Paper 3: Oil Dynamics in Global Shipping

Rawindaran Nair and Sulaiman Mahbob

Overview of ocean dynamics focussing on the oil trades and reflections on global seaborne economic dimensions in the current threats facing humankind

Introduction

The engine of growth for humankind has taken huge impacts with the linkages towards power driven by oil and this has had enormous developments seen over centuries in economics of the global world. There were oil discoveries on oil in different parts of the earth and these led to the emergence of capitalists in the exploitation to drive their economies as well more importantly towards the realisation of profits and wealth. Importantly there were also later with drift towards technology, the search for oil resources into the oceans and these then led toward the exploration and exploitation of these resources from the beds of oceans of the world. A evolving outcome too was the emerging world order on not only the transfer of these resources from the location of output towards consumption, but also on the need to share and shape the power among states in the world towards these resources in the form of global laws and regulations. We could see these developments in resource exploration, exploitation as well as the movements in seaborne trade and how these are now facing unprecedented implications into the future arising from the current challenges to humankind in the global pandemic and which will be explored in this essay. Finally, some reflections are made on the future following these global challenges from a maritime perspective and likely scenarios for economies around the world.

Global Seaborne trade in resources

A useful starting point to this discussion will be the resource of the UNCTAD (2019) in the various annual reviews on maritime transport. The most recent version of 2019 states that during 2018, world maritime trade volumes reached 11 billion tons, and growth projected for 209-2024 already on an annual 3.4 percent. The uncertainties raised in this global report from an international intergovernmental institution referred to challenges arising from uncertainties in trade policies and related risks such as restrictions measures seen on trade between China and the USA. Further, there were the presence of geopolitical realities and sanctions, involving strategic seaborne routes such as the strategic chokepoint such as the Strait of Hormuz, all of which were clearly within the realm of ideas from the role of states within the global environment and humankind defining the outcome, based on political or ideological divergences.

There is the reference to influence of nature and the environment although these were in regard to the impact of natural forces that could impact on the flow of global seaborne trade from various perspectives. Here emerged already challenges in defining trade flow arising from frequent natural disasters and climate related disruptions, and the global agenda on sustainability as well as impacts on global

warming. The approach was for humankind through the linkages in an international and national institutional framework to discuss and address these challenges which were regarded as within the bounds of states to address while also engaging in global seaborne trade for economic growth worldwide. These global ideas were therefore centred on overcoming and managing global environmental challenges all for the ultimate objective of promoting global economic wealth for humankind, and this could be the message that could be emerging for a total relook towards living beings rather than only humankind that is the current global COVID-19 pandemic crisis.

Resources of the oceans

History will reveal that the pursuit of trade and economic growth as a consequence of the trade in oil and oil products would define the linkages of states at the global level that would define global scenario and which will be starkly different to what we are witnessing from the global pandemic.

An important facet is the intervention of humankind in oil related maritime accidents, as well as the rising demand for oil consumption to power to industries and maintain the growth of economies. These have been impacted by numerous historical events on a global scale, which have linked intervention to address challenges towards ensuring that there continues to be global economic growth. It is to these dimensions that we need to relook now in the frame of the challenges arising from the global pandemic resulting from the coronavirus spread globally. The question that will rise now could be whether there need to be this strong dependence of oil and oil products for the betterment of humankind or should the global community take another way forward. These ideas raise important points that need to be explored and which will be discussed in identifying the importance of securing the resources in the ocean for the wellness of the earth.

Global Shipping Scenario

As for the concern of humankind towards the environment and importantly coming from the perspective of economic growth and sustainability was the challenges towards implementation of the 2030 Agenda for Sustainable Development, the Paris Agreement under the United Nations Framework Convention on Climate Change and the Sendai Framework for Disaster Risk Reduction 2015–2030. According to UNCTAD, these instruments provide the foundation for sustainable, low-carbon and resilient development in a changing global climate. The same report refers to the ongoing work at the International Maritime Organisation (IMO) towards focussing on the maritime sector setting emissions-reduction targets in line with the Paris Agreement and looking beyond.

Then further global concern is the recognition on the interlinkages between oceans, sustainable development and climate change mitigation and adaptation. In proclaiming the United Nations Decade of Ocean Science for Sustainable Development, 2021–2030 – that ocean science will be key in developing effective measures for coastal protection and coastal zone management, as well as climate-

risk assessment, adaptation and resilience-building for seaports and other coastal transport infrastructure.

However, with the notion of the future of global economic growth and the important role of the shipping sector, the report goes on to state the need to have better planning, and flexible and forward-looking-policies that can effectively anticipate change. These approaches need to take into account the complex relations within the global scenario between and within states and how these could be reconciled to achieve some form of harmony to preserve the earth while also ensuring economic growth.

Maritime transport remains the backbone of globalized trade and the manufacturing supply chain, as more than four fifths of world merchandise trade by volume is carried by sea. However, growth in international maritime trade fell slightly in 2018, owing to softer economic indicators amid heightened uncertainty and the build-up of wide-ranging downside risks. It would be appropriate here to examine the broader global dynamics on seaborne trade. There are basically three broad categories of cargoes as shown below that are carried by the ships over the oceans of the world as shown in table 1 below.

Table1: International Maritime Trade (Million tons loaded)				
	Tanker(a)	Main Bulk(b)	Other Dry©	Total
2018	3194	3210	4601	11005

Source: UNCTAD Review 2018

[a Crude oil, refined petroleum products, gas and chemicals.
b Iron ore, grain, coal, bauxite/alumina and phosphate. Since 2006, main bulks include iron ore, grain and coal only.
c Minor bulks, containerized trade and residual general cargo]

The transportation aspect of the tanker component from the table above, is shown to highlight the importance on the oil and related cargo trade as embedded in the first (a) category in table 1 above. As shown in the table the total maritime trade in terms of cargo loaded for tankers amounted to 3.1 billion tons in 2018, a large quantity and which will change in a significant way as seen from developments. As for the global tanker fleet, there is data from Clarksons Research for 2020 which is shown in table 2 below.

Table 2: Global Tanker Fleet (March 2020)	
Ship Type	**Numbers (+1000 DWT)**
Oil Tankers	5260
Crude Tankers	2132

Product Tanker	3127
Product Tanker (Less than 1000 dwt)	5950
Total Oil Tankers	11210
Chemical Tankers	3871
Specialised Tankers	406
Total Tanker Fleet	15487

Source: Clarksons Research: adapted by authors

The data in the table above provides a broader insight of the types of ships that are deployed in the voyages ocean wide in the carriage of oil and related products. These ships are capital investments of leading oil companies as well as other capitalists shipowners operating in the industry. These very supply of global tonnage of ships are the supply side in carrying the oil and with the huge uncertainties in the demand for global consumption of oil and products, the capitalists who own and operate these capital assets will bear the brunt of the onslaught of the pandemic on the ocean front.

In exploring the depth of the global oil trades and likely ideas that are emerging for Malaysia, it would be useful to refer to some philosophical ideas. According to a voice of an academic (Devi, 2020), this is reflected against the background of the panic and chaos in this moment of global crisis have provided an opportunity for us to change. Here, according to Devi, we may be emerging differently from the experience importantly not only as individuals but also as being part of the global community, see in the context of the pursuit of wealth.

The tanker market is no exception to the reality of shipping being a derived demand where the demand for shipping is directly connected to the demand for the cargo carried. This demand is also highly inelastic as there are very few substitutes to transporting oil on a global scale, although pipelines offer an inland solution but there is no alternative between oceans. It is seen that with technological developments cargo capacities of tankers increased largely driven by the desire for tanker owners and shipyards to profit from the market. These led to development by world's oil majors to build and operate ultra large crude carriers (ULCC) in early 1970s, although these were to become uneconomic so that currently these have drifted into the capacity of very large crude carriers (VLCC) are now with the dominant in the industry.

Major sources continue to be the Middle East exporting all over the world reflecting an important contribution to drive the local economies. Institutions have evolved to sustain these on a global scale such as the OPEC in managing both supply and demand for oil and thus impacting on the nature of supply of tankers for their carriage in a global seaborne trade context. The early global challenges were in the past 100 years in the conflicts in the Middle East since 1973 until the early 198s all of which caused large peaks in oil price which also cause peaks in tanker market freight rates. It is also seen that there continued to be threats and impacts on the seaborne trade of oils linked to various global conflicts that have taken place on a

global scale until recently.

There then emerged environmental concerns which led to global political pressure arising from a series of maritime accidents involving oil tankers in the major sea lanes of the world. There were huge and damaging oil spills from these accidents that also increased during this time due to incidents resulting in oil spillages at sea raising serious environmental concerns for the whole industry on a global scale. Again, these accidents came about in the midst of the carriage of oil to fuel the global economy to sustain growth and increase wealth further material context of the world driven by capitalists notions of profit and success.

The Exxon Valdez oil tanker incident in Alaska in 1989, resulting in huge oil spills along the coast of the USA, which then prompted the adoption of the Oil Pollution Act, of 1990 in the USA. This incident, which combined with the IMO led to global initiatives to phase out all single hulled tankers by 2015 to reduce these incidents. Here the response of the global community has been to improve the structural context of tankers carrying oil by ensuring that these vessels were protected with an additional hull to prevent oil spills arising from sea related accidents. Following the Exxon Valdez (Stephen, 2019) was the Erika (BBC 2014) and the Prestige (Vince 2003) accidents in the coast of Europe which further tightened the rules for double hulled vessels being made mandatory by 2010 by the European Union (EU). This meant that in the early 2000s single hull tanker scrapping rates were high which coincided with a period of lower freight rates. The broader concerns over the environment arising from the tanker was the structural conditions of the tankers to prevent spillage in future and thus impact on trade flows of oil from production to consumption for sake of global economy.

An economic dimension was the 2008 global financial recession where freight earnings dropped, with the exception of some vessels being used for floating storage 2009 to 2014, since at that time the tanker market was depressed at oil prices remained high. However, since 2015 a positive spell for tankers came as the oil price dropped and seaborne movements continued from OPEC and China increased its oil imports. However, following this up to 2018 it is reported that tanker earnings declined with VLCCs down as the tanker fleet grew faster than demand. The dimension was the focus on the supply of tankers to meet global demand for oil for economic development on a global scale.

Following upon recognising the role of seaborne transport and their likely impact on the environment, there have been global institutional initiatives such as the IMO 2020 regulation which has focussed on changes on global vessel emissions from 3.5% to 0.5% sulphur. This move had the positive impact on demand for tankers to carry crude to refineries to produce low sulphur fuel (VLSO) to meet the IMO timeline on reduced sulphur emissions.

These changes were taking place in the tanker market and recently there has the emergence of the turbulent market in the wake of the COVID-19 pandemic that has reduced global demand for oil and looks set to have a suppression on the oil market globally for an extended period of time. While there are developments in the deployment of tankers for storage of oil, this is only in the short-term tankers. It is

more likely that there will be more turbulence with global demand for oil in continued decline in oil demand which industry is expecting will result in a suppression of tanker activity and market rates.

It is also seen that there are other global developments such as the situation where in the last decade the USA has significantly increased the amount of oil and shale gas it extracts through the process of fracking. The supply of US origin oil is now to the domestic market, thus reducing import requirements, further adding to the concept of tanker oversupply to the global market.

Up to 2008 the overall trend for tanker prosperity was predominantly supported by a growing global demand for oil, during this same period the supply of tanker vessels did not meet the total demand. However, beyond the political issues within the Middle East, vessel regulation change and the influence of OPEC for the most part presented conditions on the future perspectives of the tanker market. However, the newer and present challenge is the implication arising from the global economic threat arising from the pandemic of Covid 19.

Present market conditions in 2020 are changing extraordinarily due to a drop in global oil price, with oil demand forecast to be low for the foreseeable future the tanker market should not expect these gains to last into 2021.

Tanker futures on global oceans

Some interesting statistics are relevant here to show the dimensions in the global seaborne trade and navigation of the tanker trade. Here there are recent predictions from industry sources such as Clarksons Research (2020) on the outlook for global oil demand that is expected to deteriorate significantly which follows the approach to control the spread of the pandemic. There are already impact on oil demand seen from restrictions on travel both international and national as well as reduced industrial and business activity. There are as mentioned earlier forecasts on decline in world GDP over the full year in 2020 impacting very heavily on global oil demand by as much as 5m barrels per day in 2020 (Clarksons, 2020). The message that is emerging is uncertainty especially on the restrictions currently in place globally and particularly in force in key economies. A view that comes is that following this ‘destruction’ in demand, following lost transport, economic and industrial activity will have huge impacts on the global economy as well on the worldwide seaborne trade in oil and oil products.

This pandemic is having huge impacts on the oil and tanker market dynamics and appears according to Clarksons Research (2020) that the overall assessment is hugely complex, with the outcome that presently the oil market surplus is also managed through floating storage tanks. The outcome here is the consequence of land storage filling up and the demand for consumptions falling and thus the new application for tankers is to become storage tanks, which in the medium to long run could have serious consequence for economies throughout the world.

Global perspectives and reflections

The pandemic has led lower demand for fossil oil and contributes to lowering of oil prices. Additionally, containers have been turned into oil storage tanks. there may be significant implications of this turn of events. First the significant drop in oil prices may lead to perpetuation of industries dependent on oil for energy and slows efforts to switch to other sources such as electricity and biofuel (from palm oil).

The next is continued use of cheap fossil oil may further contribute to pollution again, the latter has been reduced because of the global lockdown in many parts of the world. The respite given by this pandemic should lead policy makers to seek for sources of economic growth which are less dependent on fossil oil but for more environment friendly technology. All these will shape the future trends and directions in shipping. The global political economy which was influenced by oil pricing dynamics in the past, OPEC for one, may take a change too. In this context, shipping industry will have to examine its long-term prospects. Notwithstanding this development, the shipping industry will still have an important place in global trade by virtue of its large role in transporting goods across continents.

Conclusion

There are huge challenges emerging on a global scale arising from the pandemic and this has impacted on various segments of the shipping industry. It is seen that there have been important impacts on global demand for oil in consumption and this has led to serious shortfalls on the employment of tankers that are employed to carry these oils. Usually, the challenges would be from political conflicts or even global financial crises that are addressed by the usual instruments on institutional policies on a global scale, largely through the intervention of international and national institutions. These emerging threats are useful for Malaysia to recognise from a policy and strategic perspective on how to take growth for the economy and society into the future and these ideas need to be explored within the context of the uncertain global challenges today.

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