4.5** | **2.9** | **2.7** | **3.4** |
| **Turkish Straits** | **2.7** | **2.7** | **2.8** | **2.9** | **N/A** |
| **Danish Straits** | **3.2** | **2.8** | **3.0** | **3.0** | **N/A** |
| **Strait of Hormuz** | **16.7** | **17.5** | **15.7** | **15.9** | **17.0** |
| **Panama Canal** | **0.7** | **0.7** | **0.8** | **0.7** | **0.8** |
| Crude Oil | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 |
| Petroleum Products | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| **Suez Canal and SUMED Pipeline** | **4.7** | **4.6** | **3.0** | **3.1** | **3.8** |
| Suez Crude Oil | 1.3 | 1.2 | 0.6 | 0.7 | 0.8 |
| Suez Petroleum Products | 1.1 | 1.3 | 1.3 | 1.3 | 1.4 |
| SUMED Crude Oil | 2.4 | 2.1 | 1.2 | 1.1 | 1.7 |

**Table 2**
(BASF 2010)
Costs incurred in oil and gas property acquisition, exploration and development activities 2010 (million €'s).

| | Germany | Rest of Europe | Russia, Caspian Sea region | North Africa, Middle East | South America | Total |
|---|---|---|---|---|---|---|
| Acquisitions | – | – | – | – | – | - |
| Exploration | 8 | 160 | 8 | 82 | 12 | 270 |
| Development | 54 | 132 | 34 | 75 | 23 | 318 |
| **Total net costs** | **62** | **292** | **42** | **157** | **35** | **588** |

The result expected is an assured supply of energy. However, any close down would affect the global consumers at large, but even the producers will face the crunch. "For Saudi Arabia, the losses would amount to 70 per cent to 80 per cent of its revenues or $ 800 million / day. Qatar would lose 60 per cent of its revenues and Oman, 40 per cent of its GDP. For Iraq, the losses would represent 40 per cent of the State income or $ 137 million / day. The Iranians themselves would be the worst off as they would be unable to import the refined petrol they need" (*in* Hormuz: a Strategic chokepoint). As a result, in a scenario where, the Strait has to be shut down, around 9 - 10 million b/d will have to be taken off the market, leading to an overnight oil price - hike creating chaos and instability.

## 4. INSURANCE AND RE – ROUTING COSTS OF TANKERS AND CARRIERS

As globalization proceeds and the world becomes more complex and unstable, threats such as piracy are inevitable. One Earth Future Foundation's (OEF) report estimates that alone "..... Somali piracy cost between $ 6.6 and $ 6.9 billion in 2011. ..... previous report on the Economic Cost of Piracy in 2010, estimated that piracy cost the world $ 7 - $ 12 billion" (*in* One Earth Future foundation, 2011). This cost of Piracy in 2011 can be understood as "Ransoms - 2 per cent, Insurance - 10 per cent, Security Equipment - 17 per cent, Re - routing - 9 per cent, Increased Speeds - 40 per cent, Labor - 3per cent, Prosecutions - 0 per cent,

Military - 19 per cent, Organizations - 0 per cent. Hence the total loss incurred by the Governments - 19.5 per cent ($ 1.3 billion) and Industry - 80.5 per cent ($ 5.3 - $ 5.5 billion)" (*in* Oceans Beyond Piracy) (Figure 2). Realizing these issues, alternatives are being explored. "Dubai is studying plans to build a $ 200 billion (£114 billion) mega - canal that would allow oil tankers to bypass the Strait of Hormuz. It would link the Gulf coast with the port of Fujairah on the Indian Ocean coast, ....." (Robertson, 2008). Saudi Arabia has also proposed an 'Arab Canal' to bypass Hormuz. Consequently, the alternative plans are in progress. Other alternative being a pipeline costing US $ 3.3 bil., bypassing the Strait of Hormuz and will transport 1.5 mb/d (approximately). The pipeline exceeds the length of the Dolphin gas pipeline that carries natural gas from Qatar to UAE (Figure 1. *in* Marc's).


**Figure 1**

(*in* Marc's).

Projected canal from Dubai to Fujairah

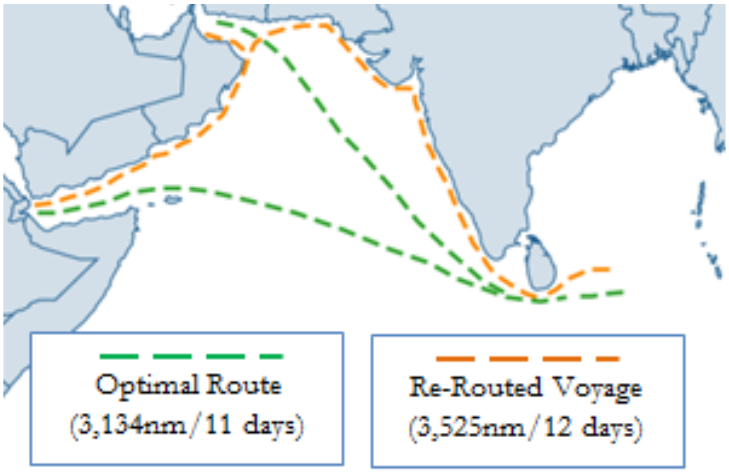



**Figure 2**

(*in* Oceans Beyond Piracy).

Conventional & Re - routed Route

The insurance market in the energy sector has evolved in the last few years. Increased piracy rates and countries risked with Civil Wars have resulted in rising insurance premiums as they are counted as the high risk zones. "The total cost of war risk and kidnap and ransom (K & R) insurance was approximately $ 635 million. In 2011, some ships opted to avoid the piracy high risk area (HRA) by hugging the western Indian coastline. ..... the cost of that re - routing for bulk carriers and tankers, ..... was around $ 486 - $ 680 million in 2011" (*in* One Earth Future foundation, 2011).

## 5. ANALYSIS

Assessing the exact cost incurred for insurance purposes is not possible due to premium variations, due to factors namely, security personnel on board, alarm systems, etc. Even then, the producers and the consumers expect to secure any damage to their commodity. Hence, there is a rise in the insurance digits. Under a threat circumstances, the strait will be shut for weeks hiking the oil prices worldwide. This has tripled the maritime insurance costs for ships. For a typical supertanker carrying about two million barrels of oil, the rate rose to $ 450,000 a trip from $ 150,000, adding about 15 cents a barrel to the delivered cost of the oil - and that is just for the ship; the cargo is insured separately (*in* Threats to Oil Transport). However, in August 2011, Egypt's Suez Canal Authority collected a record $ 5.05 billion. This showcases that in the midst's of insecurity and threats, countries prefer to ship their cargoes through troubled waters with increased insurance costs rather than re - routing. Any advent of crisis receives immediate attention of the Insurance market. The insurance is on the vessel and the cargo. Unimaginably, the insurance cost of cargo is much more than the cost of the repair of vessel. Some of the vessels such as the VLCCs are the costliest and therefore, need to be insured in every way. At any given time, high risk zones will demand premiums adding up to the basic risk premium to secure its cargo. Nevertheless, resource scarcity, rising demand, speculative markets and rising insurance premiums have altogether enhanced the strategic nature of energy trade. As new bypass projects that will take off depending on the gravity of threats and the availability of funds, other sectors of business like fishing and tourism will also get a hit. Nonetheless, the world has to bear the brunt of insecurity and the sky high insurance premiums.

## DISCLOSURE STATEMENT

There is no special financial support for this research work from the funding agency.

## REFERENCE


1. British Petroleum (BP) (June 2012), *BP Statistical Review of World Energy,* p. 3 & 4. Accessed 24th May 2013, See, http://www.bp.com/assets/bp_internet/globalbp/globalbp_uk_english/reports_and_publications/statistical_energy_review_2011/STAGING/local_assets/pdf/statistical_review_of_world_energy_full_report_2012.pdf
2. BASF Report 2010. Accessed 25th May 2013, See, http://report.basf.com/2010/en/informationonoilandgasactivities/costs.html?cat=m
3. Deese, A. David (Winter 1979 - 80), "Energy: Economics, Politics and Security", *International Security,* 4 (3): 140.
4. Energy Information Administration (22nd August 2012), "World Oil Transit Chokepoints", p.1 & 2. Accessed 24th May 2013, See, http://www.eia.gov/countries/analysisbriefs/World_Oil_Transit_Chokepoints/wotc.pdf
5. All figures are approximates denoting, the Asian outbound oil and gas investment (excluding China) (1Q06 – 2Q11). *Cited from*, Ernst & Young, "Oil and Gas Investment: Perspectives for Asia", p. 5. Accessed 15th My 2013, See, http://emergingmarkets.ey.com/wp-content/uploads/downloads/2012/07/Oil-and-gas-investment-perspectives-for-Asia.docx.pdf
6. Ghoble, Vrushal (2009), "European Union and India: Contesting for Gulf Energy", Regal Publications, Delhi, p. 25 & 29.
7. GlobalData (23rd August 2012), "Global Oil & Gas Capital Expenditure Breaks $1 Trillion Barrier". Accessed 25th May 2013, See, http://www.globaldata.com/PressReleaseDetails.aspx?PRID=333
8. "Hormuz: a Strategic Chokepoint", Study and Research Center for the Arab and Mediterranean World. Accessed 24th May 2013, See, http://www.cermam.org/en/logs/dossier/hormuz_a_strategic_chokepoint/
9. Lubin, Gus (Feb. 5, 2011), " A Brief Tour Of The 7 Oil Chokepoints That Are Crucial To The World Economy", *Business Insider*. See, http://www.businessinsider.com/oil-chokepoints-suez-canal-2011-1?op=1
10. Marc Van de Velde, "Canal from Dubai to Fujairah". Accessed 25th May 2013, See, http://www.theartofdredging.com/canaldubaifuj.htm
11. One Earth Future Foundation (2011), "The Economic Costs of Somali Piracy 2011", Working Paper, p. 1 & 2, Accessed 25th May 2013, See, http://oceansbeyondpiracy.org/sites/default/files/economic_cost_of_piracy_2011.pdf
12. Oceans beyond Piracy, "The Economic Cost of Somali Piracy 2011". Accessed 25th May 2013, See, http://oceansbeyondpiracy.org/sites/default/files/economic_cost_of_piracy_2011_summary.pdf
13. Paik, Keun – Wook et.al (March 2007), "Trends in Asian NOC Investment Abroad", Working Background Paper, Chatham House, *The Royal Institute of International Affairs*, p. 4 & 5. Accessed 14th September 2007, See, http://www.chathamhouse.org.uk/files/7076_r0307anoc.pdf
14. Robertson, David (9th September 2008), "Dubai plans $ 200 bn canal to bypass Strait of Hormuz". *Cited in,* Ghoble, Vrushal (2009), "Maritime Energy Security and Hormuz and Malacca Straits", *Think India Quarterly,* 12 (4): 101 - 102. See, http://www.thinkindiaquarterly.org/thinkindiaquarterly/Backend/ModuleFiles/Article/Attachments/VrushalBhogle.pdf
15. "Threats to Oil Transport", Institute for the Analysis of Global Security. Accessed 25th May 2013, See, http://www.iags.org/oiltransport.html