

THE LATEST DROP IN PRICE OF OIL: WHY THIS TIME IT'S DIFFERENT FOR OPEC

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ABSTRACT

Throughout the past decades, the volatility of oil prices has always been owed to shifts in supply and demand. However, the steep drop in oil prices that began in June 2014 and continues to the date of writing this paper in April 2015 is different due to multiple factors. This paper begins with a historical overview of the instability of oil prices, it then sheds the light on three factors why this particular plunge constitutes a real threat to OPEC member states and Middle East producers especially; the first, is that oil producing countries are consuming a lot more of their own oil today than they have done before, wasting it on unproductive subsidy spending. The second is the drop in demand owed to the United States' newly created oil independence, the massive success of shale oil in America has turned it from a major importer of Middle Eastern oil to major competition. Thirdly, due to America's waning demand for Middle Eastern oil, the former no longer has the same interest in maintaining the security of the unstable, troubled latter. Finally, this paper ends with naming the oil producing states suffering the most from this price decline.

Keywords: Oil, supply, demand, OPEC, Gulf States, Shale oil, fracking, USA, China, IMF, Crude oil, energy efficiency, renewables, low carbon emissions.

INTRODUCTION

Oil prices fell sharply in the second half of 2014, bringing to an end a four-year period of stability around \$105 per barrel. The decline, which is much larger than that of the non-oil commodity price indices compared to early-2011 peaks, may signal an end to a price "supercycle". Oil prices are expected to remain low in 2015 and rise only marginally in 2016. The reason why this paper can be useful for scholars and researchers in the oil field and especially those living in OPEC oil exporting countries, is that it focuses on how the latest oil plunge constitutes a real threat for oil dependent nations, the oil boom in America and the energy efficiency in China both have dramatic impact on oil prices today and in the future. The other reason concerns Gulf states, these small countries have relied on America's political protection in the past, however, now that America's oil interest in the Gulf is decreasing, the security of the Persian Gulf can be compromised.

The research of this article relied on journal papers and articles as well as newspapers and opinions of financial observers, when it comes to a commodity as volatile as oil a researcher needs to be on top of the news as it changes daily or indeed several times per day, therefore, data collected from newspapers and financial observers are crucial for writing this article, although viewed by some as unreliable compared to more solid sources such as books. A paper of this nature cannot rely on past research on the topic as the political, economic and social backdrop is always changing and affecting the price of oil with it. Innovation and continuous development in the field of energy efficiency is another main factor influencing the supply and demand of oil today.

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What we learned from past oil price plunges

Oil prices behave much as any other commodity with wide price swings in times of shortage or oversupply. The domestic industry's price has been heavily regulated through production or price controls throughout much of the twentieth century. Dwindling oil supplies, world political and geographical events, economic growth and decline, all these factors can affect the rise or drop of oil prices. In 1973, energy markets were disrupted when war broke out between Israel and neighboring nations. Oil supply was reduced by some member nations of the Organization of Petroleum Exporting Countries (OPEC). At that time there was relatively little excess worldwide oil extraction capacity. Consumers and producers expected further disruptions. Therefore the supply reductions led to disproportionately sharp increases in the world price of oil².

OPEC has seldom been effective as a cartel. During the 1979-1980 period of rapidly increasing prices, Saudi Arabia's oil minister Ahmed Yamani repeatedly warned other members of OPEC that high prices would lead to a reduction in demand. His warnings fell on deaf ears. The rapid price increases caused several reactions among consumers: better insulation in new homes, increased insulation in many older homes, more energy efficiency in industrial processes, and automobiles with higher mileage³.

These factors along with a global recession caused a reduction in demand which led to falling crude prices. Unfortunately for OPEC only the global recession was temporary. Nobody rushed to remove insulation from their homes or to replace energy efficient plants and equipment, much of the reaction to the oil price increase in the end of the decade was permanent and would not respond to lower prices with increased demand for oil⁴. From 1982 to 1985 OPEC attempted to set production quotas low enough to stabilize prices. These attempts met with repeated failure as various members of OPEC would produce beyond their quotas. During most of this period Saudi Arabia acted as the swing producer cutting its production to stem the free falling prices. In August of 1985, the Saudis tired of this role; they linked their oil prices to the spot market for crude and by early 1986 increased production, crude oil prices plummeted below \$10 per barrel by midyear.

In December 1986 OPEC price accord set to target \$18 per barrel was already breaking down by January of 1987. Prices remained weak. The price of crude oil spiked in 1990 with the uncertainty associated Iraqi invasion of Kuwait and the ensuing Gulf War, but following the war crude oil prices entered a steady decline until in 1994 inflation adjusted prices attained their lowest level since 1973⁵.

The price cycle then turned up. With a strong economy in the United States and a booming economy in Asia increased demand led a steady price recovery well into 1997. This came to a rapid end when the impact of the financial crisis in Asia was underestimated by OPEC. In December, OPEC increased its quotas 10% to 27.5 million barrels a day but the rapid growth in Asian economies had come to a halt, making the period between 1997-1999 surpass 1994

² Sweeney, J., (1986), "Changing World Oil Markets: What Should We Expect?," *Zeitschrift fur Energie Wirtschaft*, pp. 73-74.

³ Williams, J., (1999), "A Discussion of Crude Oil Prices, The Relationship Between Prices and Rig Count and The Outlook for the Future of the Petroleum Industry", WTRG, <http://www.wtrg.com/prices.html>

⁴ Bohi, D. R., and Toman, M. A., (1996), "The Economics of Energy Security", Kluwer Academic, pp. 89-112.

⁵ Storm, S., and Pescatori, A., (2014), "Oil Price Volatility and the Role of Speculation", IMF, <http://www.imf.org/external/pubs/ft/wp/2014/wp14218.pdf>

as the worst year for oil prices since 1973⁶. Figure 1 (below) shows the prices of crude oil from 1970 until 2008 and figure 2 shows the prices of crude oil from 2010 to 2014 showing a steep plunge towards the end of 2014.

The oil price has fallen by more than 40% since June 2014, when it was \$112 per barrel, to \$70 per barrel in November 2014, plummeting to \$50 in January 2015 and barely reaching \$55 per barrel at the time of writing this paper in April 2015. This comes after nearly five years of stability. But why is this price drop specifically different? And should OPEC members be worried?



Figure 1 price of crude oil 1970 - 2008⁷

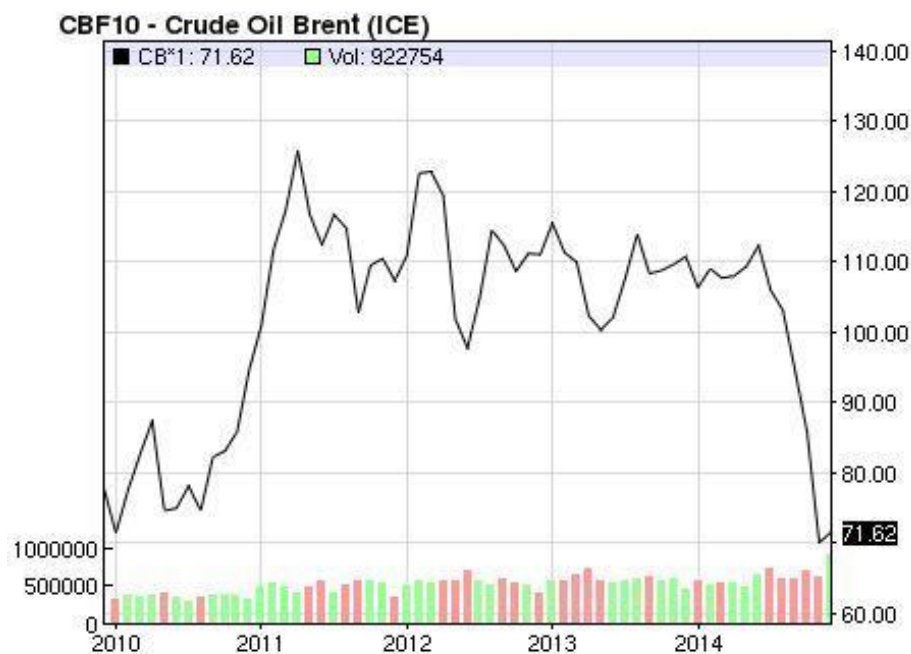


Figure 2 price of crude oil 2010 - 2015⁸

⁶ NEF, (2011), "The Economics of Oil Dependence: A Glass Ceiling to Recovery: Why the Oil Industry Today is Like Banking was in 2006", http://b3cdn.net/nefoundation/7bd678b50f8aec0cd1_52m6bowpu.pdf

⁷ Leigh, J., (2008), "Crude Oil Price Retreat: Sunrise or a Lull Before the Storm?", Energy Bulletin, <http://www.resilience.org>

Why this particular plunge is different and why should OPEC member states be worried?

From 1970 until mid-2014, the volatility of oil prices was always owed to shifts in supply and demand. Wars, economic recessions, financial and political crises hitting oil producing states either in the troubled Middle East or in some of the equally unstable producers meant lower supply for some producing countries enduring such crisis followed by a gradual come back (such as Kuwait in 1990, Iraq in 2003, Libya 2009, and Venezuela in 1999), lower supplies of oil meant a rise in oil prices for other producers unless importing countries were facing recessions and economic downturns.

When oil prices sky rocketed in 2011 due to slow production of oil in major exporters such as Iraq, Iran and Libya, economists expected an oil price drop between 2014/2015, however, the following factors provide why this specific price drop is different⁹.

1. Oil producers are consuming and wasting more oil than before

The increasing consumption of oil in the producers' own countries had become a new challenge. Saudi Arabia, traditionally the largest oil exporter in the world, exported less oil in 2011 than it did in 2005 or even 1985, this is despite large increases in production in recent years¹⁰.

In 2013, the International Energy Agency (IEA) chief economist Fatih Birol provided that a third of the worldwide \$500 billion in energy subsidies are paid in the Middle East. In countries like Saudi Arabia, Iraq and Iran there are serious amounts of subsidies in oil and natural gas prices. As such, subsidies impede productive use of energy and consumption increases more than needed. Birol said 35% of electricity production in the Middle East is oil based and used a humorous analogy: "This is a very serious mistake, because oil is the most expensive input. To use oil in electricity production is like using Chanel perfume as truck fuel, the most wasteful unproductive use of energy in the world is in the Middle East."¹¹ The IEA has also announced that the Middle East's demand for oil will increase by half towards 2035 (reaching 9.9 million bpd), surpassing oil demand in the European Union before 2030. Demand for natural gas in the Middle East is also set to increase by more than the growth of the entire OECD countries - around 300 billion cubic meters - between 2011 and 2035, driven by new power generation (where demand for gas nearly doubles to reach 275 bcm).

The surging demand has already led to imbalances in markets such as Kuwait and the UAE, which now import natural gas despite sitting on substantial natural gas reserves. The IEA provided that some Middle East governments are reviewing their pricing policy towards gas

⁸ Menton, J., (2014), "What Plunging Oil Prices Mean for US Consumers, Petroleum Producers, Oil Service Companies", <http://www.ibtimes.com/what-plunging-oil-prices-mean-us-consumers-petroleum-producers-oil-service-companies-1731458>

⁹ Other factors why the latest plunge in oil price is a threat to oil producers are the expansion in energy efficiency and low carbon emissions in the US and China, the largest two oil importers of the world. This is covered substantially in a my paper entitled "The Plunge of Oil Prices: What does Energy Efficiency and Booming US Oil Industry Mean for Oil Dependent Kuwait?"

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2567485

¹⁰ *ibid* (see footnote 6).

¹¹ Tamer, M., (2013), "Middle East Major, Wasteful Oil Consumer", ALMONITOR, <http://www.al-monitor.com/pulse/business/2013/11/middle-east-wasteful-oil-consumption.html#>

and electricity, in an attempt to rein in demand, restrict imports (in some cases) and encourage supply. While natural gas imports might be a solution for some countries in the Middle East, others are looking to raise their own domestic production, Oman, for example, has announced that it will raise industrial gas prices. While Qatar is expected to remain the major contributor to natural gas production growth in the region, the country's gas production has decreased in 2015 at 180 bcm. Apart from Qatar, Yemen may be the only other significant natural gas exporter in the Middle East region.

Much of the demand is driven by heavy oil and gas subsidies of around \$ 112 billion (or 13% of oil-export revenues), the IEA estimates. On a per-capita basis, oil related subsidies stood at around \$ 500 per person in Iraq, Iran and the UAE, and more than \$ 1,500 per person in the Gulf States of Kuwait, Saudi Arabia and Qatar, in addition to large electricity subsidies, especially in the Gulf states where air conditioning is dispensable and such high electricity demand all generated by fossil fuels. Even if the renewables' sector in the Middle East tried to pick up some of the slack and reduce the stress on fossil fuel generated energy, oil will remain a key part in generating Middle East power, which would diminish the region's influence on global oil markets at least in the current decade.¹²

2. Why this plunge is dangerous for the Middle East and for Gulf producers especially?

2.1 The decrease in demand as the US achieves oil independence and is no longer a key importer of Gulf oil

One factor which makes this drop in oil price different is that the US who was the biggest importer is now producing and covering much of its demand. In 2008, the US created 5 million barrels a day. In 2014 America's production accounted for 10 % of the globe's development, or about 8.4 million barrels a day. This year, US production is expected to hit 9.3 million barrels a day¹³.

Overall the United States' imports are at a 17-year low while the nation's production rate is at a 24 year high because of hydraulic fracturing (fracking)¹⁴. In fact, production in 2013 exceeded net imports, which is the first time since 1995 while net oil imports were the lowest that they have been since 1991.¹⁵

Thanks to the success of "fracking" in accessing reserves of oil trapped in shale formations, notably in Texas and North Dakota, America is poised to displace Saudi Arabia as the world's top producer. With that could come a hobbling of OPEC and unforeseen shifts in US foreign policy.

¹² Zawya, (2013), Mideast Energy Consumption Seen Insatiable,

https://www.zawya.com/story/Mideast_energy_needs_to_soar-ZAWYA20131113120001/

¹³ Silverstein, K., (2015), "How Falling Oil Prices Will Impact Economy and the Keystone Pipeline Debate", Forbes, <http://www.forbes.com/sites/kensilverstein/2015/01/09/falling-oil-prices-impact-economy-and-the-keystone-pipeline/>

¹⁴ Hydraulic fracturing, or fracking, is a technique designed to recover gas and oil from shale rock. Fracking is the process of drilling down into the earth before a high-pressure water mixture is directed at the rock to release the gas inside. Water, sand and chemicals are injected into the rock at high pressure which allows the gas to flow out to the head of the well. The process is more expensive than the traditional way oil is extracted from the ground; it is carried out vertically or, more commonly, by drilling horizontally to the rock layer. The process can create new pathways to release gas or can be used to extend existing channels.

¹⁵ *ibid* (footnote 13).

The development in energy production has been rapid in the US, and this is not exclusive to oil, so much natural gas is being released by shale. Even predicting future oil output isn't the precise; "We keep raising our forecasts, and we keep underestimating production," Lejla Alic, an analyst with the International Energy Agency noted recently.¹⁶

2.2 Due to its oil independence, the security of the Gulf and the Middle East is no longer America's priority

Political leaders in the Middle East believe that America's dependence on their oil gives them leverage over our policies. The possibility of increasing that leverage emboldened Saddam Hussein to invade Kuwait in order to extend the share of Mid-East oil controlled by Iraq. And while the governments of Saudi Arabia and Kuwait are basically friendly to the United States, recent events have made it clear how potentially vulnerable those governments are to radical elements within their own countries. All of this is a cloud over the continuation of oil supply from the Middle East.

America has been aiming to achieve oil independence since 1980, however, its dependence on imported oil was still 42% of its consumption in 1980 and has risen to 52% in 2000¹⁷.

The United States' discovery of shale oil and gas has dramatically shifted the balance of power, to the apparent benefit of consumers and the discomfort of petro states. In November 2014 and in the midst of the shocking oil price drop, OPEC, led by its top producer Saudi Arabia, decided to keep pumping oil instead of playing its traditional role of cutting production to prop up prices. The decision was seen as a bid to hurt US oil, making it obvious that America has turned from major importer to major competition¹⁸.

Energy security is a big concern for both the United States and China, though the latter typically sees it as a supply side issue: secure as much as possible to fill what it sees as endless future demand. For the US, having tied much of its energy fate to the Middle East for the last several decades, energy security meant building robust military capabilities to defend its interests and maintain open sea lanes for trade. The Chinese, of course, also depended on the US provision of security as its energy imports from the Arab world expanded dramatically.

Beginning in 2005, natural gas production from domestic shale gas formations began to rapidly increase. The US shale gas boom is one, though not only, major factor in reducing the country's use of oil and gradually weaning the country from relying on Gulf producers. China, on the other hand, is heading in the opposite direction. Its oil import dependence now stands at about 55%, or importing about 5.3 million barrels per day (BPD) out of total demand of 9.9 million BPD, according to PetroChina estimates. This is roughly equivalent to the peak of US import dependence, and much of China's oil comes from the same places that had been such a big part of the American supply. As of 2010, nearly half of China's imported oil arrived from the Gulf, including Libya and Iraq. In short, China risks becoming the "new

¹⁶ Usborne, D., (2015), "Fracking is Turning the US into a Bigger Oil Producer than Saudi Arabia", The Independent, <http://www.independent.co.uk/news/world/americas/fracking-is-turning-the-us-into-a-bigger-oil-producer-than-saudi-arabia-9185133.html>

¹⁷ Feldstein, M., (2001), "Oil Dependence and National Security: A Market-based System for Reducing US Vulnerability" <http://www.nber.org/feldstein/oil.html>

¹⁸ The Wall Street Journal, (2015),OPEC sees more demand for its oil less for U.S.

<http://www.wsj.com/articles/demand-for-opec-crude-will-rise-this-year-says-group-1423482563>

US" in the Middle East, a direct result of its energy-intensive growth model and the rapid expansion of the transport sector¹⁹.

But the difference is that China does not have an adequate foreign policy or the capabilities to accommodate the unavoidable economic realities. Moreover, some in China fear that increasing US energy independence, particularly its enormous shale output, will make the Middle East strategically dispensable for the US, providing Washington with more flexibility to "disrupt" the region in a way that would indirectly damage Chinese interests. In other words, if Middle Eastern oil no longer matters quite so much to the US, then it would have more freedom to do things that would risk disrupting Middle Eastern oil output, such as forcing "regime change" in unfriendly countries²⁰.

Who is suffering the most due to decline in oil prices?

The Middle East and North Africa contain the greatest concentration of oil-dependent economies in the world. The region accounts for nearly a third of seaborne crude oil and liquefied natural gas exports. The Middle East — specifically the Persian Gulf — also accounts for the majority of OPEC production and exports. Therefore, the Middle East is the region that is most exposed to volatility in global energy markets — and the region that can cause the most variation, as seen by Libya's production fluctuations. A sustained drop in the price of oil below \$90 per barrel could jeopardize the economic stability that many of the region's energy exporters have enjoyed following the tumult of the Arab Spring.

The Gulf oil producers

Years of large budget surpluses fed by high oil prices have insulated these economies from short-term fluctuations in prices. Many of the region's key producers — Saudi Arabia, Kuwait, the United Arab Emirates, Libya and Algeria — have hundreds of billions of dollars in currency reserves. Saudi Arabia, the United Arab Emirates and Kuwait combined have more than \$2 trillion in their primary sovereign wealth funds alone. Others in the region are not as lucky: High domestic spending and domestic economic problems have left Baghdad, ravaged by war, and Tehran, hampered by sanctions, needing higher oil prices — more than \$100 per barrel — to balance their budgets. Lacking the same budget surpluses and healthy balance sheets as their Gulf counterparts, these governments, already feeling pressure from the Islamic State, will suffer if oil prices remain low in the long term²¹.

Slowing growth in Europe and China is drying up demand, all while production is soaring in the United States, creating a supply glut. With both of these trends unlikely to change in the coming months, analysts say that lower crude prices could last well into 2015. For many of the world's major oil-producing nations, falling prices are an economic bust. Countries whose revenues come mostly from oil -- such as Venezuela, Iran and Nigeria, Russia, Brazil, and Mexico.

¹⁹ Ma, D., (2012), "Dependence on Middle Eastern Oil: Now it's China's Problem Too", The Atlantic, <http://www.theatlantic.com/international/archive/2012/07/dependence-on-middle-eastern-oil-now-its-chinas-problem-too/259947/>

²⁰ *ibid* (see footnote 11)

²¹ Bowler, T., "Falling Oil Prices: Who are the Winners and Losers?", BBC, <http://www.bbc.co.uk/news/business-29643612>

Venezuela

Venezuela will be hit hardest by falling oil prices because of its troubled economy. The country had a budget deficit worth nearly 17% of its gross domestic product last year -- worse than the deficits in Greece and Spain at the height of the eurozone debt crisis, Venezuela, the world's ninth-largest oil exporter and holder of the biggest proven oil reserves, needs oil prices at around \$120 a barrel -- or 50 percent higher than today -- to keep its economy afloat, according to the International Monetary Fund (IMF).

Iran

Even before oil prices began to dip, Iran's energy industry was in a free-fall. Western sanctions imposed in response to Tehran's nuclear program have greatly reduced the country's ability to export oil, and revenues are down nearly 50% since 2012. Iran, once the world's second-largest producer, is now the fourth. The government remains heavily dependent on oil revenues. To finance its spending plans, Iran needs prices around \$136 a barrel, or 70% higher than current levels, according to IMF figures²².

Nigeria

Petroleum accounts for nearly all of Nigerian exports, with 95% of the country's foreign exchange earnings and 85% of its total revenues coming from crude oil sales. This lack of economic diversity makes Nigeria especially vulnerable to price swings, and Africa's largest oil producer is already showing signs of suffering. Oil revenues fell by \$604 million in September -- a 16.5% fall from the previous month -- due to sliding crude prices and production losses, the government said. If revenues dwindle further, Nigeria could suffer a cash crunch and the government could delay paying state employees²³.

Russia

Falling oil prices will have a less dramatic impact on the Russian economy in the near term. The country has around \$450 billion in reserves to hedge some of the effects of cheaper crude, and that cash could last for up to a year. Still, Russia could slide into a recession all the same. Moscow gets more than half its budget revenue from oil and gas; for every \$10 drop in the per-barrel price of oil, Russia loses up to \$14.6 billion a year in revenues, according to Alfa Bank.

Brazil

State-owned oil-and-gas giant Petrobras has nearly tripled production at its "pre-salt" offshore oil fields since 2012, which has helped boost the firm's overall production even as output at more mature fields declines. Brazilian leaders are counting on that supply surge to boost profits, pay off debts and fund local schools and hospitals. But for each \$1 drop in crude oil prices, Petrobras stands to lose more than \$900 million of cash from potential oil

²² Bird, M, (2015), "Low Oil Prices are Weakening Venezuela, Russia and Iran's International Power", Business Insider UK, <http://uk.businessinsider.com/oil-prices-russia-iran-venezuela-power-weakening-2015-2>

²³ Moran, J., (2015), "Can Africa's Oil Producers Weather the Oil Price Storm?", The Barrel, <http://blogs.platts.com/2015/01/23/africa-oil-worries/>

sales, according to calculations made by Reuters. If sustained, the price drop could also undermine Petrobras' long-term plans for expansion²⁴.

Mexico

As in Brazil, cheaper oil could hamper the progress of Mexico's long-awaited energy sector reforms. In August, President Enrique Peña Nieto approved a sweeping package of measures to allow private and foreign firms to explore for and produce energy in Mexico -- ending the 75-year-long monopoly of Pemex, the state-run oil company. But lower prices could affect investor interest in the kinds of large-scale projects needed to revamp the country's sluggish oil and gas industries. Pemex's quarterly loss totaled \$4.4 billion from July to September, compared to nearly \$3 billion for the same period in 2013, because of cheaper oil and declining exports²⁵.

CONCLUSION

In the past, Middle East oil producers and especially the Gulf States had much leverage when it came to oil prices; influencing price and productivity rates according to rising and falling supply and demand in industrial importing countries such the European Union, the US, and China, however, in the past there was relatively little excess to worldwide oil. Today the playing field has changed completely, as this paper shows; America has achieved oil independence due to shale oil and therefore is no longer the Gulf's most prized oil importer but a fierce competitor. Europe and China have shifted their focus to renewables, energy efficiency in industrial processes and low carbon emissions. Also there are so many more players on the field, Canada, America, Venezuela, Russia, Mexico, Brazil and Nigeria are all oil exporting nations, thus petrol is no longer an expensive commodity exclusive to the Gulf, and OPEC is no longer the sole controller of supply. Adding to this, OPEC member states, and Gulf producers especially are facing a real danger on both the economic level and on the level of political security; consuming more of their own oil and gas than they have done before through subsidies without any innovation or economic diversity while relying entirely on oil as the sole source of income for their nations constitutes a threat, another threat arises due to waning US interest in Mid-East and Gulf oil, the latter are now more vulnerable as the former no longer feels the need to sustain Middle East or Gulf security.

REFERENCES

- Bird, M, (2015), "Low Oil Prices are Weakening Venezuela, Russia and Iran's International Power", Business Insider UK, <http://uk.businessinsider.com/oil-prices-russia-iran-venezuela-power-weakening-2015-2>
- Bohi, D. R., and Toman, M. A., (1996), "The Economics of Energy Security", Kluwer Academic, pp. 89-112.
- Bowler, T., "Falling Oil Prices: Who are the Winners and Losers?", BBC, <http://www.bbc.co.uk/news/business-29643612>

²⁴ Erana, R., (2015) "Impact of Lower Oil Prices on Latin America", Frontera Capital Advisors, <http://fcapadvisors.com/impact-of-lower-oil-prices-on-latin-america/>

²⁵ Gallucci, M., (2014), "How Russia, Iran and other oil Rich Nations Will Be Slammed by Falling Crude Oil Prices", International Business Times, <http://www.ibtimes.com/how-russia-iran-other-oil-rich-nations-will-be-slammed-falling-crude-oil-prices-1716476>

- Erana, R., (2015) "Impact of Lower Oil Prices on Latin America", Frontera Capital Advisors, <http://fcapadvisors.com/impact-of-lower-oil-prices-on-latin-america/>
- Feldstein, M., (2001), "Oil Dependence and National Security: A Market-based System for Reducing US Vulnerability" <http://www.nber.org/feldstein/oil.html>
- Gallucci, M., (2014), "How Russia, Iran and other oil Rich Nations Will Be Slammed by Falling Crude Oil Prices", International Business Times, <http://www.ibtimes.com/how-russia-iran-other-oil-rich-nations-will-be-slammed-falling-crude-oil-prices-1716476>
- Leigh, J., (2008), "Crude Oil Price Retreat: Sunrise or a Lull Before the Storm?", Energy Bulletin, <http://www.resilience.org>
- Ma, D., (2012), "Dependence on Middle Eastern Oil: Now it's China's Problem Too", The Atlantic, <http://www.theatlantic.com/international/archive/2012/07/dependence-on-middle-eastern-oil-now-its-chinas-problem-too/259947/>
- Menton, J., (2014), "What Plunging Oil Prices Mean for US Consumers, Petroleum Producers, Oil Service Companies", <http://www.ibtimes.com/what-plunging-oil-prices-mean-us-consumers-petroleum-producers-oil-service-companies-1731458>
- Moran, J., (2015), "Can Africa's Oil Producers Weather the Oil Price Storm?", The Barrel, <http://blogs.platts.com/2015/01/23/africa-oil-worries/>
- NEF, (2011), "The Economics of Oil Dependence: A Glass Ceiling to Recovery: Why the Oil Industry Today is Like Banking was in 2006", http://b3cdn.net/nefoundation/7bd678b50f8aec0cd1_52m6bowpu.pdf
- Silverstein, K., (2015), "How Falling Oil Prices Will Impact Economy and the Keystone Pipeline Debate", Forbes, <http://www.forbes.com/sites/kensilverstein/2015/01/09/falling-oil-prices-impact-economy-and-the-keystone-pipeline/>
- Storm, S., and Pescatori, A., (2014), "Oil Price Volatility and the Role of Speculation", IMF, <http://www.imf.org/external/pubs/ft/wp/2014/wp14218.pdf>
- Sweeney, J., (1986), "Changing World Oil Markets: What Should We Expect?," Zeitschrift fur Energie Wirtschaft, pp. 73-74.
- Tamer, M., (2013), "Middle East Major, Wasteful Oil Consumer", ALMONITOR, <http://www.al-monitor.com/pulse/business/2013/11/middle-east-wasteful-oil-consumption.html#>
- The Wall Street Journal, (2015), OPEC sees more demand for its oil less for U.S. <http://www.wsj.com/articles/demand-for-opec-crude-will-rise-this-year-says-group-1423482563>
- Usborne, D., (2015), "Fracking is Turning the US into a Bigger Oil Producer than Saudi Arabia", The Independent, <http://www.independent.co.uk/news/world/americas/fracking-is-turning-the-us-into-a-bigger-oil-producer-than-saudi-arabia-9185133.html>
- Williams, J., (1999), "A Discussion of Crude Oil Prices, The Relationship Between Prices and Rig Count and The Outlook for the Future of the Petroleum Industry", WTRG, <http://www.wtrg.com/prices.html>
- Zawya, (2013), Mideast Energy Consumption Seen Insatiable, https://www.zawya.com/story/Mideast_energy_needs_to_soar-ZAWYA20131113120001/