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An Analysis of Russian Energy Exports and Their Effects on the Russian Domestic Economy

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AN ANALYSIS OF RUSSIAN ENERGY EXPORTS AND THEIR EFFECTS ON THE RUSSIAN DOMESTIC ECONOMY

by

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Abstract:

A study of the effects of Russian energy exports on its domestic economy. This paper delves into the different economic, environmental, and diplomatic factors which influence Russia's decision-making regarding its current energy policy. The paper focuses on natural gas and oil production for Russia. The paper begins with explaining the issues of Russia's economy being reliant on its energy exports for solvency. The next topic discussed reveals Russia's place in the world diplomatically and how this has affected their energy productions and sales. This paper seeks to answer the question of which strategy Russia will pursue in order to regain its place as a world super power.

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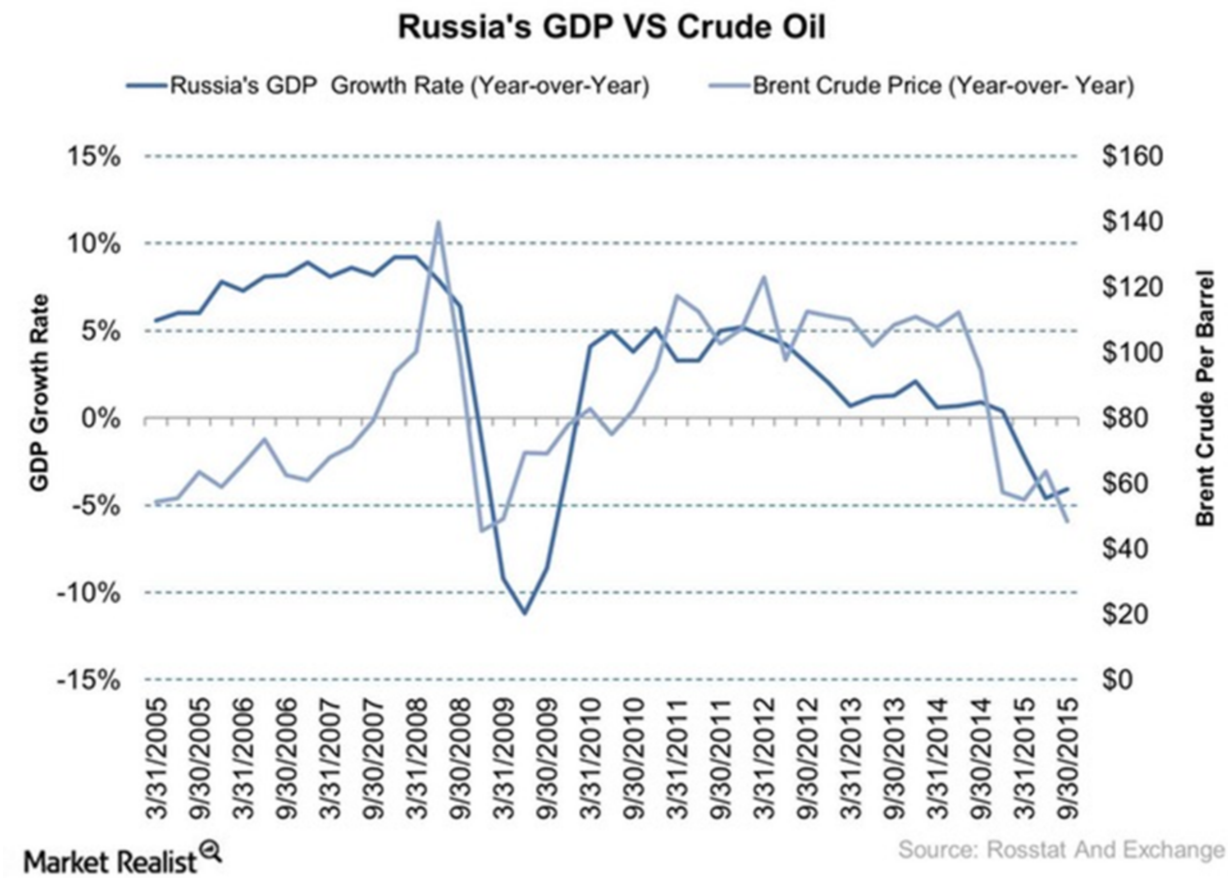
I. Introduction

With Russia's economy, highly dependent on the price of oil remaining high, it comes as no surprise that Mother Russia's economy is suffering. As of 2013, Russia was the fifth largest economy in the world and now as of 2017 doesn't even make the top ten. [1] In conjunction with economic sanctions imposed by the West after Russia's annexation of Crimea in March of 2014, Putin's Russia is put in a precarious financial state.[2] Russia has been facing hard times in the oil market since late 2012. In 2016 Russia's budget, had planned for a price of $50 per barrel of oil. Since Russia doesn't control the world price of oil, the drop of oil prices means less income for Russia that the budget would not be met. Thus, Russia is forced to find other ways to meet the budget such as cutting government spending and privatizing state-owned companies. The following growth shows the world price of oil and how closely Russia's GDP is tied to it.

[1] (ICFAI), Prableen Bajpai CFA. "The World's Top 10 Economies." Investopedia. March 03, 2017. Accessed April 16, 2017. http://www.investopedia.com/articles/investing/022415/worlds-top-10-economies.asp.
[2] "Ukraine: Putin signs Crimea annexation." BBC News. March 21, 2014. Accessed April 16, 2017. http://www.bbc.com/news/world-europe-26686949.

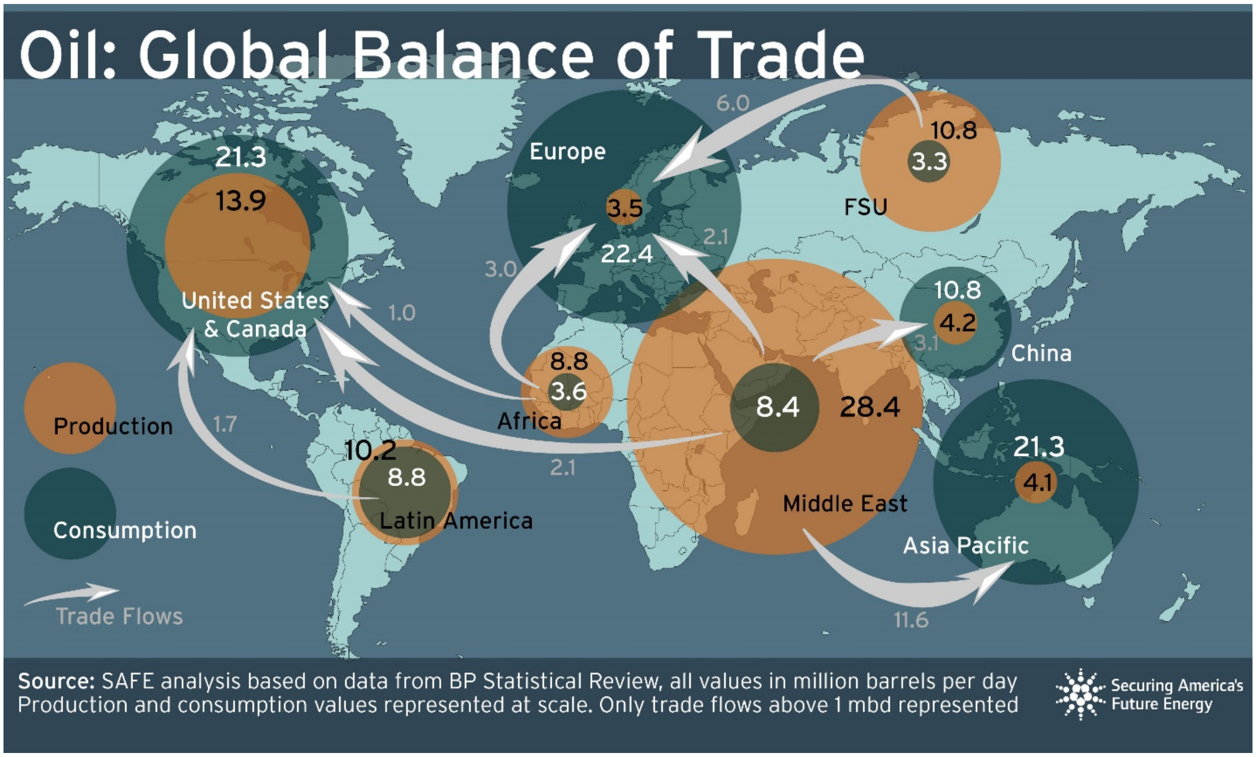


Source: http://marketrealist.com/2015/11/russia-dependent-on-prices-of-crude-oil-natural-gas/ Accessed 4/15/17

The sanctions imposed on Russia have cut into foreign investment, hurting domestic industries. Also, lack of trade with the West has led to Russian industrial technology to lag behind the rest of the world in many industrial sectors including resource gathering.[3] Their only method to remain solvent seems to be to get off their reliance on oil exports. However, with failures in the past to diversify the economy and move to a market based system rather than state controlled, it raises the question if this

[3] Mauldin, John. "Low Oil Prices Will Make Russia More Aggressive In 2017." Forbes. December 27, 2016. Accessed April 16, 2017. https://www.forbes.com/sites/johnmauldin/2016/12/27/low-oil-prices-will-make-russia-more-aggressive-in-2017/#447cfa0f7367.

will ever happen. The lines between how much of Russia's economy is market based versus state controlled are blurred. This will be discussed below. Russia continues to produce oil at record rates to make up for their lost profits. For now, let's consider what this paper will pursue. What has caused the drop in global oil prices within the past three years? How reliant is Russia on exporting oil? How have low world oil prices affected Russia domestically? What strategies has Russia pursued, both domestically and diplomatically, to limit the effects of low oil prices? What has been Putin's role? How will Russia guarantee its future as a major international player rather than marginalized second-rate one? These questions can be summed up into one, but it is important to understand the different components it. How will Russia, a resource-rich nation addicted to energy exports, compete in a world with increasingly lower oil demand? The answer for Russia's oil export dependency is one they have known for years -- namely economic diversification -- something which Russia has struggled to achieve. The answer lies in increasing privatization in their economy, yet it's difficult to stray away from the massive profits generated by their state-run energy companies. The following map is an illustration of Russia's market share of oil on the global market.



Source: http://energyfuse.org/energy-policy-2016-spotlight-on-donald-trump/. Accessed 5/1/17

II. Putinism – The Ideology Fueling Russian Energy Production

How has Putin's policy changed throughout his years in office? Putin has been president of the Russian Federation since he assumed the role in 2000, besides a gap term served by Medvedev from 2008-2012. During his time as president, Putin has built a government focused on his ideologies. "Putinism", as some political thinkers around the globe have called it, is a set of principles to which Putin adheres when governing Russia. One thing that is imperative to understanding Russian politics is the Russia wants to maintain its status as a "world power." [4] Of course, this idea puts the nation at odds with the US, something that both countries have been familiar with since the end of

[4] https://fas.org/nuke/guide/russia/doctrine/econcept.htm, Accessed 4/17/17

World War II. Animosity between the nations had been building for years until the USSR collapsed in 1991, ending the Cold War. The US and the Western world believed it had won by beating communism. However, the end of communism in Russia was not the end of its role in international politics. When Putin stepped into office in 2000, he started with a pragmatic approach towards the West. Russia had been marginalized after the end of the USSR, as a lesser power compared to the US. The USSR had challenged US creating a multi-polar world where two superpowers struggled to gain ground on the other. Putin wants to make Russia a world power, one with a large sphere influence like the USSR. However, this became extremely difficult with Russia's economy in shambles. Putin sought a pro-West strategy to put Russia's economy on par with the rest of the world. However, Putin's tone changed as his time in office progressed. In 2008, Putin became increasingly anti-Western in his speeches and policies.[5] This only continued after his hiatus from the presidential office from 2008-2012 (during which time, significantly, he served as Prime Minister). His anti-Western sentiment was lined with Russian dominant undertones. Russia wants to regain its place as a challenger to the Western world. Thus, Russia became even more isolated from the Western world. This was perhaps most clearly represented with the Eurasian Economic Union, which is essentially a political alliance among five of the countries which currently inhabit the post-Soviet space. Putin saw many of the moves done by the West as spewing Western

[5] Eltchaninoff, Michel. "What is Putinism?" The Huffington Post. November 25, 2015. Accessed April 16, 2017. http://www.huffingtonpost.com/michel-eltchaninoff-/what-is-putinism_b_8624088.html.

propaganda and pushing Russia into a corner. What happens when you back the bear into the corner? It bites back.

With the annexation of Crimea in March of 2014, Russia has now become as politically distant from the West as the USSR before its collapse.[6] "At the time of the major speech celebrating the event [annexation of Crimea] on 18 March 2014, Vladimir Putin asserted that: "We have every reason to assume that the infamous policy of the containment of Russia, which was pursued in the 18th, 19th and 20th centuries, continues today. They are constantly trying to sweep us into a corner because we have an independent position, because we maintain it and because we call a spade a spade and do not engage in hypocrisy. But there are limits." [7] What are the doctrines Putin has adopted to make Russia competitive once again? How has this influenced Russia's oil industry? What does this mean for Russia's future as an international player?

Putin is a populist leader. A populist leader builds political support around their own popularity. Populists are usually conservative and are attempting to instill a degree of nostalgia in the people. Populists use an "us vs. them" mentality which governs their politics. In Russia's case, Putin attempts to distinguish Russia from the West. He warns of the failures, corruption, and decadence of the West. Putin's policies have become more anti-West as time has gone on. Yet, Putin clearly must rely on the West to some

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[6] Legvold, Robert. "Return to Cold War". 978-1509501892.

[7] "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." United States remains largest producer of petroleum and natural gas hydrocarbons - Today in Energy - U.S. Energy Information Administration (EIA). Accessed May 01, 2017. https://www.eia.gov/todayinenergy/detail.php?id=26352.

degree for investment into the Russian economy. Russian nationalism has turned into anti-Westernism for Putin. Putin's control of the media in Russia has only augmented his ability to spread his anti-West sentiment. He has used the media to create a cult of personality about himself. Broadcasting his martial arts competitions, taking pictures of himself riding horses shirtless, posting photos of himself shooting weapons are just some examples of the Russian strongman persona Putin has created.[8] This has translated into Putin being a strong political actor. Putin has his hands in almost every strand of the Russian government, similar to Stalin's control of political and economic actors of the USSR. This has meant Putin keeping a firm grasp on Russia's oil industry, especially in keeping the industry from going bankrupt with the low world oil prices starting in late-2014.

III. Reasons for Low Oil Prices

The US

Perhaps the biggest driving force of the low oil prices around the world over the last three years is the U.S.'s emergence as the world's leading producer of petroleum and natural gas hydrocarbons.

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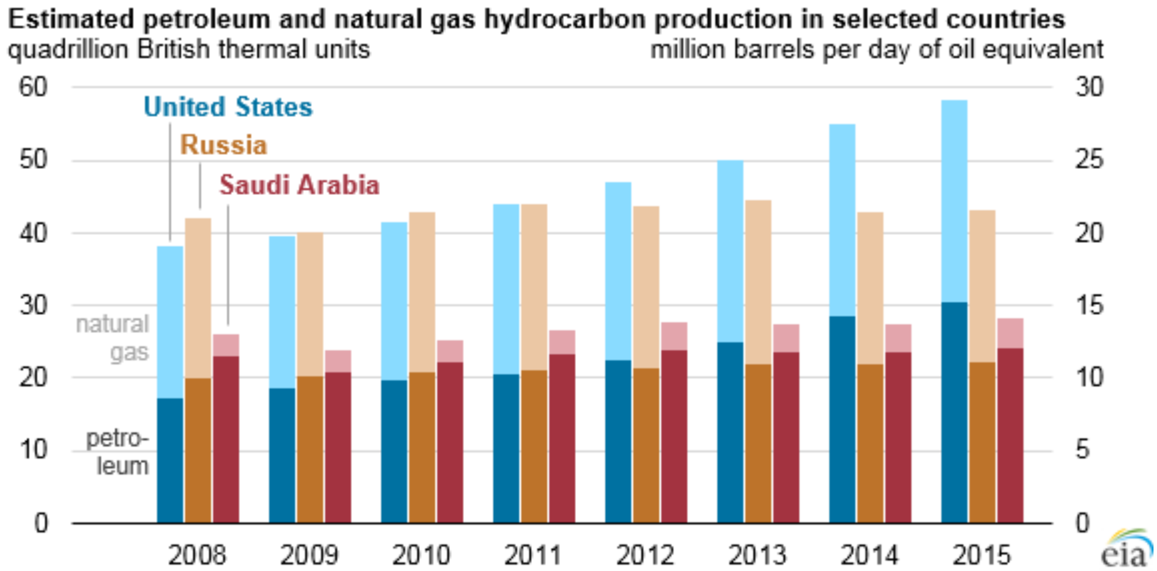
[8] Herpen, M. H. (2016). Putins propaganda machine: soft power and Russian foreign policy. Lanham: Rowman & Littlefield.



Source: https.//www.eia.gov/todayenergy/detail/php?id=26352 Accessed 4/16/17

The U.S. has almost doubled its domestic production forcing many of the other oil producing countries to lower their prices on the global market. With a decrease in US demand for crude, many oil exporting nations now are forced to fight for their share in a smaller market. As prices fall producers are forced to ramp up production to sell more oil to make up for the lower prices. What has allowed the U.S. increase its oil production? In a word: Fracking.

> Saudi, Nigerian and Algerian oils that once sold in the United States are suddenly competing for Asian markets, and the producers are forced to drop prices. Canadian and Iraqi oil production and exports are rising year after year. Even the Russians, with all their economic problems in recent years, have managed to pump at record levels. [9]

Hydraulic fracturing technology, more commonly referred to as fracking, is behind the massive oil boom in the U.S. "Back in 2000, there were just 23,000 fracking

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[9] Kraus, Clifford. "Oil Prices: What to make of volatility." The New York Times. March 10, 2017. Accessed May 1, 2017. https://www.nytimes.com/interactive/2016/business/energy-environment/oil-prices.html?_r=0&module=ArrowsNav&contentCollection=Energy%20%26%20Environment%20&action=keypress&region=FixedLeft&pgtype=Multimedia

wells pumping about 102,000 barrels of oil a day. Now there are 300,000 fracking wells, churning out 4.3 million barrels per day."[10] U.S. oil output has doubled over the past decade (2006-2016), primarily due to tapping into America's enormous shale deposits. The sudden and dramatic increase in U.S. oil production was one of the biggest factors in the dropping of global oil prices. With such a huge excess supply, prices peaked in mid-2014 and then plummeted by as much as 75% since that time.

Chart 4- U.S. Fracking Boom Reversing Gears Until Global Oil Over-Supply Comes Back Into Balance

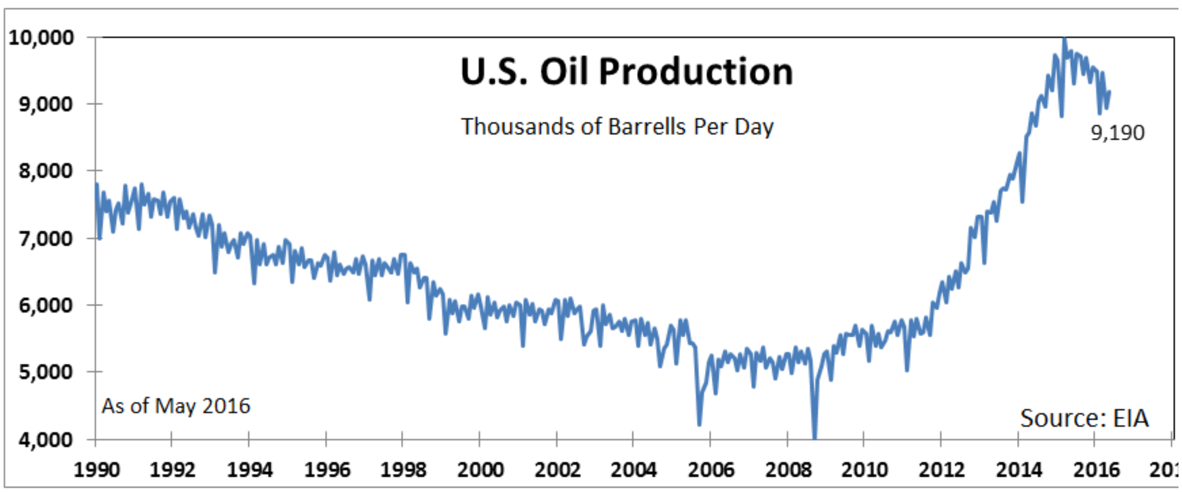

CHART 4 (SOURCE: EIA)

Source: http://www.pringturner.com/a-new-cyclical-bull-market-in-the-oil-patch-has-begun/ Accessed 4/18/17

The strong US dollar over the past decade has been an important determinant of low oil prices globally. The dollar has a twelve-year high against the Euro. When the value of the dollar is strong, the value of commodities fall. Commodities are defined as

[10] It recently hit a new milestone in the U.S. Fracking now accounts for more than half of all U.S. oil output. "Fracking now fuels half of U.S. oil output." CNNMoney. Accessed April 16, 2017. http://money.cnn.com/2016/03/24/investing/fracking-shale-oil-boom/.

global assets.[11] Goods such as corn, soy beans, and even oil can be traded all over the world which means they all need a singular currency to peg their value to. Global commodities are usually priced in US dollars meaning a stronger value of the dollar leads to drop in the prices. The US dollar is used as the standard for pricing commodities due the stability of the currency. Since the US dollar serves as the benchmark for commodities, the price another country will get for that commodity is based off the value of the US dollar versus the other country's currency. An increase in the strength of the US dollar, all other things equal, causes the number of dollars needed to purchase commodities to decrease. At the same time, the amount of other currencies needed to purchase commodities increases. The strength of the US dollar has put a strain on the price of oil for the past few years. In 2014, the increase in value of the dollar caused a drop in various commodity prices including oil. The US dollar suddenly had more purchasing power in commodity-based industries, causing the Russian ruble's purchasing power to decrease comparatively. This was a key factor in the drop of the global oil price. [12]

OPEC

World oil's price had already been influenced by other factors as well. With the drop in oil prices, many oil producers around the world ramped up production to make up for the drop in profit per barrel. Producers such as OPEC (Organization of Petroleum

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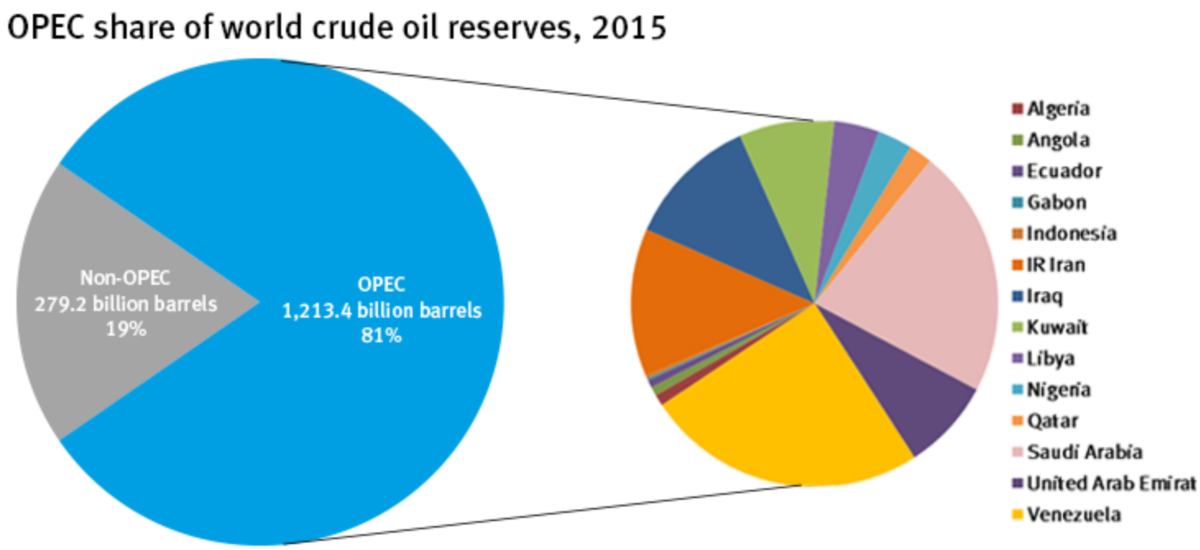
[11] Staff, I. (2014, December 02). Commodity. Retrieved May 27, 2017, from http://www.investopedia.com/terms/c/commodity.asp

[12] Worstall, T. (2016, January 20). The Ruble's Fall Is Just What Russia Needs To Deal With Oil Price Collapse. Retrieved May 27, 2017, from https://www.forbes.com/sites/timworstall/2016/01/20/ruble-fall-past-80-to-the-just-what-russia-needs-to-deal-with-oil-price-collapse/#611fac70691e

Exporting Countries) based in the Middle East, flooded the market with crude. Russia is not a member of OPEC. The price of Middle East crude had dropped by 50% from late-2014 to mid-2015. The global market became flooded with crude as suppliers scrambled to make up for lost profits. This eventually led to an oversupply of crude oil globally.[13] Countries in OPEC such as Iran, Venezuela, and Algeria expressed an interest in cutting in production. However; Saudi Arabia, the United Arab Emirates, other gulf nations had refused to do so until January 2017. In addition, US crude inventories are at the highest levels in eighty years. Oversupply has been going down with the start of 2017 despite climbing between 2014 and 2017.[14]

[13] OPEC decided on Friday not to cut oil production despite the fact that prices have tumbled 40% from a year ago. (n.d.). OPEC refuses to cut oil production. Retrieved May 27, 2017, from http://money.cnn.com/2015/06/05/investing/opec-decision-oil-prices/

[14] Bierman, Stephen. "Russia's Oil Dilemma, Explained." Bloomberg.com. March 08, 2016. Accessed April 16, 2017. https://www.bloomberg.com/news/articles/2016-03-09/russia-s-dilemma-squeeze-oil-industry-without-strangling-growth-ilk2y8i4.



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

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

Source: OPEC Annual Statistical Bulletin 2016.

Global Demand Changes

The global market has also seen a decline in demand for crude oil. The economies of Europe and developing countries have been weakening, causing a decline in demand for crude. Fuel efficiency has also been steadily improving and renewables are more widely used. Most of the world is invested in increasing fuel efficiency to limit their carbon footprint. However, this has had the unintended effect of destabilizing oil exporting nations such as Russia. The Iran Nuclear Deal will also add to oversupply now that the US, EU, and UN multilateral sanctions have been dropped. Iranian exports will increase with the opening a previously closed market. This move will further add to the oversupply of crude oil. The already oversaturated oil market will see prices drop further unless the oversupply is fixed either by limiting supply or increasing demand. These factors have lowered the oil price globally, meaning, among other things, that, Russia must change their strategy of oil production.

IV. Effects of Low Prices on Russia Domestically

Reliance on Oil Exports

Russia has been hurting economically since the crash of world oil prices in August of 2014. With prolonged oil prices being low, the Russian people have started to feel the adverse effects of this as well as the Putin administration's attempts to stabilize the situation. Russia's economic woes begin with the structure of its economy. Much of the country's budget relies on oil exports. Low oil prices mean big trouble for the Russian economy. Russia structures its budget around the price of oil per barrel to predict the tax revenue from the industry.[15] Rosneft is the world's leading oil extraction and refinement company. The Russian government is the majority shareholder in this company.

Currently, Russia places duties on Rosneft's exports. This allows the company to boost output domestically, but cuts into profits from exports. Russia also has extraction tax placed on petroleum products. This means that the amount of unrefined oil harvested is taxed which also cuts into profits. Less profits mean that Russia must be careful not to tax the Rosneft's exports too much or it could put the company's financial

[15] Litvina, Anna. "New tax regime may be implemented for Russia's mature oilfields." RealnoeVremya.com. February 20, 2017. Accessed May 01, 2017. https://realnoevremya.com/articles/1201-new-tax-regime-may-be-implemented-for-russias-mature-oilfields.

state, and Russia's, in jeopardy. At the same time, Russia must make up for a lack of tax revenue in other ways. This had worked well prior to late-2014. However, when the prices of oil drop dramatically and suddenly like in late-2014, the effects on the economy can be disastrous. Wages fell by 9% in 2015, with 2 million people falling below the poverty line. Inflation has also remained high throughout this entire time. Russia's central bank was forced to print more money to make up for the lack of tax revenue, which caused inflation rates exceeding 10% from 2015 to 2016. [16]

Source: https://tradingeconomics.com/russia/inflation-cpi Accessed 4/18/17

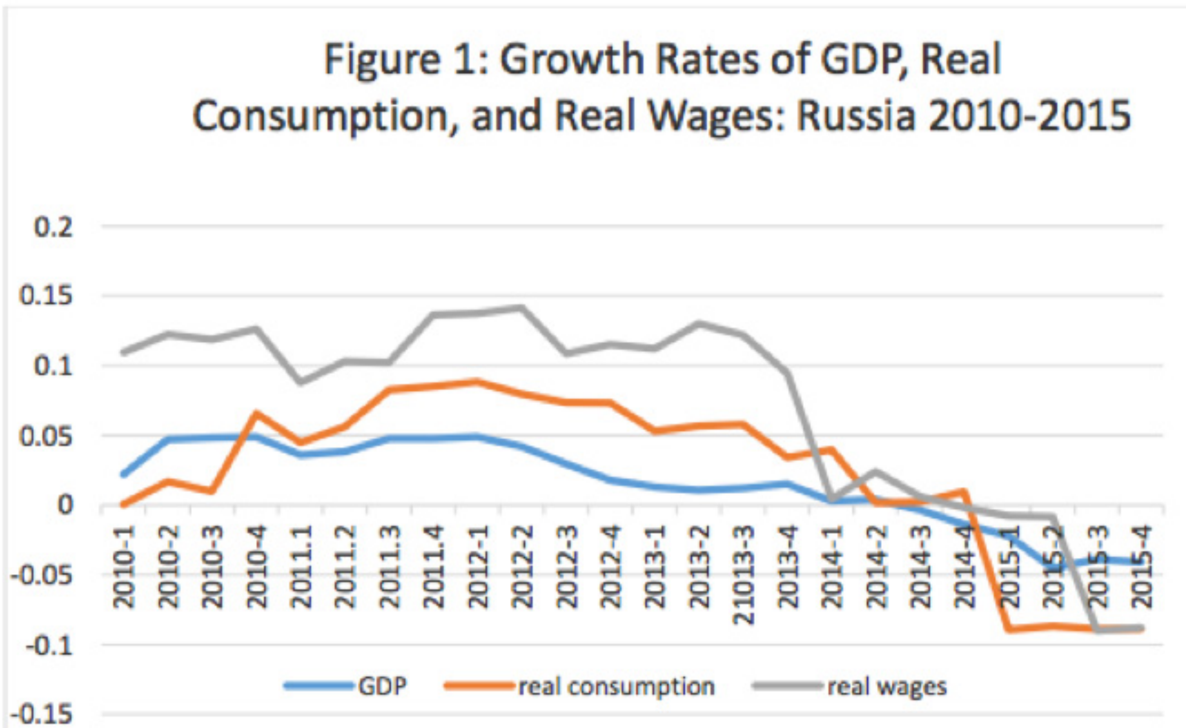
[16] Gregory, Paul Roderick. "Russia's Economic Stagnation." National Review. November 23, 2015. Accessed April 16, 2017. http://www.nationalreview.com/article/427481/russias-economic-stagnation.

Map of Russia's Oil and Gas Pipelines

Source: https://www.forbes.com/sites/greatspeculations/2012/11/19/pipeline-would-loosen-russian-stranglehold-on-european-natural-gas-supply/#635ad9be70e9. Accessed May 01, 2017

Effects of Drop of GDP

Due to these factors, GDP per capita in Russia dropped significantly. “GDP per capita in Russia is down from an all-time high of $11,615 in 2013 to $11,038 in 2015.” With a drop in GDP per capita, the average citizen will have less to spend for a given bundle of goods. This causes the average Russian person to have less money to spend in their economy. Not surprisingly, this worries the Russian government. In lieu of the drop of wages in 2015, Russia's wages have seen no real growth. Wages did grow in 2016 but due to the high rates of inflation wages saw no actual growth.[17] The poverty level continues to increase with no end in sight.



Source: http://www.russia-direct.org/analysis/why-russia-fails-cope-resource-curse. Accessed April 16, 2017

In addition, food now to takes up about 50% of the average Russian income. This has caused some Russians to start growing their own food instead of trying to spend

[17] "Russia Real Wage Growth 1998-2017 | Data | Chart | Calendar | Forecast." Russia Real Wage Growth | 1998-2017 | Data | Chart | Calendar | Forecast. Accessed May 01, 2017. http://www.tradingeconomics.com/russia/wage-growth.

over half of their income on simply feeding themselves. This percentage of Russian income dedicated to food purchase is currently dropping.[18] Due to this large percentage of the average Russian's income going to food, purchases of other "luxury goods" have gone down. This hurts producers in the market as well. However, consumers are hurt the most. With most goods going up in price and wages remaining stagnant, the average Russian has felt the adverse effects of low oil prices for years. The sting of lower incomes, all other things included, has started to put many Russians into a state of despair. Protests have started to erupt in cities around the country. "A rising number of small, local protests have occurred. These often relate to specific economic issues, particularly pensions. The number of protests in big cities has declined, but protests in small cities have increased by 40 percent in the last year (2016)—according to the FNPR, the country's largest workers' association."[3] With social benefits being cut and real incomes falling, many people are rightly angry with the mismanagement of the economy by the government. A dropping world oil price is what hurt the Russian economy and the people. However, years of failures of economic diversification keeps Russia's fate tied to the volatile world price of oil, more on this later. This has caused problems for the Putin administration. Even worse, many payments around the country which should have been paid have not. Different regions around the Russia have seen wage arrears which have totaled around $62 million as of July 1st 2016. About a quarter

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[18] "Russia Food Inflation 2010-2017 | Data | Chart | Calendar | Forecast." Russia Food Inflation | 2010-2017 | Data | Chart | Calendar | Forecast. Accessed May 01, 2017. http://www.tradingeconomics.com/russia/food-inflation.

of these unpaid payments were the past month's pay of worker's wages. This lack of payments make things worse and give the protesters more fuel for their discontent.[3]

Russians have become increasingly worried about oil prices. Due to the volatility and reliance on oil prices, the Russian government was forced to make cuts in recent years to various social programs. This has created unrest in Russia in the form of protests. Many Russians have taken to the streets chanting to have their benefits returned to them. In 2016, Russian long-haul truck drivers have been protesting for weeks in Moscow at a new road tax. As oil prices recover, social programs around the country are seeing their funding return.[3] Yet, it doesn't seem that the people are primarily worried about this recovery. Rather, they focus on how Putin's politics have caused this perfect storm. With little work done to diversify Russia's economy, crude oil will serve as Russia's prime source of tax revenue for years to come.

Russian Oil Producers

As mentioned earlier, consumers are not the only ones hurting from the low oil prices. The rate of bankruptcies continues to rise in Russia.[3] UralVagonZavod (UVZ) is a military-industrial company which consists of forty entities and is among the top hundred largest of this sector of companies around the world. Three of the forty entities filed bankruptcy and lawsuits against UVZ in the latter part of 2016 due to unpaid debts. Many other companies throughout Russia have been hit hard with the low oil prices. As you might expect, petroleum producers have suffered more than other industries. Curiously, Russia's biggest oil conglomerates Lukoil and Rosneft, who account for over half of the country's oil production, have been turning profits the past two years. This was mostly due to the ruble weakening against the dollar, which means profits in rubles rose while profits in dollars fell. Despite the profits turned by domestic producers, their success will not last long. With Russia's budget, so heavily reliant on tax revenue from the oil market, the Kremlin aims to tweak their tax policy. The Kremlin is reluctant to increase taxes but its coffers are running low and the only other alternative is to cut government programs or tax other industries which are also suffering. The depreciation of the ruble has helped domestic producers in the Russian market but hurt consumers. A string of bankruptcies in the country could be catastrophic whereas a fall in income for the people is manageable in light of the dire economic circumstances in the early 1990's.[19] The following graph depicts the value of the Russian ruble from 2012-Present (5/1/17) in rubles per dollar, which is represented on the y-axis.

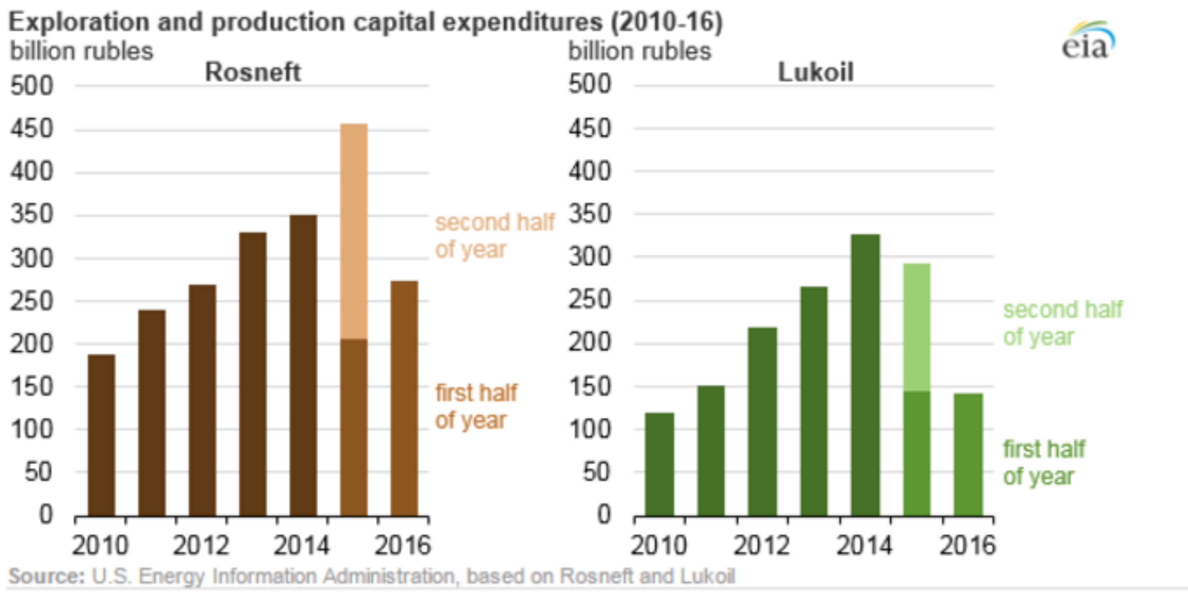
[19] Guriev, Sergei. "Opinion | In Russia, It's Not the Economy, Stupid." The New York Times. December 25, 2016. Accessed April 16, 2017. https://www.nytimes.com/2016/12/25/opinion/in-russia-its-not-the-economy-stupid.html.

Source: http://www.tradingeconomics.com/russia/currency Accessed May 01, 2017

Russia's oil market is composed of several different producers. However, Rosneft and Lukoil produce about half of the country's oil.[20] Rosneft CEO Igor Sechin and Putin work very closely on all matters of oil production and investment. This intimate relationship between the world's largest oil company and the President of Russia has meant that much of Russia's policy is focused on turning profits for Rosneft. Each of these companies has greatly increased capital expenditures for exploration and productions for 2016. This has helped draw investors as well as giving more options for access to cheaper reserves. Both producers are state-controlled. Since these producers are state-controlled and make up such a large part of Russia's tax revenue, the price of oil is tied to the tax rates. Russia can manipulate the tax rate as well as monetary policy to create the most favorable market conditions for their oil industry. Russia has done

[20] Rizvi, O. (2017, January 09). The Secrets Behind Russia's 2016 Oil Success. Retrieved May 27, 2017, from http://oilprice.com/Energy/Crude-Oil/The-Secrets-Behind-Russias-2016-Oil-Success.html

remarkably well since 2015 at creating an economic environment in which its top oil producers could stay above water despite the low world oil prices. Financials for Russia's oil tax revenue seem to be looking up for the future as oil prices trend upwards and investment continues to flow into the country. Foreign investment and the effect of economic sanctions on it, are discussed in greater depth below.



Source: http://energypost.eu/russia-keeps-expanding-oil-production-despite-low-oil-prices/ Accessed May 27, 2017

V. Russian Foreign Strategy

Cuts in Production

OPEC and Russia had decided to cut oil production during the first half of 2017 down to 1.8 million barrels per day starting Jan. 1st. Some of the compliance on the part of Russia to cut production is due to extremely low temperatures in Western Siberia during winter. Extreme weather can influence if machinery can work properly and safely. Production slows annually during this time for Russian oil. 2015 and 2016 saw record levels of oil production for Russia in the post-Soviet era. These high levels of production were primarily due to necessity rather than choice. While the prices of oil dropped dramatically, production was set into overdrive to produce more oil to sell at the lower price. This isn't intuitive because a lower price for a supplier usually dictates less quantity produced. However, Russian oil producers were backed into a corner and had to produce more oil to make up for their lost profits per gallon sold. Russia's economy was primarily focused around the oil market and had to continue to expand production to remain afloat. With careful manipulation of monetary policy by Russia's Central Bank, Russian oil producers were even able to turn a profit in rubles.

Source: http://www.tradingeconomics.com/russia/currency Accessed May 01, 2017

In 2017, world oil prices have still not recovered to the apex of prices in 2014. Prices have recovered modestly over the past eighteen months which have helped Russian oil producers, but not enough. Yet Russia is projecting to bring in billions of dollars more to the federal budget. How then is Russia planning to cut production and remain fiscally responsible? Some careful diplomacy on Putin's behalf is a part of the answer and the other may rely on a focus on clean energy for Russia's future. Russian energy expert Anatoliy Pshegornitskiy, engineer and global entrepreneur, believes that rising oil prices could fuel Russia's clean energy sector for years to come. Pshegornitskiy stated, "We have seen that the development in technology and increased funding in the renewable energy sector, such as wind and solar, has led to them becoming more cost-competitive worldwide and led to adaption and increased usage. Even though Russia has vast oil resources, Putin intelligently declared 2017 as the year of the environment which will create momentum for skilled Russian engineers to further develop green energy technologies for Russia and its trading partners."[21]

Despite this fact, Russia is producing more oil than it has in the past decade in order to maintain their tax revenue. This may change soon as Putin agrees with OPEC to cut back production to allow the global price to go up. This agreement is addressed below.

[21] Kuznetsov, Nikolai. "Russia's Energy Sector Set To Thrive In 2017." Forbes. January 23, 2017. Accessed April 16, 2017. https://www.forbes.com/sites/nikolaikuznetsov/2017/01/11/russias-energy-sector-could-thrive-in-2017/#1cd3bf9a9595.

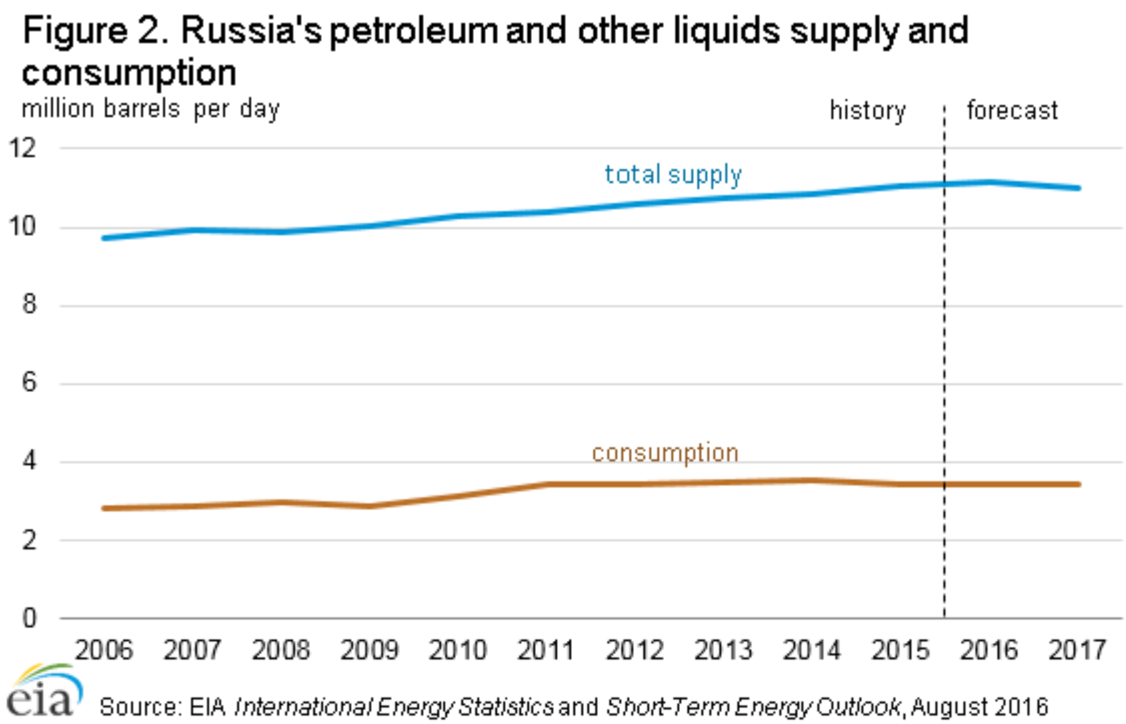
Source: http://www.tradingeconomics.com/russia/crude-oil-production Accessed April 01, 2017

Putin's Diplomacy

Putin has been working on strengthening diplomatic ties with many of the petrol-states of the Middle East, the growing Asian markets, and perhaps even the US. In December of 2016, Putin visited Japan for two days to cement various economic deals with the country. Twenty-three of fifty deals made were energy based. These deals will germinate into increasing development of oil and natural gas projects in both countries. Japan and Russia believe this to create flows of money in the billions of dollars between in the traditional energy market. However, this move to increase production of the oil and natural gas sectors could also benefit the clean energy market. If Russia makes increased profits from this deal, it could push Russia into looking for alternative sources of clean energy to protect the future of its energy sector from the volatile oil market. More investment into clean energy seems to be what Putin is focused on for 2017 when he said this, the "[e]nvironment has been and of course will be a key element of our work as part of our domestic policy … Russia, as it is known, took on rigorous commitments [Paris Agreement on climate change] and I have no doubt that we will fulfill them." [22] In addition to its dealings with Japan, Russia has made big moves diplomatically with other countries. The Qatar Investment Authority (QIA) and Glencore purchased 19.5% of Russia's Rosneft bringing around $10 billion to the Russian economy.[22] This is the largest privatization of the Russian oil sector in years but is still owned and operated by the Russian government. If this investment like this continues into the Russian energy sector, the nation could experience an energy boom. With Putin's commitment to clean energy in 2017, Russia may see a growth in the clean energy sector as well. Perhaps Russia and the US will also develop economic ties with President Trump being committed to work with President Putin. Russia could benefit greatly if the sanctions imposed by President Obama were lifted. It seems that Russia is winning diplomatically lately and seeking a better alternative to the volatile oil market.

It is surprising that a country with such a massive amount of oil and natural gas reserves has named 2017 as a "Year of the Environment." Russia will use its oil reserves to fund more research and development to limit their carbon footprint. At the same time, oil production is starting to be scaled back to cut down greenhouse gases even more. Russia also hopes to limit its reliance on dirty energy sources so its tax revenue is not cut into so much from fluctuations in oil prices, which the country can't entirely control.

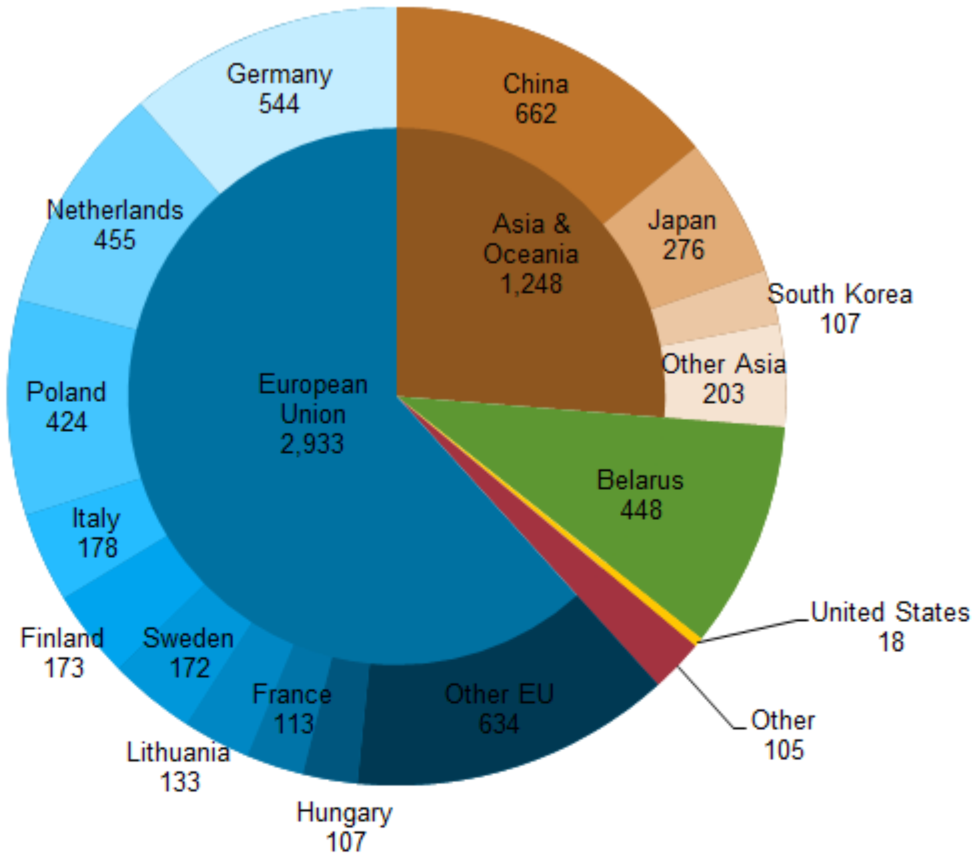
[22] Gloystein, Henning. "OPEC, Russia spare Asia oil supply cuts in fight to hold market share." Reuters. February 02, 2017. Accessed April 16, 2017. http://www.reuters.com/article/us-asia-oil-idUSKBN15H0GA.



Source: http://www.eurasiareview.com/27102016-russia-energy-profile-largest-producer-of-crude-oil-analysis/ April 19, 2017

Russia needs to work on diversifying its economy to prevent another oil scare such as late in 2014 when oil prices plummeted. The large amount of natural resources Russia possesses have always played a huge role in funding the Soviet and now Russian governments. Yet, Russia needs a gamechanger. It needs a new source of tax revenue which can supplement the traditional energy production tax revenue. Russia's commitment to clean energy seems to be the first steps into finding an alternative. The fledgling clean energy market still requires much research to become more efficient than other forms of energy production. Russia can't possibly expect to sell renewable energy on the same scale of oil or natural gas within the near future. While investment in clean energy is good for the environment, it isn't good for the Russian coffers currently. Since Russia cannot obtain more natural resources without taking over some more territory, Russia must rely on diplomacy. Establishing hubs in different parts of the world which can export oil and gas would create an advantage for Russia. One, transportation costs would be lower, especially if hubs were set up in Northern Africa or the Middle East. This would allow access to the EU without going through tumultuous Ukraine. Two, securing a larger market share of the oil and gas market means more price setting power. Putin has had a difficult time in the past few years in the diplomacy department due to its annexation of Crimea and the conflict in the Ukraine (the rationale and effect of Western sanctions on Russia are discussed below). However, with Putin’s dealings in Japan and the Middle East, it seems he is trying to expand Russia’s economic influence outside of the country and draw in foreign investment. Until Russia finds its game-changing commodity, it should rely on its relationships with other nations to keep the nation competitive on the international level. Here is a pie chart representing crude oil exports from Russia to other nations in 2014.

Figure 3. Russia's crude oil and condensate exports by destination, 2014



Source: U.S. Energy Information Administration based on Federal Customs Service of Russia and reporting countries' import statistics, Global Trade Information Service

Source: http://www.eurasiareview.com/28072015-russia-energy-profile-worlds-largest-producer-of-crude-oil-analysis/ Accessed April 03, 2017

Economic Diversification

For years, Russia has been trying to diversify its economy. Putin has talked of economic diversification since coming into office.[23] Despite Putin's remarks, little to no diversification has occurred until recently. This has been due mostly to Russia being a

[23] Herspring, D. R. (2007). Putins Russia: past imperfect, future uncertain. Lanham: Rowman & Littlefield.

resource rich country. With vast oil reserves and the price of oil steadily increasing until 2014, Russia continued to build its oil infrastructure. Taking advantage of the high oil prices helped fuel Russia's amazing growth and limited the impacts of the 2008 world financial crisis. During the Medvedev presidential years (2008-2012), economic diversification was the center of the president's policy. Russia realized the reliance on oil exports would not be sustainable due to demand for oil decreasing worldwide as technology increased. However, with the collapse of oil prices during the end of 2014, Russia's economic diversification became a necessity rather than a goal. Sectors such as media, banking, retail, and consumer goods have increased signaling steps towards economic diversification. Expansion of these sectors has been a move away from resource collecting and exporting. This is important for Russia because resource collection can end due to exhaustion of a resource or high costs of collection. Service sectors instead stimulate the domestic economy and draw foreign investment with the guarantee of the continuation of the industries. The diversification of the economy has been slow.

Medvedev's economic policy slogan "Forward Russia" was used throughout his time in office. However, the saying carried little applicability in the market.[24] With the continuity of turbulence in the oil market, it became clear the diversification in the form of macro-economic policy changes was needed. "'It was a mistake to rely so much on oil and gas over the past 10 years as this has resulted in the ruble strengthening to the

[24] Dmitry Medvedev's Article, Go Russia! (2009, September 10). Retrieved May 27, 2017, from http://en.kremlin.ru/events/president/news/5413

point it disrupted other industries,' said Finance Minister Anton Siluanov." [25] Despite this perception, Russia's economic growth model has changed little. Russian economic growth is still heavily reliant on natural resources and energy such as oil. This has been primarily to the prevalence of state owned or quasi-state companies in the market. The private market remains weak and the state controlled companies enjoy informal relationships with the state that benefit them economically. The government announced four privatization efforts in the last decade. Those in 2007, 2009, and 2012 were never implemented. Some privatization has occurred with Rosneft in the past year, yet it remains a strongly state controlled entity. Over-reliance on energy profits has not led to a steady inflow of investment and technological advancement. Medvedev attempted to fix the problem with the creation of the Skolkovo high-tech innovation center. Putin launched the NTI (National Technology Initiative) 2014 which was a state sponsored program aimed at strengthening Russia technologically.[26] Despite these moves by the state to build the private market, state run companies like Rosneft still dominate the market and provide the Kremlin with most its tax revenue. Diversification of the Russian economy has failed throughout the Putin era, but with the drastic changes of world oil prices it has become a necessity in today's economic climate. With a focus on market privatization, economic diversification will occur naturally as new industries can prosper without state-run oligarchs controlling an entire industry.

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[25] Gregory, Paul Roderick. "Russia's Economic Stagnation." National Review. November 23, 2015. Accessed April 16, 2017. http://www.nationalreview.com/article/427481/russias-economic-stagnation.

[26] Adelaja, T. (2016, August 16). Why Russia fails to cope with 'resource curse' Retrieved May 27, 2017, from http://www.russia-direct.org/analysis/why-russia-fails-cope-resource-curse

Corruption

Corruption is Russia has always played a big role in impeding the economic well-being of the country.[27] This gets in the way of business development as well as investment. Business suffers from inconsistent application of laws and lack of transparency, which increases the cost of doing business. Natural market competition is limited due to the proliferation of corruption through all levels of the Russian economy. While Russia claims to be fighting corruption as seen with the Russian Federal Anti-Corruption Law, pervasive corruption persists.

This problem is evident for any company dealing with the Russian judicial system. Corruption in the courts include; bribery, fabrication of evidence, or influence from Russia's political actors. High profile and politically sensitive cases are especially influenced by corruption, despite Russia's courts being a separate entity from the other branches of government. Laws and decrees are also constantly changing in Russia which can change the outcome of any govern court case.[27] Foreign companies are often advised to include foreign arbitration clauses in their contracts to limit the role of the Russian legal system.

> In a recent retrial, and perhaps one of the most illustrative cases of political influence over the courts, the prominent opposition leader and potential 2018 presidential candidate, Alexei Navalny, was handed down a five-year suspended prison sentence for embezzlement by a provincial court in Kirov. The conviction effectively bars Navalvy from running in the 2018 presidential election. Navalvy was initially sentenced in 2013 in connection with allegations that he had embezzled USD 502,700 worth of timber from the state-owned company Kirovles. However, Navalny appealed

[27] Gan. "Russia Corruption Report." GANBACP. Accessed May 01, 2017. http://www.business-anti-corruption.com/country-profiles/russia.

> the sentence, and following a ruling issued by the European Court of Human Rights describing Navalny's trial as unfair, the Russian's Supreme Court overturned the conviction in 2016 and sent it back to Kirov for retrial (OCCRP, Feb. 2017, Russia News Agency, Feb. 2017).[27]

This case shows the how Russia uses its legal system as a way of fulfilling its political goals. Cases like these deter foreign investment and business and Russia, thus impeding growth. Unfortunately for Russia, corruption such as this pervades into every level of its society including but not limited to police, public services, tax administration, public procurement, and of course, natural resources. Businesses are much more likely to be successful if they have a favorable relationship with governmental officials or if they agree to pay bribes. Russia currently ranks 45/176 in corruption according to *Transparency International*, the global coalition against corruption.[28] Corruption impedes economic growth by driving out foreign investment and favoring oligarchs. It is easier to extralegal activities to circumvent the law if your company owns a lion's share of the market.

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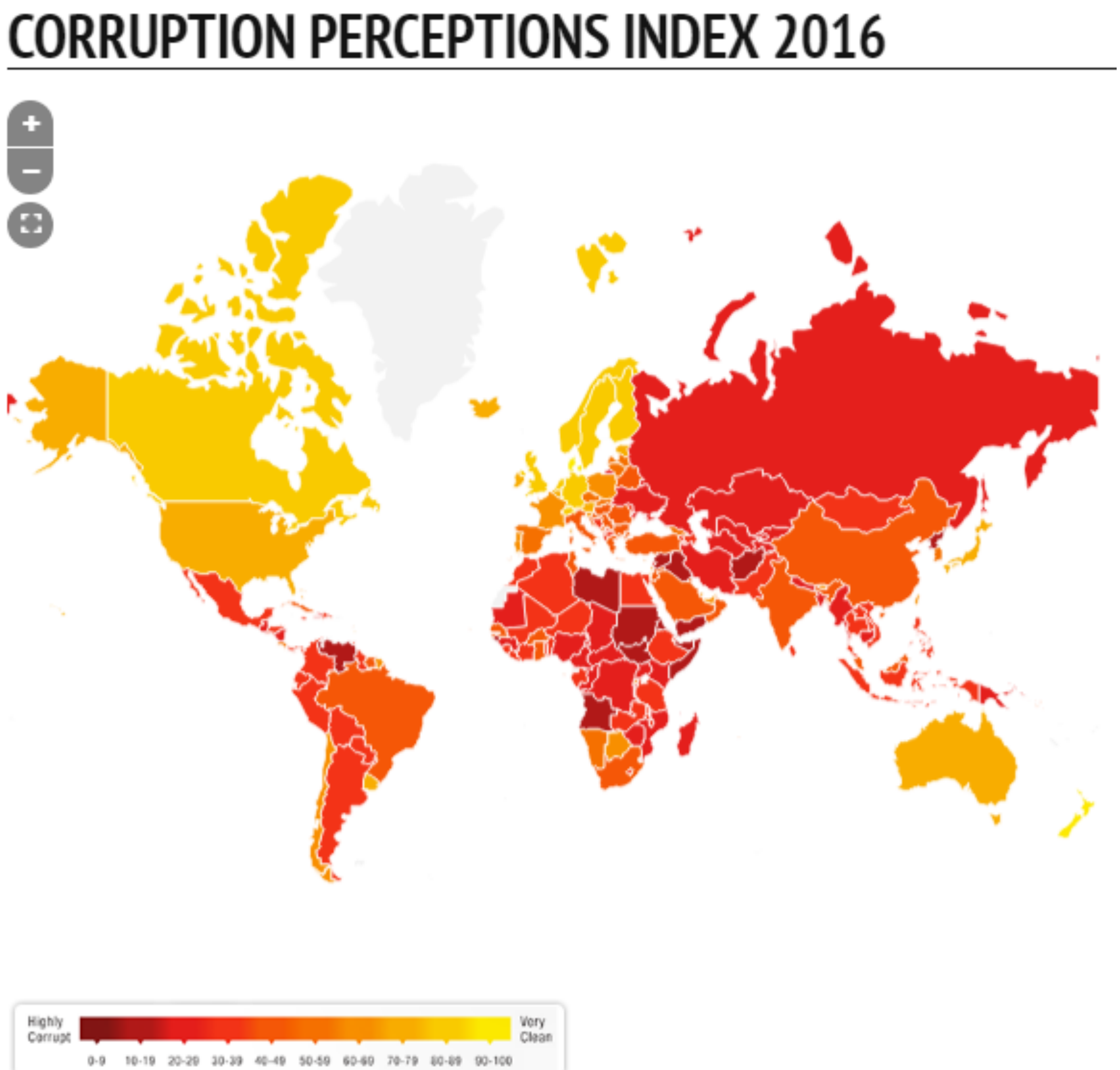
[28] E.V., Transparency International. "Corruption Perceptions Index 2016." Www.transparency.org. Accessed May 01, 2017. http://www.transparency.org/news/feature/corruption_perceptions_index_2016.



Soucre: http://www.transparency.org/news/feature/corruption_perceptions_index_2016 Accessed May 01, 2017

VI. Russia and Europe

Europe is highly dependent on Russian oil. Russia is by far the largest supplier of oil to the EU. Rosneft alone supplies the market with 20% of its oil with other companies in Russia such as Lukoil still making up a large amount of Europe's crude imports (about a third in total). Despite relations between Russia and the EU remaining rocky, dependence on Russia oil continues to rise.[29] However, the demand for Russian oil in Europe may soon change. Around two-thirds of demand for oil in the EU is used for transport. Transportation is the biggest driver for demand of oil in Europe as well as the biggest producer of CO_2 and greenhouse gases. So, for the EU to reduce its energy dependence on Russian oil and reduce GHG emissions, it seems reducing use of oil in the transportation sector is the answer. Reduction of oil use would reduce Europe's carbon footprint while eliminating Putin's ability to take away one their most important commodities. The countries on the periphery of Europe, closer to the Middle East or Russia, are more reliant on Russian oil imports. This is primarily due to ease of access and more diversification of oil suppliers in other countries. Europe is interested in reducing reliance on Russian crude and has come up with a strategy to achieve this goal.

"According to T&E, the European Commission 'is preparing a strategy for decarbonising transport, expected later this summer.' It recommends that this study include:

New CO2 standards for new cars, vans and trucks for 2025:

- an integrated strategy to accelerate the electrification of transport that embraces mobility needs
- a strategy to increase the potential of emobility balancing smart, renewable grids
- an industrial policy that supports the shift to electric vehicles
- committing to go beyond global action in tackling CO2 emissions and oil use of aviation and shipping"[29]

Europe is Russia's largest buyer for oil exports. Any reduction in demand for Russian oil in the European market will greatly reduce sales and thus tax revenue. A plan to make Europe more green could have disastrous effects for Russia. Unfortunately, Russia has little to no choice in the matter. Putin has already declared 2017 as a "Year

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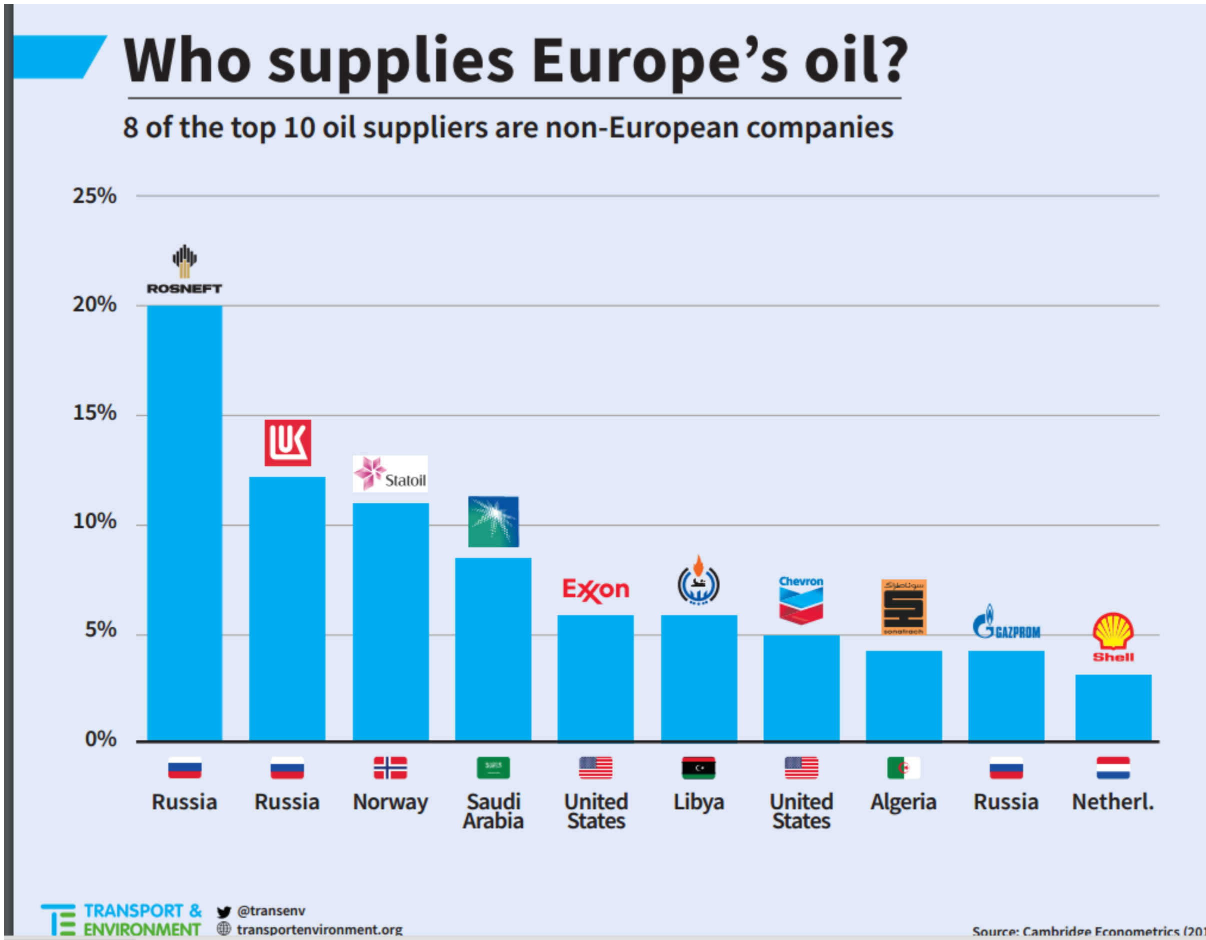
[29] Post, About Energy. "Europe increasingly dependent on (Russian) oil imports." EnergyPost.eu. July 19, 2016. Accessed April 16, 2017. http://energypost.eu/europe-increasingly-dependent-oil-imports-russia/.

for the Environment" so speaking out against Europe's intentions could cripple him diplomatically. Putin also cannot cut production to increase price as demand lowers because other countries, most notably OPEC, would pick up the slack. Oil sales are one of the few things keeping Russia afloat due to the low oil prices. It seems that Russia must find a different commodity to sell, with European demand expecting to decline. In the meantime, Russia will continue to produce oil and supply Europe throughout this process. Perhaps Russia will figure out another form of tax revenue not based off the sales of crude within the next few decades. Until then, Russia's long-term strategy of securing various reserves around the world will likely continue.

Imports of Russian Crude Oil

Souce: http://energypost.eu/europe-increasingly-dependent-oil-imports-russia/ Accesed May 25, 2017



Source: http://energypost.eu/europe-increasingly-dependent-oil-imports-russia/ Accessed May 25, 2017

VII. Putin and the US

US Sanctions

What have the sanctions imposed by Obama in 2014 meant for the Russia economy? [30] With these sanctions, the value of the ruble dropped dramatically. The value of the ruble reached a low point in January of 2016 at 1.2 cents per ruble, or a 57 percent drop in value prior to the sanctions. Since this time, the ruble has steadily

[30] "U.S. sanctions alone didn't crush Russian economy." @politifact. Accessed April 16, 2017. http://www.politifact.com/punditfact/statements/2017/feb/21/anthony-tata/how-have-sanctions-impacted-russias-economy/.

regained value reaching 1.7 cents per ruble or 40 percent of its former value. The strengthening of the US dollar, increase in monetary policy, and sanctions all caused the ruble to crash. It seems that the ruble is on a steady path to recovery which is closely tied to world oil prices inching their way up. “Russia’s GDP was $2.053 trillion (in U.S. dollars) in 2014, according to the World Bank, dropping to $1.331 trillion in 2015 — a drop of about 35 percent…. Adjusted for inflation, however, the drop was more like 3.7 percent because of the struggling ruble.”[30] With careful money manipulation, Russia limited the disastrous effects of the sanctions. These sanctions targeted Russian industries which were key to its tax revenue, such as the oil industry. This massively limited foreign investment which starved the oil market in conjunction with low oil prices. The sanctions didn’t specifically target the oil market, but rather all foreign investment and exports. However, since Russia relies so heavily on Rosneft, it seemed this was the intent. Putin’s work to establish foreign investment without the US seems to be his way of making up for the revenue lost by these sanctions. Most of the impact of the sanctions was felt through the closure of the European market to Russia. The energy interdependency between Russia and Europe is discussed in greater breadth earlier.

Putin and Trump

Putin worked with the US to develop a $500 billion oil exploration deal between Rosneft and Exxon-Mobil.[31] This deal was previously blocked by the Obama administration's sanctions. The sanctions, put on Russia due to its involvement in the Ukraine, were loosened on February 2nd. Exxon-Mobil CEO and now Secretary of State Rex Tillerson worked hand and hand with Putin to foster this deal. This has led to rumors of Russian involvement in a Trump presidency, which would allegedly lead to Rex Tillerson's appointment. Regardless, Russia's oil market seems to be ballooning due to foreign investment. The idea of this deal was originally introduced in 2012 and scheduled for implementation in 2016-2017.[32] The exploration was proposed to take place in the Arctic and Black Sea. With a projected 85 million barrels of oil in these reserves, this deal could mean huge profits for both ExxonMobil and Rosneft. However, relations with Russia have only continued to sour thus far.

A key factor in determining the future of Russia's oil market is how relations between the US and Russia will change with a Trump presidency. US presidents typically go into office promising to work with Russia in a way which will be in line with US interests. However, Obama was backed into a corner with the Russianll annexation of Crimea and chose to impose sanctions to punish Russia for its actions. Obama had to do something to appear strong in the international community without launching into a

[31] McKenzie, Sheena. "Russia gives US cold shoulder, saying relations between countries 'frozen'" CNN. December 22, 2016. Accessed April 16, 2017. http://www.cnn.com/2016/12/22/europe/russia-us-relations-frozen/.
[32] Busvine, Douglas, and Vladimir Soldatkin. "Exxon, Rosneft unveil $500 billion offshore venture." Reuters. April 18, 2012. Accessed April 16, 2017. http://www.reuters.com/article/us-exxon-rosneft-idUSBRE83H0UE20120418.

conflict with Russia. This move caused relations between the White House and Kremlin to sour for the remainder of Obama's presidency. "Nearly all levels of our dialogue (with the US) has been frozen," Kremlin spokesman Dmitry Peskov said in an interview Wednesday (Dec. 21, 2016) with Russian state-run news agency RIA Novosti."[31] With little to no communication, relations can only expect to improve with Trump in office. However, as of April 2017 both the US and Russia are once again giving each other the cold shoulder.

VII. Russia and the Middle East

Turkey

Turkey and Russia have always had a strained relationship. Despite this, Russia supplies Turkey with around three quarters of its natural gas. In 2015, Turkey shot down a Russian warplane and their relations quickly soured.[33] Russia responded by cancelling their plans to build a 900km long natural gas pipeline known as TurkStream. TurkStream is a dual pipeline project intended to serve the Turkish market as well as southern Europe. The first part of the pipeline will meet Turkey's energy needs and the other will serve as a conduit to the south of Europe. In late 2016, Putin and Turkish President Recep Tayyip Erodgan appeared to make amends and signed the agreement of TurkStream. The pipeline is scheduled to be up and operational by the end of 2019. While Turkey and Russia already have extensive energy relations with the Blue Stream

[33] Turkey's downing of Russian warplane - what we know. (2015, December 01). Retrieved May 27, 2017, from http://www.bbc.com/news/world-middle-east-34912581

and West Line, TurkStream is expected to bring the countries closer in trade and politics. Turkey is second largest importer of Russian natural gas after Germany.[34]

One of the major drivers behind building this pipeline is to limit Russia's dependence on exports to the EU through Ukraine. This route of natural gas accounts for around 40% of Russia's natural gas exports to Europe. Putin and Erodgan have also agreed upon a discount for Turkey's natural gas through Gazprom, the world's largest gas producer. The discount agreed upon prior to the cancellation of the original deal was 10.25% to Turkey's state-run energy company, Botas Boru Hatlari Ile Petrol Tasima AS. "'The deal is a piece of the puzzle in reducing transit dependence on Ukraine, but does not represent a major coup for Gazprom in terms of European market access,' said Emily Stromquist, a London-based analyst at Eurasia Group, in an e-mail. 'This pipeline is a reroute option.'"[35] The goal for Russia here is to give Gazprom a way to circumvent the unstable political situation in Ukraine by building its energy infrastructure into the Middle East. In addition, creating an interdependent energy structure between Turkey and Russia will help build relations between the two nations. This is much needed after relations have once again begun to sour due to Russia's involvement in Syria. However, many countries including Russia are aware that peace between other countries is imperative to ensure energy exports and imports. The question is not of the morality of

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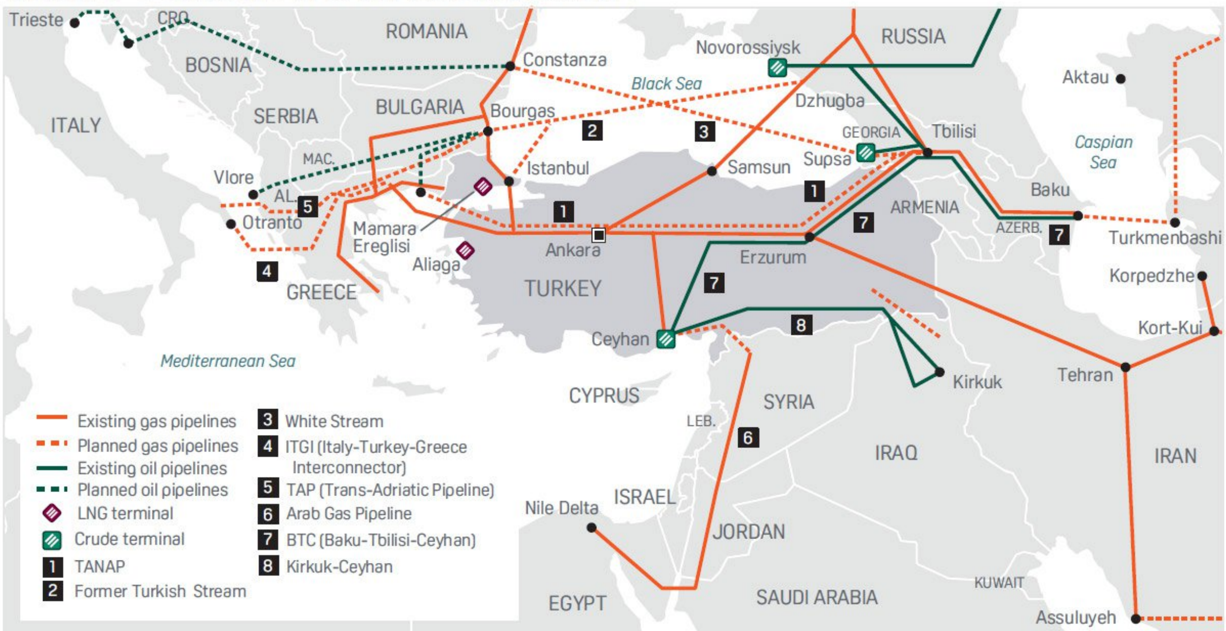
[34] Судаков, Дмитрий. "A key project drawing Russia and Turkey nigh: The Turkish Stream." PravdaReport. April 11, 2017. Accessed May 01, 2017. http://www.pravdareport.com/opinion/columnists/11-04-2017/137447-turkish_stream-0/.

[35] Mazneva, Elena, Stepan Kravchenko, and Kelly Gilblom. "Russia, Turkey Agree to Build Gas Pipeline Under Black Sea." Bloomberg.com. October 10, 2016. Accessed May 01, 2017. https://www.bloomberg.com/news/articles/2016-10-10/russia-turkey-agree-to-build-gas-pipeline-under-black-sea.

engaging in conflict with another nation but rather what the economic blowback will be. As we have seen with Russia's involvement with Syria, morality goes out the window when considering all the profits to be made. Profits made in the long run if Russia can secure Syria and build a new pipeline.

TURKEY'S OIL AND GAS INFRASTRUCTURE



Source: Platts

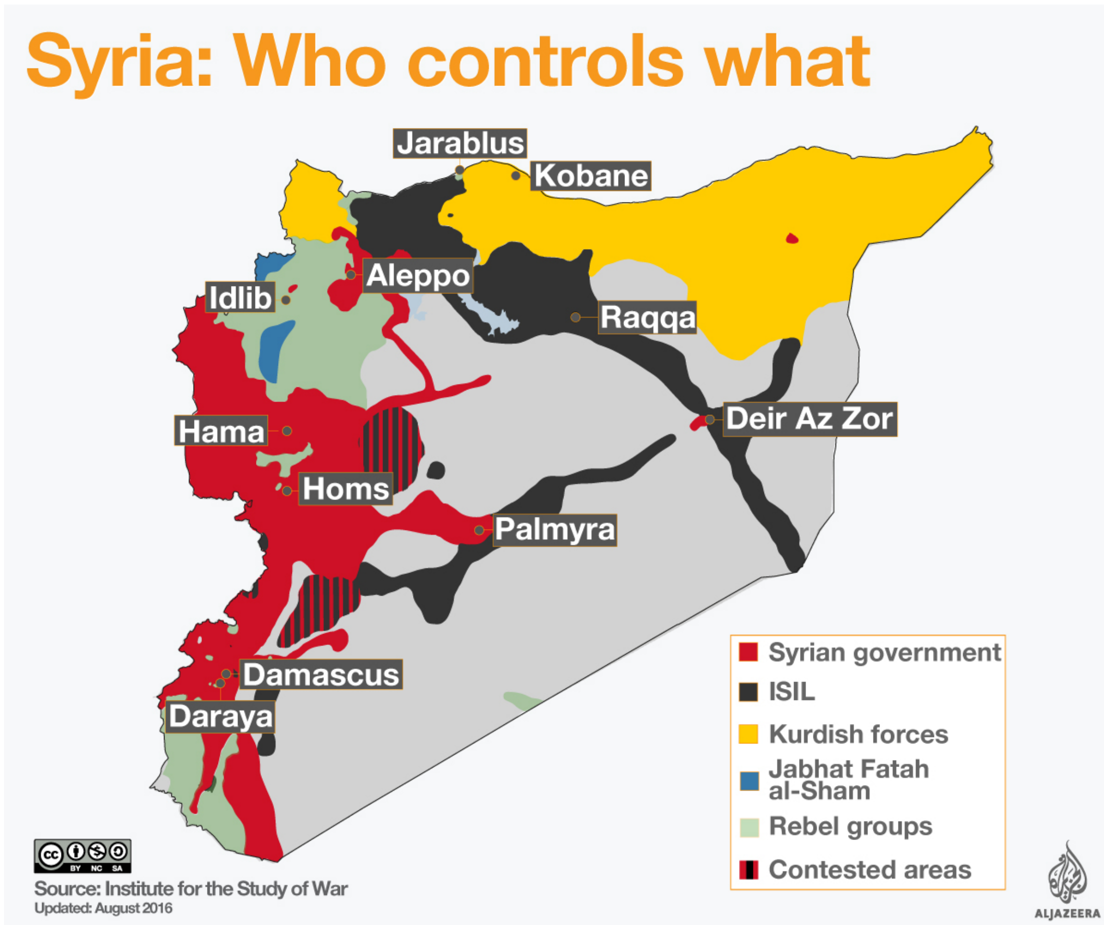
Source: http://themarketmogul.com/erdogans-victory-oil-markets/ Accessed May 01, 2017.

Syria

Russia's influence in the Middle East and Northern Africa has increased steadily since the drop of oil prices in 2014. Russia oil companies and Arab conglomerates have made several oil deals. Since energy is central to Russia's foreign policy interests, it isn't surprising Russia has turned to some of the oil rich nations of the Middle East. Putin has used the massive state run oil companies Rosneft and Lukoil to make significant political opportunities in a region where new fossil fuel reserves are being proven. Russia's involvement in Syria has guaranteed the continuation of President Bashar Al Assad's regime despite the country's ongoing rebellion. This was due to careful political maneuvering on Putin's part coupled with military intervention. Putin and Assad have developed a close relationship with one another. The relationship is broadcasted to the media as an anti-terrorist agenda aimed at stopping ISIL. This is partially true. Putin does have an interest in eliminating political instability in Syria. As the conflict continues, more of Syria's oil infrastructure is destroyed. Putin is taking a gamble on Syria with the goal of eliminating ISIL in hopes of new profits from future Russian investment into Syria's debilitated energy industry. These profits also mean increased tax revenue for Russia, lowering the deficit. Syria has little to do with other nations in terms of involvement of oil and natural gas companies. In fact, when questioned about the reason for this "Assad told a visiting Russian delegation of lawmakers this week that neither Iran nor China has companies with a worldwide reputation in the oil and gas sector like Russia has. Therefore, Assad 'sees only the work of Russian companies'"[36] Of course, this is due to Putin keeping Assad in power and paying Putin back. Putin is also interested in the possibility of creating yet another pipeline through the country to

[36] Calcuttawala, Zainab. "How Russia Is Using Oil Deals To Secure Its Influence In The Middle East." OilPrice.com. February 26, 2017. Accessed April 16, 2017. http://oilprice.com/Energy/Energy-General/How-Russia-Is-Using-Oil-Deals-To-Secure-Its-Influence-In-The-Middle-East.html.

reach Southern European markets. Syria is not the only country in the region which Russia has entered in hopes of securing more crude.



Source: http://www.aljazeera.com/indepth/interactive/2015/05/syria-country-divided-150529144229467.html Accessed 4/19/17

Egypt

Rosneft has also had dealings in Egypt recently. Two years ago, Rosneft signed two deals to supply liquefied natural gas and other petroleum products in the capital city of Cairo. Russia then doubled its energy investments in the country with a $25 billion investment to build a new 1200MW nuclear power plant over the next twelve years. The loan financed by Russia will incur a 3% interest rate annually for the next 35 years. This will result in a $26.25 billion profit in today's dollars over the lifespan of the loan.[37] The plant will be the first nuclear power plant for Egypt. In addition, the energy will be relatively clean. One of the primary concerns with building a nuclear power plant is possibility of a meltdown like that of the Fukushima or Chernobyl meltdowns which killed thousands in Japan and the USSR (Ukraine), respectively. Nuclear meltdowns also destroy the land making it inhabitable for decades, until the residual radiation decays. Also, those who survived a nuclear meltdown were maimed or suffered radiation poisoning. Radiation poisoning has also caused subsequent generations to be born with birth defects, many of which can still be seen to this day.

Despite the high risks, the benefits of nuclear power are hard to ignore. In the aggregate, nuclear power plants are reasonably safe if proper protocol and procedures are followed. Either way, Russia doesn't have to worry about the potential drawbacks of a nuclear meltdown in this plant because it is not even in their country. Assuming the plant did meltdown, it would cost Russia billions in investment and reparations but they would not incur the environmental or health costs in their own population. Russia's investment for this plant comes at an opportune time for both Egypt and Russia. "'The NPP (Nuclear Power Plant) construction project in El Dabaa near Alexandria is important in itself and it is a much more significant project in positive terms than return of Russian tourists to Egypt,' Egyptian Professor and energy strategist Tarek Heggy said in an

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[37] Russia to lend Egypt $25 billion to build nuclear power plant. (2016, May 19). Retrieved May 27, 2017, from http://www.reuters.com/article/us-egypt-russia-nuclear-idUSKCN0YA1G5

interview w0ith TASS this week. 'The Mediterranean gas will be enough to cover national demand for the next 30-35 years; therefore it is highly important to start building the NPP now in order to provide ourselves with electric power after that.'"[29] This guarantees a future for Russian profits from their energy sector without relying on external factors such as the world price of oil. Also, if the Mediterranean gas does run out within the next forty years, demand and this price will go up for Russian nuclear power in the area. Egypt has an interest in maintaining energy sustainability for its future, which explains why they are allowing this nuclear plant to be built. Egypt wants to have energy independence if possible, and not rely on the unpredictable oil and gas market. In such an unpredictable region of the world, Egypt wants to make sure that its supply of energy is not cut off by an external actor.

Iran

Iran got relief from US and EU sanctions after promising to scale back their nuclear research program. This has led to some political actors to invest in the Iranian energy sector. Putin has been meeting with Iranian President Hassan Rouhani for what media can only speculate as an alliance between the two energy giants. This alliance between these two nations could germinate in several ways. One dynamic of this relationship will deal with developing Iranian nuclear power plants.

> Russian experts will help the Atomic Energy Organization of Iran (AEOI) construct two new nuclear power plants in the country's southern city of Bushehr, according to Iran's Energy Minister Hamid Chitchian. *'The contract has been signed between the AEOI and Russia, and*

includes building two 1,000-megawatt nuclear power plants, the construction of which is about to start (4/20/17),' said Chitchian [38]

Russia is pursuing a similar strategy to that which they have done in Egypt. The project is expected to take about ten years costing $10 billion over the course of the process.[39] Iran's energy sector is not only benefiting in terms of nuclear power. Oil and natural gas sectors are also projected to see growth. Rosneft is expected to resurrect a 2014 deal in which Russia would purchase 500,000 barrels of oil per day from Iran in exchange for Russian goods, including Russian weapons. This would give Russia increased tax revenue via the transportation tax and help grow Iran's sanction damaged oil sector. The deal is not cemented but could raise the Russian-Iranian trade to $20 billion per year. In the natural gas industry, Gazprom signed a deal with the Iran Natural Gas Co. to expand hydrocarbon prospecting, exploration, and production. This translates into substantial investment into Iran to build the natural gas infrastructure. All three of these moves by the Russian political actors are possible due to Iran's alienation from the rest of the world for the past decade. With Russian energy know-how, Iran could benefit from in inflow of better energy technology and scientific knowledge. Russia also is setting itself up to supply cheaper energy for the future as oil becomes less cost effective due to lack of demand and oversupply. The goal seems to be to stabilize this region of the world by building energy infrastructure in a resource rich region lacking capital and autonomy. For Russia, satisfying various countries' energy

[38] "Russia to build 2 nuclear power plants in Iran." RT International. Accessed May 01, 2017. https://www.rt.com/business/385394-russia-iran-nuclear-power-plants/.

[39] Russia to lend Egypt $25 billion to build nuclear power plant. (2016, May 19). Retrieved May 27, 2017, from http://www.reuters.com/article/us-egypt-russia-nuclear-idUSKCN0YA1G5

needs such as Iran benefits Russia by giving the country a series of interdependent allies focused on eliminating the Islamic State (ISIL). Throughout this process, Russian energy moguls will enjoy profits and the Russian Treasury will enjoy more tax revenue.[40]

Qatar

Last year, the Qatari sovereign wealth commodities trader Glencore purchased a minority stake in Rosneft. Since investment has kept Rosneft afloat these past few years, this purchase was encouraged by the Russians. However, US officials were unsure whether this violated the sanctions. Russia argued that since the $11.3 billion didn't profit Rosneft directly, but rather the Russian government, there was no violation of the international sanctions. The sanctions named Rosneft and Lukoil specifically. However, no decision on the US's part has been made if this truly is a violation of the sanctions. With Obama gone, Trump will likely not invest his time in making this determination. Rather, he would focus on improving relations with Putin and easing the sanctions. Besides, investment in Russia's state run oil companies would benefit Trump more by stabilizing Russia's economy and having one less thing to blame the West for.

Libya

Russia has also entered Iraqi and Libyan markets which have experienced weak domestic policy in previous years due to civil strife. Both markets are crying for investment into their oil and natural gas markets. "'We need the assistance and

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[40] "Russia and Iran set to strike $10bn energy deal." RT International. Accessed May 01, 2017. https://www.rt.com/business/155404-russia-iran-energy-deal/.

investment of major international oil companies to reach our production goals and stabilize our economy,' NOC (National Oil Corporation) Chairman Mustafa Sanalla said." The NOC accounts for around 70% of Libya's oil production. Libya possesses Africa's largest oil reserves. Libya currently produces around 700,000 barrels of oil per day, but was producing 1.6 million barrels a day before the revolt in 2011. When the fighting broke out, investors withdrew leaving the NOC without the necessary capital to continue such a high level of production.[41] Rosneft hopes to increase Libya's oil production to 2.1 million barrels a day by 2020. To do this, Rosneft has agreed to buy oil from the NOC and encourage foreign investment to provide the market with the capital it so desperately needs. OPEC (Organization of Petroleum Exporting Countries) and Russia agreed to limit crude oil output to 1.8 million barrels per day on Jan. 1st to increase world oil prices. However, Libya can exceed this output to restore and expand its oil industry in lieu of years of conflict. Rosneft plans to use this expansion of production to send more oil into the European market.

Iraqi Kurds

Rosneft has also been working closely with the Kurdistan Regional Government. The Kurds have dealt with distribution problems in the past and still are. Rosneft believes they can solve this distribution problem. The company released this statement; "Rosneft will be 'developing new markets worldwide for Kurdish crude oil,' Chief

[41] "Rosneft Expands in Middle East With Libya and Iraq Oil Deals." Bloomberg.com. February 21, 2017. Accessed April 16, 2017. https://www.bloomberg.com/news/articles/2017-02-21/rosneft-signs-libya-oil-deal-as-more-investors-return-to-country.

Executive Officer Igor Sechin said in the company's statement. 'The offtake and supply of Kurdish crude oil into Rosneft's expanding worldwide refining system will further contribute to the increase in its effectiveness.'"[42] Handling the Kurdistan Regional Government's oil distribution issue will allow the Kurds to bypass potential political roadblocks in the capital of Iraq, Baghdad. Since Kurdistan is not recognized as a country, Iraq technically has control over the region. However, the Kurds have been operating more and more autonomously as of late. There have been disagreements between Baghdad and capital of the Kurdistan Regional Government, Erbil. One of which disagreements was regarding oil export contracts which has caused pipeline closures. With Russia as an ally, Kurdish oil can now circumvent the Iraqi government and find its way into new international markets. Putin has used this deal to ship more oil into Europe. Most Kurdish oil is shipped to refineries in Germany to supply one of Russian oil's biggest buyers, the EU. Putin is using the political weight of Russia to strong arm Iraq into allowing Kurdish oil to leave the country. This use of hard power won't result in any rebuttal on the part of Iraq because of the size of Russia's military compared to a destabilized country recovering from years of armed conflict. Iraq has little control over the semi-autonomous Kurds. The Kurds built their own pipeline in 2013 to transport their oil through Turkey and to Europe without the Iraqi government's position.[42] In addition, Rosneft announced it would study exploration and production

[42] Kaletovic, Damir. "OPEC Commitments Push Iraq Towards Oil Export Deal With Kurds." OilPrice.com. January 17, 2017. Accessed May 01, 2017. http://oilprice.com/Energy/Energy-General/OPEC-Commitments-Push-Iraq-Towards-Oil-Export-Deal-With-Kurds.html.

opportunities in the region. With Russian expansion into Kurdistan, Russia's oil production will increase. This will, without a doubt, increase profits of Rosneft.

Source: https://www.shutterstock.com/image-vector/kurdistan-map-152187830 Accessed 4/12/17

IX. The Growing Asian Market

Asia has been one of the fastest growing markets in past few years. With any rapid growth of a developing country in this time, industrialization and transportation play a crucial role in its expansion. Industrialization and transportation rely on fossil fuels, of which Russia has plenty. In recent years, OPEC and Russia have competed for the Asian market, most notably China. Due to economic stagnation of developed countries, countries such as China have been the main source of an increase in global demand for the past two decades. The Middle East has exported the most oil to China for years. However, in 2016 the Russia passed OPEC in exports to China.[43] This was due primarily to a difference in prices on quality of crude. When OPEC and Russia agreed to scale back production to limit global oversupply, prices of Middle East crude benchmark rose. Benchmarks are used to denote a level of quality or variety of an oil and base a price off that. Properties of determining the oil's cost is by the relative volatility (high API gravity is more valuable), sweetness/sourness (low sulfur is more valuable) and transportation cost. Independent refiners in China began buying the Ural grade instead of paying for the more expensive Middle Eastern grade. Russia's exports to China jumped by 25% due to the differences in prices, making Russia the leading supplier of crude to China.[43] This was possible due to Chinese "teapot" refineries searching for cheaper crude. Russia was more than happy to supply these buyers Ural grade through their pipeline running through Kazakhstan. Yet, China still receives most its oil from the Gulf. OPEC had also been cutting the amount it exports to Asia due to scaling back of production. While OPEC had cut back shipments to the Asian market leading the year off, all orders are scheduled to be filled for March. OPEC has interest in keeping the lucrative Asian market, something Russia has also learned. Supply was diverted from the Americas and Europe but the Asian market was still flooded to take advantage of the profitability while supplementing further growth for the market. Even with the scale back of production global supply of oil still exceeds by about 600,000 barrels. However, the cuts with an expected demand increase of 1.6 million barrels per year will likely

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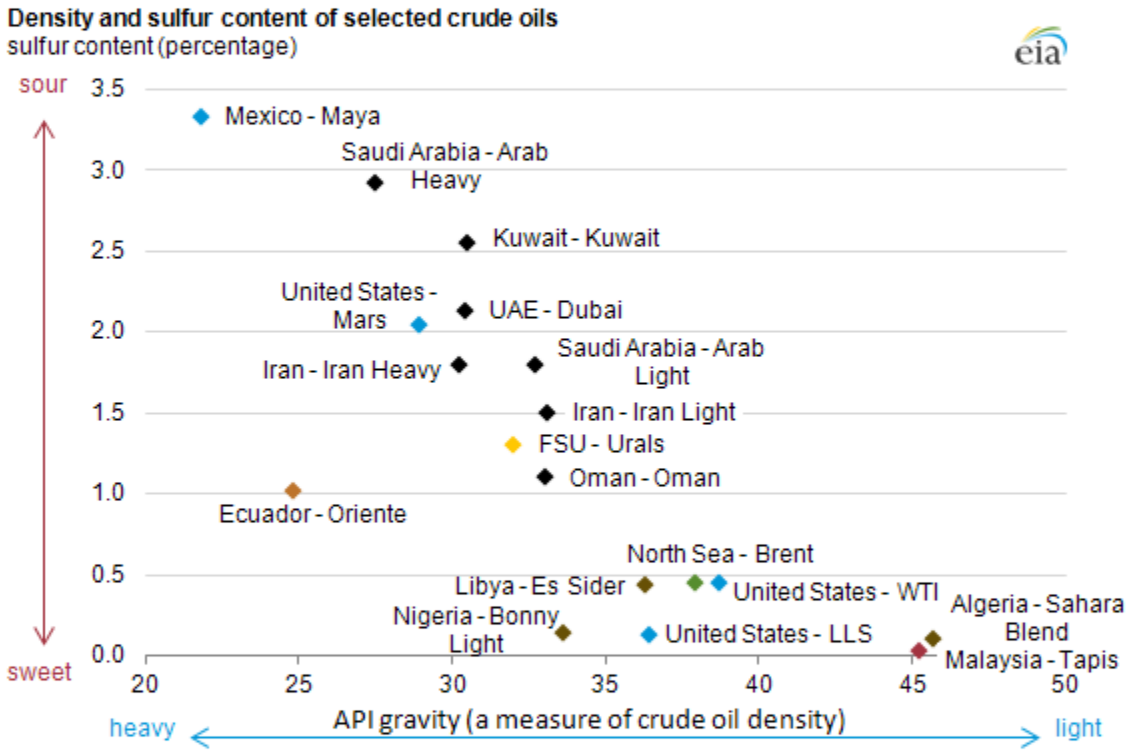
[43] Aizhu, Chen, and Meng Meng. "Russia beats Saudi Arabia as China's top crude oil supplier in 2016." Reuters. January 23, 2017. Accessed May 01, 2017. http://www.reuters.com/article/us-china-economy-trade-crude-idUSKBN1570VJ.

balance the global market this year. This will mean higher prices for Russia in a growing new market for its future.[44]



Source: https://www.eia.gov/todayinenergy/detail.php?id=7110 Accessed May 01, 2017

X. Conclusion

Putin has used his intimate involvement with various world leaders to invest in various countries, as discussed earlier, while also regulating foreign investment into the market directly. When analyzing the different ways in which Putin conducts foreign policy to benefit the Russian oil industry, two types of strategies appear: short term stabilization, and long term investment. Investments such those in Egypt's nuclear plant

[44] Paraskova, Tsvetana. "Russia Gains Upper Hand In Asian Oil War." OilPrice.com. February 19, 2017. Accessed April 16, 2017. http://oilprice.com/Energy/Energy-General/Russia-Gains-Upper-Hand-In-Asian-Oil-War.html.

and investment into Libya are all part of Russia's plan to maintain a source of energy to sell for the foreseeable future. Decreasing supply in conjunction with OPEC will also stabilize supply and demand globally. Even increasing supply to the Asian market guaranteed a buyer for Russia's crude for years to come. However, the Russian oil industry can't survive only in the long run. Hence the short run stabilization needed to make sure the industry doesn't go under while waiting for a better economic climate. In the short-term, Putin has sought: foreign investment, expansion of Russian oil into previously cost ineffective markets (China), increase of exports to established markets, and favorable relations with the US with the removal of the sanctions. These deals were orchestrated by the careful diplomacy on part of President Putin. With volatility of the world oil market, Russia has been playing the game of balancing the continuation of the Russian oil production and establishing dominance in the world market for years. Yet, Russia can't help but start to feel the pressures of being an oil state in a world with declining oil demand. Putin seems to be using short-term profits from current oil sales to finance other energy projects such as green energy domestically and nuclear plants in other nations. Putin is trying to ease Russia off its need to sell oil, while investing in technologies which will be more profitable and economically sustainable for the future. These efforts have been largely fruitless especially in terms of long-term growth prospects. Diversification of the Russian economy has not happened and their technology in this domain has not improved as much as it has elsewhere -- especially in the Western world, Russia's primary competitor in this and other regards. Russia must work to fight the large amount of corruption in its economy to diversify its economy and draw foreign investment. However, corruption has been used by the Putin administration to ensure political goals in the past. It seems that there will not be an end to the corruption which pervades the country and holds its economy hostage.

Economic diversification is difficult for a centrally planned economy to account for aspects of a free market while setting policy in a timely manner. For Russia, which has transitioned from a central planning model during the USSR to a quasi-market based economy, privatization has not taken any serious role in the domestic economy. Russia has relied on state controlled corporations to secure tax revenue. The issue here is that a state supported entity will always beat its domestic competition due to its relative size and support from the government. Privatization can't happen because the state is the majority stakeholder and uses this to pursue its own political goals.

Why then doesn't Russia just work on privatization to build its economy? There are several likely reasons. First, companies like Gazprom and Rosneft have only grown so large in part by state partnership. This has allowed the companies to remain solvent throughout the financial crisis from which Russia has been crawling out of since late-2014. Guaranteeing the continuation of Russia's biggest energy companies has allowed Russia to remain competitive in the energy sector while maintaining tax revenue. Second, Russia can use its majority holdings in Rosneft and Gazprom to pursue its own political agenda in foreign affairs. Russia can establish interdependent connections with other countries while guaranteeing political favors. This makes capital business ventures more likely to happen and effective. Russia pursues strategies of developing access to new engery reserves, meeting nations' energy consumption needs, building political stability, creating new transportation routes for energy resources, and developing diplomatic ties by using its state-run companies to accomplish these goals. This would not be possible with a several smaller companies fighting for supremacy in the industry due to lack of capital for foreign investment. Russia has realized it is more cost effective to use this method to ensure stability in a region to reap the benefits of trade, rather secure another country's resources by force. Third, corruption in all levels of the Russian government has impeded privatization by limiting competition among new companies and foreign investors. Those who help Putin pursue his political agenda, or have the funds to bribe government officials, are "the winners", while smaller companies lacking these abilities lose.

The key to Russia's economic diversification relies in privatizing its economy and eliminating barriers of entry for fledging enterprises. The issue is that no clear economic alternative has emerged which will ensure future economic development like the oil and natural gas sectors. Instead, Russia moves to diversify its own state run energy companies by expanding its infrastructure and investment into foreign countries. Nuclear investment could prove to be a game changer in the next 30 years by creating a sustainable solution as oil and natural gas reserves become exhausted or too costly to harvest. In the meantime, Russia will continue to build its oil and natural gas infrastructure to maintain growth in the short-term. This will also seek to create a trade system which is more stable due to the interdependence of the countries. Russia should take advantage of the trade with foreign countries, not only in the energy sector, but others in as well. As the world turns to green energy, Russia must find a way to not rely on oil and natural gas exports for economic growth. Instead, Putin must begin to focus privatization of the Russian economy first despite all the advantages of controlling two of the largest energy companies in the world. Russia will always need to maintain clout in energy exports, especially in the fastest growing market in the world, the Asian market. The goal should be to expand technological advancement to find Russia's niche' for the future of energy exports by using tax revenue from the contemporary energy industries. Another alternative would be to build better diplomatic relations with the West to purchase current technology, to replace the out of date technology of the Russian energy industry. However, diplomatic relations seem to be worsening between Russia and the West. Instead, Russia must pursue its own technological advancement if it ever wants to regain its place as a sustainable world power.

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XII. Author's Biography

Cody Watson was born in Bangor, Maine on April 5th, 1995. He went on to move to Greenville, Maine, graduating from Greenville High School as Salutatorian. Pursuing his love for politics, Cody continued his education at the University of Maine with a major in political science and minor in economics. He plans to pursue a J.D. degree in the fall of 2018.