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The Economic Impact of Lifting Sanctions on Iran: How the Joint Comprehensive Plan of Action Will Affect the Economy of Iran

Ryan Foley
College of the Holy Cross, rwfole17@g.holycross.edu

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The Economic Impact of Lifting Sanctions on Iran

How the Joint Comprehensive Plan of Action Will Affect the Economy of Iran

12/1/2015

Ryan Foley

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I. Introduction

Over the past year, one of the most polarizing issues on the global stage has been the nuclear deal which the United States and its European partners have negotiated with the Islamic Republic of Iran. There have been many different opinions on the deal with some contesting that the Western powers did not negotiate a strong enough contract with the Iranians and others believing that we should never have begun negotiations with Iran in the first place. As it now appears that the Joint Comprehensive Plan of Action will pass the United States Congress, we now must look beyond to understand the effects which this deal will have. One of the areas where this deal will have the biggest effect is on the domestic economy of Iran. For several years, the economy of Iran has been depressed because of their lack of access to international markets. While some, though not all of the sanctions, will be lifted, the Iranians will see a great deal of relief, particularly in the sanctions against their oil industry. The goal of this paper is to understand how the lifting of sanctions, combined with a number of other factors in the global community, will affect the economy of Iran.

This question has many different facets which must be taken into account in order to work towards a thorough analysis of the effect which the JCPOA will have on the economy of Iran. First, the effect which this agreement will have on the international oil market must be established. The global price for oil will change as a result of the influx of Iranian oil into the market. Traditional economics tells us that the price of a good will decrease if the supply of that same good is increased. Is there any reason to believe that traditional economics will not hold in this case? If this theory does hold, what will the magnitude of the decrease be? Establishing the magnitude of this change in price will be crucial to understanding the effect on the Iranian economy. While the Iranians will undoubtedly get a boost simply from being able to trade again

on the international market, if the price of oil continues to decline, the gain will be much less than what it could have been at a higher price.

The second question which we must answer is how other major oil producers will respond to the influx of Iranian oil. There are many social and geopolitical aspects at play here, but this is one of the most crucial questions which must be answered. How will countries such as Saudi Arabia, Russia, and Iraq respond to Iran's entry into the market? Will they flood the market with more of their own supply in order to secure a bigger market share? Or will the countries agree to limit the supply which each country exports in order to keep the price of oil at a reasonable level allowing each of the countries to meet their budgetary obligations? Will these decisions be affected by the ongoing conflicts in the Middle East? These countries have many factors to take into account, in addition to knowing that Iran is going to inject a large amount of oil into the market regardless of what these other countries do.

Thirdly, we need to try and predict the level of investment which will come into Iran once sanctions against the country are lifted. Will investors be tantalized by the possibility of rapid economic growth in Iran? Will they be deterred by the high amounts of capital needed to reactivate and upgrade Iran's oil infrastructure? How will the involvement of American companies differ from the involvement of European companies? Will the inclusion of snapback sanctions, which would automatically reinstitute sanctions if Iran were to violate the terms of the agreement, deter investors from either the US or European nations? There is a tremendous amount of investment potential surrounding Iran, but there are a number of factors which could preclude Iran from reaching that potential.

Next, the reintroduction of trade into the Iranian economy must be included in the discussion. Trade opens up an economy to a much larger consumer base which allows the

country to produce at a higher level than if they were closed off to the rest of the world. This is assuming that the country is able to find trade partners with which it can engage in fair and equitable trade. Will the world community welcome Iran back into the global marketplace? Is it possible for Iran to return to their pre-sanction levels of trade? Which countries or regions will emerge as the dominant trade partners for the Iranians? Iran's reintroduction to the global marketplace should offer them a boost, but if they cannot find enough partners to trade with then this boost will be diminished.

Finally, how will Iran's government respond to the sudden influx of cash flowing into their economy and government? The Iranian government has been mired by corruption for a number of years now which has put their economy at a great disadvantage. Over the past several decades, we have seen periods of economic prosperity in Iran. We have also seen the government of Iran squander these opportunities to create a healthier, long-term economy in exchange for a short-term boost. Will the government under new President Hassan Rouhani show better economic judgement and restraint or will the economy of Iran continue to be mired by poor economic planning and foresight? The government's management of this sudden economic increase will go a long way in determining the effect which the lifting of sanctions will have on the economy of Iran. Many different scholars have debated these questions over the past several months, but I believe that the most likely result of the lifting of these sanctions is that Iran will experience a great deal of economic stimulation even if the influx of their oil into the international market lowers the price of oil.

II. History of Sanctions Against Iran

The history of sanctions against the Islamic Republic of Iran dates back to the late 1970s. In 1979, the United States Embassy in Tehran was overrun by a group of Iranian students. These

Iranian students were enraged over several things including the United States' support for the now disposed Shah and the suspicion that the Central Intelligence Agency may again try to meddle in their newly formed government.¹ The students held 54 Americans hostage in the United States Embassy in Tehran for 444 days.² After this episode, the United States government broke off diplomatic relations with Iran. They also imposed the first in what would become a lengthy list of sanctions against the Iranian government. Shortly after the hostage crisis began, the United States government froze around \$12 billion of Iranian assets in US-based banks.³ In 1987, as a result of the Iranians support for international terrorism and impingement on the rights of nations to ship in the Persian Gulf, the United States imposed an embargo on Iranian goods and services.⁴ In 1995, the United States banned “involvement with petroleum development in Iran.”⁵ Then in 1997, the United States shut-off all investment in Iran by United States citizens wherever they were located.⁶

While these sanctions proved to be extremely detrimental to the economy of Iran, they could only go so far. The Iranians could still export their products to a number of large European countries which allowed their economy to operate at a decent level. Then, in 2012, the European Union announced that they would be joining the United States in banning the import of crude oil and petroleum products from Iran. The Europeans had great concerns about the possibility of Iran obtaining a nuclear weapon and saw these sanctions as the strongest action which they could take to prevent that from happening. Prior to the implementation of these sanctions, the European

¹ “US-Iran Relations.” *The Robert Strauss Center for International Security and Law at the University of Texas Austin*. Aug. 2008. Web. 24 Oct. 2015.

² “Iran Hostage Crisis.” *History*. Web. 24 Oct. 2015.

³ Levs, Josh. “A Summary of Sanctions Against Iran.” *CNN*. 23 Jan. 2012. Web. 23 Oct. 2015.

⁴ Levs, Web.

⁵ Levs, Web.

⁶ Levs, Web.

Union represented almost a quarter of Iran's total oil exports.⁷ These sanctions caused Iran's oil exports to decline from 2.8 million barrels per day in 2011 to below 1 million barrels per day in 2012.⁸ This steep decline in oil production was certainly one of the main factors which caused the Iranians to come to the bargaining table to negotiate what would become to be known as the Joint Comprehensive Plan of Action.

This Joint Comprehensive Plan of Action (JCPOA) was announced on July 14th, 2015 by President Obama.⁹ According to President Obama, this plan will "prevent Iran from obtaining a nuclear weapon."¹⁰ This concession was made in exchange for the lifting of some sanctions on the Iranian economy by the United States and the European Union. While the majority of the United States' sanctions will remain in place, the removal of a large number of European Union sanctions proved particularly enticing for the Iranians since they had proved to be so devastating to them in the past. The majority of United States sanctions will remain in place because only a small fraction of US sanctions against Iran are in reference to their nuclear activities, while almost all of the Europeans' sanctions were aimed at Iran's nuclear program.¹¹ The only US industry which will be allowed to increase their involvement in Iran will be the civil aviation industry.¹² The removal of these sanctions could very well lead to an economic boom for the country, but there are a number of other factors which must be considered before that determination can be made.

⁷ "How the Iran Deal Will Effect Oil Markets in the Short Term." *Stratfor Global Intelligence*. 16 July 2015. Web. 24 Oct. 2015.

⁸ Devarajan, Shanta, Lili Mottaghi, Elena Ianchovichina and Hadi Salehi Esfahani. "Economic Implications of Lifting Sanctions on Iran." *Middle East and Northern Africa World Bank Quarterly Economic Brief*. 5 July 2015. Print. 29 Aug. 2015.

⁹ Gordon, Michael R. and David E. Sanger. "Deal Reached on Iran Nuclear Program; Limits on Fuel Would Lessen With Time." *The New York Times*. 14 Jul. 2015. Web. 24 Oct. 2015.

¹⁰ Gordon, Michael R. and David E. Sanger. "Deal Reached on Iran Nuclear Program; Limits on Fuel Would Lessen With Time." *The New York Times*. 14 Jul. 2015. Web. 24 Oct. 2015.

¹¹ Ydstie, John. "What Lifting Iran's Sanctions Means For U.S. Businesses." *NPR*. 19 Jul. 2015. Web. 27 Nov. 2015.

¹² Ydstie, Web.

III. The Lifting of Sanctions on Iran and the International Oil Market

In order to establish the magnitude which the lifting of sanctions will have on Iran, we first must look at the effect which the deal will have on the international price of oil. Our discussion begins here because of the heavy dependence which the Iranian economy has on the commodity. Oil is currently trading below \$50 per barrel, which is a low price relative to what we have seen in recent years.¹³ Figure I demonstrates this recent drop in the price of oil, showing the downward trend in the market over the past 12 months.

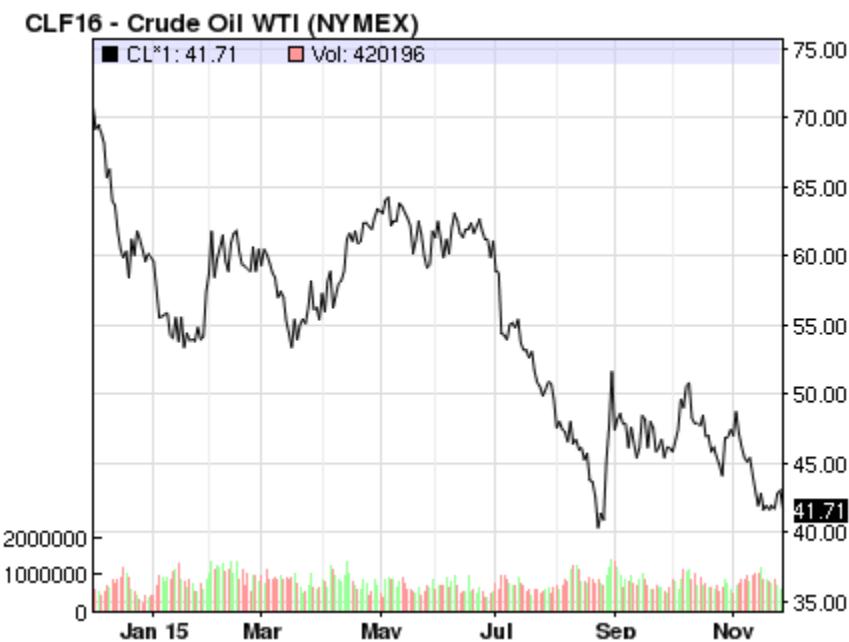


Figure I depicts the drop in the price of oil on the international market over the past 12 months.

Source: NASDAQ. Crude Oil WTI (NYMEX) Price.

This downward trend in oil prices can be attributed to an already large supply of oil presently on the market, coupled with an economic slowdown in a number of economies throughout the world. The recent economic slowdown in China has registered a big blow to the international commodities market because of the country's heavy dependence on the importation of oil and other commodities. Many Middle Eastern countries are already planning cutbacks to their

¹³ "Brent Crude Quote." Bloomberg Commodity Index. Web. 24 Oct. 2015.

budgets in 2016 based on the continued projection of low oil prices.¹⁴ There is widespread belief that the entry of Iranian oil will drive the price of oil even further down. According to an article in *The Wall Street Journal*, the global oil market, which has already been flooded with large amounts of oil, will settle on an even lower price once the Iranian supply enters the market.¹⁵ *US News and World Reports* also published an article which agreed with the theory that low oil prices will result from the lifting of sanctions on Iran.¹⁶

One of the scholars at the forefront of the economic analysis of the Iran Nuclear Deal is Shanta Devarajan. Mr. Devarajan is the Chief Economist for the World Bank's Middle East and North Africa Region. In July 2015, Mr. Devarajan and his team of economists published a report titled "Economic Implications of Lifting Sanctions on Iran." In this report, Mr. Devarajan offers a great deal of insight into the economic aspects of the Iran Nuclear Deal. Among the several areas which he researches is the effect which the deal will have on global oil prices. He says that, while it may take the Iranians time to get the investment needed to get their oil fields operational again, "Most observers predict that in 8 to 12 months, Iran's crude oil exports can reach pre-2012 levels."¹⁷ These pre-2012 levels which he discusses are in reference to the fact that the European Union sanctions were imposed on the Iranians in 2012. These sanctions severely diminished the export opportunities which were available to Iranian producers. Earlier in his report, he says that, prior to the implementation of sanctions, the Iranians were exporting around 2.8 million barrels

¹⁴ "Low Oil Prices, Conflict Weight on Middle East's Prospects." *IMF Survey Magazine: Countries & Regions*. 21 Oct. 2015. Web. 22 Oct. 2015.

¹⁵ Spindale, Bill and Benoît Faucon. "Iran's Nuclear Deal Could Open Oil Flood." *The Wall Street Journal*. 16 Mar. 2015. Web. 1 Oct. 2015.

¹⁶ Neuhauser, Neil. "Crude Estimate: How Ending Iran Sanctions May Impact Oil Markets." *US News & World Reports*. 13 July 2015. Web. 1 Oct. 2015.

¹⁷ Devarajan, 4.

of crude oil per day.¹⁸ His research shows that, without any intervention from other OPEC members or other major oil producing nations, international oil prices will drop by 14 percent.¹⁹

According to data from the NASDAQ, the current price of a barrel of crude oil on the international market is \$41.71.²⁰ According to the International Energy Agency, the current supply of oil on the world market is 96.9 mb/d and the current demand for oil on the world market is 95.29 mb/d.²¹²² Using all of these figures, we can estimate what the elasticity of demand for oil would have to be given Mr. Devarajan's projection of a 14 percent decrease in price of oil. In order for the price of oil to drop 14 percent, the elasticity of demand would have to be .189.²³ The fact that this number is less than 1 shows that demand for oil on the international market is inelastic. This means that the quantity demanded is not very responsive to a change in price. This finding matches commonly held thoughts on oil given how dependent the world community is on the commodity. Oil is required to drive to work, ship products across countries and oceans, and to fly people around the world. People are going to keep buying oil even if the price fluctuates.

While it will take time for the Iranians to get the production back to pre-2012 levels, they do have a substantial amount of oil in reserve. These oil reserves are estimated to be around 157.53 billion barrels or around 13.1 percent of the total reserves in all OPEC countries combined.²⁴ The only other countries which possess larger amounts of oil in reserve are

¹⁸ Devarajan, 3.

¹⁹ Devarajan, 4.

²⁰ "Crude Oil WTI (NYMEX) Price." *NASDAQ*. Web. 29 Nov. 2015.

²¹ "World Oil Supply." *International Energy Agency*. Web. 29 Nov. 2015.

²² "World Oil Demand." *International Energy Agency*. Web. 29 Nov. 2015.

²³ Using the data presented in the text I calculated this number using the standard formula for price elasticity of demand $((Q_1-Q_2)/(Q_1+Q_2))/((P_1-P_2)/(P_1+P_2))$

²⁴ "OPEC Share of World Crude Oil Reserves, 2014." *Organization of Petroleum Exporting Countries*. Web. 26 Oct. 2015.

Venezuela, Saudi Arabia, and Canada.²⁵ Mr. Devarajan's report suggests that the Iranians could begin to export around 400,000-500,000 barrels per day until their oil fields are ready for procurement, at which time they would increase to Mr. Devarajan's estimate of 2.8 mb/d.²⁶ We can assume that the amount of oil which the Iranians have in reserve would last them about three months given the amount of exports which Mr. Devarajan predicts. Thus, we would see a decrease in oil prices both in the short-term and in the long-term due to the sale of Iranian reserve oil and the increase in production which will occur after the investment in the Iranian oil fields.²⁷

In summation, most economists and analysts believe that the international price of oil will decrease as a result of the JCPOA. While many of these economists do not speculate over the exact amount by which these prices will decrease due to a number of unknown geopolitical factors, the vast majority agree that we will see a decrease in the global price of oil. This assumption is supported by basic economic principles. If the supply of a good increases and there is not an accompanying increase in demand, then the price of the good will decrease. Establishing how the price of oil will be affected by Iran's reentry into the global market is crucial in order for this paper to move forward. Many of the geopolitical and economic implications of the lifting of sanctions on Iran rely on the establishment of what the international price of oil will be since oil remains such a major aspect of Iran's economy, politics in the Middle East, and in the global community.

IV. The Response of Other Major Oil Producers

Another major aspect of the discussion which must be taken into account is the strategic moves which other major oil producers will make in response to Iran's entry into the global

²⁵ "Crude Oil-Proved Reserves." *The CIA World Factbook*. Web. 26 Oct. 2015.

²⁶ Devarajan, 4.

²⁷ Devarajan, 4.

market and to other geopolitical factors. Among the most interesting cases in this discussion are Iraq, Russia, and Saudi Arabia. These nations have many motives to increase, decrease, or sustain their current levels of oil production. These motives can be economic, political, or social in nature, but they will all play a major role in the final decision of each of these nations. All of these countries rely on oil as a major revenue generator for their governmental budgets. Figure II shows the price which the Organization of Petroleum Exporting Countries (OPEC) require in order to meet their domestic budgetary requirements.

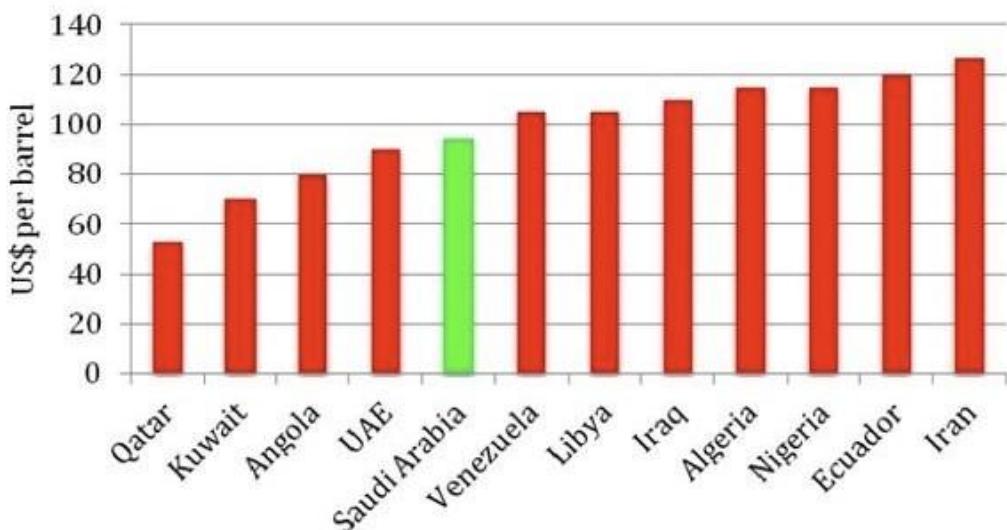


Figure II: This graph demonstrates the minimum price which each of these respective countries requires in order to meet their budgetary requirements.

Source: *OPEC Median Budgetary Breakeven Prices*. Matthew Hulbert/European Energy Review

In concurrence with these projections from OPEC, both *CNN* and analysts for Deutsche Bank estimate that Iran needs a price of at least \$130 per barrel in order to balance their budget.²⁸ This figure is a much higher amount than any of the other major oil producers will require. *CNN* suggests that the reason why they require such a high price is because Iran has “the second-highest population in the region and large social spending programs.”²⁹ Thus, they would require

²⁸ “How cheap oil will hurt Iran’s comeback.” *CNN Money*. 20 Aug. 2015. Web. 12 Nov. 2015.

²⁹ “How cheap oil will hurt Iran’s comeback.” *CNN Money*. 20 Aug. 2015. Web. 12 Nov. 2015.

more revenue than other oil producers, necessitating a higher price of oil. This price also speaks to the centrality which oil has to the Iranian economy. Without oil, it would be extremely difficult for the Iranians to meet their budgetary requirements. At the current price of oil, which is below \$50, the Iranians would have two choices: make severe cuts to their budget or sell a much larger amount of oil which would create more revenue.

As you can see, other countries also face a similar dilemma. The Iraqis have a breakeven price above \$100 per barrel. In terms of OPEC members, Iraq sits directly behind Iran possessing the group's fourth largest level of reserves making them a major player in global oil market. Saudi Arabia requires a price of around \$90 in order to meet their budgetary requirements. Russia, the second biggest exporter of oil in the world behind only Saudi Arabia, needs a price of around \$100 in order to meet their budgetary requirements.³⁰³¹ The Russians are not included in the chart because they are not a member of OPEC. However, as one of the biggest oil producers in the world their movements will have a major effect on the global oil market and on the economy of Iran.

a. Iraq

Currently, the Middle East is dealing with a problem much more daunting than the global oil market. Many Middle Eastern countries, in conjunction with several world powers, are battling the Islamic State. The Islamic State has taken control of a great deal of land in Iraq and Syria. During this fight, the Iraqis have spent a large amount of money to defend against the advances of the Islamic State. In order to pay for much of this increase in spending, the Iraqis

³⁰ "The World Factbook." *Central Intelligence Agency*. Web. 12 Nov. 2015.

³¹ Holodny, Elena. "Here are the break-even oil prices for 13 of the world's biggest producers." *Business Insider*. 20 Jul. 2015. Web. 12 Nov. 2015.

have had to dramatically increase the amount of oil which they produce and export to international markets.³² Iraq's increase in oil production can be seen in Figure III.

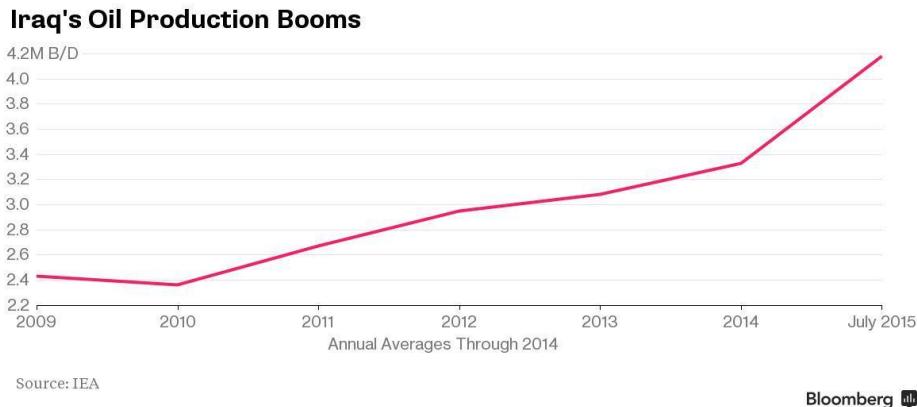


Figure III: Over the past 5 years, Iraq's oil production has substantially increased due to several different factors including the emergence of the Islamic State.

Source: Razzouk, Nayla. "Iraq's Oil Output Climbs to Record as South Escapes Fighting." *Bloomberg*. 12 Aug. 2015. Web. 19 Oct. 2015.

With this conflict not appearing to come to a close any time soon, one would think that the Iraqis would at least keep up their current level of production which has increased substantially over the past several months and years.³³ This is a position which is supported by Ehsan Ul-Haq, who is a senior analyst at KBC Energy Economics. In an article published on *Bloomberg*'s website, Mr. Ul-Haq said that "Iraq is still likely to be the largest contributor to OPEC's production increase this year."³⁴ JP Morgan analysts go as far as to say that Iraq poses a bigger threat to the global oil market than the impending influx of Iranian oil.³⁵ As has been demonstrated, the ongoing conflict with the Islamic State has caused the Iraqis to dramatically increase their levels of oil production to the detriment of the other major oil producers. These factors, which will

³² Razzouk, Nayla. "Iraq's Oil Output Climbs to Record as South Escapes Fighting." *Bloomberg*. 12 Aug. 2015. Web. 28 Oct. 2015.

³³ "OPEC Monthly Oil Market Report." *Organization of Petroleum Exporting Countries*. October 2015 Edition. 12 Oct. 2015. Web. 28 Oct. 2015.

³⁴ Blas, Javier, Nayla Razzouk, and Isaac Arnsdorf. "OPEC Braces for More Oil as Iran, Iraq Plan to Expand Supply." *Bloomberg*. 3 Jun. 2015. Web. 28 Oct. 2015.

³⁵ Oyedele, Akin. "Actually, Iraq is the oil market's biggest threat." *Business Insider*. 20 Jul. 2015. Web. 28 Oct. 2015.

most likely persist for some time, will cause the Iraqis to keep their production and exporting of oil at historically high levels.

b. Russia

Over the past several years, Russia has proven to be a very active member of the world community. They have been involved in a number of different areas of the world including Ukraine and Syria. President Vladimir Putin has tried to reestablish Russia's role as a world power, which most would argue was severely diminished by the fall of the Soviet Union in the late 20th Century. As a result of Russia's brash and pervasive actions on the world stage, the European Union and the United States have imposed sanctions against the country. These sanctions are meant to keep Russia from intervening in the sovereign affairs of other countries. One of the main sectors where the sanctions were aimed at was the oil industry. The resolution passed by the European Union states "In order to put pressure on the Russian Government, it is also appropriate to apply further restrictions on... legal persons, entities or bodies established in Russia whose main activities relate to the sale or transportation of crude oil or petroleum products."³⁶

Ideally, these sanctions were meant to have an effect similar to that of the sanctions imposed on Iran by the United States and the European Union. So far they have not been as successful, however. According to Tom Morgan of *Forbes*, Russian oil exports have actually increased since the sanctions were enacted.³⁷ Morgan attributes this to the fact that domestic demand for oil in Russia has died down, so there is more oil for the Russia to export. However, he goes on to say that "the global sanctions initially imposed in March 2014 and increased afterwards may reduce future Russian oil, gas and refined product exports to countries that have

³⁶ "Regulations: Sanctions Against the Russian Federation." *Official Journal of the European Union*. 14 Sep. 2014. Print. 5.

³⁷ Morgan, Tom. "Russia Sanction: Effect on Global Oil Markets." *Forbes*. 18 May. 2015. Web. 12 Nov. 2015.

imposed sanctions.” The Russians have also benefitted from a pivot to Asia which they began in response to the imposition of sanctions. According to Morgan, “Russia has recently sought Chinese direct investment in pipeline and oilfield infrastructure to grow its export potential away from the European Union.”³⁸ This pivot to Asia has allowed Russia to gain some of their lost income back and it also may ultimately allow them to move away from a dependence on Europe to buy their oil products. Michael Birnbaum of *The Washington Post* also said that he believes that the sanctions against Russia have not been effective. He notes that many economists say that the current problems Russia’s economy is experiencing “would have erupted even if there were no sanctions.”³⁹

Given the fact that these sanctions do not appear to be having the desired effect on the Russian economy, one could be lead to believe that Russia is in a strong economic position. According to the Observatory of Economic Complexity run by the Massachusetts Institute of Technology, oil and oil products account for almost 70 percent of Russia’s exports.⁴⁰ This is a staggering figure and one which demonstrates the reliance which Russia places on its oil industry. *BBC News* estimates that “Russia loses about \$2 billion in revenues for every dollar fall in the oil price.”⁴¹ These factors have led the Russian government to reduce its growth forecast for this year, now projecting that the economy will fall into recession.⁴² Knowing that a drop in oil prices has such a drastic effect on the Russian economy, one would have to assume that they must make up for the lost revenue somehow. As we have seen in the case of Iraq, one way to make up for lost revenue is by increasing production in order to increase your market share.

³⁸ Morgan, Web.

³⁹ Birnbaum, Michael. “A year unto a conflict with Russia, are sanctions working.” *The Washington Post*. 27 Mar. 2015. Web. 27 Nov. 2015.

⁴⁰ “Russia.” *Observatory of Economic Complexity*. Web. 12 Nov. 2015.

⁴¹ Bowler, Tim. “Falling oil prices: Who are the winners and losers?” *BBC News*. 19 Jan. 2015. Web. 12 Nov. 2015.

⁴² Bowler, Web.

Taking all of these factors into account, we must try to predict how Russia will handle the entry of Iranian oil into the international market. This prediction is not one that will take a great deal of speculation. Multiple Russian government officials have said that Russia will not cut production in response to any of the developments in the world economy and political landscape, including the JCPOA. Russian Energy Minister Alexander Novak said “If we cut, the importer countries will increase their production and this will mean a loss of our niche market.”⁴³ On September 4th, Arkady Dvorkovich, Deputy Prime Minister of Russia, again confirmed that Russia will not cut oil production. He said “"For Russia, given the structure of production, it's very difficult to cut supply artificially. If oil prices will be low enough for a long period of time, supply will go down in (a) natural way, and I think this (is the) most efficient stabilizer for the market."⁴⁴ The Russians have demonstrated their intention to keep production at its current level, refusing to cut production in order to raise oil prices for all. Thus, along with the Iraqis, we have two major oil producers who do not plan on cutting their production in response to the JCPOA.

c. Saudi Arabia

We now come to a much more nuanced and speculative case. In the case of Saudi Arabia, there are a number of factors at play. Like other major oil producing countries, Saudi Arabia has been deeply affected by the low global price of oil. As was previously mentioned, the Saudis rely on a price of around \$90 to meet all of their budgetary requirements. At the current price of under \$50 per barrel, the Saudis will be forced to decide whether or not to increase their production. Another factor which must be taken into account is the relationship between Saudi Arabia and Iran. These two countries have a great distaste for each other, rooted in the different sects of Islam which are the dominant religions in each of their governments and people.

⁴³ Bowler, Web.

⁴⁴ Frangoul, Anmar and Julia Chatterley. “Russia will not cut oil production: Deputy PM.” CNBC. 4 Sep. 2015. Web. 12 Nov. 2015.

Situations such as this can get extremely complicated. The Saudis have also shown a willingness to accept a lower price of oil if that means that one of their competitors is hurt or driven out of the market completely. The Saudis have also acted very strategically in the past when it comes to defending their market share in the international oil market and we should expect nothing different from them in this scenario.

To demonstrate the Saudis strategic actions in the international oil market, the most closely related and recent example can be examined. Several years ago, the Saudis began to see American and Canadian oil producers as a threat to their market share. The oil extraction companies in these countries were able to produce large amounts of oil and proceeded to flood the international market. The only down side was that the techniques used by oil extractors in these countries were much more expensive than the techniques used by other producers, including Saudi Arabia. At a high price of oil this is not a problem. These higher cost producers can sell their oil and still make a decent profit. However, when oil prices drop, as they have recently, a problem arises. The profit margins for these producers which produce at a higher cost shrinks and can even disappear at drastically low prices. This phenomenon is typified by the current trend in oil rigs in the United States. In March 2014, the US had 1,466 oil rigs in operation.⁴⁵ By March 2015, the number of operating oil rigs in the US had fallen to 857.⁴⁶ This is a drop of around 41 percent. Over this same time period, the international price of oil has fallen by around 50 percent, according to crude oil prices on the NASDAQ.⁴⁷ The combination of these two facts demonstrates the problem which arises for American oil producers when faced with lower oil prices.

⁴⁵ “US Crude Oil Rotary Rigs in Operation.” *US Energy Information Administration*. 31 Jul. 2015. Web. 29 Oct. 2015.

⁴⁶ “US Crude Oil Rotary Rigs in Operation.” *US Energy Information Administration*. 31 Jul. 2015. Web. 29 Oct. 2015.

⁴⁷ “Crude Oil.” *NASDAQ*. 29 Oct. 2015. Web. 29 Oct. 2015.

The Saudis recognized this problem and used it to their advantage. They realized that these higher cost oil producers would not be able to stay in operation if the price of oil fell below a price of around \$60 and stayed at this level for an extended period of time. According to Leonardo Maugeri of the Belfast Center for Science and International Affairs at the Harvard Kennedy School for Government, the Saudis made a strategic decision to keep their production at a high level in order to drive these higher cost producers out of business.⁴⁸ They viewed the elimination of these higher cost oil producers as a relatively easy way to increase their market share. Maugeri said that the philosophy of the Saudis was “We will suffer, but others will be destroyed.”⁴⁹ In choosing this avenue, the Saudis demonstrated the proclivity which they have for destroying other producers even at their own expense. They also have shown a pattern of eliminating producers who they see as threats to their supremacy in the oil industry. In this example, we have seen that the Saudis are willing to let their own economy suffer in order to eliminate competition and that they have done so in past scenarios. Thus, we must assume that the Saudis would be willing to act in this manner again, particularly in the current situation which the global oil market is in.

F. Gregory Gause, III, a nonresident senior fellow in the Brookings Doha Center, seems to have a different opinion on the relationship between Iran and Saudi Arabia. Gause presents three cases in which the Saudis and the Iranians, along with the other members of OPEC, reached an agreement which limited each of the respective countries oil production. This is Gause’s summary of the most recent example of the Saudis and the Iranians reaching an agreement which would limit production:

⁴⁸ Maugeri, Leonardo and Alice Xiao. “The Geopolitics of Oil: Analyzing the Effects of Production and Investment on Global Oil Prices.” *Harvard International Review*. 2 Sep. 2015. Web. 12 Oct. 2015.

⁴⁹ Maugeri, Web.

Amidst the oil boom of the 2000s there were two brief episodes of oil price decline. Prices declined from \$75 per barrel in August 2006 to just above \$50 per barrel in January 2007. Saudi Arabia brokered two OPEC production cut deals in October 2006 and December 2006 in which Iran accepted a nearly proportional reduction in its production to other OPEC members. By June 2007, prices were back at \$70 per barrel. During the global financial crisis of 2008, prices crashed, falling from over \$100 per barrel to \$32 per barrel in January 2009. Once again, the Saudis took the lead in forging agreements to cut OPEC production in September, October, and December of 2008. All of those agreements included production cuts by Iran.⁵⁰

Mr. Gause goes on to say that these examples show how “lower oil prices led the two countries to cooperate in the oil arena to try to put a floor under falling prices and push those prices up.”⁵¹ The examples given by Mr. Gause offer great insight into past examples of the Iranians and the Saudis working together in order to allow for an adequate price in the world market. These examples also offer credence to the fact that two countries, who have demonstrated animosity towards each other in the past, can work together in order to secure a gain for all parties involved.

Mr. Gause’s points are very good examples of how the Iranians and the Saudis have worked together in the past in order for each of the countries to benefit. I would argue, however, that many things on the global landscape are different now changing many of the dynamics of the situation. First, the Iranians are going to be coming off of a period during which their export partners on the global stage were severely diminished. For several years the Iranians have been

⁵⁰ Gause, F. Gregory. “Sultans of Swing? The Geopolitics of Falling Oil Prices.” *Brookings Doha Center*. April 2015. Web. 29 Oct. 2015.

⁵¹ Gause, Web.

building up large reserves of oil waiting for the day when these sanctions will be lifted so that they can once again grow their market share. Second, we must question why the Saudis would come to the bargaining table at this point. In his report, Mr. Gause said “Riyadh, with over \$700 billion in the bank, is much better able to ride out a period of low oil prices than is Moscow or Tehran.”⁵² The Saudis are in a much better position to survive a period of low prices than the Iranians because of the amount of money which they have in reserve. We have also established the fact that Saudis are willing to suffer if that means they are eliminating a rival producer. Knowing that they have such a substantial amount of money in reserve only gives even more credence to the speculation that they will keep production high. Third, and not unconnected from the second point, we must take into account the Saudis reluctance to allow the Iranians to become a world power. The entire scope of this paper is how the Iranian economy will be affected by the lifting of sanctions. In a perfect world for the Saudis, the Iranians would languish as an economic and political pariah for the entirety of their existence. An economically stronger Iran would almost certainly lead to a militarily stronger Iran and any development in the military strength of Iran would directly affect the security of Saudi Arabia. Thus, this line of thinking would seem to lead us to think that the Saudis would have an even greater motivation to hurt the Iranian economy.

We must now try to predict how the Saudis will eventually act, as their decision will have a great impact on the economy of Iran. Andrew Critchlow of the *Financial Times* seems to believe that the Saudis and the Iranians are on a collision course over the amount of oil which should be entered into the market. Mr. Critchlow even goes as far as to say that the game of

⁵² Gause, Web.

chicken which these two oil titans are playing could lead to the breakup of OPEC.⁵³ He says that the two countries are both intent on keeping production high in order to secure a greater market share for each of their respective countries.⁵⁴ If this were to be the outcome, oil prices would plunge to even further lows which would exacerbate the economic problems which each of these countries are currently having. Add into the equation the Iraqi and Russian increases in production and you have an oversaturated market which does not produce a high enough price for any of the countries to fully support their budgets. The other option on the table is that the Iranians and the Saudis, along with the other members of OPEC and possibly Russia, reach an agreement under which each of the countries would limit their production and sale of oil so that the price of oil could rise to a point where each of the countries is able to cover the budgetary requirements.

I believe that the most likely result will be the former of the two. The strategic interests of Saudi Arabia lie in a weaker Iran and keeping the price of oil low helps to reach this interest. The Saudis are also in a tremendous position of power. They have a substantial amount of cash which they can use to get through a period of low oil prices. The Iranians, coming off of years under crippling economic sanctions, will not be able to sustain themselves for a long period of time with a low price of oil. The presence of the Islamic State also plays a great role in this discussion as well. The Iraqis need to generate a great deal of revenue in order to fight against the Islamic State and unless one of these countries decides to support Iraq financially, the only way for them to raise enough money is by exporting even more oil. Russia, experiencing their own economic problems, will also contribute to the deluge of oil into the international market. The combination

⁵³ Critchlow, Andrew. "Iran and Saudi Arabia on a collision course over oil at OPEC." *Financial Times*. 5 Jun. 2015. Web. 29 Oct. 2015.

⁵⁴ Critchlow, Web.

of these countries will flood the market with even more oil which will drive the international price down even further.

V. International Investment in Post-Sanctions Iran

Another aspect of this issue which must be discussed is the amount of investment needed in Iran in order to get their oil fields and infrastructure back to production conditions. After sanctions were imposed, the Iranians dealt with the excess supply of oil in two ways. One way was to build up their reserves of oil. This was a very strategic and savvy move by the Iranians because, in anticipating that the sanctions on them would one day be lifted, they positioned themselves to be able to hit the ground running. However, there is only so much oil which the Iranians could hold in reserve. They even went as far as to fill tankers with their reserve oil with no intention of shipping this oil anywhere.⁵⁵ The second action which the Iranians took in response to the imposition of sanctions was to cut the amount of oil which they produced. This cut in production is demonstrated in Figure IV.

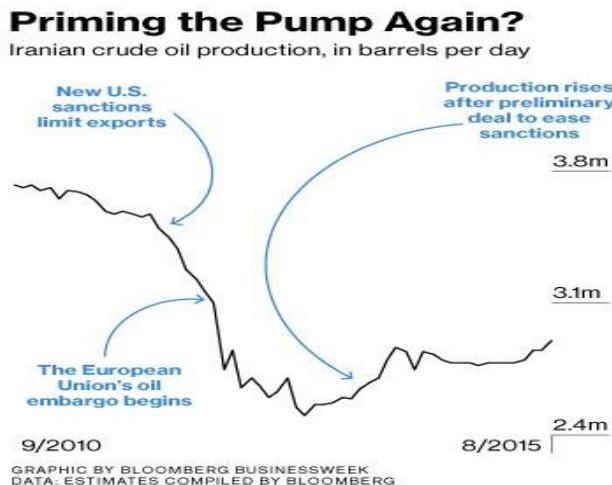


Figure IV: After the European Union imposed sanctions on Iran in 2012, their production of oil dropped precipitously.

Source: Phillips, Matthew and Golnar Motevalli. "Iran Gets Ready to Sell to the World." Bloomberg. 10 Sep. 2015. Web. 21 Oct. 2015.

⁵⁵ Philips, Matthew and Golnar Motevalli. "Iran Gets Ready to Sell to the World." Bloomberg. 10 September 2015. Web. 30 Oct. 2015.

As this chart demonstrates, Iran cut their production severely as a result of the sanctions imposed upon them by the European Union. This cut in production comes with consequences, however. Over the course of this period of decreased production, the Iranian oil infrastructure was neglected. These fields and production facilities faced a good amount of deterioration over the course of these sanctions from a lack of use and investment. This infrastructure will likely require a large amount of investment in order to reactivate it to its prior levels. Separate from the deterioration which the wells faced under the sanctions, the oil infrastructure has gone through an extended period of underinvestment. As a result of this, much of the Iranians oil technology is either outdated or unusable. The Iranian economy will also require a great amount of investment in other sectors in order to meet its full economic potential. While a great deal potential exists in Iran, one must question whether or not this potential will ever come to fruition.

After an interim nuclear deal was announced with in Iran in April, the Iranian stock exchange rallied on the excitement of the now tangible goal of an Iranian global reentry.⁵⁶ However, once the final deal was announced in July, the Iranian stock market tumbled. *The Economist* speculated that Iranian businessmen and international investors were frightened over “unmovable inventories and sharply overdrawn balance-sheets.”⁵⁷ The same article also opined about the large amount of investment which would be needed in order to pay for necessary infrastructure improvements in Iran’s railways and oil sectors. They reported that Iran needs “\$15 billion for its railways, \$200 billion for its energy sector.”⁵⁸ In his report for the Center for Strategic and International Studies, Anthony Cordesman possesses a similarly large view for the amount of investment needed in the Iranian economy. Cordesman says “Iran needs about a half a

⁵⁶ “Not so fast: Enthusiasm for post-sanctions Iran is being tempered by realism.” *The Economist*. 5 Sep. 2015. Print. 10 Sep. 2015.

⁵⁷ “Not so fast: Enthusiasm for post-sanctions Iran is being tempered by realism,” Print.

⁵⁸ “Not so fast: Enthusiasm for post-sanctions Iran is being tempered by realism,” Print.

trillion dollars to meet pressing investment needs, including at least \$170 billion to develop oil and gas potential and replace lost capacity and \$100 billion to complete unfinished infrastructure projects.”⁵⁹

This amount should be easy enough to raise for Iran, a country which possesses a great deal of potential. In a report for the Council on Foreign Relations, Cyrus Amir-Mokri and Hamid Biglari tried to summarize the vast amount of factors which give Iran the potential to grow extremely quickly. They referenced the well-known fact that Iran possesses vast amounts of oil, but they also added the fact that they possess the world’s second largest proven natural gas reserves.⁶⁰ They also reference Iran’s human capital as “The most promising indicator of Iran’s economic potential.”⁶¹ They reported that Iran has a population of 80 million, which is comparable to the size of economic powerhouses Germany and Turkey.⁶² The majority of this sizeable population is also both young and well-educated.⁶³ Nearly 64 percent of Iranians are below the age of 35 and the country has a literacy rate of 87 percent and literacy rate for those between the ages of 15 and 24 above 90 percent.⁶⁴ Taking all of these factors into account, we would assume that Iran would be a prime candidate for a quick and large economic takeoff under tradition circumstances in the global marketplace.

The problem in the current global environment is that oil prices remain unusually low. As we have discussed extensively in this paper, one of the main economic drivers of Iran’s economy is the amount of oil which they produce and export. With oil prices as low as they currently are, one would have to question the incentive that investors would have to invest in Iran. In this same

⁵⁹ Cordesman, Anthony H. “The Iran Nuclear Agreement and Iranian Energy Exports, the Iranian Economy, and World Energy Markets.” *Center for Strategic and International Studies*. 27 Aug. 2015. Web. 29 Oct. 2015.

⁶⁰ Amir-Mokri, Cyrus and Hamid Biglari. “A Windfall for Iran?: The End of Sanctions and the Iranian Economy.” *Council on Foreign Relations NY*. Nov. 2015. Web. 14 Nov. 2015.

⁶¹ Amir-Mokri, Web.

⁶² Amir-Mokri, Web.

⁶³ Amir-Mokri, Web.

⁶⁴ Amir-Mokri, Web.

article previously referenced in *The Economist*, it is said “Oil prices are down by half, sharply reducing revenues as well as the incentives to invest when reopening happens.”⁶⁵ How can these investors expect to make their money back in a reasonable amount of time if oil prices continue to stay at their current depressed level? This question and the other problems which have been presented may deter investors from investing in Iran.

In a report which they issued to their clients regarding investment in Iran after the JCPOA has been implemented, Chadbourne & Parke, a highly respected international law firm, outlined many of the issues surrounding the investment atmosphere in Iran. One of the major points that they make is that US companies should be wary of the snapback sanctions which have been inserted in the Iranian Nuclear Deal.⁶⁶ Many of the US sanctions which are currently levied against Iran will stay in place. However, there are several markets in which American companies will be allowed to enter into Iran, most notably in the fields of civil aviation and medicine.⁶⁷ The excitement surrounding these industries has been somewhat tapered due to the inclusion of snapback sanctions in the JCPOA. The inclusion of snapback sanctions means that, if the Iranians were to violate the terms of the agreement, sanctions would be reinstated on them by the United States government and possibly by the European Union. Once again, this would likely cripple the Iranian economy, though the likelihood of a reintroduction of sanctions against Iran remains to be seen.

According to Chadbourne & Parke, the presence of snapback sanctions is the biggest risk in doing business in Iran.⁶⁸ US companies could be left in the very unfortunate position of having

⁶⁵ “Not so fast: Enthusiasm for post-sanctions Iran is being tempered by realism,” Print.

⁶⁶ Jurd, Ramsey. “The Risks of Rushing into Iran.” *Chadbourne & Parke LLP*. September 2015. Print. 31 Oct. 2015.

⁶⁷ Ydstie, John. “What Lifting Iran’s Sanctions Mean for US Businesses.” *National Public Radio*. 17 Jul. 2015. Web. 2 Nov. 2015.

⁶⁸ Jurd, 2.

invested heavily in Iran, but not being able to reap the rewards of these investments if the Iranians were to violate their end of the agreement. Chadbourne & Parke also said that the inclusion of these sanctions was a calculated move on the part of the American government. They realize that it would be much harder to reinstitute sanctions on the Iranians if US companies had heavily invested in Iran. So, they decided to give their companies a preemptive warning that there is a very real possibility that they could reinstitute sanctions on Iran, thus making the risk for US companies even higher. The inclusion of snapback sanctions also serves as a way to get support for the JCPOA in the United States Congress. Many detractors argued that once the deal was in place, the Iranians would have no incentive to keep their end of the agreement. However, with the inclusion of snapback sanctions, the Iranians stand to lose a great deal of investment if they were to violate the agreement.

Mary Fromyer, of the International Business-Government Counsellors, Inc., possesses a similar opinion to that of Chadbourne & Parke. Fromyer is an experienced government relations officer having worked at IBC for nearly 30 years.⁶⁹ In her work with IBC, she advises the firm's clients, who are both American and European based companies, on a broad range of issues, including how the deal will affect the business interests of IBC clients. She believes that most American companies will be barred from becoming involved in Iran due to the large number of sanctions which will remain in place, as well as the presence of snapback sanctions in the deal.⁷⁰ She said that "American companies would be heavily involved in Iran if not for the continued presence of sanctions, as well as snapback sanctions, against Iran."⁷¹ She believes that there will be a market for a small number of American companies, such as Boeing and General Electric, who will be able to trade products such as airplane parts and medicine with Iran. She also said

⁶⁹ "Our Team: Mary Fromyer." *International Business-Government Counsellors, Inc.* Web. 12 Nov. 2015.

⁷⁰ Fromyer, Mary. Personal Interview. 12 Nov. 2015.

⁷¹ Fromyer, Mary. Personal Interview. 12 Nov. 2015.

that another reason why companies may not become involved in Iran is because it is viewed as bad press on the international stage.⁷² American companies view it as a negative to be heavily associated with Iran, thinking that consumers and investors will be turned away from their products because of their relationship with the country.

Another interesting point which Fromyer raised was the role which international subsidiaries of American companies could play in Iran. One would assume that, since these subsidiaries are associated with American companies, they too would be barred from doing business in Iran. However, Fromyer believes that there are creative ways of getting around these rules. She said that “As long as there is no direction or financing provided by the American parent company, then international subsidiaries are free to enter Iran under the laws of their own country.”⁷³ She said that the role which American subsidiaries will play in Iran is currently unclear because the Treasury Department’s Office of Foreign Asset Controls (OFAC) has not issued a ruling yet on the issue, entirely because they have not had the opportunity to do so.⁷⁴ OFAC will be the American organization who will ultimately decide the leeway which these international subsidiaries will get. A stern initial ruling by OFAC could deter other companies from entering Iran because they will assume that they will receive a similar ruling from OFAC.

In his report “Economic Implications of Lifting Sanctions on Iran,” Shanta Devarajan offers a more optimistic view of the investment atmosphere surrounding Iran. He offers a prediction similar to those put forth in the earlier section, saying that the Iranian oil sector is in need of around “\$130-145 billion in new investment by 2020 to keep oil capacity from falling.”⁷⁵ He goes on to say that “The World Bank estimates that FDI (Foreign Direct Investment) inflows

⁷² Fromyer, Mary. Personal Interview. 12 Nov. 2015.

⁷³ Fromyer, Mary. Personal Interview. 12 Nov. 2015.

⁷⁴ Fromyer, Mary. Personal Interview. 12 Nov. 2015.

⁷⁵ Devarajan, 10.

could range between about \$3-3.2 billion in 2016 and 2017 respectively, if international sanctions are lifted and economic growth rebounds to 5.5 percent in 2017.”⁷⁶ While this seems to be a daunting amount of capital, Devarajan notes that this figure is only “one-third of the peak FDI in 2003.”⁷⁷ Returning to this level of pre-sanctions investment does not seem like a very unrealistic possibility. It is also noted in the report that there has been a great deal of investment interest expressed by outside investors already.⁷⁸ An article in *The Wall Street Journal*, which was released shortly after the JCPOA was announced in July, agrees with Mr. Devarajan’s position. This article noted the numerous companies which have already expressed interest in investing and doing business within Iran.⁷⁹ These companies include, but are not limited to, Apple, Coca-Cola, and Boeing.⁸⁰ Several American companies, including Coca-Cola, have had a presence in Iran for several years now through a license issued by the Office of Foreign Asset Controls but they are still extremely interested in expanding the presence which they have in the region.⁸¹ Many oil companies have also expressed interest in investing in Iran, including BP, Royal Dutch Shell, and Exxon Mobil.⁸² Many of these companies have taken into account the risks and rewards of investing in Iran and have decided that the possible rewards outweigh the possible risks.

Devarajan is not alone in his optimism surrounding the situation. *The New York Times* reported that shortly after the JCPOA had been agreed to in July many high level European government officials boarded flights to Iran in order try improve business relationships between their respective countries and Iran. The article reported that Germany sent a delegation of high

⁷⁶ Devarajan, 10.

⁷⁷ Devarajan, 10.

⁷⁸ Devarajan, 10.

⁷⁹ Faucon, Benoit and Sarah Kent. “Deal Rekindles Business Interest in Iran.” *The Wall Street Journal*. 14 Jul. 2015. Web. 31 Oct. 2015.

⁸⁰ Faucon, Web.

⁸¹ Faucon, Web.

⁸² Faucon, Web.

ranking government officials, France sent its foreign minister, Laurent Fabius, and Italy sent several of its government ministers.⁸³ This revelation demonstrates a fact which has been prevalent in the business community since the announcement of the framework of an agreement: European companies have been much more involved in Iran than American companies have been. As referenced earlier, the American government inserted the snapback sanctions in the nuclear agreement with Iran. While the European Union delegation agreed that snapback sanctions should be included in the deal, the circumstances surrounding the reintroduction of these sanctions are very different for the two groups. According to Alissa Rubin of *The New York Times*, the Europeans have a much higher threshold for Iranian misbehavior regarding their end of the agreement.⁸⁴ Rubin reported that the Europeans are much less likely to reinstitute sanctions against Iran. Because of this, it is perfectly acceptable to assume that the levels of investment in Iran from European companies will be more than enough to make up for the lack of investment from US companies. European companies face a much lower degree of risk than American companies face and thus would be more likely to invest in Iran.

Mary Fromyer also shared an optimistic view of Europe's role in the future of Iran. While she said that American companies will most likely stay away from Iran, she believes that European companies will be "heavily" involved in Iran.⁸⁵ She said that European companies have a tremendous opportunity given the fact that there is only a small likelihood that the European Union will reinstitute sanctions against Iran. She expressed a sentiment similar to Alissa Rubin of *The New York Times* when she said that the Europeans were likely to allow for a "far greater amount of leeway" than their American counterparts in terms of how far they will

⁸³ Rubin, Alissa J. "After Deal, Europeans Are Eager to Do Business in Iran." *The New York Times*. 1 Aug. 2015. Web. 31 Oct. 2015.

⁸⁴ Rubin, Web.

⁸⁵ Fromyer, Mary. Personal Interview. 12 Nov. 2015.

allow the Iranians to push the terms of the agreement.⁸⁶ She specifically referenced the oil and auto industries as the sectors which will be particularly involved in Iran. She said that she had spoken with several of IBC's European clients in these fields [who she requested remain nameless] and they all expressed a great deal of excitement regarding Iran.⁸⁷ According to Fromyer, these companies see Iran as a tremendous investment opportunity and one which they believe will prove to be very profitable for their companies.⁸⁸

We must now decide which of these two scenarios will play out. Will companies be deterred by the amount of risk surrounding Iran? Will American companies refrain completely from interacting in Iran because of the risk that their government will reinstitute sanctions? Will European companies decide to invest in Iran given that their governments are less likely to reinstitute these sanctions? I believe that, for the most part, American companies will stay away from investing in Iran because of the risk that the American government may reinstitute sanctions. Some companies will enter into the Iranian market, but I think that the majority of American companies will stay away. That being said, European companies will heavily invest in Iran. As has been demonstrated, many European governments and companies have already expressed a great deal of interest in Iran. Once these companies flood into Iran with massive amounts of capital, it will make it much tougher for European governments to reinstitute sanctions knowing how devastating it will be to their companies. Also, knowing the effect which money and big corporations have on political decisions, one would question whether these corporations would allow the governments to make such a change. To summarize, while I believe that American companies will stay away from investing in Iran for the most part, European companies will more than make up for this lost investment. Iran will be able to get the

⁸⁶ Fromyer, Mary. Personal Interview. 12 Nov. 2015.

⁸⁷ Fromyer, Mary. Personal Interview. 12 Nov. 2015.

⁸⁸ Fromyer, Mary. Personal Interview. 12 Nov. 2015.

necessary investment required to upgrade their infrastructure and will see a great deal of investment across a number of different industries.

VI. The Introduction of Trade

One of the major ways in which an economy can improve its economic standing is by engaging in trade. Engaging in trade allows a country to shift its production possibility frontier outward by growing the consumer base available to producers. This is one of the best ways a country can increase the rate at which its economy grows. Trade also has many other social and cultural aspects which make it an appealing idea to many countries. Trade also allows for the formation, mending, or deepening of ties between nations, ethnicities, or even religions. This is not to say that trade could solve all of the problems in the Middle East, but, as economic research shows us, trade can be a very valuable resource in staving off conflict between two parties.⁸⁹⁹⁰

In the case of Iran, trade has the potential to play a major role in their economy going forward. If the Iranians engage in trade with the rest of the world, they could see a vast amount of economic growth which could not easily be attained if they keep their economy closed to many of the other major economies. As has been discussed, trade with the United States will likely remain low because of the continued presence of sanctions and of the possibility that sanctions could be reintroduced if Iran were to violate the agreement. Even if trade between the US and Iran remains nonexistent, resuming trade with European partners, which was interrupted by the 2012 sanctions, could provide a sizeable windfall for the Iranian economy.

After the nuclear deal with Iran was announced in July, the International Monetary Fund issued a report in which they analyzed the economic implications of the agreement. One of the

⁸⁹ Polacheck, Solomon and Carlos Seigle. "Trade, Peace, and Democracy: An Analysis of Dyadic Dispute," In Todd Sandler and Keith Hartley (eds.), *Handbook of Defense Economics*, Vol. 2. (2007) New York: Elsevier. Print. 1017-1073.

⁹⁰ Russett, Bruce and John Oneal. "Triangulating Peace: Democracy, Interdependence, and International Organizations." New York: WW. Norton & Company. Print.

major factors which they believe will contribute to the economic recovery of Iran is the reintroduction of trade in the Iranian economy.⁹¹ They state that there will be a “positive external demand shock, both for oil and non-oil exports. In addition, the decline in the cost of external trade and financial transactions will act as a positive terms-of-trade shock (lowering the price of imports and raising the price of exports).”⁹² They project that, if the nuclear deal is implemented and Iran abides by the concessions which they made in the deal, the economy of Iran “could rise up to 5 ½ percent in 2016/2017 and 2017/2018, while hovering around 3 ½-4 percent annually in the years after.”⁹³ They go on to say that, after the increase in oil output, the increase in trade will result in the biggest boost to economic growth. They report that the increase in trade will account for ¾ - 1 percentage point of the projected 5 ½ percent growth in GDP.⁹⁴ If these projections come to fruition, this will prove to be a tremendous boost to the Iranian economy.

Shanta Devarajan also extolls on the virtues of trade in his report for the World Bank. Mr. Devarajan starts by explaining how devastating the sanctions were to Iran’s export economy. He reports that “the tightening of US and EU sanctions led to a loss of \$17.1 billion in export revenues during 2012-2014, equivalent to 13.5 percent of total export earnings and about 4.5 percent of its GDP.”⁹⁵ Devarajan also detailed the amount of exports in US dollars lost per country due to the imposition of sanctions by the world community. These amounts of lost exports can be seen in Table 1 below.

⁹¹ “Economic Implications of Agreement with the Islamic Republic of Iran.” *International Monetary Fund*. Print. Page 82. 1 Nov. 2015.

⁹² “Economic Implications of an Agreement with the Islamic Republic of Iran,” 82.

⁹³ “Economic Implications of an Agreement with the Islamic Republic of Iran,” 83.

⁹⁴ “Economic Implications of an Agreement with the Islamic Republic of Iran,” 83.

⁹⁵ Devarajan, 6.

Country	Exports in 2011 US\$ million	Estimated loss of exports in 2012-2014 US\$ million
Japan	11,688	7,542
South Korea	10,303	4,403
Italy	6,762	2,899
Singapore	2,022	979
Germany	907	535
Netherlands	2,000	307
France	2,225	214
UK	525	165
US	1	4

Source: Devarajan, Shanta, Lili Mottaghi, Elena Ianchovichina and Hadi Salehi Esfahani. "Economic Implications of Lifting Sanctions on Iran." *Middle East and Northern Africa World Bank Quarterly Economic Brief*. 5 July 2015. Print. 29 Aug. 2015.

As this chart demonstrates, there is a significant drop in trade with both Asian and European nations. Japan, South Korea, and Singapore account for almost \$13 billion in lost trade. The majority of the other lost trade is with European countries which accounts for more than \$4 billion in lost trade. This loss in trade represents what was probably the biggest consequence of the sanctions for Iran. Being closed off to the rest of the world has caused their economy to suffer from a lack of demand. This lack of demand greatly slowed down many industries across Iran which further deepened the economic struggle which they were going through.

This same report also names a number of countries which will likely see an increase in trade with Iran once the sanctions are lifted. It states "If the Iranian economy opens up and trade resumes, imports will likely shift towards the US, Germany, Netherlands, and in Asia towards South Korea, China, and Singapore."⁹⁶ Contrary to Mr. Devarajan's report, it is highly unlikely that trade between the US and Iran will increase by anything close to a substantial margin due to the fact that most of the US sanctions will remain in place.⁹⁷ While there will be some exceptions in fields such as civil aviation and medicine, the majority of US businesses will be continued to be barred or refrain from doing business in Iran. That being said, there is still a great amount of

⁹⁶ Devarajan, 8.

⁹⁷ Ydstie, John. "What Lifting Iran's Sanctions Mean for US Businesses." *National Public Radio*. 17 Jul. 2015. Web. 2 Nov. 2015.

potential for trade with the rest of the world. As referenced in an earlier section, there are a large number of European companies who are interested in investing in Iran. While it may be unrealistic to expect that Iran will see the entirety of the \$17.1 billion lost in trade return to its economy, it is very likely that Iran will receive a large economic boost from their reentry into the global trade market.

VII. The Role of the Iranian Government

Traditional economics shows us the myriad ways in which government affects the economy of a country. Government spending can prove to be one of the most effective ways in which a government can improve economic conditions within their borders. During the aftermath of the 2008 Financial Crisis, the United States government undertook a massive, \$800 billion spending program aimed at reinvigorating the depressed American economy.⁹⁸ Many economists have argued that the reason why our country's recession lasted as long as it did was because the stimulus program was not large enough.⁹⁹ This example shows the major role which government plays in the economy of a country.

The government of Iran will have to play a similarly large role if they wish to achieve the massive economic potential which we have discussed in this paper. However, the government of Iran has had a "mixed record" when it comes to managing past influxes of investment.¹⁰⁰ In the past, the government has been mired by poor governance, misallocation of resources, and corruption. President Hassan Rouhani has said that his administration has led a crackdown on corrupt individuals within the government. But there is widespread belief that these arrests and convictions from corruption are merely a show for the Western world and that Iran has not truly

⁹⁸ Yourish, Karen. "Taking Apart the \$819 billion Stimulus Package." *The Washington Post*. 1 Feb. 2009. Web. 23 Nov. 2015.

⁹⁹ Krugman, Paul. "How Did We Know The Stimulus Was Too Small." *The New York Times*. 28 Jul. 2010. Web. 23 Nov. 2015.

¹⁰⁰ Devarajan, 16.

addressed the systematic problems within their government. These factors have greatly contributed to the poor economic situation which Iran is in. How the Iranian government handles this new influx of investment and whether they have truly addressed the corruption within their government will greatly affect the economic outcome for the rest of the country.

One way which will help us to understand how the Iranian government will act in the future is to look at how they have handled similar situations in the past. Many people say that the upcoming boost to Iran's economy is unlike anything that they have ever seen before. While this may be true, there have been several instances where Iran's economy has experienced a significant windfall in the past. In his report, Shanta Devarajan summarizes several of the recent examples of economic surges which have been experienced in Iran over the past several decades. Reviewing the way in which the Iranian government handled these windfalls could prove to be very beneficial in understanding how they will handle future economic booms.

The first example which Devarajan summarizes is in the 1970s. He says that Iran established a Planning Organization in 1948, when oil production and exports first started to increase.¹⁰¹ This planning organization was given a portion of the oil revenues and tasked with "boosting investment, especially in infrastructure development."¹⁰² Then in 1973, as oil prices began to rise, the Shah of Iran decided that he would personally guide all investments, disbanding the Planning Organization.¹⁰³ This decision had disastrous effects on the economy of Iran. According to Devarajan, inflation accelerated and the real exchange rate depreciated due to the "lack of planning and appropriate deliberation."¹⁰⁴ While this example truly does not look good for the future of Iran we must remember that this occurred during a completely different

¹⁰¹ Devarajan, 18.

¹⁰² Devarajan, 18.

¹⁰³ Devarajan, 18.

¹⁰⁴ Devarajan, 18.

regime and under a completely different system of government where one person was given a tremendous amount of power to make decisions which affected the entire economy. While the government of Iran has not truly embraced democracy, they have taken steps to ensure that decisions of this magnitude do not completely fall under the discretion of one person. We cannot be completely sure that they have accomplished this goal without looking at different examples of how the next generation of Iranian leaders handled these similar situations.

Next, Devarajan offers an example which has several similarities to the upcoming economic situation in Iran. Towards the end of the 1980s, Iran and Iraq finished a war which lasted almost 8 years in length and proved to be very costly for both sides both in terms of monetary and human losses. The similarities between our current situation and in this case lies in the fact that trade and investment within Iran had undergone a serious decline and in that Iran had gone through an extended period of isolation from the rest of the world.¹⁰⁵ Once the war was over, Iran sharply increased their oil production and, with the revenue from this increase in production, the government began to increase their investment in their country's infrastructure.¹⁰⁶ This increase in government spending led to a feeling of great optimism throughout the Iranian economy and also helped precipitate a great deal of economic growth.¹⁰⁷ Thinking that the economy would continue to improve, many Iranian firms began to take out short-term debt in international markets.¹⁰⁸ In order to allow for the greatest explanation of the events which followed, I have included Shanta Devarajan's explanation of the events:

The government brought down the sky-high official real exchange rate, briefly unified the multiple exchange rates, and opened up the external capital amount.

¹⁰⁵ Devarajan, 18.

¹⁰⁶ Devarajan, 18.

¹⁰⁷ Devarajan, 18.

¹⁰⁸ Devarajan, 18.

The devaluation increased government revenues in rials and allowed it to expand expenditures substantially, including development spending. However, there was little buildup of reserves to deal with contingencies. As a result, when the short-term debt came due in 1993-1994, the economy landed in a balance of payment crisis, prompting a return to multiple exchange rates and harsh market controls. Investment, especially in the private sector, declined sharply.¹⁰⁹

As you can see, this is another example of how poor planning and economic foresight on the part of the Iranian government led to a disastrous handling of the windfall which was readily available for the Iranian government.

The final scenario which Devarajan notes occurred during the 2000s. Devarajan prefacing the summary by noting that oil prices had begun to rise during the early 2000s.¹¹⁰ He says that the Iranian government again “devalued the official exchange rate and unified the currency, though this time around the central bank had built more reserves.”¹¹¹ He went on to say that the government again increased spending in response to a rise in oil prices. To complicate the economic problems even more, Mahmoud Ahmadinejad was elected President of Iran in 2005. As Devarajan notes, President Ahmadinejad was elected by promising to focus on “redistributive projects with quick returns.”¹¹² Ahmadinejad increased spending dramatically by offering massive subsidies, particularly to companies within the energy and oil industries.¹¹³ These subsidies only proved to increase Iran’s dependence on oil and opened them up to an even greater amount of exposure to shocks in the oil market. When the international community enforced sanctions on the Iranian government in 2012, the increased dependence on oil exports

¹⁰⁹ Devarajan, 18.

¹¹⁰ Devarajan, 18.

¹¹¹ Devarajan, 18.

¹¹² Devarajan, 18.

¹¹³ Devarajan, 18.

delivered a crushing blow to the Iranian economy. Devarajan states that “As oil revenues fell, the rial crashed and inflation shot up to over 40 percent. Sharp declines in development expenditure, investment, and GDP soon followed.”¹¹⁴

In all three cases, several common themes emerge. First, the poor foresight and lack of economic knowledge cannot be stressed enough. It seems as though the government of Iran acts similar to a child in a candy store when the price of oil rises. When this happens, they dramatically increase spending which ends up being disastrous in the long-run because of the constant and dramatic fluctuations which the international oil market goes through. There economy grows to a level which is unsustainable in the long-run leading to an inevitable crash landing for many of the industries within the economy. They seem to be content with offering a short-term economic boost even if it comes at the expense of the long-run economy. This scenario may well continue to be present in the economy of Iran as long as they continue to be heavily reliant on oil as part of their government revenues.

Second, much of this lack of guidance may stem from the lack of a powerful central bank similar to one in Western countries. In Iran, the central bank is entirely owned by the government and the government has a great deal of input over the policy decisions which the institution makes.¹¹⁵ In the US, the Federal Reserve acts as the independent determiner of the monetary policy of the United States. Other than the appointment and confirmation of senior officials, Congress and the President have almost no authority to influence the policy decisions put forth by the Fed.

This system of having an independent bank determine monetary policy for the country allows for several things. First, we can be assured that the people making these decisions are

¹¹⁴ Devarajan, 18.

¹¹⁵ Islamic Republic of Iran. “The Monetary and Banking Law of Iran.” Tehran. 1972. Print.

very knowledgeable in the fields of banking and economics. They have a greater understanding of how their decisions will affect the economy than elected officials who come from different backgrounds and are required to have knowledge of a vast array of issues while not necessarily being experts in all of them. Second, there is a greater likelihood that these decisions will not be politically charged. By virtue of the office which they hold, politicians must strive to keep their constituents happy. Eventually, they have to get reelected and they make decisions every day with this in mind. We can see how this easily translates to our issue. Politicians want to show their constituents fast and beneficial solutions. Thus, they would be more inclined to make a policy decision which offers a short-term benefit at the expense of the long-term health of the economy. A politically insulated official working for a central bank would have both a superior understanding of the economy and a reluctance to make decisions based on political benefits. Having something similar to this would do a great deal to improve the long-term health of the Iranian economy.

These examples have allowed us to see how the Iranian government has handled situations similar to the one which they are about to encounter. While they undoubtedly serve an important purpose in our discussion, we must concentrate on how the current Iranian regime will handle the upcoming economic situation. The message which Hassan Rouhani ran on during his campaign for the presidency was one of reform and openness. To qualify this we must note that Iran's idea of openness and reform is completely different than what we as Americans would consider open. However, Rouhani's election in 2013 showed that Iranians were looking to move their country forward or at least in a direction different than the one in which they were headed during the previous administration, which had been marred by corruption and poor economic planning. For our purposes, it is crucial to understand whether President Rouhani's

intention of creating a more open and less corrupt Iran will come to fruition. I believe that this is the biggest issue which will determine whether Iran is able to build a long-term, sustainable economic foundation upon which they can allow their country to grow.

As has been stated several times previously in this paper, corruption has been a serious problem in Iran for many decades. Dr. Majid Rafizadeh, who serves as President of the International American Council, said “Corruption in Iran is ingrained in the political and financial institutions that are the country’s backbone.”¹¹⁶ When President Rouhani ran for the presidency in 2013, one of his main campaign promises was to try and decrease the amount of corruption within the Iranian government. Many have applauded the efforts which have been made so far to work towards this goal. The most notable move on the anti-corruption fight was the arrest of former Vice President Mohammad Reza Rahimi.¹¹⁷ At the very least, this move showed that the Rouhani administration would not condone the same type of corrupt atmosphere which was prevalent during the previous administration. Bijan Khajehpour, a managing director at Atieh International, which is a group of strategic consulting firms, remarked that “There is no doubt that the administration of President Hassan Rouhani is serious about fighting corruption.”¹¹⁸ Khajehpour also said “The Rouhani administration has done a great deal to fight pervasive corruption in Iran, and though progress is slow, the removal of sanctions will clear the way for further efforts.”¹¹⁹ To summarize all of these thoughts, while progress on the issue may be slow, there seems to be many people who believe that Iran is moving in the right direction to make their government more transparent and less corrupt.

¹¹⁶ Rafizadeh, Dr. Majid. “Iran’s Corruption and Human Rights.” *Huffington Post*. 24 Oct. 2015. Web. 25 Nov. 2015.

¹¹⁷ “Iran’s former vice president jailed for corruption.” *The Guardian*. 15 Feb. 2015. Web. 26 Nov. 2015.

¹¹⁸ Khajehpour, Bijan. “What Rouhani’s done to fight corruption.” *Al-Monitor*. 29 Sep. 2015. Web. 26 Nov. 2015.

¹¹⁹ Khajehpour, Web.

However, this optimism over the future of the Iranian government is not ubiquitous. In 2014, Transparency International ranked Iran 136 out of 175 nations in their Corruption Perception Index.¹²⁰ The Corruption Perception Index “ranks countries/territories based on how corrupt a country’s public sector is perceived to be. It is a composite index, drawing on corruption-related data from expert and business surveys carried out by a variety of independent and reputable.”¹²¹ In an article on the arrest of former Vice President Rahimi, Arron Reza Merta said “Accusations of corruption in Iran rarely result in a conviction, unless there is a political interest in making them public.”¹²² He also referenced an anonymous Tehran-based analyst who said that Supreme Leader Ayatollah Ali Khamenei “has permitted Rahimi’s conviction, albeit without disclosing his crimes, to let out some steam and to try and convince the public that the system is taking corruption seriously.”¹²³ This statement seems to imply that the government of Iran is only taking corruption seriously on the surface while not truly taking a hardline stance on the issue. Merta also gave his reasoning behind why the Rouhani government had to make an example of the former Vice President. He said that this arrest gives credence to the idea that the economic ills which Iran has been experiencing over the past several years were due to the corruption and malfeasance of the previous administration. Merta goes on to say that “Its Ahmadinejad’s people who should be blamed for the bitter medicine Iran must swallow.”¹²⁴ Merat closes by offering his pessimistic view for the future of Iranian politics by saying “Corruption under former President Mahmoud Ahmadinejad has proven too systematic and complex to undo without major reforms.”¹²⁵ Thus, while some believe that the Rouhani

¹²⁰ “Iran.” *Transparency International*. Web. 25 Nov. 2015.

¹²¹ “Iran.” *Transparency International*. Web. 25 Nov. 2015.

¹²² Merat, Arron Reza. “Iran’s webs of corruption prevalent, but hidden.” *Al-Monitor*. 30 Sep. 2015. Web. 26 Nov. 2015.

¹²³ Merat, Web.

¹²⁴ Merat, Web.

¹²⁵ Merat, Web.

administration has been making the necessary changes to combat corruption within their government, others do not believe that they have done enough or that they truly desire to make the structural changes which will be required to reduce the amount of corruption within the government.

We must now try to understand whether the Rouhani administration will follow through on their promises to try and reduce the amount of corruption within the Iranian government or whether the government and the economy will continue to be bogged down by the corruption which has plagued it from many decades. Ultimately, I think that the Rouhani government will not be successful in their efforts. Corruption in Iran is too widespread and engrained in the fabric of their government to be totally or even substantially eradicated. Arron Reza Merta noted how systematic and encompassing the issue of corruption was in Iran and he also noted how large the changes would have to be in order to modify the system. At this point in Iran's history and government I think that they have neither the capacity nor the will to enact these changes. As has been referenced before, even the Rouhani government, whose supposed core principle was to make the Iranian government more transparent, has not necessarily attacked the problem of corruption with as much veracity as they promised that they would leading some to question if they truly desire to take on the problem at all. In summation, corruption and mismanagement in Iran will prove to be too systematic to truly eradicate and will hurt the economy of Iran in both the long and short term.

VIII. Conclusion

When the European Union joined the United States in 2012 to sanction the government of Iran, the impending sanctions proved to be crippling to the Iranian economy. Iran's inability to export oil, the product of their largest industry, severely hurt the overall economy of Iran due the

country's heavy dependence on the product. Once Iran complies with the terms which they agreed to in the Joint Comprehensive Plan of Action, these sanctions will eventually be lifted and they will reenter into the global economy. This reintroduction into the global marketplace will prove to be a great boost to the economy of Iran. They will once again be able to engage in trade with European countries which will provide them with a large increase in revenue, primarily in their oil sector. Over the course of this paper, we have tried to understand the factors which will determine the magnitude of this boost to the Iranian economy.

There are a number of factors of this deal which will undoubtedly contribute positively to Iran's economy. First, simply being able to export products, specifically oil, will provide the biggest boost. As has been stated many times previously, oil has been and continues to be the most prominent driver of Iran's economy. Being able to export oil to a greater number of consumers will greatly increase the revenue coming into the Iranian government. Second, resulting from the enormous potential in the energy sector, Iran will receive a great deal of investment from companies outside their borders. While the continued implementation of US sanctions will most likely keep American companies from investing in Iran, European companies will not be deterred. These European companies will invest a great deal in Iran, providing them with the large amount of capital which they will need in order to make the necessary improvements to their infrastructure. Finally, the reintroduction of trade will also provide a boost. Shanta Devarajan estimated that Iran lost around \$17 billion in exports due to the imposition of sanctions.¹²⁶ While it may be unreasonable to assume that Iran will return to this level immediately, it is fair to assume that they will be able to regain some of these losses from trade which will prove to be another gain for their economy.

¹²⁶ Devarajan, 6.

There are also several factors which will contribute negatively to Iran's economic recovery. First, the current state of the global oil market will not allow Iran to achieve all that they could under better circumstances. The supply glut which the international oil market is currently experiencing drives the price of oil down which decreases the profit which Iran can make selling their oil. In addition, the Saudis, Iraqis, and Russians are all likely to increase their production and export of oil in the coming months. As stated previously, simply being able to export oil again will provide Iran with a boost, but this boost could have been much larger if it had occurred during a time of higher oil prices. Second, historically the Iranian government has had a poor track record in terms of being able to manage periods of sudden economic prosperity. Due to a number of factors including poor economic planning and a lack of oversight, the Iranian government has continually mortgaged the future health of the economy in return for a short-term boost. While the administration of President Hassan Rouhani has offered more optimism than previous administrations, corruption and a lack of adherence to economic principles will continue to plague the economy of Iran.

Taking all of these factors into account, I think that the economy of Iran will definitely see a boost from the lifting of sanctions against them. However, knowing that Iran has a poor track record when it comes to managing similar periods of economic prosperity, I question the long-term sustainability of this economic boost. Another factor which makes me question the long-term sustainability is Iran's dependence on oil. Their economy and government relies heavily on a product which has shown a great amount of volatility in recent years and is susceptible to large swings in prices. While this has the potential to be a contributor to Iran's recovery if the price swings up, Iran runs a great risk of being greatly hurt if the price continues

to decline. While I do think that the Iranian economy will improve as a result of the lifting of sanctions, the long-term health of their economy remains in question.

By way of closing, one of the more fascinating aspects of this deal is whether the economic benefits which the Iranians will receive will prove attractive enough to force them to follow through with the concessions which they made in the deal. Namely, will they truly scale down their nuclear program in order to keep the economic benefits of this deal in place? It is also interesting to see how far their partners in the agreement, namely the Europeans, will allow them to push the terms of the agreement before they reinstitute the snapback sanctions. European companies will also lose a great deal of money if their governments reinstitute sanctions against Iran, so one would think that they would have a greater amount of patience for misbehavior than say their American counterparts. Ultimately, I think that, while Iran may push the limits of their end of the deal, they will adhere to the major aspects in order to ensure the economic benefits of the agreement remain in place. I also think that the European governments will be very reluctant to reinstitute sanctions against Iran knowing that their companies would stand to lose a great deal. Ultimately, I believe that this deal will achieve the goals set forth by the Obama administration to keep Iran from obtaining a nuclear weapon which makes the world a much safer place.

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