

## Preparing OPEC Members and Associated States for decreased oil demand

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# Introduction

The Organization of the Petroleum Exporting Countries (OPEC) was created in 1960 to promote high oil prices. Since 1965 it is based in the Austrian capital city of Vienna, although Austria is not a member. Its membership currently consists of 13 *Member States* and 10 *Associated Members* (OPEC+). Four other countries routinely attend OPEC meetings as *Observers*: Egypt, Mexico, Oman, Russia. *At ODUMUNC, all 27 states have equal voting rights.* 



image: imago, The Economist

OPEC is a cartel, created to reduce the effects of competition between oil suppliers and ensure strong prices. OPEC members meet to coordinate overall oil exports and their individual production quotas (market shares). As a cartel, it is the world's most important exception to the global doctrine of free and equal trade. OPEC members, associate members and observer states possess approximately 81 percent of proven world crude oil reserves below the ground and 42 percent of actual world production.<sup>1</sup>

OPEC is only an organization for coordinating policy among exporters. It has no independent powers. It cannot force its Members, Associates and least of all it Observers, to do anything. For this reason, it tries to work through census when possible. Decisions opposed by any participating are likely to simply be ignored by them. Countries cooperate because of their shared interest in maximizing oil revenue.

Because its members have different national interests, OPEC often has difficulty agreeing on policy and setting *oil production quotas*. Its member states differ greatly in their flexibility, capacity and dependence on oil exports for national income, as well as their distinct national needs for oil revenue.

# Too much oil? The risk of a coming oil glut

For a group of countries created to maximize oil revenue, the future is good, but not perfect. More and more oil reserves are being found and new suppliers are entering the market. How to adjust to rising global oil production—as more and more countries become major producers, while global demand is expected to start declining?

<sup>&</sup>lt;sup>1</sup> J.H. Güntner, 'How do oil producers respond to oil demand shocks?' *Energy Economics*, v. 44 (2014), pp. 1-13



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For most of the industrial era, oil prices could be expected to rise. Rising global demand for oil was a consistent element of world economic growth for 150 years. More wealth required more industrial production and consumer spending, which required burning more fossil fuels: coal, natural gas and petroleum.

#### Glossary

- **Barrel** The basic unit of petroleum, equal to 42 US gallons or 160 liters.
- **Bpd-** Barrels per day, a measure or production and consumption.
- **Cartel** an organization designed to restrict supply of a product to keep its price high.
- **Fossil fuel** hydrocarbons extracted from underground, coal, gas and oil.
- **OPEC-** The Organization of Petroleum Exporting Countries.
- **Quota** a maximum limit on the amount of oil a country agrees to export.
- **Tariff** a tax on imported goods or services to reduce sales by the originating country.
- USD United States Dollars, the currency in which most international il sales are priced.

But the world is expected to face peak oil demand sometimes in the next ten to twenty years. As worth economic growth--led by China--slows, as measures to reduce climate change take effect, and as alternative energy sources contribute more, the world is expected to face a problem of excess oil supply. Exporters may find coordinating their sales to maximize prices harder than ever. The sudden and permanent collapse of oil prices is a serious worry for OPEC members and associates.

Above all, OPEC must respond to changing future energy needs. The International Energy Agency (IEA), an independent international organization, expects global demand for oil to beginning to decline by the year 2030, as more countries reduce reliance on fossil fuels and oil especially.<sup>2</sup> The IEA expects demand to fall almost in half by 2050 if governments follow through on pledges to clean up energy supply.<sup>3</sup> OPEC's own estimates insist to the contrary, that world oil demand will continue to grow, but this may be intended to strengthen enthusiasm among oil producers and help keep prices stable or rising.<sup>4</sup>



Oil demand rose above 100 million barrels per day for the first time in 2019. According to the IEA's latest scenarios, which are based on government policies and proposals, world oil demand will drop to 92.5 million barrels per day

https://www.nytimes.com/2023/10/24/climate/inte rnational-energy-agency-peak-demand.html <sup>4</sup> N. Grover and A. Lawler, A., 'OPEC+ cuts to tighten oil market sharply in fourth quarter, IEA says', *Reuters*, 13 September 2023,

https://www.reuters.com/business/energy/opeccuts-tighten-oil-market-sharply-fourth-quarter-saysiea-2023-09-13/

 <sup>&</sup>lt;sup>2</sup> Growth in global oil demand is set to slow significantly by 2028. International Energy Agency, 2023, <u>https://www.iea.org/news/growth-in-global-</u> oil-demand-is-set-to-slow-significantly-by-2028

<sup>&</sup>lt;sup>3</sup> Brad Plumer, 'Energy agency sees peaks in global oil, coal and gas demand by 2030', New York Times, 24 October 2023,



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by 2030 and almost 55 million barrels per day by 2050, if all pledges announced by governments under the 2015 Paris Climate Convention are met.

The IEA's scenarios also paint a more troubling picture for the environment if governments fail to follow through on pledges and stick with existing policies, showing oil demand would barely fall by 2050, declining to just 97.4 million barrels per day.<sup>5</sup>

For OPEC Member and Associate States, there is basically one number that matters; the price of oil per barrel. With economies totally or largely dependent on oil and gas exports, they need the highest oil prices possible. Low prices mean they must suffer, government spending declines, businesses lay off staff and leaders become politically vulnerable. Very low prices, typically below USD 70 per barrel, are a catastrophe for them.

Saudi Arabia's budgets require a price of at least USD 85 per barrel to balance and avoid cutting government spending. Russia requires USD 100 per barrel. Prices below those thresholds mean political and economic pain; popular programs and projects must be delayed or reduced, and public anger is hard to suppress. Low prices can be endured temporarily if they serve important goals, but only high prices ensure political stability, wealth, power and influence.

# While demand for oil may peak, supplies and production are almost certain to increase. In

even to OPEC

production are almost certain to increase. In 2030, if current projections hold, the United States will drill for more oil and gas than at any point in its history. Russia and Saudi Arabia plan to do the same.<sup>6</sup>

And the global climate matters,



That means the world remains on track to produce around 110 percent more oil, gas and coal through 2030 as would be allowable if governments wanted to limit warming to 1.5 degrees Celsius, the researchers warned. The world was also set to overshoot, by 69 percent, the amount of fossil fuels consistent with limiting warming to 2 degrees Celsius.

Beyond those thresholds, the world faces the danger of irreversible and catastrophic damage from climate change, scientists say. The planet has already warmed an average of 1.2 degrees Celsius from preindustrial levels.

Nearly every country signed the Paris Agreement in 2015, the global climate pact that aims to limit the rise in average global temperatures to well below 2 degrees Celsius,

 <sup>&</sup>lt;sup>5</sup> David Sheppard and Ian Johnston, 'IEA warns against relying on demand for oil', *Financial Times*, 24 October 2023,

https://www.ft.com/content/6ba4c6a2-4a7f-469dbae3-64bb82eef490

<sup>&</sup>lt;sup>6</sup> Hiroko Tabuchi, 'Nations that vowed to halt warming are expanding fossil fuels, report finds', *New York Times*, 8 November 2023, <u>https://www.nytimes.com/2023/11/08/climate/foss</u> <u>il-fuels-expanding.html</u>



and ideally no more than 1.5 degrees Celsius, or 2.7 degrees Fahrenheit, compared with preindustrial levels. Meeting this target requires burning less oil.

But this is anathema for some OPEC states. Russia has been most outspoken that the international community cannot act against its oil interests.<sup>7</sup> Other OPEC Member States are more accepting that alternatives to fossil fuels must be found, eventually.

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1.	Saudi Arabia	7.4	
2.	Russia	5.1	
З.	Iraq	3.9	
4.	Canada	3.2	Millions of
5.	United Arab Emirates	2.3	barrels a day
6.	Kuwait	2.1	
7.	United States	2.0	
8.	Nigeria	2.0	
9.	Iran	1.8	
10.	Kazakhstan	1.4	
11.	Angola	1.4	
12.	Mexico	1.3	
13.	Venezuela	1.3	
14.	Norway	1.3	
15.	Brazil	1.1	

#### Top crude oil exporters in 2018

Sources: OPEC; U.S. Energy Information Administration

https://www.ft.com/content/299c3ec6-cbbe-4970a874-af53916e769d

<sup>&</sup>lt;sup>7</sup> Attracta Mooney and Aime Williams, 'Russia opposes plan to phase out fossil fuels', *Financial Times*, 4 October 2023,



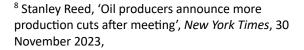


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# Oil Prices: elephants set the rules

Lowering each Member State's production quota, reducing supply and creating artificial scarcity, the only reliable tool for raising prices. With less il being produced, customers cannot bargain between cash-strapped suppliers. Instead customers compete with each other for the reduced supply, forcing each other to pay more. It's the basic strategic OPEC has relied on since it captured the world's attention with its Price Shocks of the early 1970s, massively increasing their income and influence.

Two giant producers dominate all discussions about prices: Russia and Saudi Arabia. But neither of these countries is the largest producer. Surprisingly maybe, the world's biggest oil source is the United States. But the United States government does not control output, unlike most OPEC governments, and its domestic needs make sharp reductions in output politically unimaginable. While Russia and Saudi Arabia recently agreed to cut production, to prop up prices, 'In the United States, crude production 'rose 1.7 percent, a new monthly record of 13.24 million barrels a day, the Energy Information Administration said.'<sup>8</sup>



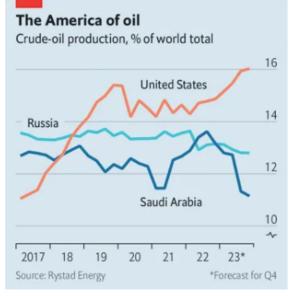


IMAGE: THE ECONOMIST

The Russian and Saudi advantages are not just the scale of their production, but the *elasticity* of their output. Unlike the United States, which consumes most if its oil domestically, Russia and Saudi Arabia are exporters first and foremost. Although cutting production is not painless, they can do it much easier than countries whose oil mostly serves domestic needs, and easier than small exporters with little margin to work with.

In a recent demonstration of what they can do, in 2023 'Saudi Arabia said it would continue to reduce output by one million barrels a day, a restriction it started in July. Russia said it would

#### https://www.nytimes.com/2023/11/30/business/op ec-plus-oil-production-brazil.html



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cut its exports of diesel, gasoline and other refined products by 200,000 barrels a day; it said it was already holding back 300,000 barrels a day of crude oil exports' Saudi Arabia alone, 'is producing almost two million barrels a day less than it was a year ago.'<sup>9</sup>

Other Arab states of the Persian Gulf like Kuwait, Oman and the United Arab Emirates (UAE) also can be relied on the manage their production to keep up prices. Their populations are smaller, and their wealth great, allowing them a broad margin of choice.

# And the mice act for themselves

Smaller oi exporters lack the gain's margin for choice. Even smaller but still major exporters like Angola and Mexico rely too much on oil revenues to take the risks of cutting production. Much smaller exporters like Ecuador and Libya face more painful situations.

For OPEC countries like Algeria, Egypt, Iraq, Nigeria and Venezuela, with large populations largely dependent on oil money, substantial cuts are not sustainable. Their oil ministers might agree to cuts at meetings in Vienna, as Algeria and the United Arab Emirates recently did, in a show of organizational solidarity.<sup>10</sup>

But this agreement may say more about intensions than capabilities. Smaller exporters' leaders at home are too weak to stick to such decisions. Inevitably, they can be expected gradually to turn the oil faucets back to full. It would take extraordinary pressure, or offers of extraordinary generosity from the oil giants, to win their full cooperation. Indeed, OPEC meetings often agree to allow the smallest and poorest exporters, especially those in sub-Saharan Africa, to sidestep production cuts entirely.<sup>11</sup>

Acknowledging the reality of the situation, recent OPEC meetings that saw the giants cut production, also agreed to let smaller producers like Angola and Nigeria actually increase their own production. For OPEC this meant compromising on basic goals, but it also was a way of accepting reality. Like it or not, some smaller producers were not going to cut.

## How about raising production?

The alternative to lowering production to increases prices is to raise production to maximize sales. In 2014, with the world still reeling from the 2007-09 recession, that's exactly what OPEC did. This approach was extremely popular with its smaller members, who could pump to their heart's delight. Prices rose to USD 116 per barrel, even with high production as the Chinese economy boomed, the United States recovered, and the rest of the world binged.

But high prices attracted new producers. The United States, where production had been shrinking, capitalized on fracking technology to massively increase it's domestic output. New producers like Brazil and Guyana emerged. As newcomers entered, and old players kept pumping, supply grew faster than demand. A price collapse was the logic and inevitable result.

There is a consensus among the oil officials in government and business in OPEC countries that boosting production to boost revenue no longer is an option. There is too much spare pumping

<sup>&</sup>lt;sup>9</sup> Reed, ibid.

<sup>&</sup>lt;sup>10</sup> Sheppard and Johnston, op.cit.

<sup>&</sup>lt;sup>11</sup> Sheppard and Johnston, ibid.



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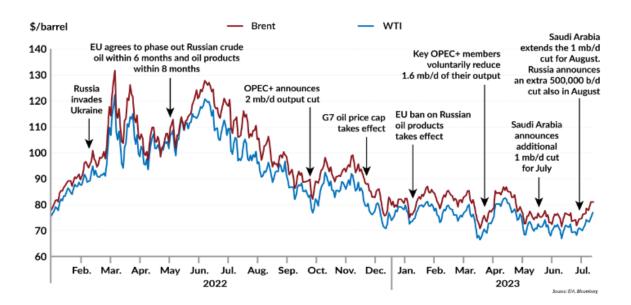
capacity among non- OPEC countries. Rather than raising prices, higher product would only lead to massive new supplies, triggering a price collapse. That is something they will strive to avoid at all costs.

#### The recent volatility of the price of oil

Brent refers to Brent Crude, oil from the North Sea extracted by Norway and the United Kingdom. WTI mean West Texas Crude, another market benchmark.

# **Facts & figures**

#### Oil prices, January 2022 – July 2023



Oil markets are affected not just by changing availability from suppliers and changing demand from oil consumers, but also by political uncertainty about future supply. Russia's invasion of Ukraine, for example, had a disruptive effect on the prices of oil. When the 27 Member States of the European Union boycotted Russian oil after the attack, surplus capacity was suddenly created, and prices went down.

The graph also illustrates how OPEC allies work together; the OPEC+ decision to cut oil

production, led by Saudi Arabia, pushed prices up somewhat. But even Saudi Arabia, the world's largest exporter and most flexible producer, cannot dictate market trends. The decision to cut oil production is many and varied and it causes significant changes in the global oil market, whether it be an increase in the price or demand or a decrease in demand because of the soaring oil prices.

On the other hand, African OPEC nations are projected to see significant losses for the next six years as their ability to produce goes down,



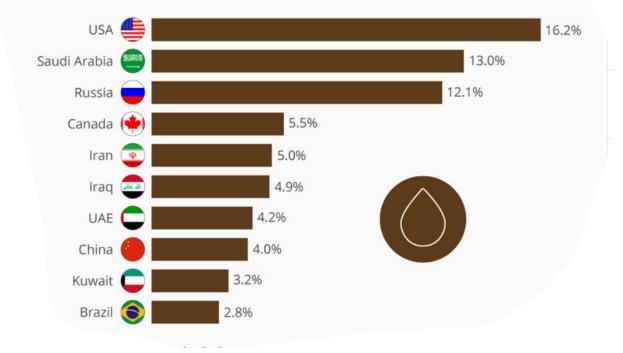
due to limited reserves and the failure of many African producers to invest in new drilling and extraction capabilities. Nigeria has experienced a decline in oil production and has lost its rank as a top crude oil producer. Libya has seen its total oil output plummeting to 1.1 million barrels per day as of 2022.<sup>12</sup> The world's largest oil reserves belong to Venezuela, which due to an almost complete failure to invest, has been paralyzed as its production capabilities steadily declined for decades.

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# The World's Biggest Oil Producers

Share of global oil production in 2018



# Some possible proposals for further action

OPEC Member States, Associates and Observers are free to design their own solutions to the problem of declining oil demand. There are innumerable paths they can follow. As sovereign states, the choices are open to each. But collective action will be much more powerful, if it can be achieved. Some possible proposals for further action include:

**Volunatary agreements on production quotas**, dividing global demand (currently 105 million barrels per day) among Opec members. A new quotat system, with production and exports trimmed to match declining global consumption,

International Enegy Agency, 2023, p. 60, https://iea.blob.core.windows.net/assets/6ff5beb7a9f9-489f-9d71-fd221b88c66e/Oil2023.pdf

<sup>&</sup>lt;sup>12</sup> Y. Akizuki, A. Bressers, J. Couse, C. Healy, P. Mackey, D. Martin, J. Messing, and J. Thomson, *Growth in global oil demand is set to slow significantly by 2028*,



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could ensure stable revenue for all OPEC countries, if it is upheld by all. To work effectively, though, such a system would have to cosndeir not just OPEC country exports, but alos plan for the share of global demand satisfied by non-Opec suppliers like Brazil, Guyana, Norway, the United Kingdom and the United States, as well as OPEC observer countries like Mexico which do no accept export quotas

**Establish long-term export quotas** to areduce the unpredictability of global oil markets, ensuring more predictable oil production and reveneue. This scheme would need to take into account the effecst of declining global oil deamdn, and the declining production propsects of many OPEC Member States.

**Create incentives** for non-Opec countriees like Brazil and Mexico to join or cooperate with OPEC in setting price ceilings and production quotas.

**Reallocate production quotas** on a systametic basis to ensure braoder and stronger support for the quota system and dsicourage OPEC countries fromd efecting to pursue their own individual advavnatge, udnerming the system. Quoata currently are negotiated byt eh group based largely on each country's negotiating power in Vienna.

Instead, OPEC could agree to allocate production based on each country's population. This would benefit countries like Nigeria and Russia, while causing difficulty for countries with the smallest populations like Kuwait and Oman.

Alternatively, production quotas could be based not the size of each country's oil reserve stocks, but on their wealth. A quota system could be designed to benefit the poorest OPEC members, especially sub-Saharan African Members.

**OPEC could work to maximize future oil** 

**revenue** by punishing countries that try to reduce their oil consumption through green initiatives. For example, the Member States could agree not to import goods or services from countries with major green initiatives. Such compensatory trade bans or punishment tariffs might focus on products important to the economy of an importing state, such as their food exports, manufactured products like cars and aircraft, or infrastructure services such as highway and airport construction.

**OPEC could anticipate declining** 

international oil demand by creating an investment fund, based on systematic donations by Member States and Associates, investing oil export revenue for post-oil economic projects in alternative industries. The scale of each country's donations would have to be agreed, as would thresholds based on the market price and income of current oil sales, to anticipate greatly ability to contribute when oil prices are high, and the difficulty of donating when prices are low. Would money donated into this fund be kept by each member individually, OPEC also would have to agree on how fund revenues are to be disbursed.



# **Bibliography**

- Akizuki, Y., Bressers, A., Couse, J., Healy, C., Mackey, P., Martin, D., Messing, J., & Thomson, J. (2023). *Growth in global oil demand is set to slow significantly by 2028*. https://iea.blob.core.windows.net/assets/6ff5beb7-a9f9-489f-9d71-fd221b88c66e/Oil2023.pdf
- Barret, C., Toril Bosoni, Garcimartin, M., Kloss, A., Lejeune, O., Mackey, P., Petrosyan, K., & Yarita, M. (2020). *Oil 2020: Analysis and forecast to 2025*. O. I. a. M. Division. https://iea.blob.core.windows.net/assets/4884bbba-d393-48b8-a9e9-6c2e002efc55/Oil 2020.pdf
- Bradshaw, M., Graaf, T. V. D., & Connolly, R. (2019). Preparing for the new oil order? Saudi Arabia and Russia. *Energy Strategy Reviews*, 26, 100374. <u>https://doi.org/https://doi.org/10.1016/j.esr.2019.100374</u>
- Casale, M., & Dutzik, T. (2022). Reducing demand is the best response to OPEC's oil production cuts. *The Hill*. <u>https://thehill.com/opinion/energy-environment/3699733-reducing-demand-is-the-best-response-to-opecs-oil-production-cuts/</u>
- EIA. (2023a). *Energy & Financial Markets WHAT DRIVES CRUDE OIL PRICES*? Energy Information Administration <u>https://www.eia.gov/finance/markets/crudeoil/demand-oecd.php</u>
- EIA. (2023b). *Short-Term Energy Outlook*. T. U. S. E. i. Administration. https://www.eia.gov/outlooks/steo/pdf/steo\_full.pdf
- Gately, D. (1984). A ten-year retrospective: OPEC and the world oil market. *Journal of Economic Literature*, 22(3), 1100-1114.
- Grover, N., & Lawler, A. (2023). *OPEC+ cuts to tighten oil market sharply in fourth quarter, IEA says.* Reuters <u>https://www.reuters.com/business/energy/opec-cuts-tighten-oil-market-sharply-fourth-quarter-says-iea-2023-09-13/</u>
- Güntner, J. H. (2014). How do oil producers respond to oil demand shocks? Energy Economics, 44, 1-13.
- IEA. (2023). Growth in global oil demand is set to slow significantly by 2028. International Energy Agency <u>https://www.iea.org/news/growth-in-global-oil-demand-is-set-to-slow-significantly-by-2028</u>
- Kutlu, Ö. (2020). Covid-19 has adverse impact on oil demand: OPEC. Anadolu Agency. <u>https://www.aa.com.tr/en/energy/international-organization/covid-19-has-adverse-impact-on-oil-demand-opec/28559</u>
- Lawler, A. (2023). *OPEC sticks to oil demand growth view citing resilient economy*. Reuters <u>https://www.reuters.com/business/energy/opec-sticks-oil-demand-growth-view-citing-resilient-economy-2023-09-12/</u>
- Mooney, Attracta, and Aime Williams, 2023. 'Russia opposes plan to phase out fossil fuels', *Financial Times*, 4 October 2023, <u>https://www.ft.com/content/299c3ec6-cbbe-4970-a874-af53916e769d</u>
- Nakhle, C. (2023). *Oil market: Shifting expectations*. Geopolitical Intelligence Services AG. <u>https://www.gisreportsonline.com/r/oil-market/</u>
- OPEC. (2021). OPEC 2021 Annual Report. W. D. GmbH. https://www.opec.org/opec\_web/static\_files\_project/media/downloads/publications/AR%202021.pdf
- OPEC. (2023). OPEC World Oil Outlook 2022. https://www.opec.org/opec\_web/en/index.htm



- Plumer, Brad , 2023. '*Energy agency sees peaks in global oil, coal and gas demand by 2030*', *New York Times*, 24 October 2023, <u>https://www.nytimes.com/2023/10/24/climate/international-energy-agency-peak-demand.html</u>
- Sheppard, David, and Ian Johnston, 2023. 'IEA warns against relying on demand for oil', *Financial Times*, 24 October 2023, <u>https://www.ft.com/content/6ba4c6a2-4a7f-469d-bae3-64bb82eef490</u>
- Tabuchi, Hiroko. 2023. 'Nations that vowed to halt warming are expanding fossil fuels, report finds', *New York Times*, 8 November 2023, <u>https://www.nytimes.com/2023/11/08/climate/fossil-fuels-</u> <u>expanding.html</u>