

BERKELEY MODEL UNITED NATIONS



**LXVI**  
SIXTY-SIXTH SESSION

# ORGANIZATION OF PETROLEUM EXPORTING COUNTRIES



# WELCOME LETTER

Welcome to the Organization of Petroleum Exporting Countries. My name is Sachit Shroff and I have the privilege of serving as your head chair for the 66th session of Berkeley Model United Nations. As part of the first OPEC in BMUN's history, delegates will take part in a unique experience debating a variety of economic policies with a few twists. In the process, I hope delegates can learn about the interplay between economics, environmental policies, and politics on the world stage.

Now a little about myself and my wonderful vice-chairs. I'm a sophomore studying Computer Science and Peace and Conflict Studies here at Cal. I'm originally from Burlingame, California (right here in the Bay Area), and this will be my 6th year participating in BMUN as a delegate and now a chair. When I'm not working or updating myself on the news, I love to procrastinate by repeatedly watching and reading *Lord of the Rings*, *Harry Potter*, and the like an ungodly number of times. Someday I hope to be able to spend my time traveling on a worldwide cruise, but until then I try to satisfy myself with BART trips into SF.

Julia Geer is a second-year student at UC Berkeley from Huntington Beach, California studying Cognitive Science. She loves being at the beach, traveling, going to spontaneous concerts, and spending time with her dogs. Julia has been involved in Model United Nations for six years now, and this year will be her second time chairing

BMUN. As a delegate in high school, she travelled to conferences from New York City to the Netherlands, which furthered her love for Model UN and the experiences it provides to those involved.

Vikas Sharma is a freshman from Detroit, Michigan studying Computer Science and Economics and will be serving as your other vice-chair for OPEC. He loves to play football, dance, and is an avid sports fan. Vikas did MUN for 4 years in high school, and fell in love with MUN's ability to simulate international politics. After 4 years on the circuit he wanted to experience MUN from the other side of the dais, and thus joined BMUN!

This year, we'll be covering two unique topics: the 174th Meeting of OPEC, and 2030- Adapting to an Energy Independent Future. The first topic involves setting long-term goals for OPEC complete with quotas, and will take the form of the politically motivated negotiation. The second topic will then jump to the future, where the resolutions you pass not he first topic will affect the "world state" at the beginning of the second topics. This topic is much more open-ended, but the goal is to reach an agreement that keeps OPEC relevant in a future in which demand for OPEC oil has shrunk considerably. You will have to implement changes that allow OPEC to continue furthering the individual and collective interests of its member states. As a dais, we hope that these topics will allow you to understand the finer points of how politics and environmental policy can affect economic decisions. In addition, we hope to use the

deviations from the traditional MUN format to create a novel setting that will give you creative control and force you to think a little on your feet.

I'm continually amazed by the creativity, intelligence, and debate that come out of BMUN conferences, so I'm incredibly excited for BMUN LXVI, and can't wait to meet all of you in March! Until then, make sure to check out the blog, prepare for some wonderful guest speakers (see the blog), and email with any other questions or comments!

**Sachit Shroff**

Head Chair, Organization of Petroleum Exporting Countries

Berkeley Model United Nations, Sixty-Sixth Session

# 174TH OPEC MEETING

## INTRODUCTION

### Some Procedural Details

This committee consists of 20 delegations: the 14 OPEC member states and 6 observer states. We will be deviating slightly from standard OPEC voting procedure in order to provide observer states with more of a voice in committee. Ordinarily, OPEC agreements need unanimous support to pass. To retain this aspect of voting procedure, we will require simple majority from the committee and no “against” votes from OPEC member states for any agreement to pass. This means that if any of the 14 OPEC member states vote “no” (not abstain) on any resolution, the resolution automatically fails.

### A Word of Advice

Before you jump in to this topic, there are a few things you should keep in mind while reading and researching. The first is that the goal of this topic is explicitly to create a comprehensive, flexible new long-term plan for OPEC, complete with expected outputs. Because this will be more of a negotiation than a debate, you should keep your country’s political motivations, economic goals, and power over the committee in mind when crafting a goal, deciding the minimum deal you will accept,

and creating a negotiation strategy. The goal is to allow for spirited but guided negotiations that will teach you about diplomacy, political deadlock, and the wide-ranging effects of economic policies.

## FORMATION OF OPEC

Early in 1959, a series of price cuts across world crude oil markets inflamed tension in oil-producing nations, and threatened to destabilize their economies (Ghanem 18). The cuts were initiated by a pack of multi-national oil companies (including the likes of Shell, British Petroleum, and Standard Oil New Jersey) that together accounted for the vast majority of the oil industry at the time. Although rapid growth in production offset the losses from the cuts, oil exporting nations grew increasingly agitated as the cuts continued. In April of 1959, a previously scheduled meeting of the Arab Petroleum Congress, a body created years earlier by the Arab League, allowed important officials from the world's primary oil producing nations to assemble. At the meeting, the Congress officially condemned the price cuts, and requested that the governments of producing nations be notified before cuts were made (Ghanem 23). But the Arab Petroleum Congress was simply a forum for all Arab League member states to discuss petroleum related policy regardless of whether or

not they were net exporters of oil. Realizing this, a few of the delegations in attendance also took the opportunity to informally discuss the creation of a separate union of oil producing states. In August of 1960, a fresh series of price cuts (of which producing nations were given no warning despite the Arab Petroleum Congress' resolution) triggered a response. Early in September, delegations from Iraq, Iran, Venezuela, Saudi Arabia, and Kuwait met at the Baghdad Conference, where OPEC was formed. OPEC was established in direct response to the price cuts of 1960, but its founding marked a fundamental shift from an oil industry controlled by corporations to one controlled by sovereign states (Ghanem 28). National sovereignty over oil became a reality, and remains paramount to OPEC's values to this day (Statute).

## THE STRUCTURE OF OPEC

OPEC's mission is officially to "coordinate and unify the petroleum policies of its Member Countries and ensure the stabilization of oil markets in order to secure an efficient, economic and regular supply of petroleum to consumers, a steady income to producers and a fair return on capital for those investing in the petroleum industry," (Brief History). The organization attempts to fulfill these objectives at meetings of its Conference, which occur at least twice a year. The OPEC Conference is the

organization's "supreme authority," and is tasked with determining and implementing OPEC's policy, admitting new states to the organization, acting on relevant recommendations, and amending its Statute (among many other things). The conference makes its decisions in the form of resolutions, which can address anything in the scope of the Conference's powers, but are by definition non-binding, meaning compliance with all resolutions is voluntary and subject to change. Almost all resolutions require unanimous agreement to pass, with the exception of approvals for new members, which only require a three-fourths majority and a "yes" vote from all five Founding Members (General Info. Handbook). The Conference is supported by the Board of Governors, a separate body that also meets at least twice a year. The Board of Governors oversees the implementation of the Conference's resolutions, and performs a variety of other tasks, including drafting the budget and making recommendations, that allow the Conference to focus on more substantive issues during its meetings. The final major component of OPEC is the Secretariat, which takes care of most managerial and logistical tasks. In addition, the Secretariat also oversees OPEC's Research Division, which gathers and analyzes a variety of data related to the oil industry on a daily basis through several departments, each of which has a specific focus (General Info. Handbook).

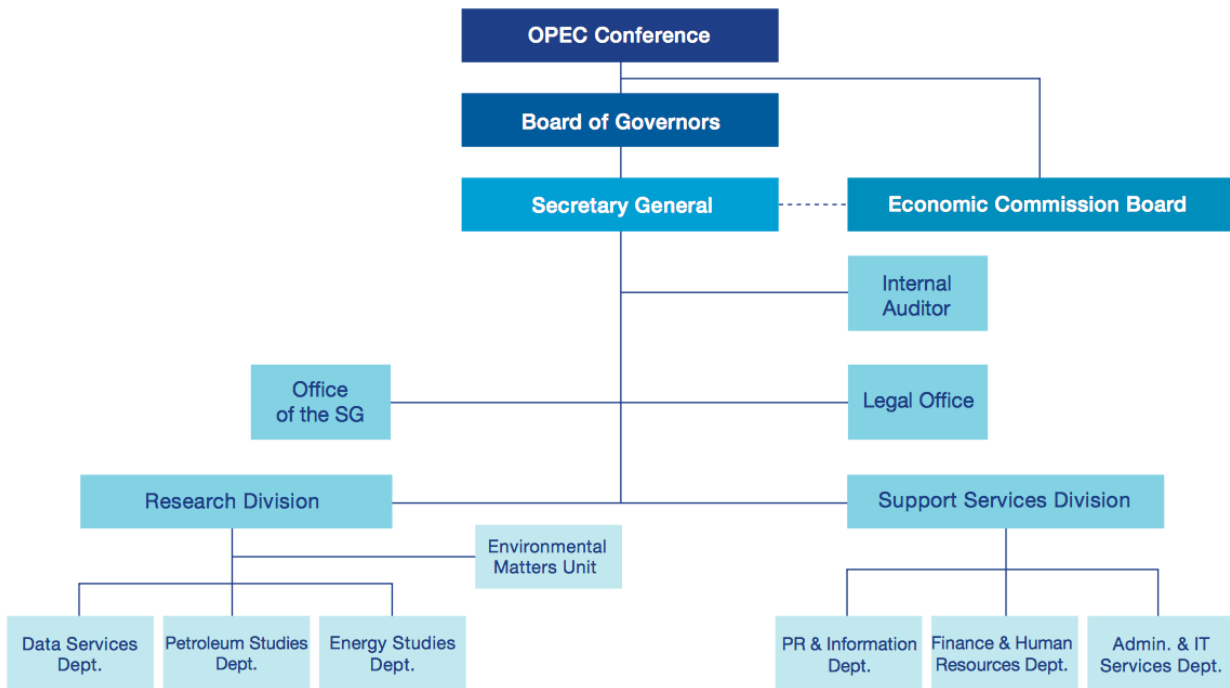
As OPEC's dominance over the oil market has waned through the years, the organization has also found it increasingly necessary to rally the support of both non-



OPEC oil-producing states and consumers. Over time, a few formal mechanisms and bodies have emerged to create channels between OPEC and important non-OPEC entities. The first of these channels are OPEC's Energy Dialogues. These dialogues are held both with consumers and producers (the three most important Energy Dialogues are between OPEC and Russia, India, and the EU), and provide an opportunity for important officials from OPEC and non-OPEC parties to discuss important shifts in strategy and prevent unnecessary strife (Press). Meetings of each dialogue do not happen very often, however (usually not more than once per year), so they do not allow for efficient coordination between OPEC and the other party involved. To facilitate cooperation, OPEC has opted to rely on "Joint Ministerial Monitoring Committees," which are created to monitor the implementation of agreements made by the Conference (Statute). These committees are not permanent bodies, but are simply tasked with overseeing individual resolutions that involve both member and nonmember states. The committees consist of representatives from all parties to an agreement, and conduct relevant inquiries to gather information and make recommendations to the Conference (JMMC Continues). The most important interaction between OPEC and non-OPEC producers, however, happens at meetings of the OPEC Conference itself. Any nation can "attend a Conference as an Observer" with the approval of the Conference itself. Although Observer states don't have voting power, they often have the ability to influence the debate as oil-producing nations

(Statute). More importantly, Observer States are able to attend meetings between high-ranking diplomats and ministers to have “exchange ideas” and discuss technical specifics (OPEC AR 2001).

 Organization of the Petroleum Exporting Countries



**Figure 1:** A diagram explaining the hierarchy of OPEC’s various sub-bodies

### Membership and Factions

At its 172<sup>nd</sup> Meeting in May, 2017, OPEC approved the admission of Equatorial Guinea as the organization’s 14<sup>th</sup> and newest member (OPEC 172<sup>nd</sup> Meeting).

Membership in OPEC has fluctuated over the years, but has generally grown steadily.

All Member States have the right to leave the organization, but only 3 have ever exercised this option. Indonesia was admitted to OPEC in 1962, suspended its membership from 2009 to 2016, and a suspended it again later the same year. Gabon left the organization in 1995 (but rejoined in 2016) and Ecuador suspended its membership from 1992 to 2007 (Brief History). More often, nations cease most of their activities in OPEC instead of leaving the organization outright. For instance, Iraq simply didn't send a delegation for most of OPEC's meeting in the 1990's due to sanctions placed on Iraqi oil in retaliation for the invasion of Kuwait (Koch).

Political conflict often seeps into OPEC's decision-making process, and creates divides within the organization. Venezuela has long been a vocal critic of OPEC's involvement in politics, but is generally opposed by a bloc of Arab member states, led by Saudi Arabia, that have used OPEC's economic power to their political advantage in the past (Horton). Today, another major inter-OPEC conflict arises from the strife between Iran and the Arab bloc, again led by Saudi Arabia. Both sides have tried to add political contingencies to any deal, which leads to a deadlock that generally hurts OPEC as an organization by reducing its credibility and effectiveness (Financial Times). Economic differences also lead to the formation of opposing blocs, each of which prefers certain terms being put in any resolution.

## ENERGY AND OIL INDUSTRY BACKGROUND

Since its founding, OPEC has accounted for a majority of the world's proven oil reserves. As of 2015, OPEC member states own just over 81% of the world's proven crude reserves, of which nearly half are controlled by Saudi Arabia and Venezuela put together (OPEC ASB 2017). Despite controlling most of the world's crude reserves, however, OPEC in 2015 only accounted for roughly 43% of world oil production. In fact, OPEC only produced more than 50% of the world's oil for a brief period from 1969 to 1978 (OPEC ASB 2017). A steady rise in non-OPEC production since the organization's founding has led to decreased demand for imported oil, meaning OPEC accounted for a smaller share of total production as its member states reduced their oil outputs. What keeps OPEC relevant today is instead its share of world oil exports. OPEC has consistently accounted for a majority of the world's oil exports (it only lost that status from 1983-1988), meaning that much of the world still remains dependent on OPEC for oil (OPEC ASB 2017). This gives OPEC economic leverage, and provides it with the ability to influence prices.

There are several metrics used to measure oil prices, the most well-known of which is the price of a barrel of Brent Crude. Prices of Brent (a type of crude oil from the North Sea) are often used as general measurements for the world price of oil

because they supposedly move with the average price of oil. But because certain economic and political factors (like sanctions or an economic downturn) can affect the price of a certain type of oil in a specific region (e.g. Texan oil may be sold at a premium in the U.S. because of reduced shipping costs or tariffs), the prices of different types of oil can move at separate rates (Payne). As a result, OPEC chooses to rely on a more balanced pricing metric—the OPEC Reference Basket. The Reference Basket is composed of a variety of crudes from most of OPEC’s member states, ranging from Nigerian Bonny Light (crude oil that is much easier and environmentally friendly to refine) to Iranian Heavy Crude (which is much costlier to refine) (Composition). The price of OPEC’s Reference Basket is constantly updated by the organization’s Research Division, and is the standard that OPEC uses in all its analysis and policy-making.

There is an important distinction, however, between spot prices and futures prices. Spot prices refer to the price at which a commodity is bought at the time of sale, and is a concrete measure of the value of the commodity. Futures prices or just “futures” refer instead to the price at which a commodity is bought for delivery at a later date. Futures reflect investors’ confidence in the strength of a commodity and its potential to grow (Oil Price). Futures prices are often immediately affected by the announcement of OPEC agreements, as investors adjust to what they assume the result of the agreement will be.

# ECONOMICS OF OPEC

## Defining Cartels

OPEC is fundamentally an economic organization, and was formed to provide economic security and stability for the oil industry. To fulfill its mission, OPEC moderates the oil output of its member states in order to influence prices. But OPEC's dominance as a producer, combined with a few other factors, has led many economists to label OPEC as a cartel.

Classic cartel theory stipulates that cartels are unions of producers that coordinate prices or output in order to increase profits (Hall). Cartels can only form, however, when the economic conditions are right, namely when there are few producers with control over a divided market and significant barriers to entering the market as a supplier. Producers can then either set prices outright (if they have complete dominance over the market) or instead choose to reduce supply until prices reach a desired point. In essence, cartels are the opposite of competition: a set of producers coordinate their actions to control the market instead of competing with each other and being "controlled by the market" (in the sense that prices are not set naturally by supply, demand, and other market factors) (Khusanjanova). The problem that all cartels face, however, is coordination. Each member of the cartel has an incentive to cheat (overproduce), because doing so would increase their profits.

However, once one member of the cartel begins to overproduce, the others have an

incentive to do the same (or be faced with falling prices and low production), which undoes all the benefits cartels provide as the producers are once again competing with each other. Despite understanding the clear negative consequences of cheating, producers still overproduce because of a lack of trust. If the producers that form a cartel cannot trust that the others will not cheat, each will have an incentive to cheat and gain the benefits, because the alternative could very well be “getting left behind” (stuck with low prices caused by others overproducing and low production) (Hall). This problem is a classic form of the Prisoner’s Dilemma, in which two parties cannot achieve the “better outcome” (in this case higher prices) because neither can trust the other and so both sides are tempted to cheat (overproduce), which leads to a worse outcome for both parties.

Although OPEC resists being classified as a “cartel,” it satisfies many (if not all) of the main requirements of cartel theory. Today, OPEC expresses its policy decisions largely through “Expected Output Agreements,” commonly referred to as quotas. These agreements specify exactly how much oil each member state will export on average for a certain period of time and a target output for OPEC as a whole, which is OPEC’s method of moderating output to secure a certain price (AGREEMENT). The economics of OPEC diverge from cartel theory, however, when one considers exactly how quotas set by OPEC achieve the desired economic effect. Cartel theory assumes that demand is largely inelastic (meaning demand for the cartel’s products shrinks

much slower than price rise), which allows producers to raise prices without having to worry about losing market share or decreasing production unsustainably (NIKODYM). However, because the oil market is not inelastic in the long-term, and competing producers are able to fill gaps in supply and establish a market price, simply reducing or increasing supply through quotas does not allow OPEC to reliably set prices. Instead, OPEC quotas work to indirectly influence prices in a few ways. When creating a target output for OPEC, the organization attempts to produce enough to set world supply and stockpiles at a level that guarantees a favorable average price for oil (because world demand for oil is relatively inelastic in the short-term) (Khusanjanova). This allows the organization to effectively set prices, but also forces it to “absorb losses” (lost profits) by cutting production while non-OPEC producers continue to export oil at normal levels (Fattouh). Much subtler is the effect OPEC quotas have on prices because of the organization’s potential to devastate markets. Essentially, when OPEC cuts production, it signals to the oil market that the organization is attempting to raise prices. If competing producers continue to undercut OPEC’s prices, OPEC can “flood the market” with cheap oil, absorbing the losses caused by lower prices until the competing producers are no longer able to compete. This logic, however, relies on OPEC having the ability to flood the market, meaning the organization must have lots of spare capacity to produce large quantities of oil on short notice (Fattouh).



## Political and Economic Interests

OPEC also suffers from a form of prisoner's' dilemma, caused both by a lack of trust (which often spawns from political differences) and economic incentives to cheat on quotas. Unpredictable events and downturns often force member states to overproduce when quotas are low. Since instituting the quota system in the 1980's, OPEC has been unable to rely on compliance from all member states, which weakens the organization's credibility and economic sway (Fattouh). The problem stems from the guarantee of individual sovereignty over resources that is so fundamental to OPEC's values. Unwilling to allow foreign parties any form of binding or legal control over their resources, OPEC's member states agreed that compliance with all OPEC agreements, including quotas, is voluntary. Without a method of enforcement, OPEC is often unable to meet its Expected Output Agreements because individual member states overproduce when under economic or political pressure. Sometimes, this pressure is so extreme that member states are excluded or exempted from agreements (143rd (Extraordinary) Meeting). In the 1990's, for instance, Iraq suffered from a variety of crises beginning with Operation Desert Storm. Iraq was simply not included in OPEC quota agreements for over a decade because it could not reliably commit to a target output after it lost much of its infrastructure and was placed under heavy sanctions (Koch).

## NOTABLE SUCCESSES

### 1973 Oil Crisis

OPEC first rose to international prominence in the early 1970's after it almost quadrupled the price of oil. In October 1973, OPEC's Arab Bloc (which at the time accounted for the vast majority of OPEC production) sanctioned the US and some of Western Europe for supporting Israel in the Yom Kippur War (Horton). The "Arab Oil Embargo" had immediate and far-reaching consequences, especially in the US. Fuel pumps ran dry, roads saw almost no traffic, and an energy rationing system was created as for the first time, oil became a limited resource. In the short term, the embargo substantially raised oil prices, and caused a diplomatic crisis (Horton). In the long term, however, the shocked citizens of the embargoed nations began to adjust to a lifestyle less dependent on oil, resulting in an eventual drop in demand. Producing nations, however, more than made up for the losses in demand by sustaining the increased price of oil (OPEC ASB 2017). The "super-cycle" that began with the embargo led to a sustained economic downturn as nations struggled to adjust their infrastructure to be less reliant on oil (Ramady).



**Image 1:** *In the U.S, it was not uncommon to see people picnicking on empty highways at the height of the crisis caused by the embargo.*

## Implications

Although the conditions - both political and economic - were very different in 1973 than they are today, the Arab Oil Embargo still sheds light on what combination of factors allows OPEC to function effectively as an organization. In 1973, it was a lack of economic competition and political motivation that helped OPEC avoid a prisoner's dilemma, and high inelastic demand from consumers in the West that allowed the organization to achieve an economic (and political) goal and assert its power on the

geopolitical stage. OPEC also showcased its ability to directly set prices by manipulating the world supply, which at the time it could do without fear of losing market share (Horton). From an economic perspective, the 1973 Oil Crisis was a victory for OPEC because it provided the organization with a reputation that still allows it to influence prices today despite a changed economy and a significant decline in OPEC's dominance (Fattouh). As to adhering to its mission, the Oil Crisis undoubtedly allowed OPEC to secure "a steady income to producers and a fair return on capital" for investors, but also most definitely did not ensure an "economic and regular supply of petroleum to [OPEC's] consumers," (Brief History). The embargo serves to illustrate that the tenets of OPEC's Mission are often at odds. As a result, the definition of "success" for OPEC has become subjective. From a consumer's perspective, success is often defined as ensuring a regular supply. From a producer's perspective, success is more often defined in terms of increasing profits, although regular supply also provides market stability, which producers value as well.

But it's important to note that OPEC's successes (from the perspective of its member states) are not always caused by circumstances under OPEC's control. From 2011 to 2013, for instance, the price of oil reached record highs, with OPEC's Reference Basket crossing the \$100 mark for the first time, and even approaching \$110 in 2012 (OPEC ASB 2017). This period also saw a marked increase in profits for many OPEC member states, and a substantial increase in many member states' target oil

price (in some cases around a 400% increase from a decade earlier) (Ramady).

Although part of this dramatic increase in prices can be attributed to OPEC's landmark decision to cut production following the Great Recession of 2008, in reality the major force behind the rise in prices was political instability. The series of revolutions and uprising throughout the Middle East and North Africa known as the Arab Spring caused a rise in regional tensions, unplanned oil supply disruptions, and uncertainty that together drove up the price of oil (Ramady).

## NOTABLE FAILURES

### 1980s Oil Glut

Following sustained periods of growth, OPEC often experiences stretches of deadlock, adversity, and economic hardship. One of the earliest examples of OPEC's inability to coordinate is the 1980's oil glut. After the Oil Embargo of 1973, the rate of increase in world demand for oil slowed down abruptly. When the price of oil roughly doubled again in 1979, demand for OPEC oil fell and prices began to slide (Gatley). By 1982, demand had fallen 40% as other producers began to emerge. For the first time since OPEC's founding, non-OPEC production surpassed OPEC production (Gatley). No longer able to unilaterally set price, OPEC turned to the quota system. But a continued increase in non-OPEC production forced OPEC to prolong the cuts it had

enacted, and saw a sharp decline in revenue for its member states. As the Conference agreed to steeper and steeper cuts, it became painfully obvious that many of OPEC's member states were overproducing, attempting to offset the loss in revenue caused by falling prices (Yergin). Saudi Arabia, which had borne the brunt of the cuts, repeatedly expressed its frustration with the lack of compliance, and warned it would not tolerate cheating forever. In late 1985, Saudi Arabia, Kuwait, and a few other Persian Gulf countries began producing at close to maximum capacity, driving prices to back pre-1973 levels. OPEC's profits (with the exception of the Persian Gulf countries) dwindled even further as the market flooded with surplus oil. The Persian Gulf nations benefitted from very low production costs, and so could sustain the rate at which they were producing for roughly a century (Yergin). It soon became apparent, however, that most of the world's other producers (both OPEC and non-OPEC) could not compete in the market as they slowed or halted all production. Eventually, agreements to cut output were met, and by 1991, prices stabilized below 1974 levels (OPEC ASB 2017). The 1980's represented a complete failure of OPEC to provide a steady source of income to its producers, or profitable returns for investors. The organization suffered from a severe lack of compliance, caused both by external economic pressure and political instability and conflict (beginning with the 1979 Iranian Revolution) (Lohr). It was only the economic consequences caused by the Persian Gulf nations flooding the market

(and the ending of the conflict between Iraq and Iran) that forced member states to cooperate.

## 2014 and beyond

More recently, the failure of OPEC to unify in 2014 led to another substantial and sustained drop in oil prices. Similar to the 1980's, following a prolonged increase of prices (in this case from 2011-2013), a rise in competing production combined with a cooling geopolitical situation in the Middle East and shrinking demand worldwide contributed to a fall in prices (Ramady). However, OPEC was unable to reach an agreement to cut production, and instead some member states (led by Saudi Arabia) began to overproduce at almost full capacity to regain lost market share and drive competing producers out of business. The result was a swell in world oil stockpiles, and a 75% drop in oil prices from 2012-2014 (OPEC ASB 2017). It wasn't until 2016 that the overproducing members of OPEC admitted that flooding the market was unsustainable, and agreed to production cuts (AGREEMENT). Although the same problem (overproduction) was at the root of both the 1980's oil glut at the 2014 price slide, in 2014 the logic used to justify overproduction was markedly different. Saudi Arabian officials claimed that flooding the market was a warning to other producers not to take advantage of OPEC cuts and overproduce, implying that Saudi Arabia overproduced for more than its own benefit (Helman).

## COORDINATION WITH NON-MEMBER STATES

OPEC has taken several steps to coordinate its actions with non-OPEC producers, and further cooperation with some important consumers. In 2005, OPEC established Energy Dialogues with the European Union (EU), China, and Russia, expanding its channels of communication with important non-OPEC entities. To date, OPEC has established energy dialogues with the EU, the International Energy Agency (IEA), China, India, Russia, Japan (Hamel). These dialogues can take the form of simple roundtable style discussions between high-ranking officials from both parties (as is the case with Japan, China, and India), forums and workshops held to disseminate knowledge (as with the IEA), or even consist of Ministerial meetings that cover everything from policy to technical details (as with Russia) (Hamel). OPEC attempts to moderate its output based on its projection of non-OPEC production, but when these projections prove incorrect or in times of economic duress OPEC often calls upon non-Member states to voluntarily adjust production (2016 Annual Report). In 1999 and in the aftermath of 9/11 for instance, OPEC called on Russia, Oman, Norway, and Mexico to participate in cuts (OPEC AR 2001). The most recent set of cuts also include significant commitments from non-members (AGREEMENT).



## CURRENT OPEC STRATEGY AND AGREEMENTS

At its 171st Meeting in November, 2016, the OPEC Conference decided to cut production for the first time in eight years, fulfilling the pledge that member states made to cut production by before 2017 at a meeting in Algiers in September (AGREEMENT). OPEC pledged to cut production by 1.2 million barrels per day, bringing the ceiling on the organization's production down to 32.5 million barrels per day, and reached an agreement with non-OPEC producers to reduce non-OPEC production by 600 thousand barrels per day. The chart below details the exact cuts each OPEC member committed to:

Agreed crude oil production adjustments and levels\* (tb/d)

Member Country	Reference Production level	Adjustment	Production level effective January 2017
Algeria	1,089	-50	1,039
Angola	1,751	-78	1,673
Ecuador	548	-26	522
Gabon	202	-9	193
Indonesia**			
IR Iran	3,975	90	3,797
Iraq	4,561	-210	4,351
Kuwait	2,838	-131	2,707
Libya			
Nigeria			
Qatar	648	-30	618
Saudi Arabia	10,544	-486	10,058
UAE	3,013	-139	2,874
Venezuela	2,067	-95	1,972

\* Reference base to crude oil production adjustment is October 2016 levels, except Angola for which September 2016 is used, and the numbers are from Secondary Sources, which do not represent a quota for each Member Country.

\*\* Indonesia suspended its membership.

**Figure 2:** This table reflects the agreed cuts to oil production in 2017.

OPEC also established a Joint Ministerial Monitoring Committee (JMMC), composed of representatives from Algeria, Kuwait, Venezuela, Russia, and Oman, to oversee the implementation of the agreement. The JMMC has reported near record

levels of conformity to the agreement (roughly 100% by May, 2017), a rare phenomenon (JMMC Reports). As a result, the Conference decided to extend the cuts for 9 months, beginning in July, 2017 (OPEC 172nd Meeting). Reports from the JMMC so far indicate that the agreement has been a success, and that the oil market is beginning to stabilize.

In 2015 OPEC adopted an updated Long Term Strategy that considers three main scenarios of the growth of demand in the future. OPEC remains committed to ensuring market stability as well as the three main points of its mission. But because such a wide range of plausible scenarios, both in terms of oil demand and non-OPEC supply exist, the Long Term Strategy does not specify a concrete target for OPEC in terms of production or maintaining oil prices (OPEC LTS). In addition, with the rapid changes the oil market has undergone- namely re-stabilizing after the 2014 price slide- OPEC's Long Term Strategy needs to be updated with specific goals and a robust set of quotas that will allow the organization to meet those goals.

## **Economic Factors**

The primary factors that guide OPEC member states' decision making are economic. Because most member states rely on oil as their main source of revenue, any changes in oil prices can have far-reaching consequences for their economies.

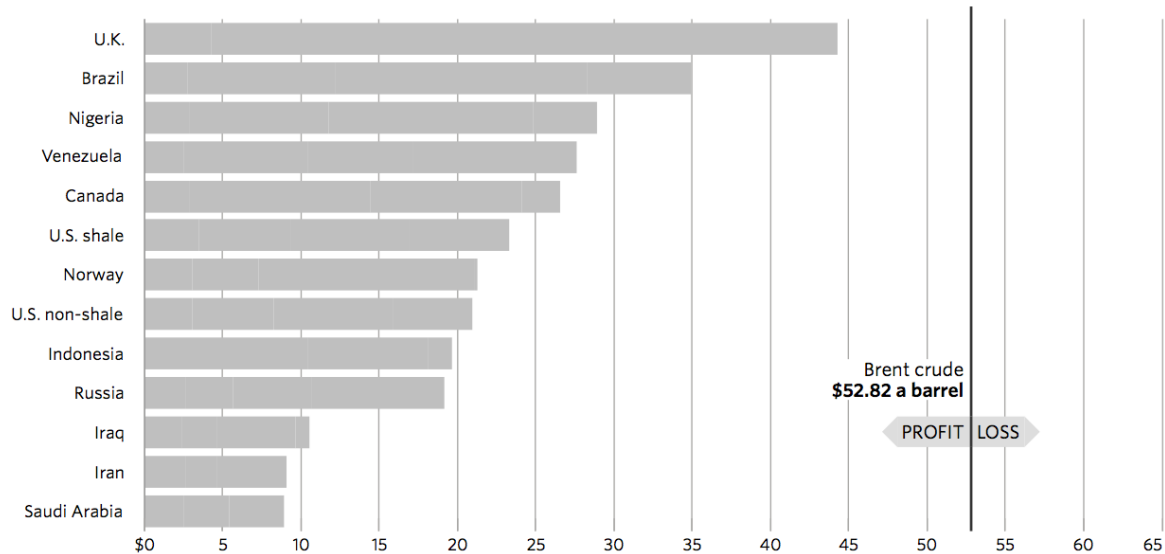
Based on a range of factors, each state determines a suitable target for oil prices and their individual production. Most member states have a “break-even” price and target production they require to balance their budgets, which is determined by their cost of production, cash reserves, production capacity, and economic circumstances (Hussain).

In time of economic hardship or conflict, member states’ break-even price rises because they require additional revenue to stimulate their economy, or because infrastructure is threatened and production is not guaranteed. In 2016, for instance, Nigeria’s oil fields were under direct threat from armed militants, which caused the country’s breakeven price to skyrocket to over \$120 a barrel (more than three times the actual price of oil at the time) because consistent production was not guaranteed.

Venezuela, which was suffering from extreme shortages of basic necessities and inflation, also desperately needed an influx of cash to stabilize a failing economy, and had a break-even price of over \$115 a barrel in the same timeframe (Hussain). Nigeria and Venezuela also have the highest production costs of any OPEC member states (almost \$30 per barrel), which forces them to set a higher target price in order to make comparable profits (Barrel Breakdown). On the other side of the spectrum, Saudi Arabia has one of the lowest break-even prices in OPEC, due to its low cost of production, massive cash reserves, and capacity to produce (current production is over 10 million barrels per day).

## Cost of producing a barrel of oil and gas

Average cash cost to produce a barrel of oil or gas equivalent in 2016, based on data from March 2016.



**Figure 3:** Cost of production per country

Member states use their break-even price to set a target for OPEC (and world) total production, which they then attempt to formalize in an Expected Output agreement at meetings of the Conference. It is important to note, however, that break-even prices are set based on expected production, so most member states also have a target individual production, as well as a minimum production level, and will not accept an agreement that does not meet their minimum requirements.

## Political Factors

Despite the economic nature of its mission and actions, OPEC has always been affected by politics. In fact, part of the motivation for founding OPEC was for Iraq and a few other Arab nations to create an organization free from the influence of rival regional powers, namely Egypt (Ghanem). Occasionally, political conflicts become so heated that they cause OPEC member states to act against their economic self-interests or add political conditions to OPEC agreements. The most obvious example of politics, rather than economics, guiding member states' decisions was the 1973 Arab Oil Embargo. Although the embargo ended up being economically beneficial in the long run, the initial decision to halt oil shipments was in reaction to the US and other nations' support of Israel in the 1973 Yom Kippur War (Editorial Note). In the short term, the nations committed to the embargo suffered from a significant loss in revenue, but chose the uneconomical option because it suited a political interest (OPEC ASB 2017). It is important to note, however, that OPEC as a whole rarely takes politically motivated action because its members come from a variety of often conflicting political backgrounds. As a result, reaching unanimous agreement in such case becomes nearly impossible, as illustrated by Venezuela's historic resistance to pressure from the Arab bloc (Editorial Note). Despite this, OPEC has gained a political reputation due to the ability of a majority of its member states to use their combined economic prowess for political purposes.

Disputes among OPEC member states, on the other hand, cause internal rifts that prevent the organization from functioning effectively. Saudi Arabia and Iran, for instance are often at odds as they both vie for power in the Middle East. The result has historically been a political deadlock that affects all of OPEC. In 2016, a deal to cut production was only reached after years of failed attempts because Saudi Arabia finally loosened its requirement that Iran severely limit its output (an attempt on Saudi Arabia's part to weaken its rival) (Financial Times). In the 1980's, the Iran-Iraq War created so much adversity between member states that the Conference was unable to select a new Secretary General (Encyclopedia). Such political rifts do not motivate member states to set certain targets from themselves, but instead set limits on the production of its rivals.

The internal political state of member states also can affect OPEC negotiations. Domestic political instability or turmoil results in a loss of credibility that reduces member states' ability to influence the negotiation. In extreme cases, nations are forced to request to be left out of agreements and cede their power in OPEC, as was the case with Iraq during the 1990's.

## Environmental Factors

Of growing relevance are the environmental commitments many member states have made, and OPEC's commitment to limiting emissions. 13 of OPEC's member states have signed the Paris Agreement, but as of yet this has not had an effect on OPEC negotiations or output (Barkindo). In the future, however, OPEC will have to account for its environmental impact as a producer of fossil fuels, and find a way to honor its commitment to both energy security and limiting climate change.

## CASE STUDY: DE BEERS

The De Beers Group of Companies serves as a relevant example of a corporation that operates as a cartel. A diamond mining company that has made a historical, permanent impact on the diamond industry, De Beers is characterized as the most successful cartel in the world. De Beers was created in 1888 when Cecil Rhodes and Barney Barnato merged their competing diamond mines in Kimberley, South Africa ("Our History"). This merger alleviated their individual losses from an over flooded diamond market and created a powerful company that essentially controlled the diamond supply. Before they merged, Rhodes and Barnato were in competition and were both producing diamonds which increased the supply and thus lowered the



demand and the price for diamonds. Over time, the company grew through partnerships with other mines and even African nations, thus giving them near-complete control of the diamond industry. For example, in 1969 De Beers joined the government of Botswana in the development of a diamond mine. De Beers established this partnership when Botswana gained independence from Britain, thus assisting Botswana in gaining economic footing as a new nation and in return gaining its largest national producer of diamonds.

Its monopolization of the diamond industry categorizes De Beers as a cartel, according to cartel theory. De Beers's hold on diamond mining and production has given them the freedom to control the price of diamonds. De Beers is less prone to the internal disagreements that prevent OPEC from functioning like a cartel. Instead, the corporation keeps the prices of diamonds high by limiting their production. De Beers also stockpiles some of their diamond supply so as to keep diamond prices artificially high ("Cartel Theory"). By the 1900s, De Beers held claim to over 90% of the supply of diamonds internationally ("Diamond History and Lore"). Interestingly enough, diamonds are not as hard to produce or rare as the general public is made to think. The fact that diamonds have become such a symbol of wealth and rarity is a testimony to the strength of De Beers as a diamond cartel.

Diamonds are by nature a product that enables such a cartel to thrive. For example, through pricing control, De Beers can ensure that diamonds are a relatively

inelastic resource and thus fit the needs of their cartel. This falls in line with cartel theory, in which the demand for a cartel's product is considered to be inelastic, meaning that the demand will stay high even as prices rise. Diamonds are also a product that has very few worthy or accepted substitutes. With the market for diamonds as engagement rings, proposals are stigmatized in a way that benefits producers; a man is expected to provide a beautiful diamond for his bride to be. The company set the standard that an engagement ring should be worth at least 3 month's salary. They are also a resource that is incredibly strong and easy to store and manage physically, allowing De Beers to stockpile their product and control the market further. With control over the majority of the suppliers, De Beers rightfully defends its reputation as the world's primary reigning diamond cartel.

De Beers also cooperates with its partners to gain control over a larger portion of the market. It operates through the Diamond Trading Company (DTC), which makes deals with other diamond miners and consumers. The DTC then sells De Beers's rough diamonds to diamond cutters and consumers. This process gives De Beers unproportional control over other mining corporations by acting as a middleman between the mines and the consumer ("Cartel Theory"). The power De Beers gains through this system is evident through competition with Zaire in 1981. When Zaire refused to market their diamonds through the DTC, De Beers released a massive amount of diamonds into the market in order to lower the price and damage Zaire's

business. As a result, Zaire rejoined its cooperation with the DTC and De Beer continued to reap the benefits (Vogelsang). This sort of competition falls in line with that seen in OPEC, as oil producers tend to compete with one another economically and politically to benefit themselves.

The immense power De Beers derives from its control over the diamond industry as a cartel is a classic example of how cartels can affect the prices and global value of certain resources, like oil. Considering the similarities and differences between diamonds and oil and De Beers and OPEC is a useful way to get a grasp on cartel theory and how it influences the global community and consumers around the world.

## QUESTIONS TO CONSIDER

1. How do each country's long term economic development goals compare with short term economic needs? How does the tradeoff between the two affect each country's goals for the negotiation?
2. How will various countries' records of sticking to quotas affect the negotiations? How can OPEC as an organization incentivize nations to stick to their quotas?
3. How will any plan made address variable conditions in the future? On what basis will exceptions be granted, and how will any "gaps in production" be filled?
4. Why have many of OPEC's previous attempts to adhere to any long term strategy failed (e.g. the \$22-\$28 price band)?

## Works Cited

"2016 Annual Report." OPEC, 2017.

Barkindo, Mohammad Sanusi. "OPEC Statement to the United Nations Climate Change Conference (COP22/CMP12)." COP22. 20 July 2017, Marrakesh, Morocco.

"Barrel Breakdown." *WSJ News Graphics*, The Wall Street Journal, 15 Apr. 2016.

"Brief History." OPEC. Organization of Petroleum Exporting Countries, 2017. Web. 11 June 2017.

"Cartel Theory." *Cartel Theory of Oligopoly*, Houghton Mifflin Harcourt.

"Composition of the New OPEC Reference Basket." *Opec.org*, Organization of Petroleum Exporting Countries, 15 June 2005.

"Diamond History and Lore." *Gemological Institute Of America*.

"Editorial Note." *FOREIGN RELATIONS OF THE UNITED STATES XXXIV* (1968): n. pag. *Office of the Historian*. United States of America, Department of State. Web. 13 June 2017.

Fattouh, Bassam. "OPEC at 50: Evolution, Issues and Lessons." 10 July 2017, Rio De Janeiro, Petrobras.

Gatley, Dermot. "Lessons From the 1986 Oil Price Collapse." *Brookings Papers on Economic Activity* 2nd ser. (1986): n. pag. *Brookings*. The Brookings Institute. Web. 13 June 2017.

"General Information Handbook." OPEC. Organization of Petroleum Exporting Countries, 2012. Web. 11 June 2017.

Ghanem, Shukri M. *OPEC The Rise and Fall of an Exclusive Club*. New York: Routledge, 2016. *books.google.com*. Google, Inc. Web. 15 June 2017.

Hall, Stephanie, Stephen Chen, Jennifer Wong, and Farah Ereiqat. "OPEC, A Cartel." *UC Berkeley Economics*. Web. 9 June 2017.

- Hamel, Mohamed. "OPEC: Dialogue between Producers and Consumers." 7 May 2007, New York , UN Headquarters.
- Helman, Christopher. *Booms, Busts And Billionaires: A Decade Of Forbes Oil Stories*. Forbes Media, 2015.
- Horton, Sarah. "The 1973 Oil Crisis." (n.d.): n. pag. *Envirothon Pennsylvania*. Web. 13 June 2017.
- Hussain, Yadullah. "'Fragile Five': These OPEC Producers Are on the Verge of Collapse If Oil Prices Don't Stabilize Soon." *Financial Post*. Postmedia Network, 30 Mar. 2016. Web. 22 June 2017.
- "JMMC Continues Efforts to Effectively Monitor the Implementation of the Declaration of Cooperation." *Opec.org*, Organization of Petroleum Exporting Countries, 29 July 2017.
- "JMMC Reports Steady and Convincing Progress towards 100% Conformity and Recommends a Nine-Month Extension." *Opec.org*, Organization of Petroleum Exporting Countries, 24 May 2017.
- Khusanjanova, Jamola. "OPEC's Benefit to the Member Countries." *Sciedu Press*. Institute for Development and Human Security, Ewha Womans University, 3 Mar. 2011. Web. 24 June 2017.
- Koch, Robert. "Iraq to Attend Next OPEC Ministerial Meeting." *Arab News*, SAUDI RESEARCH & PUBLISHING COMPANY, 12 Sept. 2003.
- Lohr, Steve. "OPEC, IN OIL OUTPUT CUT, TO LIFT BARREL PRICE TO \$18." *The New York Times*. The New York Times Company, 21 Dec. 1986. Web. 12 June 2017.
- NIKODYM, Lukáš. "Theoretical Aspects of Cartelization in Central Europe – An Introduction to Cartel Theory." *Central European Papers* 2.1 (2014): n. pag. *Silesian University*. Silesian University in Opava, 1 Feb. 2014. Web. 23 June 2017.
- "Oil Price Q&A: What Are Oil Futures and How Are They Traded?" *The Telegraph*, Telegraph Media Group Limited, 28 May 2008.

- "Opec Agrees on Oil Output Cut at Algiers Meeting." *The Financial Times*. The Financial Times Ltd., n.d. Web. 14 June 2017.
- OPEC Annual Report, 2001*. Rep. Organization of Petroleum Exporting Countries, 2002. Web. 25 June 2017.
- "OPEC Annual Statistical Bulletin 2017." *Opec.org*. Organization of Petroleum Exporting Countries, 2017. Web. 23 June 2017.
- Organization of Petroleum Exporting Countries. *143rd (Extraordinary) Meeting of the OPEC Conference*. *Opec.org*. Organization of Petroleum Exporting Countries, 14 Dec. 2006. Web. 22 June 2017.
- Organization of Petroleum Exporting Countries. *AGREEMENT*. *Opec.org*. Organization of Petroleum Exporting Countries, 30 Nov. 2016. Web. 3 June 2017.
- Organization of Petroleum Exporting Countries. *OPEC 172nd Meeting Concludes*. *Opec.org*. Organization of Petroleum Exporting Countries, 25 May 2017. Web. 10 June 2017.
- "Organization of Petroleum Exporting Countries (OPEC)." *Encyclopedia of the Modern Middle East and North Africa*, Gale Group, 2004.
- "Our History." *De Beers Group*, De Beers.
- Payne, Julia, and Amanda Cooper. "Goldman Sachs Says U.S. Border Tax Would 'Blow out' Brent/WTI Crude Spread." *Business News*, Reuters, 10 May 2017.
- "Press Releases 2017." *OPEC*, Organization of Petroleum Exporting Countries.
- Ramady, Mohamed. *OPEC in a Shale Oil World: Where to Next?* N.p.: Springer, n.d. *books.google.com*. Google, Inc, 15 Oct. 2015. Web. 11 June 2017.
- "Statute." *Opec.org*, OPEC, 2012.
- Vogelsang, Ivona. "The International Diamond Cartel." EEP 142.

Yergin, Daniel. *The Prize: The Epic Quest for Oil, Money & Power*. Simon and Schuster, 2011.

## Image Sources

Figure 1:

[http://www.opec.org/opec\\_web/static\\_files\\_project/media/downloads/about\\_us/OPECOrganigram0413.pdf](http://www.opec.org/opec_web/static_files_project/media/downloads/about_us/OPECOrganigram0413.pdf)

Image 1: <http://imgur.com/IC8qDkt>

Figure 2:

[http://www.opec.org/opec\\_web/static\\_files\\_project/media/downloads/press\\_room/OPEC%20agreement.pdf](http://www.opec.org/opec_web/static_files_project/media/downloads/press_room/OPEC%20agreement.pdf)

Figure 3: [https://www.google.com/url?q=http://graphics.wsj.com/oil-barrel-breakdown/&sa=D&ust=1513798194870000&usg=AFQjCNG\\_BvWTmMgAzRDI1KtyVploPXp6jA](https://www.google.com/url?q=http://graphics.wsj.com/oil-barrel-breakdown/&sa=D&ust=1513798194870000&usg=AFQjCNG_BvWTmMgAzRDI1KtyVploPXp6jA)

# 2030: ADAPTING TO AN ENERGY INDEPENDENT WORLD

## A WORD OF ADVICE

Because this topic is so much broader than the first, it's important that you have a solid grasp of what you're trying to accomplish before you begin researching potential solutions. By the end of debate, the committee should reach an agreement (an amendment to OPEC's charter, a standard output agreement, etc.) that ensures OPEC will remain relevant in a world no longer dependent on imported oil. As an organization, OPEC exists because it provides benefits to its member states. In order to prevent OPEC from fading from relevance, you will have to ensure that OPEC is able to protect the individual and collective interests of its member states.

On a separate note, this topic inherently requires some changes to procedure. The most obvious of these is that the two topics will be debated sequentially, so motions to change the agenda will not be entertained. But more importantly, the decisions made in the first topic will affect what the world looks like at the beginning of the second topic (in 2030). The dais will provide the committee with an update on relevant agreements, patterns, and shifts that occur by 2030. Don't let this discourage



you from doing your research; your country's position is unlikely to change much. We definitely want you to be able to think on your feet, but you should have a solid research foundation to back up your ideas.

## EVOLUTION OF OPEC

As the global market for energy pivots away from petroleum and towards renewable energy, OPEC must consider how to adapt to the new paradigm. Since its founding in 1960, OPEC has undergone a series of transformations often triggered by rapid shifts in market conditions that shed light on how OPEC deals with a changing world.

The organization was initially created to provide its member states with a means to prevent large oil corporations from unilaterally cutting the price of oil. OPEC's initial success caught the attention of other oil producing nations, and the organization began to expand. Despite having a dominant hold on the world's oil markets at the time, OPEC limited its economic activity to preventing further price cuts (Zycher). Acting as a simple union of producers, the organization used its economic might to shift control over oil to sovereign states, which it reaffirmed in its 1968 Declaratory Statement of Petroleum Policy in Member Countries (Brief History). In fact, the 1960s

saw a drop in the real value of oil on the market, caused by increased production stemming from producers' efforts to develop their infrastructure and economies. It wasn't until the 1973 oil crisis that OPEC asserted its economic authority and adopted a cartel-like role in the oil industry. The crisis marked the start of the organization's efforts to coordinate policy in a direct effort to raise oil prices, which at the time it could do by simply agreeing to reduce supply and sell oil at a higher price (Horton). For most of the remainder of the 1970's, OPEC maintained the new price of oil. In the process, however, the organization lowered the barriers of entry to the market by allowing new producers with higher costs of production to expand their market share. In addition, the nations most severely affected by the crisis began to take measures to reduce their dependency on OPEC and foreign oil in general (Horton). But because oil demand is largely inelastic in the short-term, it was not until much later that these measures had any effect.

In 1979, OPEC once again doubled the price of oil (Gatley). But this time, a combination of competing production, reduced demand, and political instability resulted in a sustained price slide. OPEC's previous pricing scheme of simply agreeing to sell oil at a certain price proved ineffective, so by 1982 the organization introduced the quota system (Sandrea). By setting a ceiling on total production and specifying a maximum production level for each of its member states, OPEC hoped to curb world supply and therefore boost prices. For the first time, OPEC became a marginal

supplier, manipulating prices by filling the gap between the target it determined and non-OPEC supply (Zycher). Despite the failure of the quota system to contain or end the 1980's oil glut, OPEC has continued to rely on quotas as its primary price-setting mechanism. In fact, throughout most of the 1980s and 1990s, the quota system was rendered useless by non-compliance and political conflict.

In 2014, the quota system was put to the test once more. A rapid expansion of oil production in the United States caused by the development of hydraulic fracturing technology allowed the nation to reduce its oil imports to half of what they were in 2007 (Anderson). In addition to weakening the demand for OPEC oil, the rise of "fracking" led to a glut that deflated oil prices and reduced OPEC's total value of oil exports by over 50% from 2013 to 2015 (OPEC 2017 ASB). Consistent overproduction and internal disagreements prevented the organization from propping up prices, which continued to slide through early 2016.

Today, OPEC's quotas have a more indirect impact on oil prices. Instead of just moderating world supply, OPEC quotas also act as indicators that influence the price of oil because they are backed by the threat of OPEC flooding the market (Fattouh). But the system itself relies on OPEC having significant market share and the perception that OPEC can drop oil prices. In an increasingly elastic market where demand for OPEC oil continues to shrink, however, this model is proving unsustainable.

## THE ECONOMICS OF ENERGY INDEPENDENCE AND CLIMATE CHANGE POLICY

The primary driver of shrinking demand for OPEC oil is a rise in energy independence worldwide, as many of the world's largest consumers actively seek to reduce their demand for foreign energy. Economically, consumers are also incentivized to push for energy independence to guarantee a stable supply of energy that producers can sometimes fail to provide. A rise in the development of renewable energy has also allowed nations once unable to produce their own energy to do so, reducing demand for OPEC oil even further (Raval). Politically, this prevents producing nations from being able to exert control over consuming nations by threatening their primary sources of energy (Horton). For OPEC's member states, consumers pushing for energy independence could result in a substantial loss of revenue that has the potential to severely impact their economies. Oil exports to the United States alone accounted for four to nine percent of some of OPEC's biggest member states' gross domestic product (Anderson). The loss of oil revenue from major consumers like the United States, which are poised to achieve energy independence in the near future, could lead to severe economic contractions for producing nations if not offset by new demand or other sources of economic growth (Cho).

## Environmental Regulation and Agreements

Another major challenge that OPEC faces is a drop in demand due to stricter environmental regulation and agreements. The landmark steps taken to protect the environment and prevent further damage from climate change in recent years promise to reduce demand for fossil fuels in order to curb greenhouse gas emissions (Raval). The Paris Climate Agreement, which entered into force in November 2016, stipulates that parties to the agreement commit to “making finance flows consistent with a pathway towards low greenhouse gas emissions.” For OPEC, an exporter of fossil fuels, this means that its consumers have committed to actively reducing their consumption of oil as long as it continues to pollute the environment. The Paris Agreement also encourages the development of sustainable sources of energy, which will mean increased competition in the energy market moving forward (UNFCCC).

The growth of energy independence, tighter environmental regulation, and the associated effect on demand for imported oil worldwide has led to a fundamental shift in the economic outlook of the oil industry. At the time of OPEC’s founding, and for years afterwards, the expansion of the oil industry was predicated on the firm belief that oil was a finite resource that would always be in demand, meaning that at some point the world would run out of oil to export (Zycher). But a rise in competing energy production has led to a steady decrease in the rate at which oil demand increases, meaning demand is predicted to level off. Combined with the discovery of more oil

reserves, this observation has led the industry to instead assume that the world will instead reach “peak demand,” and forced OPEC to accept the reality that it no longer has unlimited potential to exploit its oil reserves (Raval). As a result, its members now have an incentive to cater to consumers’ needs to preserve their market share and maximize their profits in the long run. In 2014, for instance, Saudi Arabia refused to agree to output cuts despite falling prices, and continued to overproduce. Saudi officials explained that by allowing prices to deflate further, they hoped to drive competitors out of the market and increase demand for OPEC oil from the U.S, a consequence of the market determining prices (Lawler).

However, disagreement over when demand will peak has “split the industry.” Unable to agree on how much of the demand for oil will be displaced by the rise of renewable energy and new technologies, experts have predicted that demand could peak anywhere from the 2020’s to the 2050’s (Raval). The primary source of disagreement is the varying projections of energy consumption patterns in developing countries, which are expected to become the largest consumers of oil as developed countries transition to sustainable sources of energy. The extent to which developing countries will consume oil will depend on the price of sustainable alternatives: as the price of renewable energy and associated technologies drop, so does developing nations’ demand for oil (Raval). This reduction in demand for OPEC oil could cause the organization to become a “price taker,” meaning OPEC would be rendered a largely

passive player in the oil market unable to meaningfully influence prices or supply (Fattouh).

## OPEC'S CURRENT OUTLOOK

As energy independence became a reality, OPEC took steps to address the issue as an organization. In the long term, OPEC acknowledges that it will be facing a changed market with different consumers and reduced demand. However, OPEC's leadership has been firm in expressing that oil will remain an important source of energy and a driver of economic growth, and as a result the organization will continue to play a role in the world energy market (Barkindo).

This view is based on the principle of common but differentiated responsibility, a compromise reached between developed and developing nations which specifies that although all countries are affected by climate change and have a role to play in mitigating its effects, those roles are not equal (Principle). Developing countries argue that in order to guarantee the energy security they need to develop, they should bear less of the burden of combating climate change. In addition, developing nations also have also expressed the view that because the emissions that have caused environmental damage to date have largely come from developed nations, the world's

developed nations should take responsibility for mitigating further damage (Principle). Developed nations, on the other hand, contend that climate change is a problem that affects all countries, meaning that it is a worldwide problem and so should be tackled by the world as a whole.

According to OPEC's Secretary General Mohammed Barkindo, OPEC will remain an important supplier of oil to developing nations, providing them with energy security and a cheap source of energy they need to develop. But this prediction is based on the assumption that oil will still play a significant role in the energy market of the future, which may not be the case (Renewable). Barkindo's statement was predicated on oil accounting for "an estimated 53% of the global energy mix by 2040," as well as significant investment in the oil industry.

To fulfill its role as a guarantor of energy security while still allowing both consumers and producers to meet their environmental obligations, OPEC has also taken steps to mitigate its contribution to climate change. The organization remains committed to making the investments required to meet "the future requirements of consumers...in a...sustainable manner," and supporting the Paris Agreement (Barkindo). Specifically, OPEC member states have taken steps to implement more efficient and environmentally friendly extractions processes, and invested in carbon capture initiatives (Fossil Fuels).



The issue with the position OPEC has taken is that it relies heavily on the assumptions that oil will remain a dominant source of energy and that there will continue to be enough demand for oil to provide producers with a substantial profit. But once the majority of the world's major consumers achieve energy independence and renewable sources of energy usurp oil's dominant role in the energy market, OPEC will be rendered unable to provide its member states with significant benefits.

### **Attempts to Adapt To a Changed World**

In an effort to remain flexible to new legislation, OPEC has created a few sub-bodies of its Research Division dedicated to monitoring the effect of climate-related policies on OPEC. Chief among these is the Environmental Matters Unit, which exists to analyze the debate surrounding climate change, its impact on OPEC and oil trade, and provide any relevant recommendations (Environmental Coordinator).

More importantly, OPEC is stepping up its efforts to coordinate with non-OPEC producers, as evidenced by the close cooperation between OPEC and Russia following the implementation of the 2016 Algiers Accord (Saudi Arabia). In addition, OPEC's compliance rate rose to record highs in 2017, although this was a result of commitment on the part of individual member states, and may not be a meaningful indication of future cooperation (JMMC Report).

## IS OPEC STILL RELEVANT?

OPEC was founded as an economic organization, and derives its power from its collective control over the world's oil supply. As that control has dwindled, OPEC has been less and less able to influence oil prices. Instead, the organization has to contend with competing producers and an increasingly elastic market (Fattouh). Without dominant control over world oil stockpiles, OPEC is no longer able to directly influence prices and function as a cartel in the theoretical sense. Instead, OPEC has been relegated to playing a more indirect role by sending signals to consumers and investors that have no concrete effect (Fattouh). Despite this, OPEC still retained some of its power to influence the market and therefore fulfilled some useful economic purpose.

But at the height of the crisis caused by the 2014 Shale Boom, OPEC's complete inability to prop up prices prompted one OPEC official to go so far as to pronounce the organization dead (Graaf). Since then, OPEC has managed to raise oil prices, but has proven itself to be inconsistent and unreliable in the long run. The ratification of the 2015 Paris Agreement also dealt a serious blow to OPEC's economic power by setting the world on a track to severely limit oil consumption. Despite OPEC's assurances that demand will continue to grow in the short term and remain significant

in the long term, remaining true to the terms of the agreement would mean limiting demand much more severely (in order to achieve zero net emissions by 2065) (Graaf). As a result, OPEC's utility as an economic organization has been greatly reduced, and is expected to shrink even further in the long run.

However, OPEC still serves the crucial function of helping unify the petroleum policy of its member states. As an organization, OPEC provides enables coordination between its members by providing a forum for discussion and debate between high-ranking officials. As OPEC's economic relevance has faded, member states have used the organization's meetings to discuss technical specifics and establish a variety of bodies tasked with monitoring various sub-fields of the oil industry. The wealth of valuable scientific, economic, and environmental data the organization's Research Division and other bodies continue to contribute to allows OPEC's member states (and cooperating non-members) to make informed, coordinated decisions (Statute).

## **THE INDIVIDUAL INTERESTS OF OPEC'S MEMBER STATES**

As an organization, OPEC serves to provide its member states a steady income and a stable market (Statute). By attempting to maintain a price of oil that is fair to both consumers and producers, OPEC ensures that its member states are able to make a

significant profit and rely on oil revenue as a source of economic growth. As a union of producers, OPEC's ideal goal would be to inflate the price of oil to allow its members to earn the most profits. But without complete control over the world's oil supply, OPEC is forced to temper its conception of a fair price in order to maintain significant market share in the long run (Lawler). Instead, OPEC's target price is dictated by a combination of the economic needs of its member states, the economic conditions in consuming nations, and natural market variations (Ramady). The price the organization determines is then meant to balance between ensuring that producers can make a profit and guaranteeing a stable source of income in the long run.

Despite a decline in the organization's capability to safeguard these interests, OPEC's continued ability to influence prices and world supply provide member states with an incentive to remain cooperating members of the organization. The threats posed to OPEC's economic influence by energy independence and environmental regulation, however, could cause issues in the future (Zycher). OPEC has proven itself vulnerable to prisoners' dilemma-style coordination problems when faced with competition in the past, most notably during the 1980's oil glut and 2014 shale boom (Ramady). If a more permanent erosion of OPEC's power renders the organization unable to secure the individual interests of its member states, OPEC may cease to function as a unified body. Instead, cheaper producers would be incentivized to

stimulate their economies by filling remaining demand for oil, which could have severe economic consequences for high-cost competitors.

As the likelihood of demand for oil peaking became undeniable in the 2000's, producers began to prepare for the prospect of a contracting oil market. In order to sustain economic growth despite shrinking demand for oil in the future, some of OPEC's member states are making active efforts to diversify and adapt their economies. Many producers, and to some degree OPEC as a whole, have made efforts to advance Carbon Capture and Storage (CCS) technology. In the hopes that by offsetting emissions they can continue to sell oil on an environmentally conscious market, countries like Algeria have conducted research into developing CCS technology and reducing associated costs (Fossil Fuels). But even if CCS is deployed on a wide scale it is not predicted to offset more than the emissions that would result from burning two percent of the world's crude reserves (Graaf). Instead, some of OPEC's member states have proposed plans to diversify their economies in order to reduce their dependence on oil revenue. However, countries like Venezuela and Nigeria, which have been plagued by political strife and economic problems, do not possess the economic resources necessary to invest in new industries (Hussain). As an economic union, OPEC has the potential to play a role in coordinating its member states development and assisting in preparing their economies for a changed future.

## THE COLLECTIVE INTERESTS OF OPEC'S MEMBER STATES

The collective interests of OPEC's member states (and most oil producers as a whole) are intertwined with their individual interests. All oil producers have an incentive to maintain a reasonable world supply of oil in order to maintain favorable prices (Fattouh). But because no one producer has a monopoly on oil production, significantly reducing world stockpiles requires collective action from OPEC. In addition, OPEC provides an avenue for research and discussion that benefits all of its member states and the oil industry as a whole (Graaf). The Environmental Matters Unit, Joint Technical Councils, Research Division, and various dialogues and workshops hosted by OPEC all serve to advance the industry and benefit OPEC and cooperating producers.

OPEC also provides significant benefits to its members in the form of economic and political clout. Today, despite reduced dominance in the oil market, OPEC is able to influence futures prices by simply releasing a statement of its intentions to cut production (Little). But the OPEC's strength as an organization is based on the perception of its effectiveness. Hindered by unenforceable agreements and the need for unanimous agreement, OPEC is often unable to act and left with an increasingly less significant reputation.

## CASE STUDY: 1980'S OIL GLUT REVISITED

OPEC used to be the most dominant force in the oil industry, with the power to destroy economies. However due to political conflicts, and a lack of cohesiveness this power has eroded. There have been instances where OPEC has not been as successful as it intended, and failed to achieve their end goals. The 1980s Oil Glut was an event that shaped OPEC's political relations and highlighted OPEC's lack of cooperative ability. Fundamentally, the oil glut was caused by non-OPEC production surpassing OPEC production. Thus losing its ability to unilaterally set oil prices, OPEC turned to the quota system. It became evident that many of OPEC's member states were overproducing, attempting to offset the loss in revenue caused by falling prices. This glut was caused both by external economic pressure and political instability, but a deeper view into the political reasoning and implications resulting from the glut explains nuances in political relationships in the future.

OPEC nations raised official crude oil prices from an average of \$20 per barrel in September 1979 to \$32 per barrel by August 1980. In the following month came yet another major oil supply disruption, this time the result of the outbreak of war between two OPEC nations: Iraq and Iran (Levy). This war caused a sudden reduction of approximately four million barrels daily (mb/d) in available world oil production. While economic factors such as non-OPEC production surpassing OPEC production did lead

to the 80's Oil Glut, the political factors such as the Iraq-Iran war helped create the oil glut as well. The Iraq-Iran war led to a direct reduction of barrels produced daily, and in similar future instances, it's critical to realize that these political conflicts between OPEC member states exacerbates OPEC'S inability to work as an organization

Throughout the 1980's and to this day Saudi Arabia and Iran developed a rivalry due in part to the inconsistent production of oil and selfish tendencies displayed during the 1980's. At the heart of the animosity lies the difference in religion, with Sunnis in Saudi Arabia, and Shia's in Iran. Each country formed alliances with countries of similar religious affiliation. The recent rift between Iran and Saudi Arabia can be traced to the Iranian Revolution of 1979, where a pro-western leader was replaced with Shia religious authorities. Today Saudi Arabia and Iran are on opposite sides of the major conflicts of Syria and Yemen. A Saudi-led coalition battling Shia rebels in Yemen officially announced the end of a ceasefire that neither side had ever fully observed; this event resulted in further conflict as Saudi Arabia accused Iran of backing the Shia rebels. While both countries vye for regional dominance, Iranian reliance on Saudi Arabia for economic reasons and Saudi Arabia's fear of Iranian nuclear potential keep the two at an uneasy stalemate. All these factors stem together to create a highly tense relationship that affects OPEC policies.

OPEC often revolves around prisoner's dilemma-like situations, with the key difference being that whichever party was on the losing end is well aware of what



occurred and has the immediate opportunity to retaliate. The prisoner's dilemma is a situation which highlights how two rational individuals or entities do not cooperate. A classic example is the literal prisoner's dilemma:

Two members of a criminal gang are arrested and imprisoned. Each prisoner is in solitary confinement with no means of communicating with the other. The prosecutors lack sufficient evidence to convict the pair on the principal charge. They hope to get both sentenced to a year in prison on a lesser charge. Simultaneously, the prosecutor's offer each prisoner a bargain. Each prisoner is given the opportunity either to: betray the other by testifying that the other committed the crime, or to cooperate with the other by remaining silent. The offer is:

- I. If A and B each betray the other, each of them serves 2 years in prison
- II. If A betrays B but B remains silent, A will be set free and B will serve 3 years in prison (and vice versa)
- III. If A and B both remain silent, both of them will only serve 1 year in prison (on the lesser charge)

This situation is a major problem for OPEC because when all countries produce at a set quota, if any country overproduces they will profit more due to selling more quantity than the other countries, and this is what a

rational actor would do. Because states act rationally, OPEC states often disregard the quota and overproduce. The key difference between prisoners dilemma applied to OPEC and the example of prisoner's dilemma is in the example provided the prisoner who was betrayed cannot do anything, as they are in prison. However for OPEC if a state "betrays" the others every state is aware and can seek retribution. This simple fact leads to instable political relations within OPEC and creates an environment where it is difficult to cooperate.

As the energy conundrum - where states are aware of the dwindling amount of oil and the benefits of switching to renewable energy, - of society evolves, OPEC is well aware of the international movement towards using renewable energy and is intent on gaining market dominance. For example The UAE is expected to invest \$35 billion in alternative energy projects by 2020, including \$20 Billion into the Barakh 5.4 gigawatt nuclear power project. Fossil fuels - which currently account for 87% of the world's energy supply - will still contribute 82% by 2035, meaning oil will continue to be relevant (El-Badri). However it is critical to note that, as competition increases and a society increases pressure to move away from fossil fuels, cooperation is of the utmost importance. During the 1980's Oil Glut, due to difficult circumstances, instead of rallying together individual countries such as Saudi Arabia sought to exploit the opportunity resulting in losses for OPEC. Saudi Arabia was frustrated with de facto

propping up prices by lowering its own production in the face of high output from elsewhere in OPEC. In 1985, Saudi Arabia's daily output was around 3.5 million bpd (barrels per day), down from approximately 10 million in 1981. During this period, OPEC members were supposed to meet production quotas to maintain price stability; however, many countries inflated their reserves to achieve higher quotas, cheated, or outright refused to accord with the quotas. In 1985, Saudi Arabia decided to punish the undisciplined OPEC countries; they abandoned their role as swing producer, a country able to increase or decrease commodity supply at minimal additional internal cost, and thus able to influence prices and balance the market and began producing at full capacity, thus creating a massive surplus that allowed them to profit while the rest of OPEC suffered, which angered many OPEC members. This lack of cooperation is a large part of the occurrence of the 80's Oil Glut, and for OPEC to gain a respectable market share in the renewable energies industry, it is critical for members to cooperate instead of trying to "win" prisoners dilemma like situations.

In the 1980's the overproduction issue was resolved by Saudi Arabia and Kuwait flooding the oil market. However this incident was a key failure of OPEC and highlighted its inability to supply a consistent source of revenue to its producers. After reaching an agreement OPEC was able to reset but it took 20+ years for oil prices to recover, OPEC lost credibility, and wars - such as the Gulf War in the 1990's- continued to plague the organization. In economic and political decisions states typically act in a

unitary rational manner, which means that they will do whatever is in the best interest for themselves, assuming other countries are not cooperative. They also act realistically which means that they view the world system as one that is not in their favor and works against them. Thus, while on an individual scale Saudi Arabia and Kuwait made a rational economic decision through assuming the world acted through in a realist scope, they failed to consider constructivist factors such as the political implications of their actions, as well as the implications for the future of OPEC's power as an organization. Being aware of this is especially important when making future decisions regarding OPEC's production quotas, and makes negotiating and compromising especially critical.

Conflicts between OPEC states, such as the Iran-Iraq War, and the religious conflict between Saudi Arabia and Iran that has resulted in political conflict are major contributors to OPEC's inability to cooperate. While countries in the short term act rationally and profit, in the long term they harm the overall success and ability of OPEC as an organization. These incidents make it more difficult for OPEC to cooperate more efficiently while making energy production changes, but of the utmost importance. The political conflict between countries is a problem that must be addressed, and it is vital that these conflicts do not hinder OPEC's progress in forming a comprehensive solution.

## QUESTIONS TO CONSIDER

1. Why did your country choose to join or not to join OPEC? To what extent is the reasoning behind this decision still valid?
2. OPEC was founded as an economic organization. If it gave up that role, would it still be able to provide benefits to its member states?
3. Does OPEC have the potential to maintain its political power? If so, how would your country like to see the politicization of OPEC addressed?
4. What benefit do observer states have from cooperating with OPEC? Is there a reason for observers to dissociate from OPEC?

## Works Cited

- Anderson, Richard. "How American Energy Independence Could Change the World." *BBC News*. British Broadcasting Corporation, 3 Apr. 2014. Web. 13 June 2017.
- Barkindo, Mohammed Sanusi, H.E. "OPEC and the Future." Interview. *Petroleum Review*. Organization of Petroleum Exporting Countries, Feb. 2017. Web. 13 June 2017.
- "Brief History." *OPEC*. Organization of Petroleum Exporting Countries, 2017. Web. 11 June 2017.
- Cho, Sharon, Dan Murtaugh, and Serene Cheong. "The World's Biggest Independent Oil Trader Has a Warning for OPEC." *Bloomberg Markets*. Bloomberg L.P., 9 May 2017. Web. 13 June 2017.
- "Environmental Coordinator." *OPEC*, Organization of Petroleum Exporting Countries, 31 Aug. 2017.
- Fattouh, Bassam. "OPEC at 50: Evolution, Issues and Lessons." 10 July 2017, Rio De Janeiro, Petrobras.
- Gamal, Rania El. "Exclusive: Saudis to Cut August Oil Exports to Lowest Level This Year - Source." *Reuters*, Thomson Reuters, 12 July 2017.
- Gatley, Dermot. "Lessons From the 1986 Oil Price Collapse." *Brookings Papers on Economic Activity* 2nd ser. (1986): n. pag. *Brookings*. The Brookings Institute. Web. 13 June 2017.
- Graaf, Thijs Van De. "Is OPEC Dead? Oil Exporters, the Paris Agreement and the Transition to a Post-carbon World." *Researchgate.net*. Ghent University, Nov. 2016. Web. 10 June 2017.
- Horton, Sarah. "The 1973 Oil Crisis." (n.d.): n. pag. *Envirothon Pennsylvania*. Web. 13 June 2017.
- Hussain, Yadullah. "'Fragile Five': These OPEC Producers Are on the Verge of Collapse If Oil Prices Don't Stabilize Soon." *Financial Post*. Postmedia Network, 30 Mar. 2016. Web. 22 June 2017.

"JMMC Reports Steady and Convincing Progress towards 100% Conformity and Recommends a Nine-Month Extension." *Opec.org*, Organization of Petroleum Exporting Countries, 24 May 2017.

Lawler, Alex. "OPEC Delegates Say Saudi Comments Show Higher Oil Price Desire." *Reuters Business News*, Reuters, 13 July 2016.

Levy, Walter J. "Oil: An Agenda for the 1980s." *Foreign Affairs*, 18 Feb. 2009.

"OPEC Annual Statistical Bulletin 2017." *Opec.org*. Organization of Petroleum Exporting Countries, 2017. Web. 23 June 2017.

Organization of Petroleum Exporting Countries. Bulletin Commentary. *Fossil Fuels and the Future*. *Opec.org*. Organization of Petroleum Exporting Countries, Apr. 2016. Web. 13 June 2017.

"Paris Agreement." UNFCCC, 2015.

Ramady, Mohamed. *OPEC in a Shale Oil World: Where to Next?* N.p.: Springer, n.d. *books.google.com*. Google, Inc, 15 Oct. 2015. Web. 11 June 2017.

Raval, Anjali. "India Is Opec's Litmus Test on Oil Demand Growth." *The Financial Times*. The Financial Times Ltd., 12 June 2017. Web. 13 June 2017.

*Renewable Energy to Surpass Coal and Nuclear by 2030*. Union of Concerned Scientists, 11 July 2016.

Sandrea, Rafael. "OPEC's Next Challenge – Rethinking Their Quota System." *Oil and Gas Journal*, vol. 101, no. 29, 28 July 2003.

"Saudi Arabia, Russia Favor Extending Oil Cuts Through Next March." *Bloomberg Markets*. Bloomberg L.P, 15 May 2017. Web. 13 June 2017.

"Statute." *Opec.org*, OPEC, 2012.

"The Global Energy Scene." *OPEC : The Global Energy Scene*.

"The Little Cartel That Could." *The Economist*. N.p., 1 Oct. 2016. Web. 24 June 2017.

“The Principle of Common But Differentiated Responsibilities: Origins and Scope.”  
World Summit on Sustainable Development 2002, 26 Aug. 2002.

Zycher, Benjamin. “OPEC.” The Concise Encyclopedia of Economics, Library of  
Economics and Liberty.