Title - Black Gold: Why is oil so important?
Excerpt – Dive deeper and uncover the critical concerns of oil as a relevant and essential resource for governments, firms and households to support economic development in the modern world.
Content –

Oil and the World

Ever since the advent of the Industrial Age, many countries have achieved their aims of economic progress through the extraction and usage of fossil fuels, including oil, for energy production. By doing so, firms can utilise this essential resource to power factories and machinery for the production of goods and services.

The importance of oil as an energy resource is observed by the burgeoning demand at the household, industrial, national and international levels. According to the 2018 BP (British Petroleum) Statistical Review of World Energy report, "global oil consumption growth averaged 1.7 million barrels per day (b/d)", which was higher than its ten-year average of 1.2% for the third consecutive year.

Although some may align with the conventional belief that China is a major contributor to the growing demand for oil, USA surpasses China in terms of oil consumption. To put things in perspective, according to a July 2018 Forbes article, Chinese per capita demand is 3.3 barrels per person per year, whereas American per capita demand is 22 barrels per person per year.

Despite the insatiable hunger for oil by the increasing world population, global oil production has experienced a slowdown. In the same BP report, world oil production increased by 0.6 million b/d, which is below average for the second consecutive year. Therefore, as oil production is unable to keep up with the growing demand for oil, it is clear that oil prices would surge. As of 11 October 2018, the international benchmark Brent Crude (i.e. measures the global price of crude oil) traded at $81.44 a barrel.

1. Governments

From the perspective of governments, oil is a critical resource for economic development. As one of the primary sources for energy production apart from coal and natural gas, many countries, especially developing economies, turn to oil as the key driver of industrialization. From 2005 to 2010, oil consumption in the Asia Pacific region surged nearly 7 million b/d in spite of growing oil prices, which is approximately a 50% increase in consumption within the ten-year period.

Although environmental awareness has been increasingly significant at international talks, countries remain divided on the consideration of reducing fossil fuel consumption and switching to renewables. For oil-rich countries, the notion of 'going green' is likely to be a forgone conclusion, given the high degree of dependence on the hard currency generated from oil exports.

The OPEC (Organization of the Petroleum Exporting Countries), which was formed in 1960 by five member countries (Saudi Arabia, Iraq, Iran, Kuwait and Venezuela), produces 40% of the world's crude oil and its exports occupy 60% of the total petroleum traded globally. Therefore, a fall in OPEC production levels will have a significant bearing on the world price of oil, as observed from historical trends, such as the Oil Embargo of 1973.

Precarious Situation: Geopolitics of Oil

Due to rising geopolitical tensions in the Middle East, where many OPEC members are situated in, market observers pointed out that oil prices have increased more than 25% in 2018, sparking fears amongst investors that oil prices may exceed $100 a barrel. Furthermore, US President Donald Trump's aggressive rhetoric, seen in terms of the planned imposition of crude sanctions against Iran, would prompt a subsequent decline of oil supply, given the latter's position as the third-largest OPEC producer.

Similarly, the mysterious disappearance of prominent journalist Jamal Khashoggi in Istanbul on 2 October 2018 has prompted many countries to request the Saudi government for a thorough investigation. Mr Khashoggi was known for his harsh criticisms towards the Saudi authorities as a regular columnist for the Washington Post. In response to the disappearance case, Mr Trump vowed that “severe punishment” would be meted out if Saudi Arabia was involved. In retaliation, the largest oil producer country threatened to retaliate if sanctions were imposed.

Therefore, markets are bracing for impact as oil prices continue to see an upward trend. The continued reliance on oil for economic development is worrying concern as oil-rich countries wield the power to hold the world to ransom by affecting the international oil supply to influence the development of the global economy.

Gloomy Skies: A Bleak Outlook

Although oil has been a major resource to propel economic growth, the combustion of fossil fuels has dire consequences on the environment and subsequently the well-being of the people. According to a joint study by the World Bank and the Institute for Health Metrics and Evaluation (IHME) in 2016, air pollution was recognised as the “deadliest form of pollution” and incurred nearly “US$225 billion in lost labour income in 2013” for the global economy.

Even with such alarming reports, some countries prioritise economic growth above the drastic environmental consequences. In 2013, although the Chinese government have introduced stricter emission standards for buses and diesel trucks, which were identified as causes of air pollution, analysts argue that the two largest oil companies in China, namely the Sinopec Group and China National Petroleum Corp (CNPC), were the main culprits for the choking smog and polluted skies in numerous Chinese cities.

The inability of authorities to enforce existing environmental standards has allowed major industrial companies to sidestep these regulations and maintain their profits, at the expense of the citizens’ well-being. For example, the State Environmental Protection Administration was promoted to a full ministry and granted more political weight to deal with the pollution problem in 2008. However, the ministry was unable to pressure local governments and large state-owned enterprises to adhere to environmental regulations.

2. Firms

From the viewpoint of firms, oil is a critical energy resource that underpins the functioning of industrial production. It is used for power generation and provides fuel for vehicles. Transportation is recognised as the major source that utilises fuel at an unprecedented level, particularly commercial purposes like air travels. From 2005 to 2015, the total fuel consumption of commercial airlines for domestic and international flights increased from 68 billion gallons to 81 billion gallons. In one day, the world’s airline industry uses more than 5 million barrels of oil and contributes to 2.5% of carbon dioxide pollution.

Too Little, Too Late?

In view of the environmental implications of air travel, international organizations have introduced carbon rules to reduce the emission of pollutants due to fuel consumption. One such measure is known as the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), which was passed in October 2016 by the UN agency International Civil Aviation Organization (ICAO). CORSIA sets a quota of carbon emissions for every country’s airlines. While this accord represents a significant step forward in the fight for climate change, skeptics argue that these efforts are inadequate. A 2018 report by the Transport & Environment (T&E) noted that CORSIA only provided “cheap and ineffective” solutions for carbon emissions. It estimated the European Union (EU) would fail to achieve its 2030 aviation emissions goal by nearly 100 million tonnes even with this accord.

To understand why firms remain hesitant on making the switch from fossil fuels to renewable energy to power their production, it is critical to identify the sources of demand. Notably, the demand for petrochemicals has been increasingly relentlessly. According to the International Energy Agency (IEA), petrochemicals will account for more than one-third of the global oil consumption by 2030. Major petrochemical producers, like Royal Dutch Shell and Saudi Aramco, have profited tremendously from this trend. Similarly, petrochemicals are essential for other industries, like telecommunications and automobiles. As such, we are still far from realising a future whereby renewables can replace fossil fuels entirely for energy production and consumption.

3. Households

As for households, oil remains a relevant and important resource for domestic uses. Individuals use petroleum to generate heat, provide fuel for vehicles and power household appliances. Amongst these various activities, transportation has been identified as the mainstay for the continual surge in demand for oil. In 2017, the US Energy Information Administration estimated transportation to consume 14.02 million barrels per day (b/d), which is 71% of the total petroleum consumption, followed by industrial uses at 4.76 million b/d or 24%. Apart from the use of motor gasoline for transportation, distillate fuel oil is the next popular petroleum that is utilised in furnaces and boilers for heat generation, occupying nearly 20% of the US total petroleum consumption in 2017.

The Problem with Gas-Guzzlers

Before environmentalism took centre stage and contributed to the polarization of societies between industrialists and environmental organizations, many households welcomed the prevalence of public and private transportation. Navigant Research had estimated the total number of light-duty vehicles on the roads will hit a staggering 2.5 billion by 2050. Currently, there are 1.2 billion passenger cars and more than 98% of them depend on oil.

Besides, current oil consumption is largely driven by developed economies. The world, as a whole, has barely begun to consume oil. The Organisation for Economic Co-operation and Development (OECD) members use 50% of the world's oil supply, but occupy barely 17% of the global population. In contrast, the rising affluence of developing countries is likely to fuel the escalation of demand for oil in the next two decades. Between 1990 and 2005, the total number of registered vehicles in the developing world increased from 110 million to 210 million.

One major reason for the prevalence of private car ownership in the low-income countries is the export of used vehicles in international markets. International trade has allowed consumers in poorer countries to purchase used vehicles for private consumption.

For instance, the implementation of the North American Free Trade Agreement (NAFTA) in August 2005 enabled Mexico to import vehicles that were 10 to 15 years-old from USA and Canada. Between 2005 and 2008, more than 2.5 million used vehicles were exported from USA to Mexico. Hence, the versatility of oil for various domestic consumption has influenced the upward trend that affected the demand for oil by households in both developed and developing nations, contributing to the price fluctuations in world markets.

In summary, it is evident that oil will remain important, given its relevance to governments, households and firms. Even so, it is important for the affected parties to recognise the potential pitfalls of strong oil dependence, such as the exacerbation of environmental problems and market v*olatility.*