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Oil market and its impact on global economy

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Abstract
Oil markets have experienced frequent episodes of boom and bust, ever since oil was produced in large commercial quantities in Pennsylvania back in 1859.This paper discusses how change in oil price effects the global economy because oil prices have considerable effects on macro economy of both developed as well as developing countries. These volatilities can affect economic growth through affecting cost of production, consumer spending, and exchange rate that is in turn affect international trade. In this paper the history of the oil industry with a particular focus on the events associated with significant changes in the price of oil. While oil was used much differently and was considerably less important economically in the nineteenth century than it is in this century, there are interesting parallels between events in that epoch and more recent developments.

Keywords: Oil market, global economy, stagflation, macroeconomics model, oil price, shocks, corona virus, AI, fluctuation in oil market, market

Introduction
According to IBIS World market research, the total revenues for the gas and oil sector came to $2 trillion in 2017. This sector includes companies that explore for, develop and operate oil and gas fields. It is also sometimes referred to as the oil and gas exploration and production industry. Since the 2017 estimates for worldwide GDP range between $75 trillion and $87.5 trillion, the gas and oil drilling sector currently makes up something around 2% and 3% of the global economy. According to the research oil market holds a major share in global economy. That's why it's important to understand the oil market.

Bottom LINE
Oil prices have an impact on the U.S. economy, but it goes two ways because of the diversity of industries. High oil prices can drive job creation and investment as it becomes economically viable for oil companies to exploit higher-cost shale oil deposits. However, high oil prices also hit business and consumers with higher transportation and manufacturing costs. Lower oil prices hurt the unconventional oil activity, but benefits manufacturing and other sectors where fuel costs are a primary concern.

Research gap
Crude oil is the most important commodity and emerging industrial markets such as China, India and Latin America greatly influence the price of oil, since they require more and more oil to support their economic growth and resulting rise in energy consumption. The price of oil is one of most important value on the international commodity markets. The paper focuses on understanding oil market and its impact on global economy as it's very important to understand macro impact of oil market.

Literature review
Arezki *et al*. (2017) [1], conducted a research under the title – "oil prices and the global economy". According to the study large movements in the price of oil over time can be a result of small shocks to oil demand or supply. It would not take a large shock for oil prices to return to significantly higher levels, and the long lags between oil price changes and the response of oil supply and demand to those changes can lead to cycles in oil prices in the future.

Hamesh Makhijia has conducted a research under the title "A Study on Impact of Oil Prices on Emerging Market Stock Indices" Stock market is often said to be the barometer of one's macro economy, which means that they have a close relationship. In this paper the relationship between stock market indices in emerging economies and crude oil is analysed. Over the period researchers examined, all the variables are I(1) and by analysing VAR, variance decomposition and granger causality test researchers found evidence for unidirectional causality from Sensex & SSE to crude oil price in both economies. In other words Sensex and SSE composite index contains some useful information for predicting crude oil prices (in the linear least square sense). Based on the analysis, it was found that market indices influence crude oil prices at a very lower degree. The paper concludes that bullish market influences demand for goods and services marginally, which leads to increase in Production, Transportation and shipping activities. Thereby demand for oil increases which lead to increase in oil prices. Bearish market influences nature of above parameters in opposite direction.

Mansoor Mehta has conducted the research under the title "Embargo Period, Crises in Iran and Iraq, 1973-199" Oil crisis of 1973, which started as a Yom Kippur War, when Egypt and Syria launched an attack on Israel. As USA allied with Israel memebrs of OAPEC initiated oil embargo against US and other allies of Israel. This was the largest energy crisis faced by the United States where shipment was reduced from 6 million to 5 million barrels per day.

This lead to the formation of International Energy Agency (IEA).

From 1974 to 1978 world crude oil prices were relatively flat ranging from $12.21 to $13.55 per barrel ($39 to $42 viewed in 2006 dollars) the second oil crisis resulted from Iranian revolution, which caused inconsistent oil export with the loss of 2-2.5 million barrels per day. Prices rised to to $39, 50 ($68.00 viewed in 2006 dollars). The 1973 and 1979 energy crisis increased public awareness that oil is a limited resource, and that it would eventually run out as an economic viable energy source. Factors like more energy efficiency in industrial processes and automobiles etc along with economic recession and increased exploration and production outside OPEC caused a reduction in demand which led to falling crude oil prices to $10 ($20 viewed in 2006 dollars) and so called Oil Glut of 1980's. The US imposed price on domestically produced oil. The result was that the US consumer of crude oil paid about 50 percent more for imports than domestic production and US producers received less than world market price. Higher petroleum prices faced by would have resulted in lower rates of consumption and as a consequence, the US would have been less dependent on imports in 1979-1980 and the price increase in response to Iranian and Iraqi interruptions would have been significantly less.

Methodology

The research paper is based on secondary data obtained from various relevant sources including- Journals, Statistics available from authentic sources, reports. The data Information and statistics obtained from various sources have been put in a logical sequence to bring out this research paper.

Objectives of the study

- To overview the oil market.
- To understand the relation between oil market and the global economy.
- To understand the impact of corona virus on oil market.
- To understand the impact of AI on oil market.
- To identify factors affecting oil market by forecasting last ten year pattern.

Verification of objective

Objective 1: To overview the oil market

The 10 largest oil producers and share of total world oil production in 2018

According to the stats United States is the largest producer and its share is 18% in total world oil production followed by Saudi Arabia (12%). The U.S. has retained its position of being the world's largest economy since 1871. The size of the U.S. economy was at $20.58 trillion in 2018 in nominal terms. Oil and natural gas industry of America supports 10.3 million jobs in the United States. The US oil and natural gas industry supports the American economy like no other industry. This shows oil market plays important role in world's economy as change in oil prices or any factor affecting the oil market can affect the world's largest economy as oil market has major share in it.

Table 1: List of the 10 largest oil producers and share of total world oil production in 2018

Country	Share of world total	Million barrels per day
United States	18%	17.94
Saudi Arabia	12%	12.42
Russia	11%	11.40
Canada	5%	5.38
China	5%	4.81
Iraq	5%	4.62
Iran	4%	4.46
United Arab Emirates	4%	3.79
Brazil	3%	3.43
Kuwait	3%	2.91
Total top 10	71%	71.15

- Oil includes crude oil, all other petroleum liquids, and biofuels.
- Production includes domestic production of crude oil, all other petroleum liquids, biofuels, and refinery processing gain.

The 10 largest oil consumers and share of total world oil consumption in 2017

This data shows developed as well as developing countries has major dependency on oil price because Oil and natural gas together provide over half of the world's energy. Insufficiency of oil and natural gas would have the world grinding to a halt.

Though there have been "renewable" and "sustainable" energy initiatives, none of them have been able to contribute a significant amount of energy to the world as oil and natural gas provide. Natural gas and oil are important resources. They have either been prohibitively expensive, difficult, or simply unreliable. Oil and natural gas runs the world, and without it many countries would not be able to sustain their daily operations.

Table 2: List of the 10 largest oil consumers and share of total world oil consumption in 2017

Country	Share of world total	Million barrels per day
United States	20%	19.96
China	14%	13.57
India	4%	4.34
Japan	4%	3.92
Russia	4%	3.69
Saudi Arabia	3%	3.33
Brazil	3%	3.03
South Korea	3%	2.63
Germany	2%	2.45
Canada	2%	2.42
Total top 10	60%	59.33

- Oil includes crude oil, all other petroleum liquids, and biofuels.
- Production includes domestic production of crude oil, all other petroleum liquids, biofuels, and refinery processing gain.

Objective 2: To understand the relation between oil market and the global economy.

To understand the relation between oil market and global economy. All the major oil shocks and their impact on global economy has been analyzed.

1. The first oil shock 1973.

The 1973 oil crisis began in October 1973.

The members of the Organization of Arab Petroleum Exporting Countries proclaimed an oil embargo. The embargo was targeted at nations perceived as supporting Israel during the Yom Kippur War.

Economic impact

The embargo had a negative influence on the US economy by causing immediate demands to address the threats to U.S. energy security. On an international level, the price increases changed competitive positions in many industries, such as automobiles.

Macroeconomic problems consisted of both inflationary and deflationary impacts. The embargo left oil companies searching for new ways to increase oil supplies, even in rugged terrain such as the Arctic. Finding oil and developing new fields usually required five to 10 years before significant production.

GDP growth regains pre-1974 levels despite a much higher oil price.

1. The second oil shock triggers the 1980-81 recession.

The 1980s oil glut was a serious surplus of crude oil caused by falling demand following the 1970s energy crisis. In the late 1970s, political unrest in the Mid-East created conditions for the dramatic oil price increases of 1979-1981. The government under the Shah of Iran, supported by the U.S., was the center of turmoil. When anti-west Islamic fundamentalists gained control of the country during the Iranian Revolution, Iranian oil production declined dramatically, leading to huge price increases

Economic impact

The 1986 oil price collapse benefited oil consuming countries such as the United States, Japan, Europe, and developing nations, but represented a serious loss in revenue for oil-producing countries in northern Europe, the Soviet Union, and OPEC. Crude oil prices increased from $12.46 per barrel in 1978 to $35.24 in 1981.

The 1981-82 "double-dip" recession is engineered by US Fed interest rate policy.

2. The oil price collapse of 1985-86 has no visible impact on GDP growth.

3. The third oil shock, coinciding with the Iraqi invasion of Kuwait, triggers the 1991-94 recession.

Iraq invaded Kuwait. This resulted in a spike in the price of oil in 1990, which caused manufacturing trade sales to decline. This was combined with the impact of manufacturing being moving offshore as the provisions of North American Free Trade Agreement (NAFTA) kicked in. The leveraged buyout of United Airlines triggered a stock market crash.

4. A "semi-shock" causes growth to fall off in some countries – notably the US

5. A tripling of real oil prices between 1999 and 2006 has no visible impact on GDP growth

There is debate over what the effects of the 2000s energy crisis will be over the long term. Some speculated that an oil-price spike could create a recession comparable to those that followed the 1973 and 1979 energy crises or a potentially worse situation such as a global oil crash. Increased petroleum prices are reflected in a vast number of products derived from petroleum, as well as those transported using petroleum fuels.

The perceived increase in oil price differs internationally according to currency market fluctuations and the purchasing power of currencies. For example, excluding changes in relative purchasing power of various currencies, from 1 January 2002 to 1 January 2008: In US$, oil price rose from $20.37 to nearly $100, about 4.91 times more expensive. In the same period, the Taiwanese dollar gained value over the U.S. dollar to make oil in Taiwan *4.53* times more expensive. On average, oil prices roughly quadrupled for these areas, triggering widespread protest activities. A similar price surge for petroleum-based fertilizers contributed to the 2007–08 world food price crisis and further unrest.

6. The fourth oil shock precedes the "Great Recession"

7. The increasing price trend since 1999

In response to the oil demand slowdown on the 1997 Asian economic crisis, crude oil prices remained slack until early 1999. Later, however, crude prices staged a rapid rebound, and the WTI price topped $30 per barrel in 2000. Since 2000, crude prices have basically continued an upward trend while repeating fluctuations. In particular, crude oil prices have risen further since 2004, as the average WTI price reached $41.50 per barrel during the year. In 2005, the WTI price hit its record high, and in June, it exceeded $60 per barrel. The substantial demand growth was concentrated in Asian developing countries and the United States. Particularly, demand increase in China alone came to 850,000 B/D, accounting for 31% of the world oil demand growth. The China-led oil demand growth prompted both OPEC and non-OPEC oil producing countries to increase production.

9. 2000s oil crises

From the mid-1980s to September 2003, the inflation-adjusted price of a barrel of crude oil on NYMEX was generally under US$25/barrel. During 2003, the price rose

above $30, reached $60 by 11 August 2005, and peaked at $147.30 in July 2008. Commentators attributed these price increases to many factors, including Middle East tension, soaring demand from China, the falling value of the U.S. dollar, reports showing a decline in petroleum reserves, worries over peak oil, and financial speculation.

For a time, geopolitical events and natural disasters had strong short-term effects on oil prices, such as North Korean missile tests, the 2006 conflict between Israel and Lebanon, worries over Iranian nuclear plans in 2006, Hurricane Katrina, and various other factors. By 2008, such pressures appeared to have an insignificant impact on oil prices given the onset of the global recession. The recession caused demand for energy to shrink in late 2008, with oil prices collapsing from the July 2008 high of $147 to a December 2008 low of $32. However, it has been disputed that the laws of supply and demand of oil could have been responsible for an almost 80% drop in the oil price within a 6 month period. Oil prices stabilized by August 2009 and generally remained in a broad trading range between $70 and $120 through November 2014, before returning to 2003 pre-crisis levels by early 2016, as US production increased dramatically. The United States went on to become the largest oil producer by 2018.

Analyzing oil price changes using monthly data

In what follows we shall mainly focus on the effects of lower oil prices on the US economy for three reasons. Firstly, the US economy has not been dependent on oil imports as much as other industrialized economies, with oil production having first peaked in 1971 (before the shale oil revolution). In fact, the US started to export crude oil in January 2016 after a 40-year ban. Secondly, thanks to advances in hydraulic fracturing and directional drilling, oil production has significantly expanded in the US over the past 10 years (see Figure 1). US oil production has risen from 5 million barrels per day (b/d) in January 2008 to 9.2 million b/d in January 2016, around 84% increase. Thirdly, the US oil and gas sector attracted significant. Investment over the past decade, including small firms issuing large amounts of debt (estimated over $350 billion just between 2010 and 2014). As a result, the losses for US investors in equity and bond markets have been substantial following the recent fall in oil prices, with valuations of US energy companies falling dramatically and the number of gas and oil companies in the US filing for bankruptcy soaring, which could have indirect effects on the US economy through secondary or tertiary channels. It is, therefore, important to re-examine the effects of low oil prices on the US economy, particularly over the post-2008 period. To this end we examine the relationship between oil prices and indicators of market (S&P 500) and real economic activity (proxied by dividends on the S&P 500) using monthly data from 1946 to 2016.

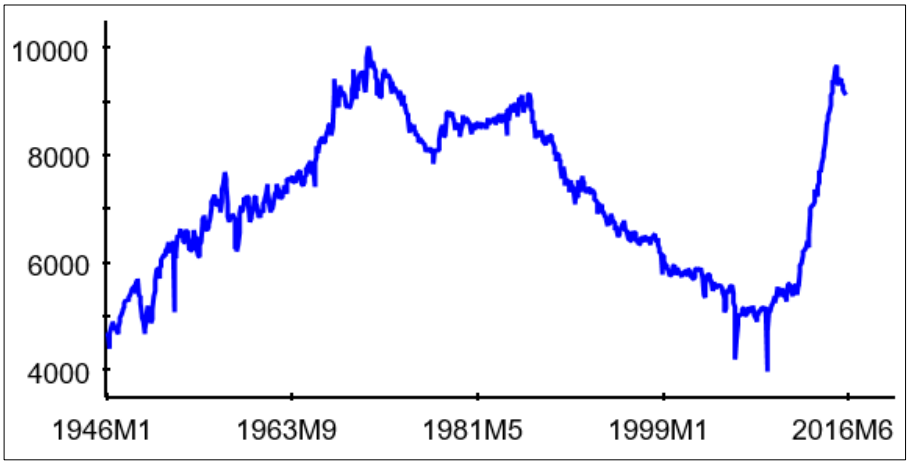

Fig 1: Analyzing oil price changes using monthly data

Are lower oil prices beneficial for the US and the world economy?

Ideally we need to consider how oil prices and real activity are related (as opposed to equity markets). However, quarterly GDP series that exist are not sufficiently long for a reliable analysis of output-oil price relationship over different sub-periods, particularly the post-2008 crisis period. Also, unfortunately, there are no reliable monthly observations on aggregate real activity. While a number of investigators have used monthly measures of US manufacturing output, this is not sufficiently representative of an economy such as that of the US.

Instead we use real dividends on S&P 500 as a proxy for economic activity. The rationale is that if the demand for companies' products does not rise and they do not experience growth they cannot make profits, and if they do not have enough profits they could not pay dividends. While it is true that some companies strategically pay dividends even if their profitability is low, this can only be sustained in the short run (say one or two years). In the long run these companies need to be profitable in order to be able to continue paying out dividends. In other

words, there has to be a relationship between real dividends and the economic climate in the long run.

Figure 2 shows the relationship between real oil prices and real dividends on the S&P 500 over the last 71 years, from which we observe that generally lower (higher) oil prices have been associated with higher (lower) dividends. Table 2 reports the simple correlation between changes in real oil prices and dividends, clearly showing a negative relationship between them over all sub-periods. More specifically the relationships are statistically significant for the full sample (1946 to 2016), as well as the two sub-samples, 1981–2000 and 2011–2016, but not for the sub-period 1960–1980. More importantly we find that changes in real oil prices are negatively related to changes in real dividends over the post-2008 crisis period, and this relationship is also highly statistically significant.

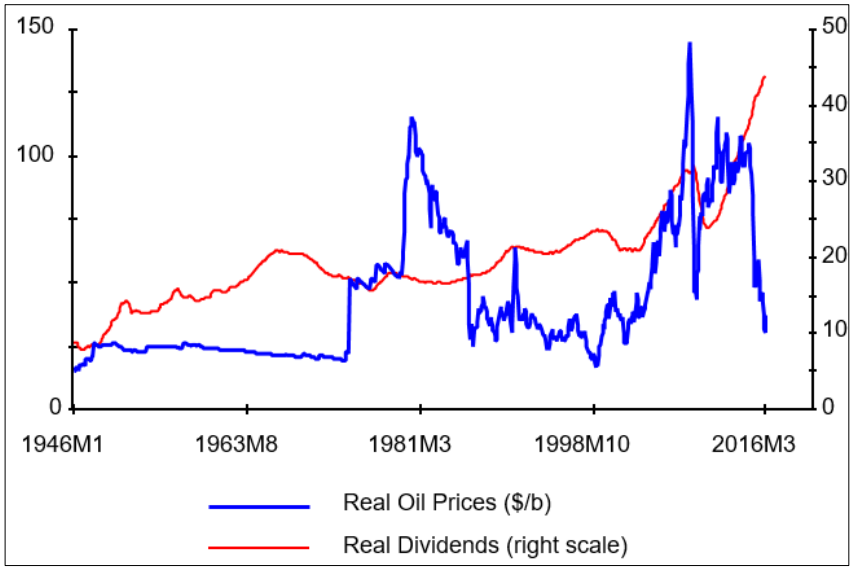

Fig 2: The relationship between real oil prices and real dividends on the S&P 500 over the last 71 years

Objective 3: To understand the impact of corona virus on oil market.

Coronavirus outbreak: Petrol, diesel set to get cheaper as crude oil hits 13-month low.

Domestic rates of petrol and diesel, down about Rs 4 a litre since mid-January, are set to decline further as crude oil slumped to a 13-month low on Thursday to about $52/barrel on fears that the coronavirus outbreak may take a heavy toll on global economic growth and oil demand.

Petrol is down Rs 3.74 a litre and diesel Rs 4.41 a litre since mid-January. In Delhi, petrol was priced at Rs 71.96 and diesel Rs 64.65 a litre on Thursday.

State fuel retailers take 15-day moving average of international rates of fuels and factor in the exchange rate to calculate domestic prices of petrol and diesel daily. Fuel rates largely follow crude oil trajectory. Crude oil has tumbled 12% in eight days as several cases of coronavirus emerged from many countries.

Oil is down a quarter since the beginning of the year.

Falling oil prices are good for heavy energy consumer like India that imports 85% of its oil needs. Lower oil prices help keep inflation in check, reduce fuel subsidy, cut current account deficit and leave more resources in the hands of the state for public spending.

"For now, what we know for sure is that the month of February will record the worst oil demand contraction since the Great Recession. We also know that global aviation will be hit very hard across Asia and take months to get back in shape," S&P Global Platts Analytics said in a report.

"In addition, we are aware that our best-case scenario-a V-shape recovery we last saw during the SARS-2003 outbreak-is already unachievable due to China's inability to go back to 'business as usual' at the beginning of February, and we project it will take another month for full normalisation."

Coronavirus cases have jumped within and outside China. The US reported first such case while Germany, Italy, Japan, Korea, Greece and Iran reported a rise in such cases. Pakistan and Brazil too have detected such cases.

Japan has ordered closure of all schools to stop the spread of virus while Saudi Arabia has halted religious visits. Governments and organisations have postponed several events while companies have begun warning of impact on earnings.

Objective 4: To understand the impact of AI on oil market

Artificial intelligence is an exciting new field, but what uses could it have for offshore oil and gas? Umar Ali explores applications of AI in the sector.

The offshore oil and gas industry has changed rapidly in recent years, with new technologies being adopted by the energy sector to meet the challenges of a digital economic landscape. Artificial intelligence is an exciting new technological field, but what uses could it have for oil and gas? Umar Ali explores the applications of artificial intelligence in the offshore oil and gas industry.

What is artificial intelligence?

Artificial intelligence (AI) is a diverse scientific field, but within the oil and gas industry there are two primary applications of the technology: machine learning and data science.

Machine learning enables computer systems to learn from and interpret data without human input, refining the process through iterations to produce programs tailored to specific purposes. Within the offshore oil and gas industry, this allows companies to monitor complex internal operations and respond quickly to concerns that human operators may not have been able to detect.

Machine learning can also be used to run simulations, using predictive data models to discover patterns based on a variety of inputs. The oil and gas industry can use AI in this way to test potential impacts of new developments or to gauge the environmental risk of a new project before any plans are made.

Data science uses AI to extract information and insights from data, using neural networks to link related pieces of data together and form more comprehensive pictures from existing information. The offshore oil and gas industry can use AI in data science to make the complex data used for oil and gas exploration and production more accessible, which allows companies to discover new exploration opportunities or make more use out of existing infrastructures.

Application of artificial intelligence in oil and gas industry

In January 2019 BP invested in Houston-based technology start-up Belmont Technology to bolster the company's AI

capabilities, developing a cloud-based geoscience platform nicknamed "Sandy."

Sandy allows BP to interpret geology, geophysics, historic and reservoir project information, creating unique "knowledge-graphs."

The AI intuitively links information together, identifying new connections and workflows, and uses these to create a robust image of BP's subsurface assets. The oil company can then consult the data in the knowledge-graph, with the AI using neural networks to perform simulations and interpret results.

The Oil and Gas Authority (OGA) is making use of AI in similar ways, with the UK's first oil and gas National Data Repository (NDR), launched in March 2019.

The NDR contains 130 terabytes – the equivalent of around eight years' worth of HD movies – of geophysical, infrastructure, field and well data. This data covers more than 12,500 wellbores, 5,000 seismic surveys and 3,000 pipelines. The NDR uses AI to interpret this data, which the OGA hopes will uncover new oil and gas prospects and enable more production from existing infrastructures.

The OGA also expects the AI-driven platform to be a part of the UK oil and gas industry's energy transition, with its reservoir and infrastructure data supporting future carbon capture, usage and storage projects.

AI can also be used to make operations on oil and gas platforms safer. In March 2019, Aker Solutions partnered with tech company Spark Cognition to enhance AI applications in its 'Cognitive Operation' initiative.

Spark Cognition's AI systems will be used in an analytics solution platform called Spark Predict, which monitors topside and subsea installations for more than 30 offshore structures.

The SparkPredict platform uses machine learning algorithms to analyse sensor data, which enables the company to identify suboptimal operations and impending failures before they occur.

Shell adopted similar AI software in September 2018, when it partnered with Microsoft to incorporate the Azure C3 Internet of Things software platform into its offshore operations.

The platform uses AI to drive efficiencies across all sections of Shell's offshore infrastructure, from drilling and extraction to employee empowerment and safety.

The future of AI

AI has already been incorporated into a number of sectors within the oil and gas industry as part of global efforts to digitally transform exploration and production operations. But what is the future of AI technology in the oil and gas industry?

The industry seems to have readily accepted digital technologies such as AI, and is optimistic about the potential of this technology.

Aker BP Improvement senior vice president Per Harald Kongelf said: "The oil and gas industry is facing a rapidly changing digital landscape that requires cutting-edge technologies to cultivate growth and success."

IBM senior manager Brian Gaucher said: "Cognitive environments and technologies can bring decision makers together, help them seamlessly share insights, bring in heterogeneous data sets more fluidly, and enable target analysis and simulation."

Table 3: To identify factors affecting oil market by forecasting last ten year pattern.

Year	Avg	Low	High	Cause
2008	$92.57	$35.59	$127.77	Financial crisis
2009	$59.04	$36.84	$74.40	Great Recession
2010	$75.83	$73.73	$85.59	
2011	$102.58	$87.61	$107.98	
2012	$101.09	$92.18	$108.54	Iran threatened Straits of Hormuz
2013	$98.12	$90.36	$104.16	
2014	$89.63	$57.36	$100.26	The dollar rose 15%.
2015	$46.34	$33.16	$58.89	U.S. shale oil increased
2016	$38.17	$26.66	$46.72	Dollar fell.
2017	$48.73	$43.93	$54.38	OPEC cut oil supply to keep prices stable
2018	$50.69	$47.50	$67.25	

Fracking is a slang term for hydraulic fracturing, which is the process of creating fractures in rock formations by injecting specialized fluid into cracks to force them to open further. The larger fissures allow more oil and gas to flow out of the formations and into the wellbore, from where they can be easily extracted. This also facilitates the extraction of shale oil.

Owing to fracking, U. S. crude oil production almost doubled over the past 15 years. This technology is often called a game changer for the global oil market, as it enabled the U. S. to become one of the world's largest crude oil producers again.

Currently, the U.S is the only country that permits fracking on a large scale, whereas many other countries are highly reluctant to adopt this technology because of its potentially negative implications for the environment, notably potential hazards due to water pollution and seismic tremor. France and Germany, for instance, have implemented a ban because of perceived health risks due to fracking. On the other hand, countries such as the UK and Australia have recently modified political regulations to allow for fracking. Fracking sounds warning bells for OPEC but it should be noted that OPEC still matters.

In the research, it is found that there is a negative influence of the increased U. S. oil production (supply) due to fracking on the oil price. Basically, increase in supply of oil would lead to decrease in its price.

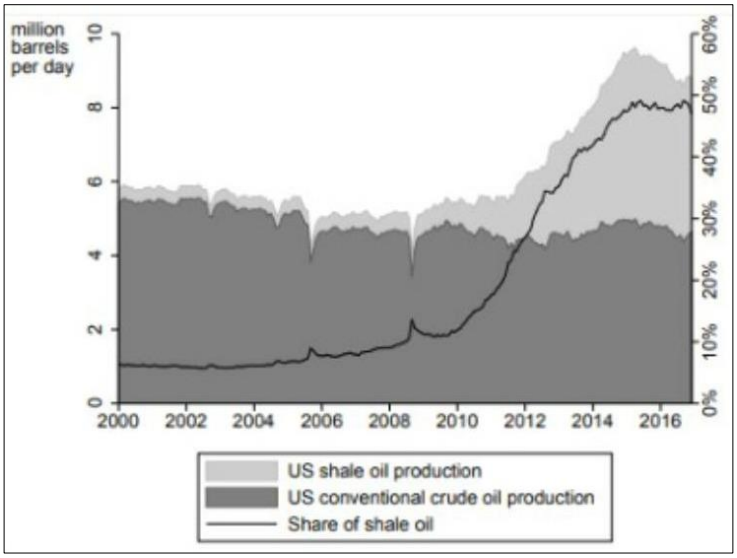

Fig 3: Shale oil and total crude oil production in the U.S (left hand scale) and share of shale oil in Total U.S crude oil Production (right hand scale)

Without a doubt, the U. S. fracking boom is an example of a technological change in a single industry of one country affecting international trade worldwide, not just world oil prices. Also, since it is likely that the fracking technology is used more intensively in countries other than the U. S., it can be expected that the pressure that this technology exerts on world oil prices may further increase. However, fracking is just one of a multitude of factors that influence oil prices, among which the global economic development is the most important. Therefore, one should not expect a further drastic decrease in oil prices due to fracking.

Conclusion

The two aforementioned large oil shocks of the 1970s were characterized by low growth, high unemployment, and high inflation (also often referred to as periods of stagflation). It is no wonder that changes in oil prices have been viewed as an important source of economic fluctuations. So the researcher have concluded that Oil price increases are generally thought to increase inflation and reduce economic growth. In terms of inflation, oil prices directly affect the prices of goods made with petroleum products. As mentioned above, oil prices indirectly affect costs such as transportation, manufacturing, and heating. The increase in these costs can in turn affect the prices of a variety of goods and services, as producers may pass production costs on to consumers. The extent to which oil price increases lead to consumption price increases depends on how important oil is for the production of a given type of good or service.

The correlation between oil shocks and economic recessions appears to be too strong to be just a coincidence (Hamilton, 1983a, 1985). And although demand pressure associated with the later stages of a business cycle expansion seems to have been a contributing factor in a number of these episodes, statistically one cannot predict the oil price changes prior to 1973 on the basis of prior developments in the U.S. economy (Hamilton, 1983a). Moreover, supply disruptions arising from dramatic geopolitical events are prominent causes of a number of the most important episodes. Insofar as events such as the Suez Crisis and first Persian Gulf War were not caused by U.S. business cycle dynamics, a correlation between these events and subsequent economic 27 downturns should be viewed as causal. This is not to claim that the oil price increases themselves were the sole cause of most postwar recessions. Instead the indicated conclusion is that oil shocks were a contributing factor in at least some postwar recessions.

Impact of corona virus for now, what we know for sure is that the month of February will record the worst oil demand contraction since the Great Recession. We also know that global aviation will be hit very hard across Asia and take months to get back in shape, S&P Global Platts Analytics said in a report.

The oil and gas industry is facing a rapidly changing digital landscape that requires cutting-edge technologies to cultivate growth and success. So we can say that Ai can change the oil market completely.

Scope for future research

The study reveals new grounds for further research. Future studies on the subject can address the following issues to have deeper understanding of the subject. Research can be performed to find out the relationship between oil prices and key macroeconomic variables have weakened over time. In this study all the macroeconomic variables are pooled together and reviewed. In further study they can be analyzed thoroughly. A similar study of this sort could be conducted after a period of time and even after regular interval of time. We can also analyze the How do high oil prices affect the economy on a “micro” level.

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