AMERICAN BANKRUPTCY INSTITUTE

2019 Bankruptcy Battleground West

The Morning After OPEC Goes Broke

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CONCURRENT SESSION

2019

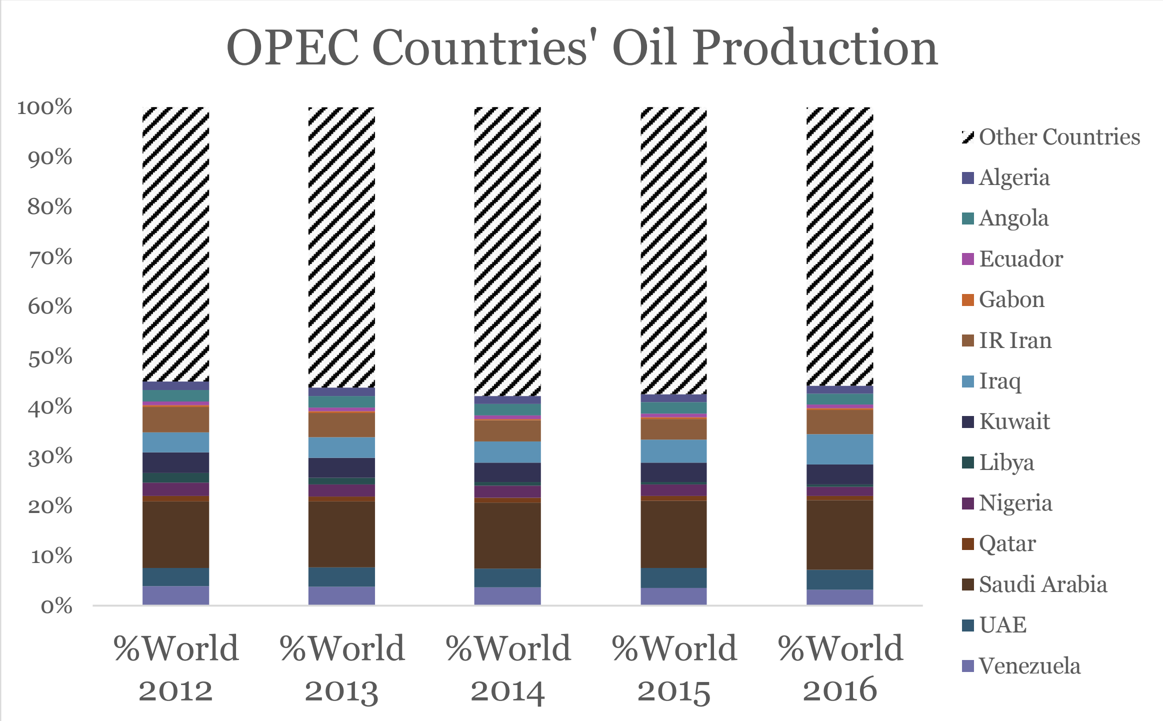
OPECalypse Now and the World Economy

Primary Themes:

- Since 2014, the price of crude oil has suffered a major drop of approximately 60% from its peak of [insert] and currently hovers in the $50 to $60 range. This has created a financial crisis for most OPEC members and other oil producing countries. The article will also look into the potential impacts that OPEC struggle has on the world economy.
- All but two OPEC member nations are on a collision course with financial ruin.
  - Budget deficits as a percent of GDP are generally double-digit, levels that are clearly unsustainable.
  - Cash and investment reserves are being depleted and sovereign debt incurred to delay the day of reckoning.
  - The total sovereign debt of OPEC is approaching the level of sub-prime mortgage debt that rocked the world on its economic axis in 2008.
- The current crude futures curve strongly suggests that crude prices will not increase to a level that will allow Saudi and others to balance their budgets.
  - Most major energy executives now accept that "Peak Demand" is a reality and that that inflection point will be reached in the next decade.
  - For a variety of reasons, the sun is beginning to set on crude's domination of the world's energy supplies.
- The financial demise of OPEC has the potential to significantly impact the world economy.

Reliance of the world on OPEC oil

To analyze the impact of the oil industry on the world economy, one must first review the supply and demand metrics of oil and the role that OPEC plays in this arena. OPEC's oil production accounts for approximately 44% of the oil production of the world.



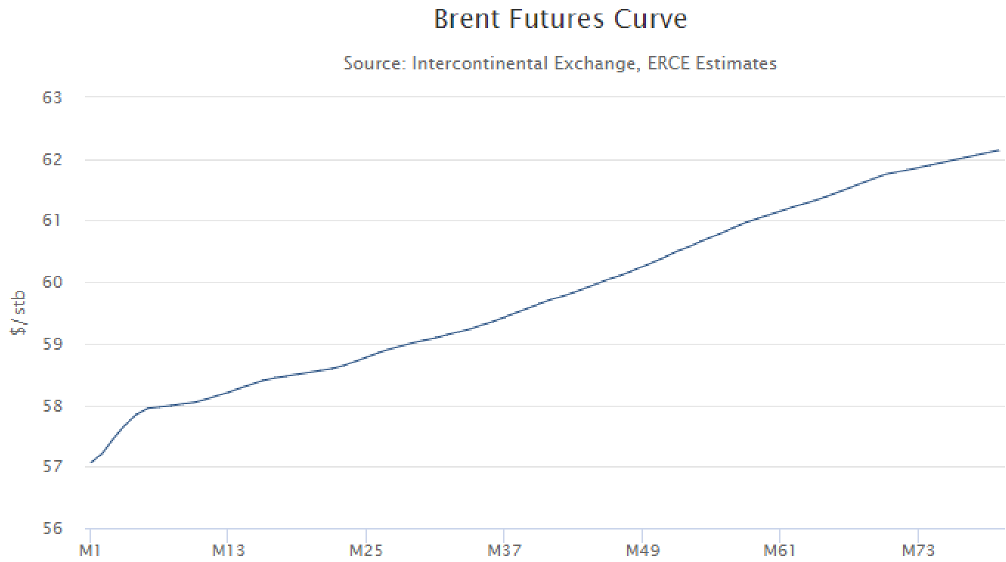
Theoretically, one would assume that OPEC should then have the ability to dictate oil prices by thoughtfully controlling the supply of oil. In the past this has largely been true. Events of the last decade show that this assumption is no longer viable. In an effort to firm up softening oil prices, OPEC first announced an agreement to cut output with Russia at the end of 2016. This output cut has since been extended a number of times and is expected to continue for the foreseeable future. The impact of these output cuts, however, has been minimal as oil prices continue to hover in the $50 - $60 range, dipping as low as $35.64 in 2016. There are several reasons behind this:

- Over the last decade, the United States has nearly doubled its domestic production of crude by exploiting the development of shale oil. The increase of US crude production over the last ten years total more than 6.7 million barrels per day[1] is more than the total daily production of 4.1 million barrels per day[2] for

[1] U.S. Energy Information Administration, retrieved from: https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MCRFPUS2&f=M
[2] Iran Crude Oil Production retrieved from: https://ycharts.com/indicators/iran_crude_oil_production

Iran. US shale production is projected to increase in the future as technological advances and economies of scale continue to lower the cost of production[3]. On December 6, 2018, the US is now a net exporter of crude for the first time in 75 years[4].

- Slowing economic growth in developing countries such as China limits the demand for oil[5].
- It is now well accepted that the world is approaching a point of Peak Demand after which demand for crude will begin to decline into the foreseeable future[6].
- Major effort by governments around the world to promote electric or hybrid vehicles has also limited the demand growth for oil[7]. Passenger cars makes up for 27% of oil use, so while it might not lower oil demand it will likely flatten the demand curve.
- Parties to various agreements to curtail production have the motivation and the ability to circumvent the curtailment agreements, leading to additional supply.



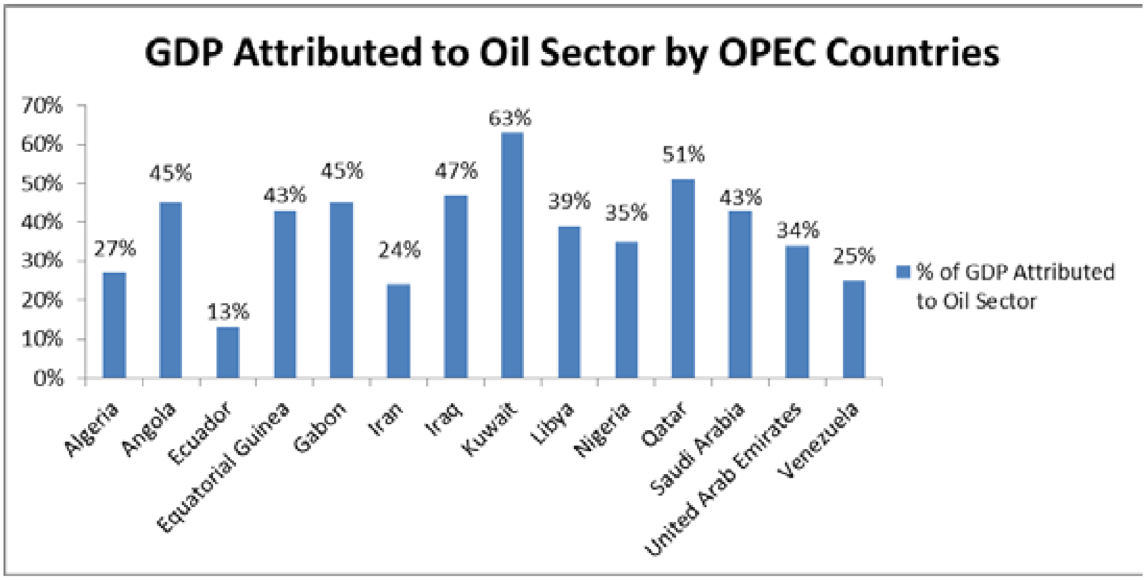
Source: ERCE

[3] Forbes, retrieved from: https://www.forbes.com/sites/davidblackmon/2018/09/18/technology-and-efficiency-gains-create-a-new-normal-for-u-s-shale/#7c6b1f9e6591
[4] Bloomberg, retrieved from: https://www.bloomberg.com/news/articles/2018-12-06/u-s-becomes-a-net-oil-exporter-for-the-first-time-in-75-years
[5] CNBC, retrieved from: https://www.cnbc.com/2019/01/22/reuters-america-update-4-oil-drops-more-than-1-pct-as-china-slowdown-bites.html
[6] The Guardian, retrieved from: https://www.theguardian.com/business/2018/sep/11/global-energy-demand-fossil-fuels-oil-gas-wind-solar-carbon-tracker
[7] Electric Vehicles and Their Impact on Oil Demand, https://energypolicy.columbia.edu/sites/default/files/pictures/CGEP_Electric%20Vehicles%20and%20Their%20Impact%20on%20Oil%20Demand-Why%20Forecasts%20Differ.pdf

These observations are confirmed by the WTI future curve where the oil price is projected to gradually increase over the next 73 months but peaks around $62/stb, an annual compounded growth rate of approximately 1.7%

Importance of the oil sector to OPEC members

It is increasingly evident that many OPEC members are becoming more dependent on revenues from their oil industry. This is seen by the large percentage of GDP contributed from the oil sector. As an example, the oil segment accounts for 43% of Saudi Arabia's GDP and oil export [8]. This obvious conclusion is that these countries' economic well-being is directly tied to the price of oil.



Source: IMF and OPEC

Budget Deficits & Surplus

Beginning in the early 2000's, OPEC enjoyed a decade of unprecedented prosperity resulting from the oil price surge from around $30 to almost $100[9]. This oil price surge allowed many of the OPEC countries to create massive social programs for their citizens. The obvious risk factor is the assumption that pricing will remain at a level that supports those expenditures, a clear falsity for a volatile commodity.

[8] https://www.imf.org/external/np/pp/eng/2016/042916.pdf
[9] https://www.macrotrends.net/1369/crude-oil-price-history-chart

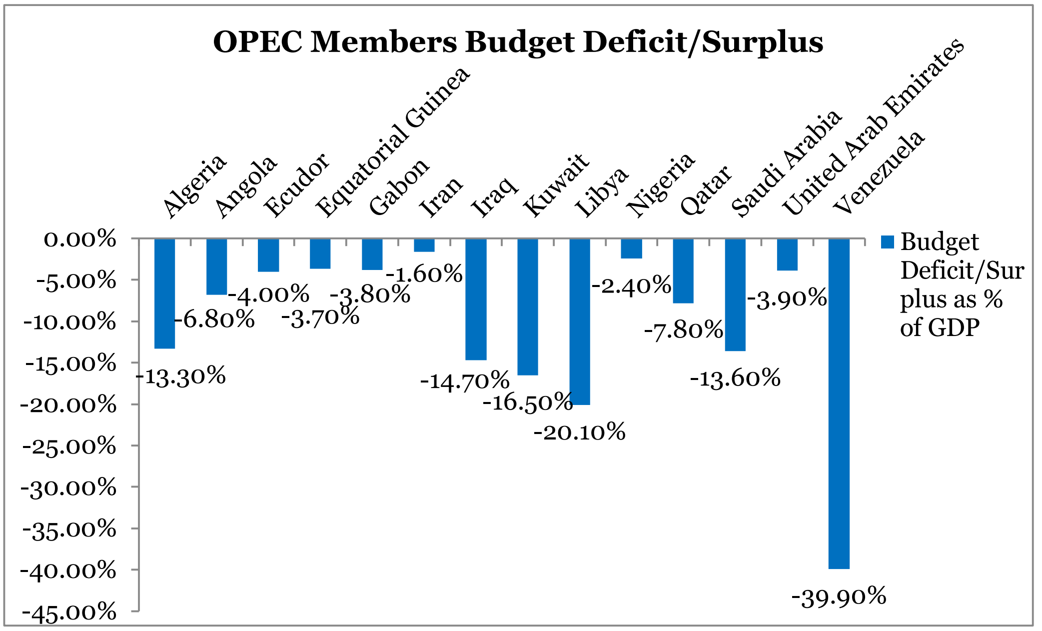
A few of the OPEC members, particularly Saudi, have belatedly realized that an investment in diversifying their economy is the only way out of this economic trap. The question is whether Saudi has the financial resources and the time to accomplish this repositioning of their economy before disaster strikes.

It was no surprise that when the price of crude collapsed in 2014, many OPEC countries began to run unsustainable budget deficits. According to the latest report[10], all OPEC members are currently running a budget deficit, five of them are running a budget deficit of more than 10% of the GDP. To put this in prospective, Greece was running a budget deficit of 15.4% back in 2009 when many people considered it as a hopelessly insolvent state.[11] Any budget deficit which significantly exceeds GDP growth rate is unsustainable in the long run[12]. There is little question about the ultimate outcome given stable oil prices. The only uncertainty is the actual timing.

2016 Budget Deficit by OPEC Members			
	Deficit/Surplus as % of GDP	2016 GDP ($billions)	Deficit/Surplus ($billion)
Algeria	-13.30%	168.30	(22.38)
Angola	-6.80%	91.90	(6.25)
Ecuador	-4.00%	99.10	(3.96)
Equatorial Guinea	-3.70%	11.60	(0.43)
Gabon	-3.80%	14.60	(0.55)
Iran	-1.60%	514.06	(8.22)
Iraq	-14.70%	210.28	(30.91)
Kuwait	-16.50%	110.50	(18.23)
Libya	-20.10%	39.40	(7.92)
Nigeria	-2.40%	415.10	(9.96)
Qatar	-7.80%	156.60	(12.21)
Saudi Arabia	-13.60%	637.80	(86.74)
United Arab Emirates	-3.90%	375.00	(14.63)
Venezuela	-39.90%	333.70	(133.15)

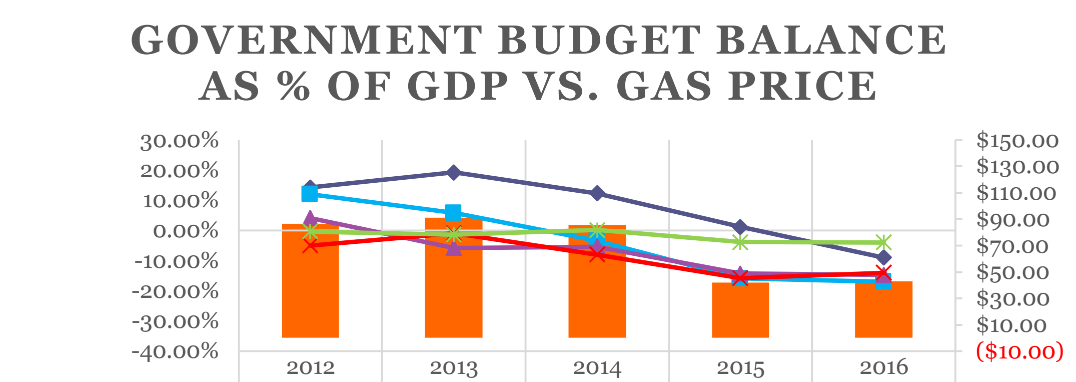
Source: CIA (cia.com)

[10] https://www.cia.gov/LIBRARY/publications/the-world-factbook/fields/2222.html
[11] David Jolly, The New York Times, *2009 Greek Deficit Revised Higher, http://www.nytimes.com/2010/11/16/business/global/16deficit.html*
[12] Sustainability of Budget Deficits, https://www.mof.go.jp/english/pri/publication/pp_review/ppr023/ppr023d.pdf



Source: CIA

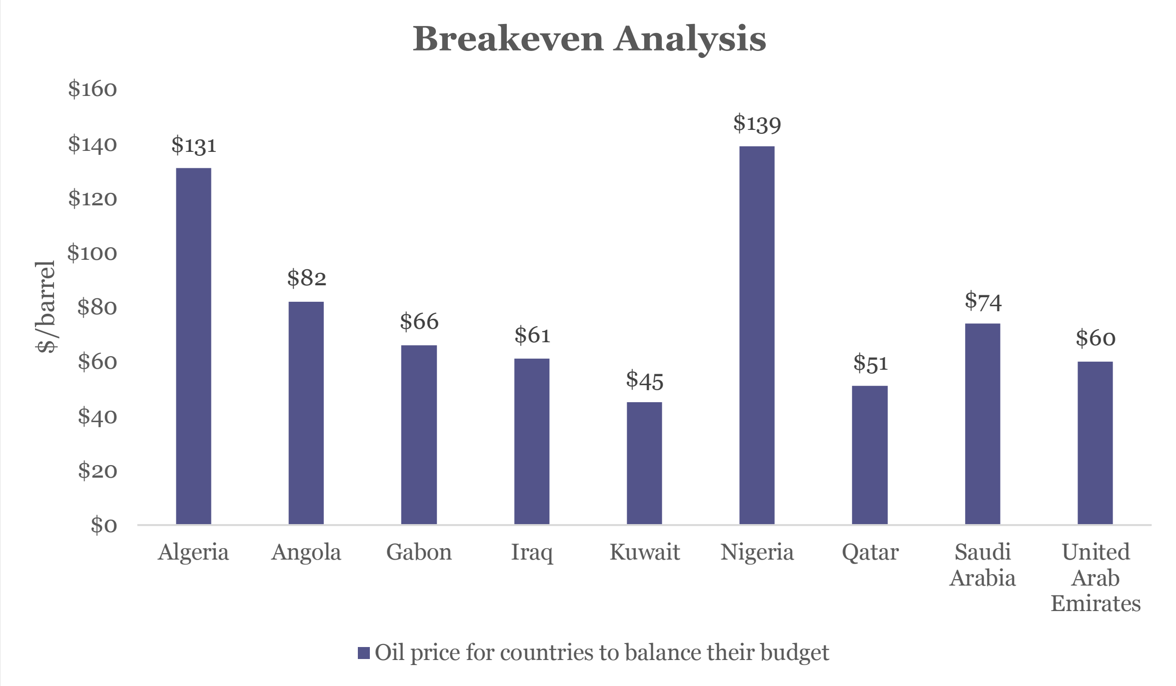
In 2012 the average oil price was $86.46, this declined to just $42.81 in 2016. The budget balance for major OPEC countries followed a similar pattern. For example, Saudi Arabia's budget balance in 2012 was positive and totaled 12% of its GDP. In 2016, the budget balance was negative 17% of GDP. This further demonstrates the extent to which these OPEC countries are heavily dependent on oil as a source of revenue for the government budget. It also points out the magnitude of the problem posed by low oil prices for these countries' economies.



	2012	2013	2014	2015	2016
Oil Price	$86.46	$91.17	$85.60	$41.85	$42.81
Qatar	14.20%	19.30%	12.30%	1.20%	-9.00%
Saudi Arabia	12.00%	5.80%	-3.40%	-15.90%	-17.00%
Iraq	4.10%	-5.80%	-5.40%	-14.30%	-14.70%
Algeria	-5.00%	-0.90%	-8.00%	-15.80%	-14.00%
Nigeria	-0.30%	-1.30%	0.20%	-3.90%	-4.00%

Source: IMF country report, Arabian Business as of the end of 2016

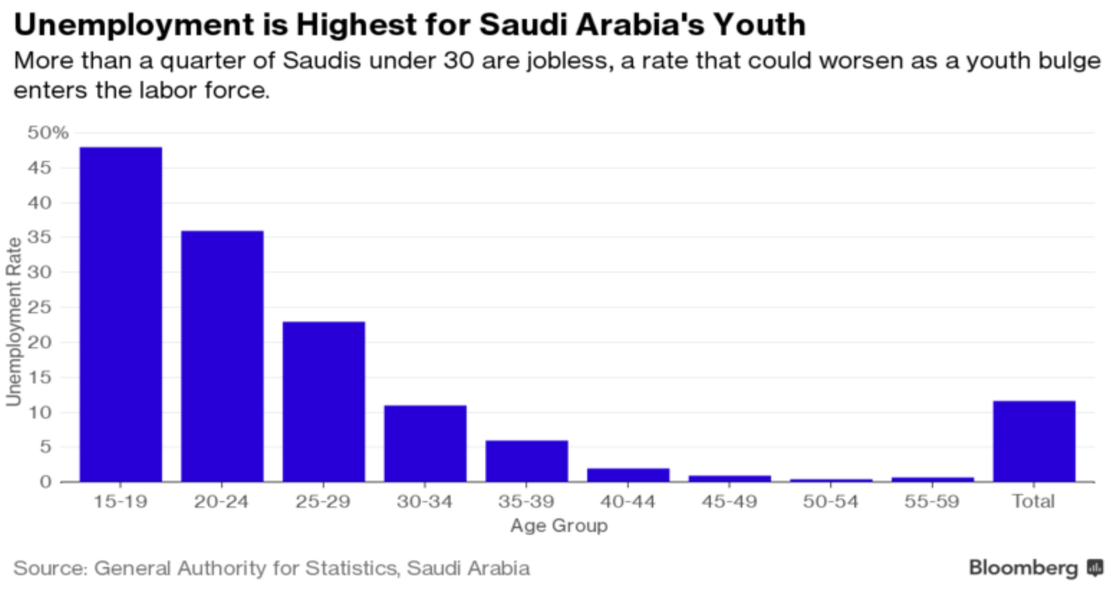
By analyzing each country's financial position, we can calculate the oil price required for each country to achieve a balanced budget. For countries like Kuwait and Qatar, which have traditionally diversified their economies through investment funds, the break-even point is low below $50/barrel. For other OPEM members, the break-even points are all above $60/barrel. For Saudi Arabia, he break-even point exceeds $70/barrel. Saudi's financial future is obviously precarious given that the crude futures curve suggests that the price of oil will average approximately $60/barrel over the next 5 years.



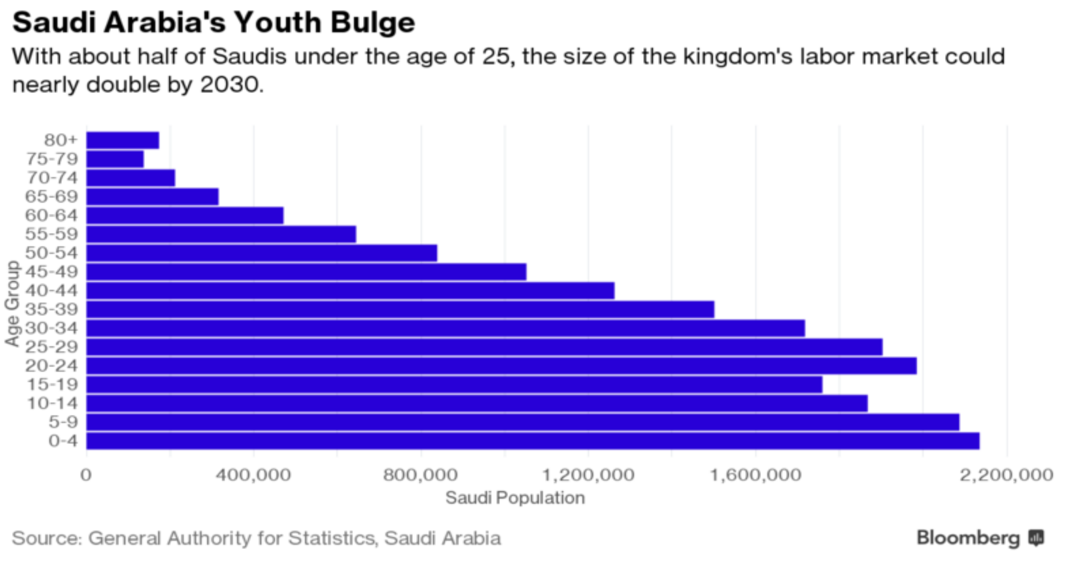
Certain OPEC member are beginning to realize the magnitude and inevitability of the problem. A number of these countries have begun to implement stricter fiscal policy with a goal of balancing the budget even with lower oil revenue. This however poses other problems including social unrest and the difficulty of achieving economic growth in non-oil sectors.

Strict fiscal policy will spark public outcry from citizens who had become accustomed to the enjoyment of significant benefits from the government. This is especially true for gulf countries where there is a substantial youth unemployment rate. Saudi Arabia currently has an unemployment rate of 30% among youths between the ages of 15-24. Also note that about half of Saudi's current population is composed of youths under the age of 25. Austerity measures will likely mean an even higher unemployment rate among this age group. Currently 70% of working people in Saudi Arabia are employed in the public sector[13]. A disruption of this entitlement will create dissent among the youths of Saudi Arabia and create political instability that will pose be a significant challenge to the country and its royal family.

[13] https://www.forbes.com/sites/suparnadutt/2017/05/11/can-startups-drive-new-job-growth-in-the-mena-region-where-youth-unemployment-rate-is-30/#306434e034f4



https://www.bloomberg.com/news/articles/2016-11-22/saudi-arabia-s-vision-for-the-future-looks-dim-to-jobless-youth



Impact of an OPEC collapse on debt and export

The current financial crisis and the foreseeable insolvencies of a number of OPEC members have the potential to have a significant impact on world financial markets. As

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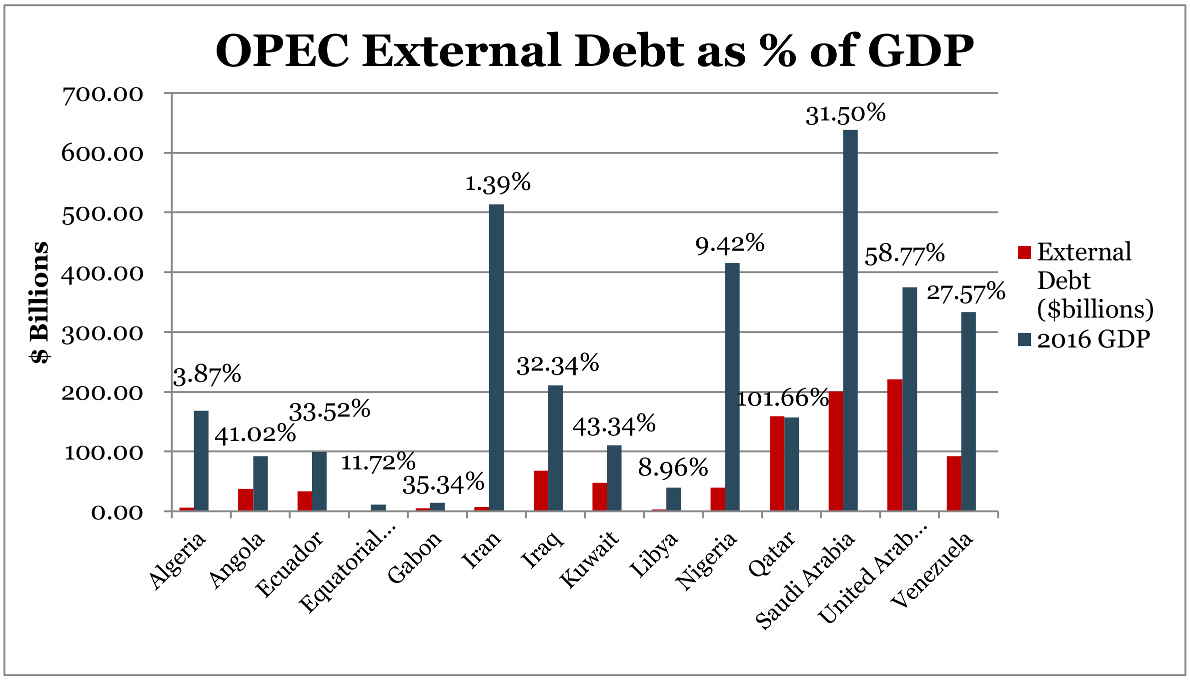
previously noted, many OPEC countries including Saudi Arabia are running out of foreign reserves at an increasingly alarming rate. In an effort to slow the decline, these nations are borrowing more money internationally, apparently in the hope of an oil price rebound. Large amounts of sovereign debt that governments and organizations of these countries have accrued over the past few years[14]. The total external debts from OPEC governments and organizations currently totals $922 billion and growing. For perspective, the total subprime mortgage debt that was a significant catalyst for the financial crash in 2007 was $1.3 trillion[15].

The impact of a default on a portion of the OPEC-related debt has the potential to trigger a similar panic among investors and downturn in the financial markets. This is especially the case when there are already signs of a decline in the growth rate of the industrialized nations, a bear signal for crude prices.

Interestingly, a number of OPEC members still enjoy favorable bond ratings with the three major rating agencies. Saudi Arabia as just one an example, is currently rated A+, A1, and A- from Fitch, Moody's, and S&P respectively. This provides both the ability and an incentive for Saudi to borrow from the international market in order to balance the large current budget deficit. This will add to the total external debts that OPEC has borrowed, and thus increasing the potential risk for default and the impact such default will have on the world economy.

[14] Business Insider, https://www.businessinsider.com/saudi-arabia-national-debt-budget-2017-report-2016-12. And CIA, cia.com.
[15] University of North Carolina, *Subprime Mortgage Crisis,* http://www.stat.unc.edu/faculty/cji/fys/2012/Subprime%20mortgage%20crisis.pdf

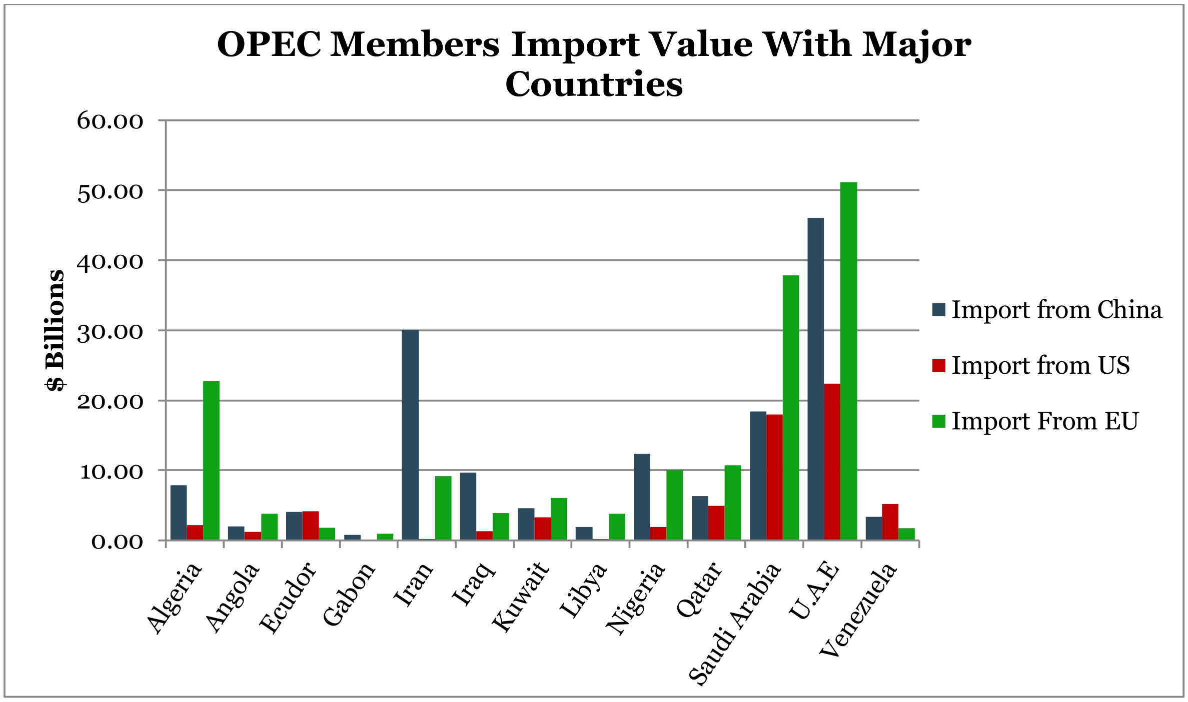


Source: CIA

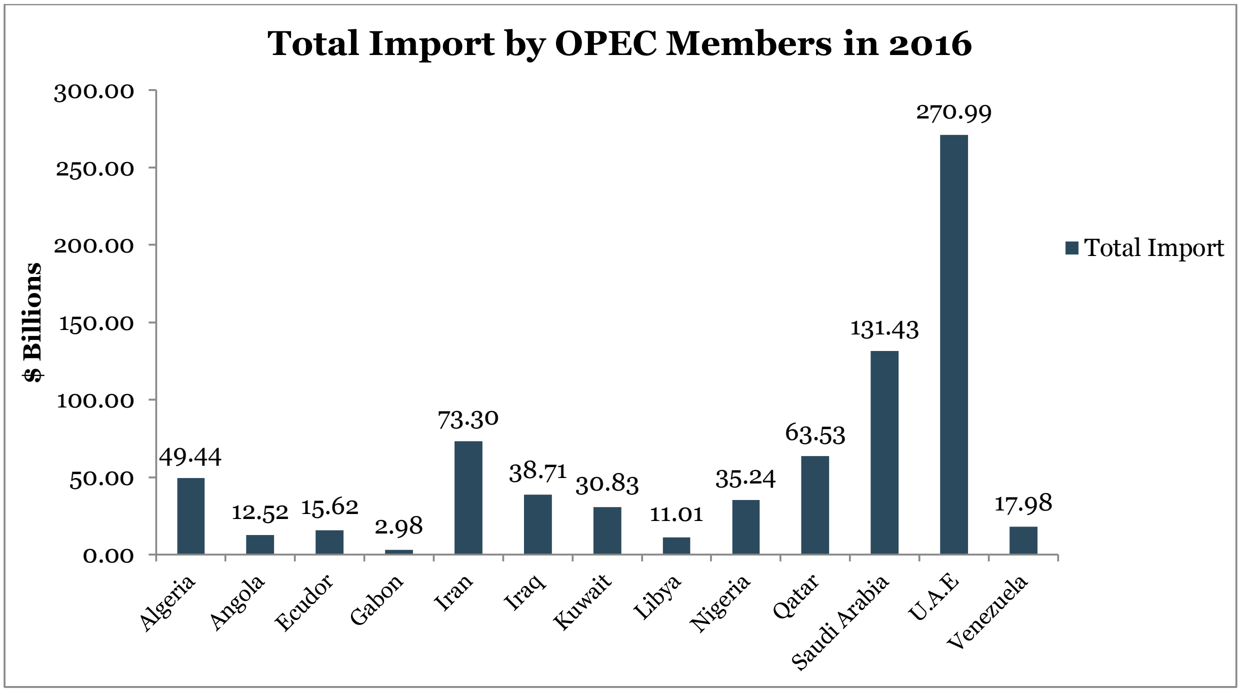
One justification for the continued high credit rating given by Moody's, despite the red flags suggested by the economic data, is Moody's assessment that Saudi Arabia has the capacity to carry more debt. This argument is both circular and unpersuasive for the following reasons.

1. Countries and companies are increasingly turning to alternative energy sources. Peak Demand for crude has now become an accepted working assumption in the industry.
2. It has been clearly demonstrated that as prices move up, additional production capacity can be brought on quickly. The shale oil play in the US alone added more than five million barrels per day to world crude production in only ten years. The crude futures curve strongly suggests that the consensus view of the world's "smart money" is that prices in the low $50's to low $60's is the new normal for crude pricing. For OPEC members such as Saudi Arabia, whose budget break-even price is $74 a barrel, borrowing more sovereign debt is simply extending the timing of inevitable default.

- Globalization has connected the world's economies to each other. An instability in one region can now cause financial distress for the entire world. Recall the financial panic over the potential bond default of Greece in 2010 and note that Greece's sovereign debt was only 1/3 that of the total OPEC member nations' debt
- The total value of all imports for OPEC members was $753 billion in 2016. This represents 4.5% of the world's import total ($16 trillion)[16].
- The total value of imports to OPEC from China amounts to $147.52 billion.
- The total value of imports to OPEC from the US amounts to $65.03 billion.
- The total value of Imports to OPEC from the EU amounts to $163.9 billion.



[16] The World Bank, Trade Data, http://data.worldbank.org/topic/trade



Source: European Union, United States Census Bureau, The Observatory of Economic Complexity.

- The collapse of OPEC will shrink revenues for companies that export goods to OPEC countries.
- The collapse of OPEC will severely damage the luxury goods market, as research by Ledbury found that Saudi Arabia, Qatar and Kuwait are all top purchasers of foreign luxury goods.[17]
- It seems quite likely that as Saudi's need for foreign exchange becomes more acute, Saudi and perhaps other OPEC members will increase production and drive crude prices even lower. This has the potential to significantly impact other companies in the energy sector around the world. In the US, the market cap of energy companies is 5.5% of the total market cap of the S&P 500[18]. Note that as a result of the sharp decline in crude prices between end of 2014 and 2018, 167 producers have filed bankruptcy[19] and hundreds more have engaged in consensual debt restructuring with their creditors. US bank regulators have largely "redlined" E&P loans and have significantly increased oversight of lenders

[17] Madelaine Olliver, Knight Frank Wealth Report, *Hey big spender,* http://www.knightfrank.com/wealthreport/2015/luxury-spending/big-spender
[18] Yardeni Research, Inc. https://www.yardeni.com/pub/spxshares.pdf
[19] Haynes and Boone, http://www.haynesboone.com/-/media/files/energy_bankruptcy_reports/oil_patch_bankruptcy_monitor.ashx?la=en&hash=D2114D98614039A2D2D5A43A61146B13387AA3AE

who are active in this lending segment.

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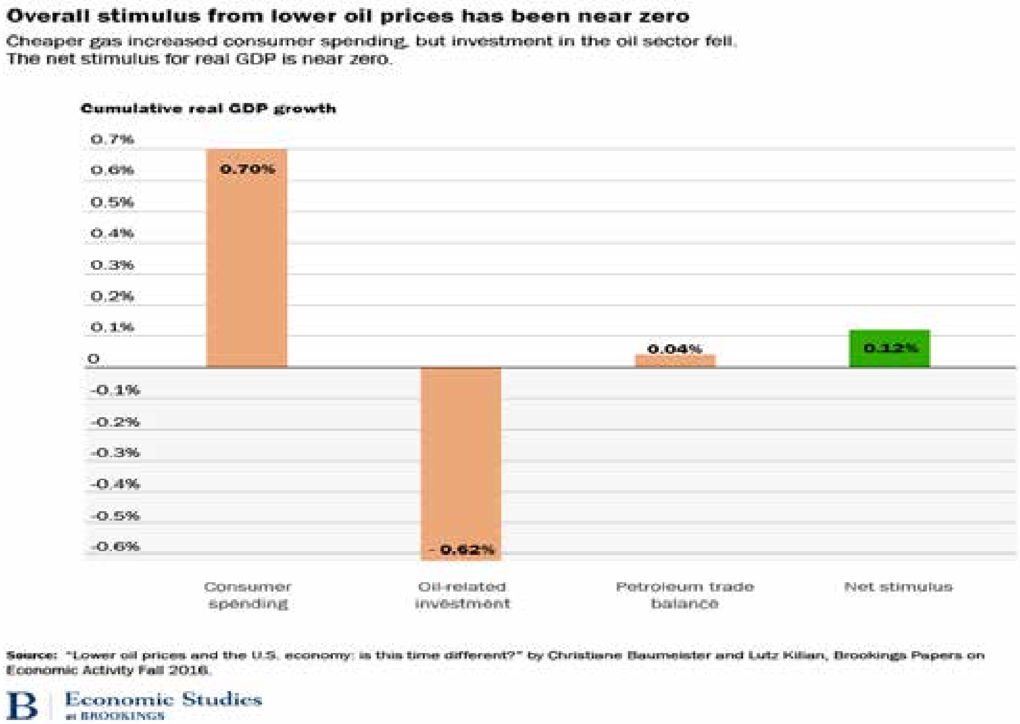
Misconception about lower oil price

- Many experts have seen the oil price decrease as a positive sign for the US economy. The rationale is that lower gas price will put money in consumers 'hands and increase consumer spending.
- However, research shows that the net effect of the oil price decline has been close to 0% to the growth of GDP.[20]
- The increase in consumer spending from lower prices has been balanced by a decrease in oil-related investments.

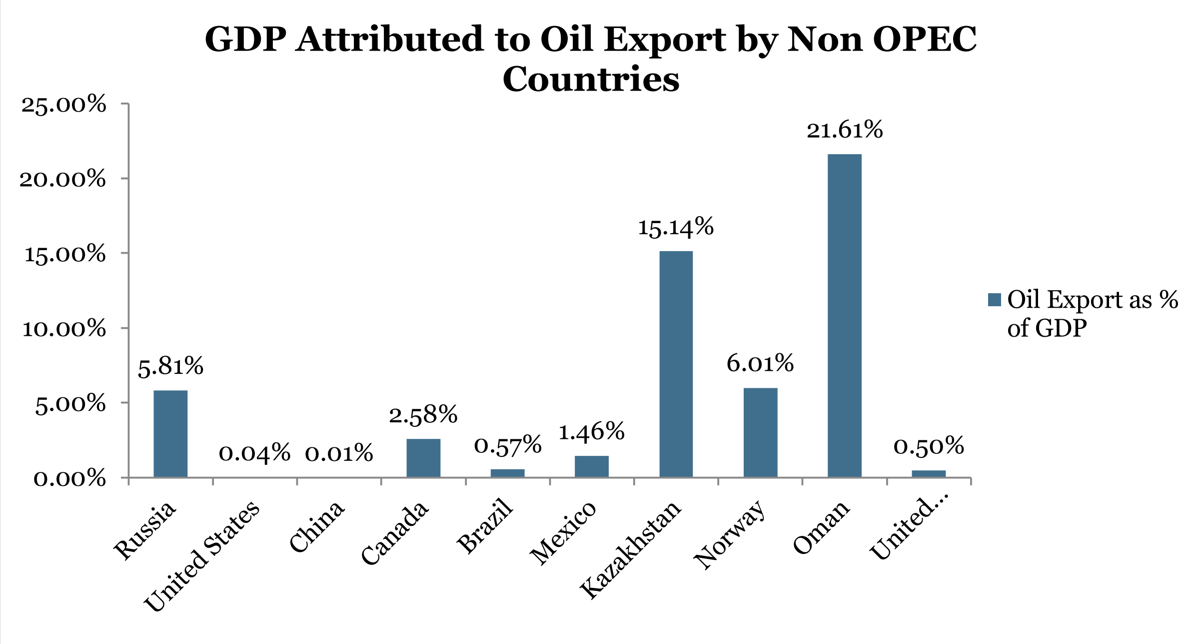


There have been continuing withdrawals by the Saudi Arabian Monetary Authority from global investment firms like BlackRock in estimated total amount of tens of billions of dollar to cover the Saudi budget deficit.[21] The prospect of future loss of investment from

[20] Christiane Baumeister and Lutz Kilian, *Lower oil prices and the U.S. economy: Is this time different?* https://www.brookings.edu/bpea-articles/lower-oil-prices-and-the-u-s-economy-is-this-time-different/
[21] Simeon Kerr, Financial Times, *Saudi Arabia Withdraws Overseas Funds*, https://www.ft.com/content/8f2eb94c-62ac-11e5-a28b-50226830d644?mhq5j=e3

OPEC countries can impact economic growth in the US. To put that in perspective, Saudi Arabia currently has $250 billion to invest worldwide.

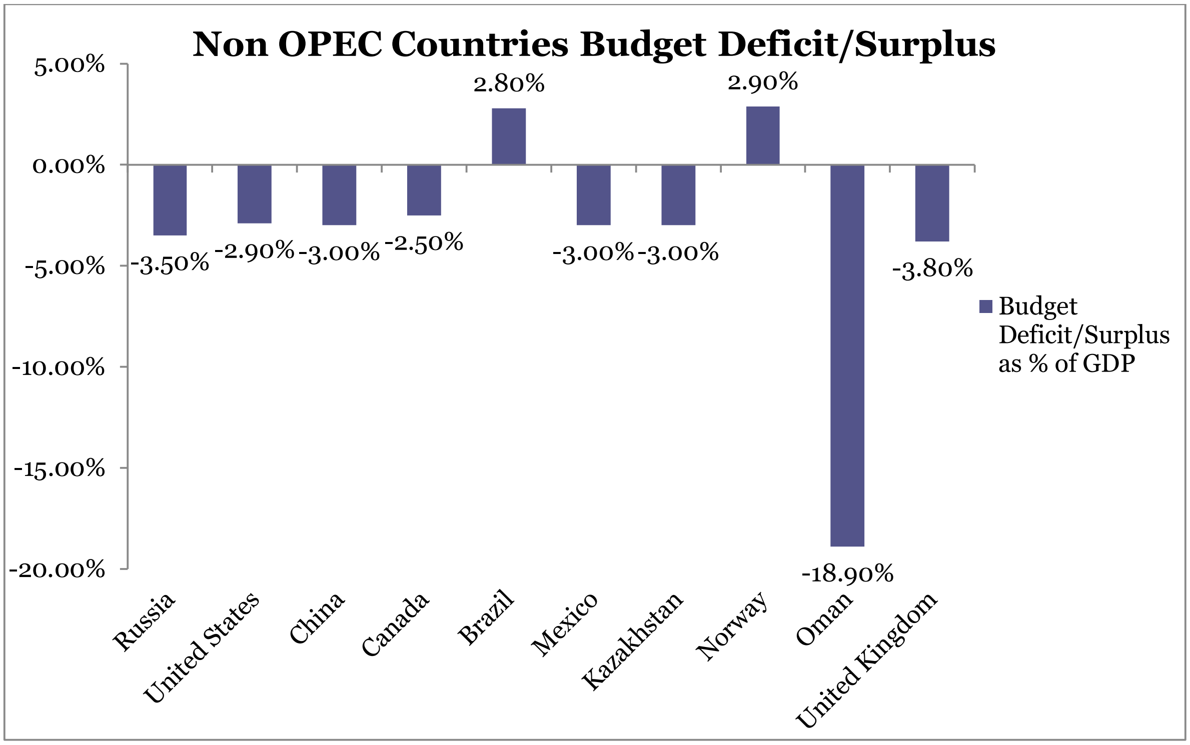
Non-OPEC



Source: World's Top Exports, IMF

- While low oil prices have some impact on major non-OPEC oil producing countries including Russia, the United States and Canada, the fiscal policies of these countries is much more responsible, and their economies are much more diverse. This is shown by the fact that oil exports only contribute a relatively small percentage to the GDP's of these countries.
- The modest budget deficits of these large non-OPEC oil producing countries demonstrates that that they are better able to deal with low oil prices compared to OPEC member nations. Russia, which though heavily dependent on oil and under western sanctions, experienced budget deficit of only 2.1% of GDP in 2017.[22]

[22] CNBC, *Russian government approves lower 2017 budget deficit of 2.1 pct./GDP*, https://www.cnbc.com/2017/05/18/reuters-america-russian-government-approves-lower-2017-budget-deficit-of-21-pctgdp.html

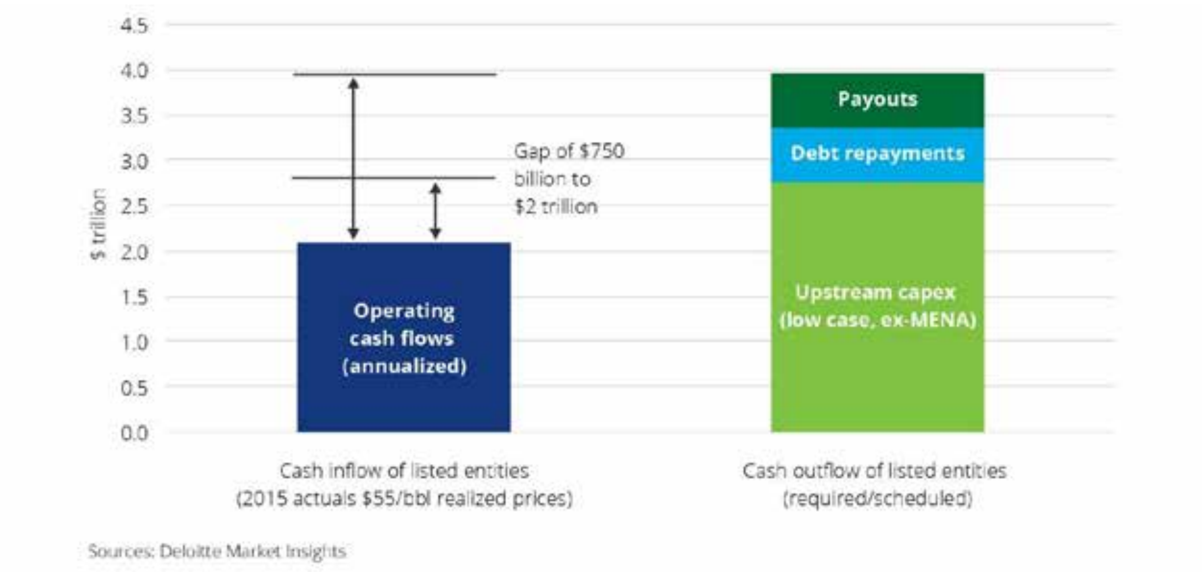


Source: CIA

- The EU, which is made up of a bloc of mostly oil-importing countries, may benefit in the short-term from lower oil prices. However, in the long run, low energy prices for the EU may slow down the union's effort to boost inflation in the hope simulating economic growth.[23]

[23] Stratfor Worldview, *Who Wins and Who Loses in a World of Cheap Oil,* https://worldview.stratfor.com/article/who-wins-and-who-loses-world-cheap-oil

Impact of low oil price on bankruptcy



- Low oil prices have forced companies in the oil and gas industry to cut capital spending by about 50% in 2015 and 2016, impacting future reserves and operating cash flow . Over the next five years approximately $590 billion of the industry's debt is maturing. Shareholders dividends will also be impacted. . Combined with the extra upstream CAPEX cost, the total funding gap may approximate $2 trillion (required or scheduled cash outflow of 4 trillion – cash inflow of 2 trillion base on $55/bbl. price) assuming an average oil price of $55/bbl.[24]
- Smaller and mid-size E&P companies have experienced and will continue to be faced with bankruptcy, debt restructuring, and/or operational downsizing in conjunction with liquidation of assets. This will put continued pressure on asset values in the segment.

[24] Deloitte, *Short of Capital,* https://www2.deloitte.com/us/en/pages/energy-and-resources/articles/lower-for-longer-risk-oil-gas-underinvestment.html

Conclusion

- The collapse of OPEC countries resulting from low oil prices has the potential to be devastating to the world's economy. This is reflected through OPEC countries total external debts and import of foreign goods. This might lead to a recession similar in degree to the 2008 financial crisis.
- It is uncertain that oil prices will rebound to a point where OPEC countries can balance their budgets and remain solvent. US shale-based operations are becoming more and more efficient, counter-balancing the OPEC output cuts.
- Many OPEC countries need to implement more responsible fiscal budgets and diversify their economies. It is certainly possible that a number of these countries will run out of time and money and fail to overhaul their economies into sustainable configurations.
- The funding gap for US oil and gas companies will result in more bankruptcies for E&P companies and Financial problems for their lenders and investors.
- A time bomb of considerable proportion is ticking with no foreseeable solution. The impact of this problem has every likelihood of causing considerable impact to the world economy and developed nations.