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Reducing dependency on oil as a source of government revenue



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Introduction

Oil is one of the most important resources used in our society today, and the extraction, production and trade of it is only increasing as the demand for it perpetuates due to a heavily industrialized and interconnected world. However, the dependency on oil which is found in some economies around the world a dangerous habit and can lead to huge government budget deficits, decreased government spending in important sectors and devastating effects on the Earth's climate.

The member states which are most reliant on oil face similar challenges as they must reduce their reliance on natural resources which fuel their economy. Therefore, even though it might seem that these nations are prosperous due to the oil supply in their economy, it is imperative for them to diversify their sources of government revenue and move "beyond oil". Even though this has been a major goal of the economic policies that have been introduced in many oil-dependent economies around the world for decades, minimal progress has been made due to the pressures on these countries caused by persisting social and economic models. However, there is a constantly increasing pressure put on these economies to reduce this dependency as oil prices are consistently low and it has become more and more difficult to keep a healthy economy that is based largely on oil revenue in these volatile times.

It has become clear that there is no simple answer to this issue, and an appropriate solution will take into account the many aspects that come with it. However, a good solution in the near future is absolutely necessary as the supply of fossil fuels is quickly running out, many oil-exporting economies are in danger, and the health of the environment is at stake.

Definition of Key Terms

Oil

Oil is a combustible, flammable liquid which is extracted in oil reserves and is made up of a mixture of hydrocarbons. It is also known as petroleum or crude oil. After being processed, it can be used to fuel cars, produce electricity and fuel industries. By-products from oil refinery are plastics, tars, asphalts, along with a multitude of others. Evidently, oil is vital in modern lifestyles and economies.

Fossil Fuels

There are important differences between fossil fuels and oil. The term fossil fuels encompasses natural fuels which are produced over millions of years from the remains of living organisms, and the formation of these is a natural process. Oil, natural gas and coal are examples of fossil fuels. Due to the longevity of the process of creating fossil fuels, the oil reserves- among other reserves of fossil fuels- will eventually run out. This gives rise to the issue that oil-dependent member states have as they need to find a new source of revenue.

Oil Reserves

An oil reserve is "an estimate of the amount of crude oil located in a particular economic region" (Investopedia). To be defined as an oil reserve, the extraction of the oil has to be feasible considering the current technology available. The three countries with the largest oil reserves are Venezuela, Saudi Arabia and Canada.

Exports and Imports

Exports and imports together create international trade. Exports are goods and services that are produced in one country and sold to another, and imports are goods and services bought by one country and produced by another.

Dependency

When a country's economy is primarily based off of exporting a certain good or service, this country has a dependency on this good or service. This can be dangerous if the price of that good or service were to drop, or the production of it becomes unfeasable.

Greenhouse Gases

Greenhouse gases (GHGs) are produced when fossil fuels such as oil are burned. When in the Earth's atmosphere, these gases absorb and reflect radiation back towards the earth.

Climate Change

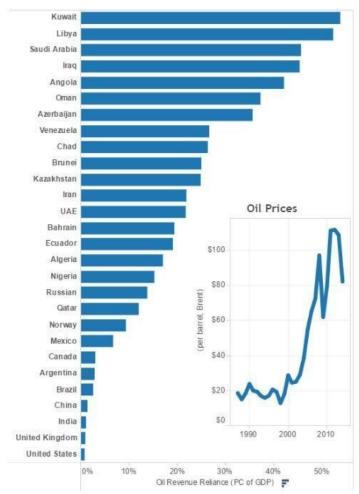
Climate change, or often referred to as global warming, is the gradual increase of the global average temperatures due to the greenhouse gas effect from GHGs.

General Overview

As mentioned previously, countries that are dependent on oil exports are in danger of a volatile market, because if the price of oil drastically declines due to an economic crash or other events, these countries are missing a large part of their revenue. In turn, they are not able to provide the fiscal and monetary support to help the country out of a recession. An example of an event that was dangerous to oil-export dependent economies is the COVID-19 epidemic, which caused the largest negative oil shock in the modern world.

However, this is not the only risk that pushes the need to diversify oil-dependent economies. According to the International Energy Agency (IEA), the demand for oil in the coming decades will face downward pressure, which means that oil-dependent economies will not be able to wait for oil demand to increase in order to address their economic problems. Furthermore, the IEA predicts that the demand for renewable and clean energy options will increase at the fastest rate among all energy types, and as these sources become cheaper the demand and price for oil will only decline. Finally, some countries have almost depleted their resources, causing a further need for diversification.

The countries that rely the heaviest on oil exports are found in the Middle East, as this is where most of the world's oil reserves are found.



Countries that are most reliant on oil exports to fuel GDP (World Bank)

Effect on the Environment

Along with the economic problems that oil-dependency brings, the extraction, producing, refining and moving of crude oil has disastrous effects on the environment.

A popular oil production technique referred to as "fracking" has negative consequences towards the environment, as it requires large amounts of water and uses potentially dangerous chemicals which can pollute and effect the habitat surrounding the fracking sites. Another hazardous event that is a product of oil extraction and movement are oil spills, which can cause explosions and fires, and can also seriously contaminate soil and water. When they occur, these accidents require huge government spending. The burning of oil also causes for the release of greenhouse gases which causes global warming. According to the United Nations Environment Program (UNEP), oil and gas production are one of the world's biggest killers.

The combination of the possible government expenditures that comes with the devastating environmental effects and the economic dangers that accompany an oil-dependent government means that diversification is once more heavily required.

Major Parties Involved

United States of America

Even though the USA is not an oil-export dependent economy, it still faces oil related problems because of its reliability on oil imports as part of their economy. A 2009 report on the U.S. Trade deficit revealed that an increase in oil imports widened the government deficit. In the early 2010s, the US was spending approximately \$1 billion a day on foreign oil, while this money could have been used on beneficent projects in the US itself. This heavy investment in foreign oil could possibly support unstable governments abroad, posing yet another issue. In 2019, the USA consumed about 20 million barrels of petroleum per day, while they only have a small percentage of the world's oil reserves. The US consumption of oil has declined since its peak in 2012, and it is in the best of the US's economy to reduce their dependency on oil as a source of government revenue. The recent US policy has been leaning towards energy independence, with the Energy Independence and Security Act enacted in 2007 by President Bush. As a result, in 2014 U.S. oil imports hit a two-decade low, consequently aiding their deficit.

Saudi Arabia

Saudi Arabia has the second most oil reserves globally, and its economy relies heavily on it. Oil exports in Saudi Arabia account for about 85% of exports and almost 90% of fiscal revenue, and the oil sector accounts for about 40% of the GDP. However, Saudi Arabia is a leader in trying diversify its economy. In 2016, it introduced the National Transformation Program as part of its Vision 2030 development plan, and its main goal is to shift away from the heavy dependency on oil in the Saudi Arabian economy.

Organization of the Petroleum Exporting Countries (OPEC)

OPEC is an intergovernmental organization composed of 13 member states, Algeria, Angola, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, the Republic of the Congo, Saudi Arabia, UAE and Venezuela. Together these countries have 81.5% of the world's proven oil reserves and have a huge influence on the global oil price and every country in this organization will have a say on large decisions made surrounding oil. OPEC's mission is 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".

International Renewable Energy Agency (IRENA)

IRENA is an intergovernmental organization which aims to help countries in their transition towards a future where in which sustainable energy is key. It is a leading platform for international cooperation, and will be important when considering a transition away from an oil-dependent economy.

Date	Description of Event
1960	OPEC Founded in Baghdad
2010	Deep Horizon drilling rig explosion and oil spill in
	the Gulf of Mexico
January, 2016	National Transformation Plan introduced in Saudi
	Arabia
2020	Head of UNDP calls for shift away from "irrational
	oil dependence"
April, 2020	Largest Oil Price Shock in Modern History due to

Timeline of Key Events

COVID-19

UN involvement, Relevant Resolutions, Treaties and Events

Due to the nature of this issue, there has been limited UN involvement in the issue of oil-dependency because it is often directly linked strict government policies as well as corporate activity in the given countries. However, there are many UN related resolutions and conferences regarding the issue of climate change and sustainable development, which is directly related to this issue:

- United Nations Framework Convention on Climate Change (UNFCC) 9 May 1992
- The future we want, 27 July 2012 (A/RES/66/288)
- United Nations Sustainable Development Goals, 2015
- Revised Renewable Energy Directive by European Commission, December 2018, (PE/48/2018/REV/1)

Previous Attempts to solve the Issue

A country which has made notable attempts to solve this issue is Saudi Arabia. In 2016 they announced Vision 2030, which would diversify their economy. This included plans to promote non-oil industries such as tourism, manufacturing and renewable energy. In their vision entrepreneurial activity is also heavily encouraged, as small and medium-sized enterprises (SMEs) are a main focus. They aimed to increase the SMEs portion of GDP from 20% to 35%. This is also vital since some research estimates that Saudi Arabian oil will dry up within the next 70 years. However, due to the COVID-19 pandemic many of their plans are in danger of falling apart.

Nevertheless, this plan has many aspects which have worked well and some sections of it should be used as outlines for other countries to make the same steps away from oil as a main form of government revenue.

Possible Solutions

When considering possible solutions for this issue, it is important to not only think ways to reduce dependency on oil, but also on the economies of these countries will survive in a future where oil is not their main source of income.

Firstly, a solid solution has to consider the integration of renewable energy sources in the given country, to ensure that the transition in sustainable. This could be done in cooperation with the IRENA, and even the creation of a convention in which these oil dependent states could discuss the progressions. These renewable energy sources could

range from wind, solar, hydro and bio energy. The wind and solar energy sources will have the fastest growth but only have a modest share in the energy market. Hydro and bio energy, however, have a larger share in the energy market but are the next fastest growing energy source. Nuclear energy could also be considered, but bear in mind the potential drawbacks that this has and the stance of some countries on the issue on nuclear power. All of these aspects of the renewable energy sources should be considered when writing a thorough resolution.

Another solution is to provide a UN framework for countries which enables them to make long term commitments towards diversifying their economy. Although some countries already have plans considering this issue, a UN organization could help some countries make a more efficient transition towards a more diversified economy. This UN framework could include plans to reduce government aid towards oil corporations or movements which will help finance more small or medium sized enterprises. This could mean fueling entrepreneurial activity by providing subsidies towards small companies, or encouraging the private sector to provide more employment for young people. Ultimately these shifts towards more small business fueled GDPs will help the government move away from oil dependency and towards a much more diversified economy.

The problem with oil dependency also revolves around the fact that there is a high demand for oil, and this high demand could potentially be lessened through the investment in clean energy reforms. Investment in clean energy will mean that the price of clean energy will decrease and it will become a more viable option for energy-intensive companies to invest in. An organization that could greatly help with this transition is IRENA, who have done many similar projects in the past and greatly help with international cooperation. When drafting solutions to this issue, it is important to keep in mind that many member states are dependent on oil in order to keep their economy running. Therefore, a solution has to consider ways to help these countries move away from oil dependency while still allowing them to make economic growth.

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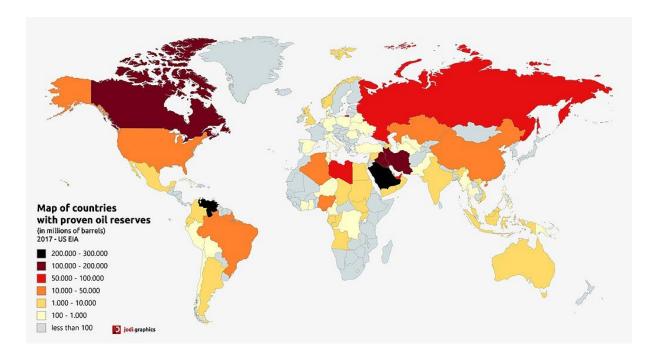
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Appendix or Appendices

- I. <u>https://www.opec.org/opec_web/en/data_graphs/330.htm</u>
- II. Proven Oil reserves globally



Source: US EIA