

# While USA has been moving to become a net oil exporter, oil price has also moved to increase

Dursun Yıldız

Head of Hydropolitics Academy .dursunyildiz001@gmail.com

November 2, 2018

## SUMMARY

The United States has become an indispensable source of oil and gas supply. but the term “energy dominance” is somehow early for US.

US can gain an ability to move markets and to reshape the global energy equation if the oil price increases in the same trend since 2017

The renaissance in U.S. oil and gas production over the past decade has been nothing short of remarkable. Technological advances unlocked new resources and brought about significant changes in global energy markets.

U.S. oil and gas production has grown tremendously over the last decade. The United States became the world’s largest producer of petroleum hydrocarbons in 2013 and has been the world’s largest producer of natural gas since 2009. In crude oil production, the United States is in a dead heat with Russia and Saudi Arabia to lead the world.

However, It should be noted that the United States is a major oil and gas consumer as well.

Energy security depends on a global market with prices set based on global market conditions.

Growing U.S. oil production has already effected the balance of power in oil markets. In addition to that the US is becoming an undisputed global leader in oil and gas production. It will have major implications across the energy World.

**Keywords:** Oil Price ,USA Oil,Shale gas,

## 1. Introduction

The shale revolution in north America means the US is destined to become a net oil exporter within 10 years, for the first time since the 1950s.

The International [Energy](#) Agency said it expected that American oil production between 2010 and 2025 would grow at a rate unparalleled by any country in history, with far-reaching consequences for the US and the world.

After developing and developing the technology related to US shale gas and oil, its target was to reset its dependence on oil and natural gas in 2020.

According to data from the US energy agency, in 2017, the USA produced 77% of its oil consumption from the country and imported only 19% (Figure 1). In the same year, the US also became a net exporter, earning \$ 21.5 billion in revenue of 2.6% of world crude oil exports.

U.S. domestic petroleum production and net imports of petroleum as shares of petroleum consumption, 2017

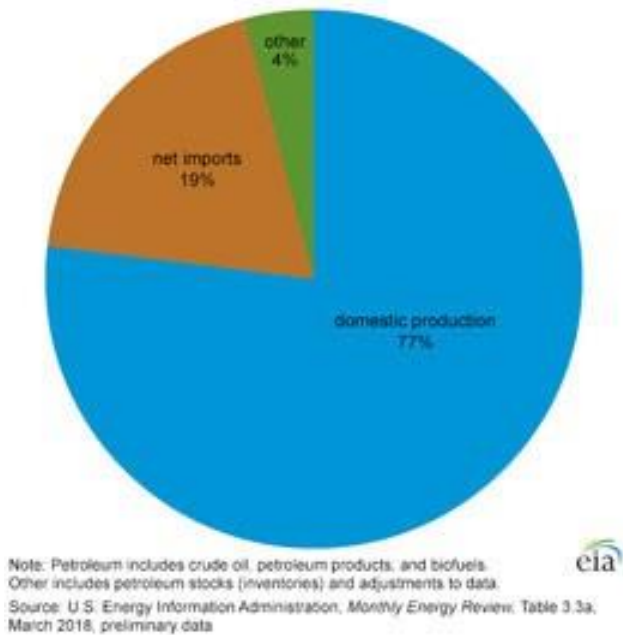


Figure 1. US oil production and imports in 2017

In this market, Saudi Arabia placed 16% (\$ 133.6 billion) of its total crude oil exports revenue in 2017. Russia was followed by Iraq with \$ 93 billion, followed by Iraq with \$ 62 billion.

The United States is 13th among the top 15 countries that still earn income from crude oil exports. The US has settled this position by increasing its oil revenues by 328% between 2013-2017.

As of 2017, the energy imports of the USA have decreased to the lowest level since 1982. (Figure 2) Since 2012, the USA has started to produce more energy than its oil import and in 2017 it has achieved the position of net oil exporter.

### U.S. Net Energy Imports in 2017 Fell to Lowest Levels Since 1982

Quadrillion British Thermal Units (Btu)

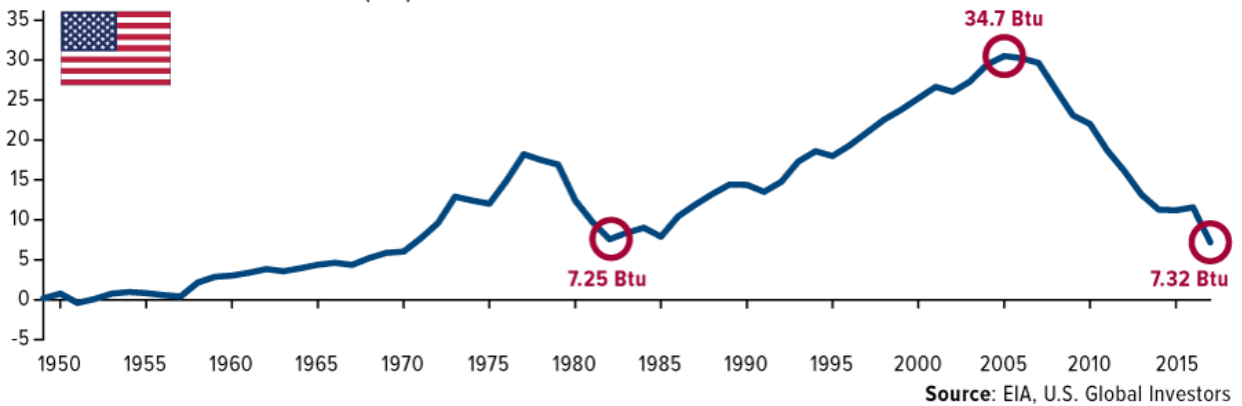


Figure 2. US imports of energy since 1982.

Imports of natural gas decreased rapidly after the US focused on shale gas production (Figure 2.)

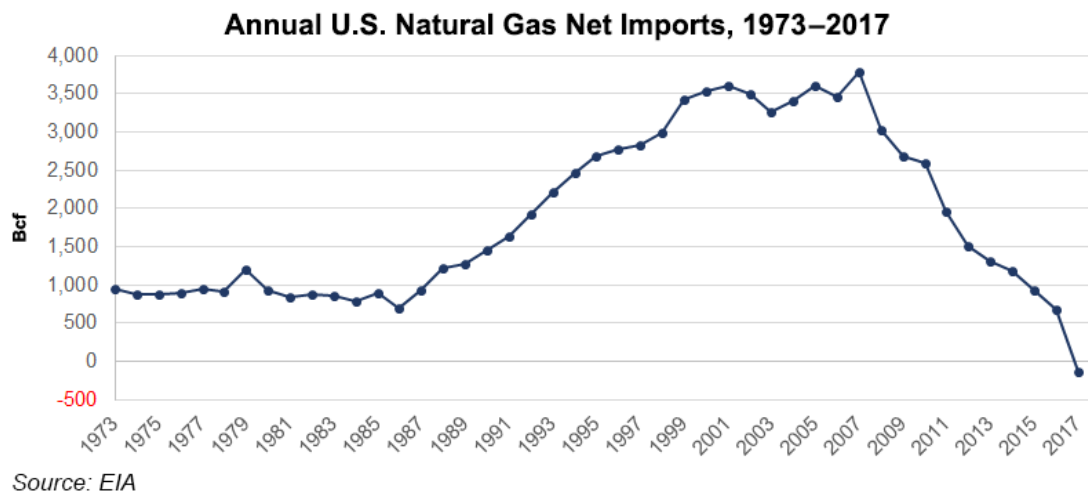


Figure 3. US natural gas imports annually

As in the natural gas import in Figure 3, oil imports of the USA started to decrease since 2005 and net oil imports decreased to the lowest level since 1967 in 2017. As shown in Figure 4, the increase in the energy production of USA shale (tight) oil played the most important role. However, as the production increased in the USA, a downward trend in oil consumption started in 2005 (Figure 5).

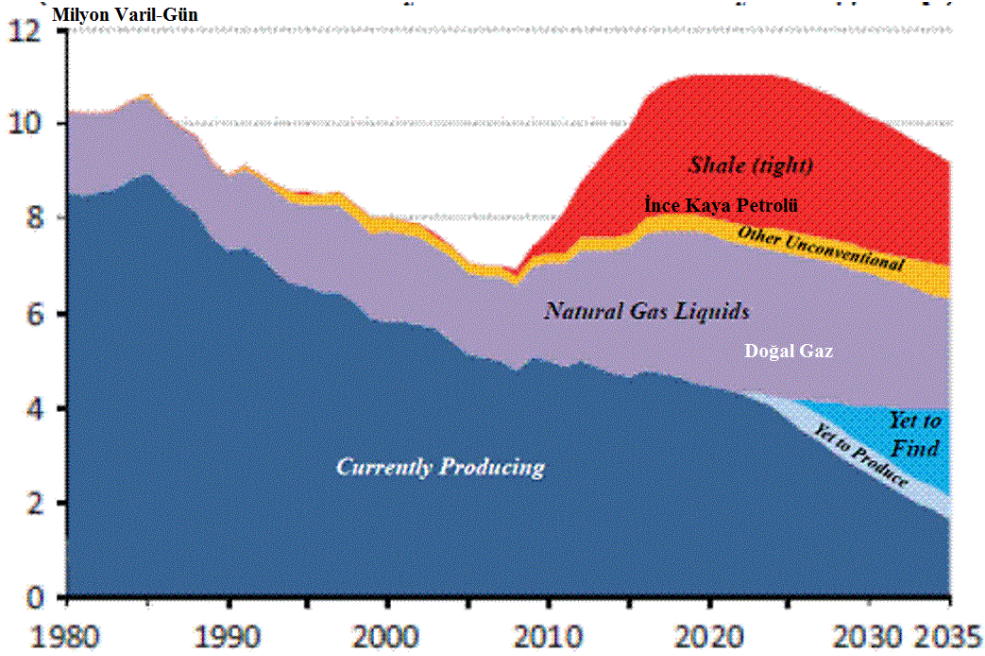
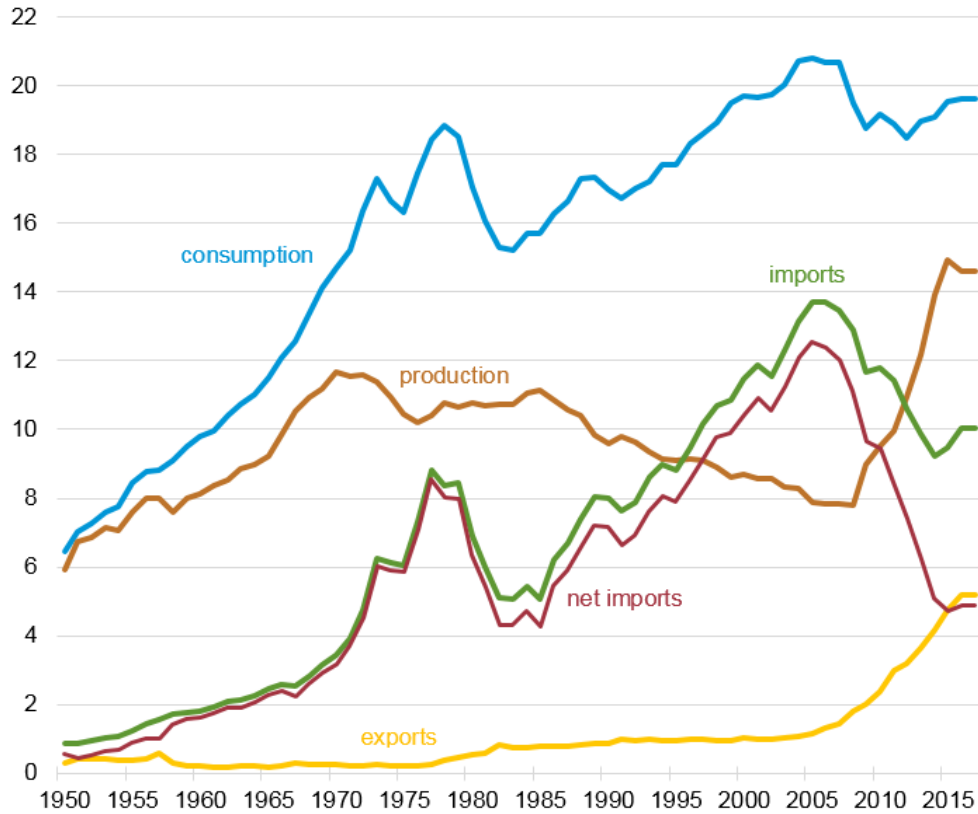


Figure 4 USA's Energy Resources production and projection

### U.S. petroleum consumption, production, imports, exports, and net imports (1950–2017)

million barrels per day



Source: U.S. Energy Information Administration, *Monthly Energy Review*, Table 3.1, March 2018, preliminary data for 2017



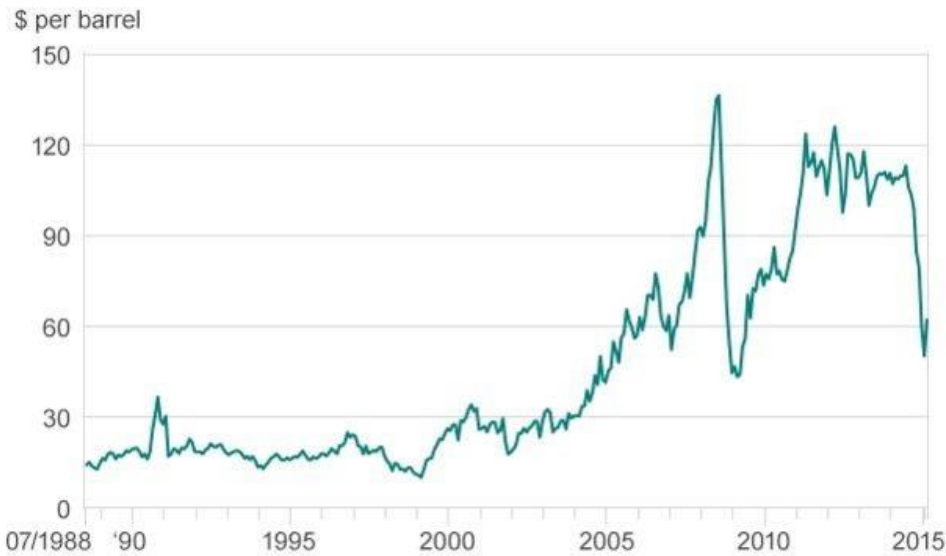
Figure 5. The net export, import, production and consumption of US oil from the 1950s

## 2. Oil prices in the recent period when the US is a net importer and exporter

Between 1985 -2005, when the net oil importer position of the US increased rapidly, the average price per barrel of crude oil was \$ 23 / barrel. The upward trend in oil prices started after 2005, when the US began to reduce energy dependency (Figure 5) and increased as of 130 \$ per barrel.

Since 2005, the oil price has been generally volatile, rising and at an average of \$ 70. (Figure 6). During this period, the oil price has made quite a large swings. Oil prices stayed above \$80 per barrel for four years in 2010 to 2014, an exceptional run of high prices. However, expanding supply caught up with high oil prices and they declined rapidly in late 2014, sinking to as low as \$30 per barrel by February of 2016.

**Brent crude oil price, 1988-2015**



Source: Bloomberg

Figure 6. Brent crude oil prices

In 2016, oil price fell to \$ 35, but increased to \$ 84 per barrel in 2018. It should be noted that when USA was rapidly approaching energy independence and became a net oil exporter, oil prices started to climb steadily after 2017.



Figure 7. Changes in the price of Brent crude in the last 5 years

### 3.The Shift toward Natural Gas

Unlike for oil, the United States is a net exporter of natural gas. It's largest natural gas customers are Canada and Mexico, receiving gas through pipelines. Liquefied natural gas, or LNG, is becoming a larger portion of U.S. natural gas exports, reaching 22 percent in 2017. The largest U.S. LNG customers in 2017 included China, South Korea, and Japan in Asia; Mexico and Chile in the Americas; and Spain and Portugal in Europe.(1).

### 4. OPEC's Role for Oil Prices Change

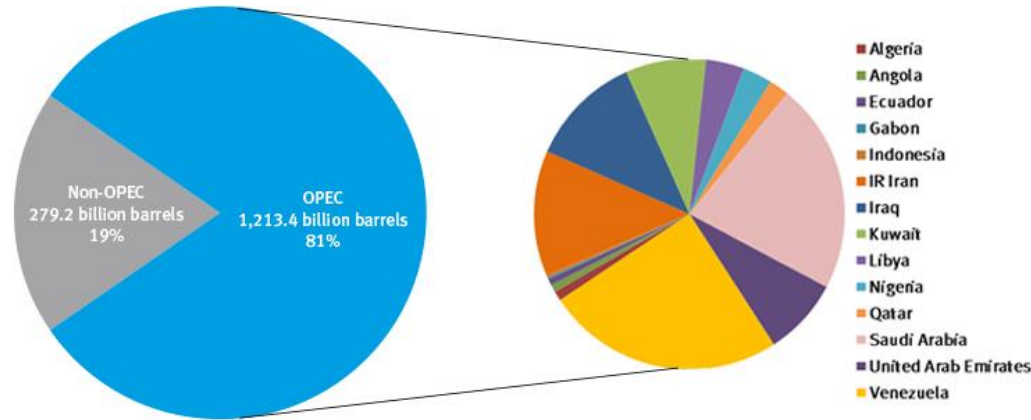
OPEC maintained steady production through the early years of the price collapse. Some argue that OPEC was trying to push U.S. producers out of business by keeping prices low for an extended time; others believe it was more focused on maintaining market share in a well-supplied market. Either way, U.S. producers focused on efficiency and cost reduction and weathered the low-price storm. U.S. production dipped only slightly in 2016 when prices bottomed out.

OPEC changed its strategy at the end of 2016. In an unprecedented move, OPEC teamed up with Russia and a few other oil producers to cut production in an attempt to raise prices and reduce global oil inventories. This strategy was effective and oil prices have risen over the last year and

a half. But the need for OPEC to bring Russia into the fold to increase its leverage demonstrates just how much the world has changed. OPEC and Russia have extended their agreement through the end of 2018, but it remains to be seen how long this partnership will hold.

Over the last 10 years, the great volatility in oil prices and the general upward trend have been interpreted by the experts as a result of the manipulation of the market rather than the supply-demand relationship.

81% of the world's proven oil reserves are located in OPEC member countries. (Fig. 8).



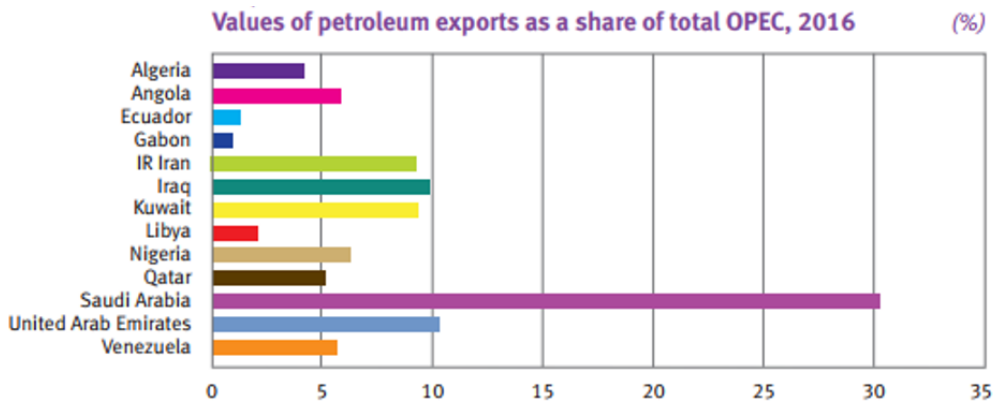
OPEC proven crude oil reserves , at end 2015 (billion barrels, OPEC share)

Venezuela	300.88	24.8%	Kuwait	101.50	8.4%	Qatar	25.24	2.1%	Indonesia	3.23	0.3%
Saudi Arabia	266.46	22.0%	United Arab Emirates	97.80	8.1%	Algeria	12.20	1.0%	Gabon	2.00	0.2%
IR Iran	158.40	13.1%	Libya	48.36	4.0%	Angola	9.52	0.8%			
Iraq	142.50	11.7%	Nigeria	37.06	3.1%	Ecuador	8.27	0.7%			

Source: OPEC Annual Statistical Bulletin 2016.

Figure 8. Oil reserves of OPEC countries

Looking at the oil revenues in 2016 given in Figure 9, Saudi Arabia is clearly ahead of OPEC countries.



OPEC Annual Statistical Bulletin 2017

Figure 9. OPEC Countries share in oil export revenues in 2016

The OPEC producers can work together to move oil prices. Therefore OPEC plays very important role on the global oil price. Moreover, among OPEC members Saudi Arabia also holds significant oil production capacity in reserve to make a balance in the global market.

### **5. USA -RUSSIA and CHINA**

It is clear that in terms of oil production rate and market share, Saudi Arabia appears to be a very weighted country. Therefore the role of Saudi Arabia in the future of the oil market will have a direct impact on the United States, Russia and China.

Because the US has started to be a net oil exporter since 2017 and will be affected very positively from the increase in oil prices both in oil and natural gas exports.

On the other hand, Russia's economy and foreign policy fully depends on oil and natural gas prices. 2 years ago President Putin had stated that Russia would be in a very difficult economical condition if oil price declined below to \$ 120 per barrel

China is an energy hungry country and a net importer of oil and natural gas. Therefore its economy is heavily affected by the increase in oil and natural gas prices.

By 2030, China will have developed so much that it is expected to overtake the US to become the world's biggest oil consumer. Asia as a whole is also expected to increase its appetite for gas shipped across the seas, with 70% of LNG predicted to end up in Asian ports by 2040.

### **6. USA Influence on SAUDI ARABIA**

Saudi Arabia has a huge weight in OPEC with its oil revenue of \$ 134 billion in 2017 and the world's largest oil exporting country, Therefore lead actor will be Saudi Arabia in the manipulation of the oil price as we have seen in the past.

The last Saudi journalist Jamal Khashoggi case has also been an issue that gave more powerful status to USA to be used on Saudi Arabia. Looking at the closer political and economical relations between US and Saudi Arabia, we could say that in terms of oil market manipulation Saudi Arabia will be ready to implement USA's new energy equation and help its own interest This will help growing domination of the United States in the Global Energy Chess.

Yesterday, the statement made by the US for Iran, the 6th largest exporter and the banned player of the oil market in 2017, has been an important move of world energy chess.

*"We will focus on Iranian oil in the second sanctioning package, which will be launched on November 5th, our goal is to ensure that all the countries that buy oil from Iran completely reset it as soon as possible,"* said Brian Hook, the US Special Representative to Iran, on October 17, 2018.



## **7.Has Saudi Arabia separated oil from politics**

Although Saudi Arabian Energy Minister Khaled al-Falih stated that they have no intention of an oil embargo on Western countries such as 1973 because of the recent political relations, it is actually an oil power show to the Western World. In 22 October 2018.

Falih said in a statement, " We have kept petroleum out of politics for years and used our oil policy as a responsible economic tool," he said.

### **Oil Price Can Rise !**

"We have no guarantee that oil prices will not go up as the sanctions for oil exports come into effect in the next month. I cannot guarantee that the oil price will not go to 100 dollars / barrel because I cannot predict what other producers will do," he said.

He also stressed that if 3 million barrels / day of oil is withdrawn from the global oil market, they would not be able to compensate for such a loss and would have to use the reserves.

Although the statement made by Saudi Arabian Energy Minister Khaled al-Falih it is very well known that Saudi Arabia has played very important role to manipulate oil price in the past.

## **8. Closing Thought and Key Remarks**

Today, global oil production is dominated by Russia, the US and OPEC members, in particular Saudi Arabia. Russia is second only to the US for gas production, followed by Iran and Qatar, which is the world leader in liquefying and exporting natural gas (LNG). However, the US is expected to overtake Qatar and become the world's biggest LNG exporter by the mid-2020s. The IEA's best estimate is that the US then becomes a net oil exporter around 2027.

Even though it is now among the world's leading oil producers, the United States still imports about 5 million barrels of oil each day. Thus, it seems that the United States is not insulated from the ups and downs of the oil price and its reaction to global events. In fact in some ways, U.S. natural gas exports can have more geopolitical influence than oil exports

Natural gas trade differs significantly from that for oil. There is no global natural gas market or price, although growing global LNG supply is beginning to globalize natural gas trade. Moreover

USA has been moving towards energy independence and even a net oil exporter. This will directly lead the efforts of the United States to re-establish the World Energy equation,

Although it will rise more slowly than in the past, globally, energy demand will keep climbing. By 2040, the IEA expects energy needs to have risen by 30%, or the equivalent of adding another China and India worth of demand.

In fact, it is too early to write the obituary of oil. Oil demand will still grow because of trucks, ships and aviation, and petrochemicals. US will play very effectively in this game in near future.

It is clear that current international events including Saudi Journalist Jamal Khashoggi's murder created less powerful Saudi Arabia against US expectations from this country

We are going through a period when the the United States and Saudi Arabia relationship will be closer due to various undefined events occurred nowadays

In summary the continuation of the increase in oil prices will prove that we read this new energy game correctly.



## References

[1] Samantha Gross (2018) *Geopolitical Implications of U.S. Oil and Gas Competitiveness in the Global Market* May 22, 2018 . available at:

<https://www.brookings.edu/testimonies/geopolitical-implications-of-u-s-oil-and-gas-in-the-global-market/> Accessed: 18 October 2018.

[2] Adam Vaughan 2017 “US will become a net oil exporter within 10 years, says IEA”<sup>14</sup> Nov. 2017.

[3] OPEC Annual Statistical Bulletin 2017

## Biography



**Dursun Yıldız** is a hydropolitics specialist and Director of the Hydropolitics Academy Association located in Ankara-Turkey .He is a civil engineer and used to be Deputy Director at State Hydraulic Works in Turkey; completed hydroinformatics post graduate course at the IHE in Delft, Technical training programme in USBR-USA and a master degree in Hydropolitics at the Hacettepe University-Turkey. He has over 5 years of teaching experiences in some Turkish Universities and now works as head of his own Hydro Energy & Strategy consulting company located in Ankara. He has published several international articles and 11 Books. He received Most Successful Reseracher Award on International Water Issues from Turkish Agricultural Association in 2008 and from Central Union of Irrigation Cooperatives in 2016.