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Impact of Oil Companies on Iranian Economy

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Abstract: *Iran's economy relies heavily on crude oil export revenues, representing about 80-90 percent of total export earnings and 40-50 percent of the government annual budgets. In the present paper we discussed the contribution of oil companies in the economy of Iran, and macroeconomics behavior of Iranian economy. Furthermore, we tried to examine the impact of inflation on the economy of Iran. We also reviewed fiscal and monetary policy of Iran regarding the industry. In addition, the employment position in the oil companies of Iran was clarified.*

Key words*: Macroeconomic, Actuations, Oil Price Shocks, Developing Economies*

INTRODUCTION

The first major oil field in Iran was discovered in 1908 (Esfahani et al., 2013). Iran holds 10% of the world's proven oil reserves. Furthermore, it has the world's second largest reserves of natural gas (15% of the world's total), mainly in South Pars; these are exploited primarily for domestic use. Since 1913, Iran has been a major oil exporting country. The main oil fields are found in the central and southwestern parts of the Zagros mountains in western Iran. Oil also is found in northern Iran and in the offshore waters of the Persian Gulf.

In the late 1970s, Iran ranked as the fourth largest oil producer (OPEC's second largest oil producer) and the second largest oil exporter in the world. Following the revolution in 1979, however, the government reduced daily oil production in accordance with an oil conservation policy. Further production declines occurred as a result of damage to oil facilities during the imposed war with Iraq. Oil production began increasing in the late 1980s due to the repair of damaged pipelines and the exploitation of newly discovered offshore oil fields in the Persian Gulf.

The main refineries are located at Abadan, Kermanshah, and Tehran. The oil refining industry of the country needs a $15 billion investment for its development over the next 5 years to become self-sufficient and end imports. Pipelines move oil from the fields to refineries and to exporting ports such as Abadan, Bandar-e Mashur, and Kharg Island. Since the late 1990s, oil and gas industry of Iran has entered into influential exploration and production agreements with foreign consortia, notably in Asalouyeh. By 2004, Iran's annual oil production was 1.4 billion barrels, creating a net profit of $50 billion. Iran manufactures 60–70% of its industrial equipment domestically, including refineries, oil tankers, drilling rigs, offshore platforms, and exploration instruments. With a fertilizer plant in Shiraz, the largest ethylene unit in the world in Asalouyeh and the completion of other PSEEZ projects, Tehran expects to see a surge in petrochemical exports from of $5.5 billion in 2007 to a total of nearly $9 billion in 2008.

In February 2008 the Iranian Oil Bourse was inaugurated in Kish Island to trade crude oil and petrochemical products. The transactions are made in the Iranian rail and other major currencies (except for USD). In the same year, energy wastage in Iran amounted to six or seven billion dollars. The energy consumption in the country is extraordinarily higher than international standards. It has the third largest consumption of natural gas in the world after the United States and Russia. Only 28% of used oil and gas are recycled in Iran, whereas for certain countries it reaches up to 60%.

Iran receives 60% of the government income from oil. Furthermore, 80 % of the total export is dominated by oil and gas. Oil, inflation and employment are three important purposes of macroeconomics. Oil is seen as a major factor which plays a vital role in the growth of economy of Iran. It is clear that in the nearly last four decades, inflation has been one of the most serious problems of Iranian economy. Inflation with effect on economic growth, employment, income distribution and wealth as well as social and political conditions of a country, can influence the entire dignity of a country. During the last three decades, the rate of inflation has been two digits. The present study was aimed: 1) to study contribution of Oil companies in the economy of Iran; 2) To focus on macroeconomics behavior of Iranian economy; 3) To examine the impact of inflation on the economy of Iran; 4) To review fiscal and monetary policy of Iran regarding the industry; 5) To find out the employment position in the oil companies of Iran.

Methodology of Research

A qualitative research approach was adopted in this study. The study is based on secondary method and the study material collected from books, magazines, newspapers, different websites and several Governmental publications of Iran.

Fiscal and monetary policy

In 2008, about 55% of the governmental budget came from oil and natural gas revenues, and 31% came from taxes and fees. The country balances its external accounts around $75 per barrel. According to a report by the Economist, Iran has been ranked 39th for producing $23 billion of industrial products in 2008. From 2008 to 2009 Iran has leaped to 28th place from 69th in annual industrial production growth rate. A report made by United Nations Industrial Development Organization in 2004 identified the following reasons as the problems of industrial development of Iran: lack of monitoring institutions, inefficient banking system, lack of sufficient R&D, shortage of managerial skills, corruption, inefficient taxation, socio-cultural apprehensions, absence of social learning loops, lack of familiarity with international markets necessary for global competition, cumbersome bureaucratic procedures, shortage of skilled labor, lack of intellectual property protection, shortage of research centers, lack of social capital, social learning, social responsibility, and socio-cultural values .

Although the petroleum industry provides the majority of economic revenues, about 75% of all mining sector employees work in mines producing minerals other than oil and natural gas. These include coal, iron ore, copper, lead, zinc, chromium, barite, salt, gypsum, molybdenum, strontium, silica, uranium, and gold (mostly as a co-product of the Sar Cheshmeh copper complex operations). The mines at Sar Cheshmeh in Kerman Province contain the world's second largest lode of copper ore. Large iron ore deposits lie in central Iran, near Bafq, Yazd, and Kerman. The government owns 90% of all mines and related large industries in Iran and is seeking foreign investment for the development of the mining sector. In the steel and copper sectors alone, the government is seeking to raise around $1.1 billion in foreign financing. The sector accounts for 3% of the country's exports.

Iran has recoverable coal reserves of nearly 1.9 billion short tonnes. By mid-2008, the country produced about 1.3 million short tonnes of coal annually and consumed about 1.5 million short tonnes, making it a small net importer of coal. The country increased hard-coal production to 5 million tons in 2012 from 2 million tons in November 2008. Main steel mills are located in Isfahan and Khuzestan. Iran became self-sufficient in steel production in 2009. By March 2009, Aluminum and copper production hit 245,000 and 383,000 tons, respectively Cement production reached 65 million tons in 2009, while Iran exports this item to 40 countries.

Foreign direct investment

In the 1990s and early 2000s, some indirect oilfield development agreements were made with foreign firms. Buyback contracts in the oil sector, for instance, were arranged in which the contractor funded all the investments, and then received remuneration from the National Iranian Oil Company (NIOC) in the form of an allocated production share, then transferred operation of the field to NIOC after a set number of years, at which time the contract was completed. Stock of Foreign Direct Investment in Iran hit a record

of $10.2 billion in 2007 from $4.2 billion in 2005 and $2 million in 1994. By 2009 Iran had invested $793 million abroad and received $7.854 billion at home.

Foreign investment has been hindered by unfavorable or complex operating requirements and by international sanctions, although in the early 2000s the Iranian government liberalized investment regulations. Iran absorbed $24.3 billion of foreign investment from 1993 to 2007. Foreign direct investment in Iran hit a record $10.2 billion in 2007 from $4.2 billion in 2005 and $2 million in 1994. Foreign transactions with Iran amounted to $150 billion worth of major contracts between 2000 and 2007, including private and government lines of credit. In 2007, Iran had $62 billion worth of assets abroad.

Foreign investors have concentrated their activity in a few sectors of the economy including energy, vehicle manufacture, copper mining, construction, utilities, petrochemicals, clothing, food and beverages, telecom, and pharmaceuticals. Iran is a member of the World Bank's Multilateral Investment Guarantee Agency. In 2006, the combined net worth of the Iranian citizens abroad was about 1.3 trillion dollars. The EIU estimates that Iran's net FDI will rise by 100% within the next four years. Firms from over 50 countries have invested in Iran in the past 16 years (1992–2008), with Asia and Europe receiving the largest share (Table 1).

Table 1. List of countries invested in Iran from 1992 to 2008.

Continent of origin	Leading countries investing in Iran (1992–2008)	Number of projects	Total amount invested
Asia	United Arab Emirates (UAE), Singapore, Indonesia and Oman	190	$11.6 billion
Europe	Germany, the Netherlands, Spain, UK, Turkey, Italy and France (20 countries in total)	253	$10.9 billion
Americas	Canada, Panama, the USA and Jamaica	7	$1.4 billion
Africa	Mauritius, Liberia and South Africa	N/A	$8 billion
Australia	Australia	1	$682 million

International sanctions

After the Iranian Revolution in 1979, the United States ended its economic and diplomatic ties, banned Iranian oil imports and froze approximately $11 billion of its assets. In 1996, the U.S. Government passed the Iran and Libya Sanctions Act (ILSA) which prohibits U.S. (and non-U.S. companies) from investing and trading with Iran for more than $20 million annually, with the exception, for items like pharmaceuticals and medical equipment. Since 2006, Iran's Nuclear Program has become the subject of contention with the West because of suspicions regarding Iran's military intentions. This has led the UN Security Council to impose sanctions against Iran, thus furthering its economic isolation on the international scene. Sanctions notably target investments in the Islamic Republic's oil industry, on which Iran's economy is heavily dependent (Calamur, 2018). It is estimated that one third of Iran's imported goods and exports are delivered through the black market, underground economy, and illegal jetties.

Unfortunately, due to a lack of confirmable data on the economic stability of Iran, it is difficult to estimate the accurate economic robustness of the system facing the sanctions. Following the Revolution in 1979, constant international restrictions resulted in the emergence of "economy of resistance". Above-mentioned factors resulted in the weak performance of the Iranian oil and gas sectors (Dudlák, 2018).

Development of Oil Industry in Iran

Petroleum had been the main industry in Iran since the 1920s. Iran was the world's fourth largest producer of crude oil and the second largest exporter of petroleum at the peak of its oil industry in the mid-1970s. The war with Iraq cut Iran's production in the 1980s. Nationalization of the oil industry in 1951 resulted in temporary political and financial chaos. As part of the nationalization process, the government formed the National Iranian Oil Company (NIOC). The resolution of the oil crisis in 1954 (nationalization of oil as well as the signing of the Consortium Agreement between the government and a consortium of foreign oil companies) led to a policy of increased economic and political cooperation between Iran and states outside the Soviet sphere of influence. In 1961, Iran joined with other major oil-exporting countries to form OPEC, whose members acted in concert to increase each country's control over its own production and to maximize its revenues.

Between 1975 and 1978, Shah Mohammad Reza Pahlavi encouraged a high level of oil production and increased spending on imported goods and services, as well as military and economic aid to a small number of Iran's allies. As the bazaar did not benefit from the 1974-78 oil booms, its members helped lead and finance the Revolution. The series of national reforms and development programs that the Shah had embarked on in the 1950s came to be known in 1963 as the "White Revolution". Following the 1979 Iranian Revolution, Khomeini's government shifted the emphasis by decreeing a policy of oil conservation, with production reduced to a level sufficient to do no more than meet foreign exchange needs.

The efforts, initiated by the king, to develop the petrochemical industry were thwarted by the Iran-Iraq War. The king had begun construction of a large petrochemical plant at Bandar Shahpur (now Bandar-e Khomeini) to produce fertilizers and sulfur. The plan was to expand production to include aromatics and olefins in a joint venture with Mitsui, a Japanese consortium. The plant, which cost US$3 billion, had almost been completed at the time of the Revolution. Iraqi planes bombed the still-unfinished plant in late 1986. Other petrochemical plants were completed soon after 1979, including the Khemco sulfur plant on Khark Island and a fertilizer plant at Marv Dasht near Shiraz. In 2000, Iran, which was the world's fourth largest producer of crude oil, averaged about 3.72 million barrels per day (Mbbl/d). Average crude production had been 3.56 Mbbl/d in 1999 and 3.63 Mbbl/d in 1998. At the end of 2000, Iran had the second largest natural gas reserves (23 trillion cubic meters) and the fifth largest crude oil reserves (89.7 billion barrels) in the world. Petroleum continued to provide the bulk of Iran's foreign exchange.

As of late 2002, Iran held 90 billion barrels of proven oil reserves, or roughly 9% of the world's total. The vast majority of Iran's crude oil reserves were located in giant onshore fields in the southwestern Khuzestan region near the Iraqi border and the Persian Gulf. During 2002, Iran produced about 3.5 million bbl/d of oil. Iran's sustainable crude oil production capacity was estimated by mid-2003 to be at around 3.75 million bbl/d, which was around 250,000 bbl/d above Iran's most recent OPEC production quota of 3.597million bbl/d, made on 1 February 2003.

The gross domestic product of Iran was estimated to be $110.8 billion in 1999. Although inflation was high, according to the Iranian Central Bank, it dropped to about 13% in 2000 compared with 14.5% in 1998 and about 50% in 1995. Iran's economy, which relied heavily on oil export revenues (around 80% of total export earnings, 40%-50% of the government budget, and 10%-20% of GDP), was hit hard by the plunge in oil prices during 1998 and early 1999, but with the rebound in oil prices thereafter, had recovered somewhat. For 2002, Iran's real GDP grew by around 4%. For 2003 it was expected to grow at a slightly higher rate (4.3%). Relatively high oil export revenues the past 1-2 year(s) allowed Iran to set up an oil stabilization fund. For 2003, Iran's budget anticipated a price of around $18.50 per barrel, well below levels at the time.

On 29 October 2004, Iran and China announced the signing of a deal on Chinese investment in Iran's oil fields and the long-term sale of Iranian natural gas to China that could eventually be worth $100 billion. The gas deal entailed the annual export of some 10 million tons of Iranian liquefied natural gas (LNG) for a 25-year period. The deal was noted to have the potential to reach 15-20m tons a year, taking the total value to as much as $200bn. The Iran-Libya Sanctions Act (ILSA) penalized companies investing more than $20 million in Iran's oil and gas sector. In 2005, Iran spent US$4 billion dollars on fuel imports, mainly because of inefficient domestic use. Oil industry output averaged about 4 million barrels per day in 2005 and 2006.

In 2007 Iran had 19,161 kilometers of natural gas pipelines, 8,438 kilometers of oil pipelines, 7,936 kilometers of pipelines for refined products, 570 kilometers of pipelines for liquid petroleum gas, and 397 kilometers of pipelines for gas condensate. Since 2000 several new natural gas pipelines were planned. In 2006 plans called for new pipelines to exploit markets in Armenia and Pakistan. In 2007 a new 160-kilometer line to Armenia began operations. However, a 2,600-kilometer line to Pakistan, which potentially also could supply India, remains in the negotiation stage. Some had failed by 2008 because of geopolitical considerations (for example, US opposition to a key Iranian role in delivering Central Asian oil and gas to the West), and some, such as the gas export line from Iran to Turkey, function at reduced capacity. Natural gas had also become important to Iran's economy, output of which in 2006 was 105

billion cubic meters. In 2007 Iran's estimated income from exports was US$76.5 billion, 85 percent of which came from petroleum and natural gas.

In the early 21st century the service sector contributed the largest percentage of the gross domestic product (GDP), followed by industry (mining and manufacturing) and agriculture. In 2008 the GDP was estimated at $382.3 billion ($842 billion by PPP), or $5,470 per capita ($12,800 by PPP). GDP figure is projected to double in the next five years. The informal economy is also important. In 2009 the ratio of research to GDP reached 0.87% and the set target is 2.5%. Because of these figures and the country's diversified but small industrial base, in 1998 the United Nations classified Iran's economy as semi-developed. Due to huge energy subsidies, Iran is one of the most energy inefficient countries of the world, with the energy intensity three times higher than global average and 2.5 times more than the middle eastern average.

Iran's Economic Conditions: U.S. Policy Issues

Iran is seeking foreign investment to develop its petroleum sector. While some deals have been finalized, reputational and financial risks may have limited other foreign companies' willingness to finalize deals. While Iran-U.S. economic relations are limited, the United States has a key interest in Iran's relations with other countries. As some European countries have curbed trade and investment dealings with Iran, other countries, such as China and Russia, have emerged as increasingly important economic partners. High oil prices have increased Iran's leverage in dealing with international issues, but the country's dependence on oil and other weak spots in the economy have to come to light by the 2008 international financial crisis, which may portend a slowing down of Iran's economy. Members of Congress are divided about the proper course of action in respect to Iran. Some advocate a hard line, while others contend that sanctions are ineffective at promoting policy change in Iran and hurt the U.S. economy. In the 110th Congress, several bills were introduced that reflect both perspectives.

Inflation and growth of Iranian Economy

In recent years, Iran's economic growth has been hampered by double-digit rates of inflation. Although high inflation is widespread among the oil-exporting countries in the Middle East and Central Asia, Iran has one of the highest . Iran's average Consumer Price Index (CPI) inflation level was above 25% at year-end 2008. Through 2009, the CPI inflation level dropped, but remained above 13%. For 2010, budgetary constraints are expected to further reduce inflation. By some estimates, if Iran implements the recently passed subsidy reform bill, then inflation will rise again as the price of food, utilities, education, and other goods and services increases. Domestic factors contributing to the uptick in inflation include expansionary government economic policies and growing consumption demands. External factors include international sanctions against Iran and rising international food and energy import prices .

Economic Policy and Reform Efforts

Over the past few decades, Iran has engaged in a series of five-year economic plans in order to shift its state-dominated economy into an economy that is market-oriented, private sector-led, and economically diversified. Reform efforts have experienced resistance from various elements of Iran's political establishment. Significant strides toward trade liberalization, economic diversification, and privatization took place from 1997 to 2005. The government introduced some structural reforms such as tax policy changes and adoption of new foreign investment laws to promote Iran's global market integration and attract investment. Iran shifted to a unified managed float exchange rate system in March 2002. At various times previously, Iran has had different combinations of exchange rates, including official, export, parallel market, and Tehran stock market versions. The exchange rate reform is considered to have improved Iran's trading environment and to have enhanced public sector transparency modestly Government has taken a more populist approach with his economic policies, with promises of "bringing the oil money to people's tables" when he took office in 2005. Some critics maintain that policies under this administration have been a major contributor to budget deficits and are ineffective tools for combating inflation, unemployment, and poverty.

The government provides extensive public subsidies on gasoline, food, and housing. Energy subsidies alone represent about 12% of Iran's GDP. Some observers estimate total subsidies to reach over 25% of

GDP. When including implicit subsidies, the government's spending on subsidies may be even higher. In addition to subsidies, President has provided cash handouts to the poor. Subsidies and cash handouts are considered by many to be un-targeted and ineffective at helping the poor. Many economists assert that a reduction of Iran's subsidies are necessary for Iran's long-term economic sustainability, there are concerns that subsidy cuts may lead to a sharp increase in inflation of basic goods and gasoline and, based on past experience, lead to political unrest, (Mohaddes and Pesaran 2017). The government has provided low-interest loans for agriculture, tourism, and industry and has instituted loan forgiveness policies. Other activities include the creation of a number of social programs to assist farmer and rural residents. the new cabinet established the $1.3 billion Imam Reza Mehr Fund (Imam Reza Compassion Fund) to assist youth with marriage, housing, and education in 2006. Some economists contend that this new efforts to lower the interest rate have led to excessive liquidity and inflation. The government has used oil export revenues from the Oil Stabilization Fund (OSF) to support expansionary fiscal and monetary policies. The OSF was created by the Bank Markazi, in 2001 to store surplus oil revenue and to smooth economic vulnerabilities associated with oil price fluctuations .

Oil Revenue and growth of economy

Positive and negative oil price shocks expressively raise inflation. Furthermore, there is a positive relationship between positive oil price changes and industrial output growth (Hamdi and Sbia, 2013). Table 2 shows the connection of oil price and growth rate by considering oil revenue which country is getting it from abroad; the rate of inflation also has been considered.

Table 2. The oil price, growth rate and inflation from 2001 to 2006.

year	Oil price (hs)	growth	gnp	Oil re	inflation
2001	17955897	4/7	336070	35874	11.4
2002	17187594	7/4	370837	38151	15.8
2003	23271509	6/7	399703	44694	15.6
2004	31462576	4/8	436170	45871	15.2
2005	46840669	5/7	466551	46144	14
2006	53433664	6/9	495150	47546	20.5

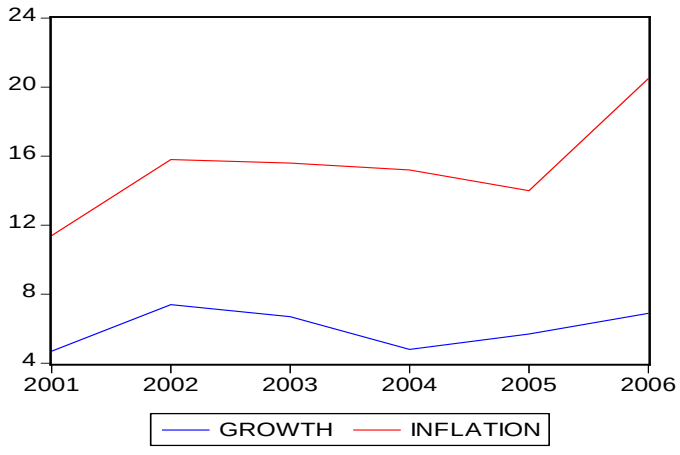

Figure 1. The rate of growth of the economy and inflation from 2001 to 2006 in Iran.

Figure 1 shows that the rate of growth of the economy from 2001 to 2006 was low and there is high rate of inflation in the economy. In year 2001 the growth rate 4/7 in the next year it had increased to 7/4 but in 2003 we had less growth rate which is 6/7 it is because of inflation in the country not increasing oil revenue in the level which country need it. By year 2004 again it has declined because of oil revenue and lack of investment in this sector. But the year 2005 and 2006 again it has gone up. With attention to oil revenue and its affect on the growth of the economy we will reach to the conclusion which shown that oil revenue has a positive impact in the growth of economy in the following figures. The oil revenue in the country has positive impact; it will help to assist the economy to grow up in a very fluent way to achieve

high level of growth and it will help for decreasing the inflation rate which country is facing. Figure 2 shows the rate of oil revenue and growth of the economy from 2001 to 2006 in Iran.

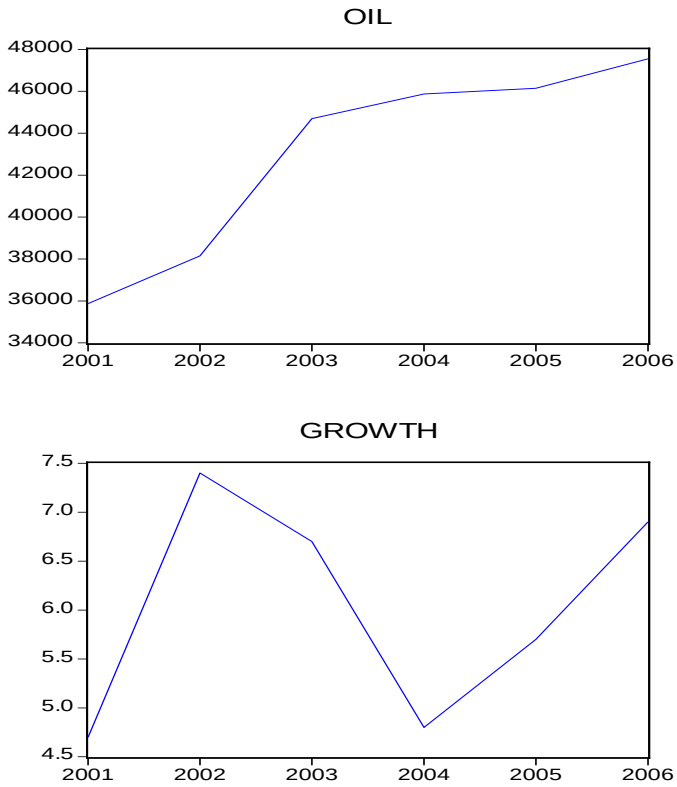

Figure 2. The rate of oil revenue and growth of the economy from 2001 to 2006 in Iran.

Economic Stakeholders, Private Sector and Economic Sectors

Iran's economy is heavily dominated by the state, which is the recipient of revenues from crude oil exports, and quasi-state actors, such as the base and the commercial entities of the Islamic Revolutionary Guard Corp (IRGC). Private sector activity is limited, although the government is engaged in some privatization efforts.

Prior to the 1979 revolution, Iran boasted a vibrant, significant private sector. However, under the leadership of the Hazrat Ayatollah Khomeini, the bulk of private sector companies, including commercial banks, were taken over by state and quasi-state institutions. Foreign participation in Iran's economy was prohibited. Currently, wholly private enterprises are present in agriculture, trade, small-scale manufacturing, and mining, but play a minimal role in large-scale economic activity. In an effort toward more private sector development, Iran began a major privatization initiative in July 2006. Some Iranians believe that the government needs to invest oil export revenues in Iran's private sector rather than spending revenues on imports 46 and socially minded programs. In addition, the private sector is critical of the government's use of assets in the OSF to fund state-run companies at the expense of loans to private businesses.

Iran's economy has a number of key sectors. In 2008, industry – which includes oil and gas, petrochemicals, steel, textile, and automotive manufacturing – accounted for an estimated 45% of the Iran's GDP. The services sector, including financial services, represented about 44% of Iran's economy. Agriculture constituted about 11% of Iran's economy. Agriculture continues to be one of the economy's largest employers, representing one-fifth of all jobs based on a 1991 census. Some analysts have expressed concern that excessive focus on the oil and gas sector is crowding out investment and expansion opportunities in other sectors and opportunities for economic diversification. Iran's economic sectors remain heavily dominated by the state, but there are some privatization efforts under way.

Oil and Natural Gas

Iran' oil production levels are limited by a number of factors. The oil industry faces a high rate of natural decline of mature oil fields and low oil recovery rates. It is believed that millions of barrels of oil are lost annually because of damage to reservoirs and these natural declines. Iran also has been plagued by aging infrastructure and old technology. Structural upgrades and access to new technologies, such as natural gas injections and other enhanced oil recovery efforts, have been limited by a lack of investment partly due to U.S. sanctions. U.S. companies are restricted by U.S. law from investing in Iran's oil development, but firms from other countries, until recently, have actively invested in Iran's oil sector development.

The oil and gas sector is heavily state-dominated. Privatization of these energy companies may make it easier for investors to circumvent U.S. sanctions, which complicate investors' ability to engage in business transactions with Iran directly. The Iranian Oil Minister has announced that a privately-owned bank with a minimum capital of $200 million is expected to open soon to fund oil industry projects.

Oil Exports

According to BP plc (former British Petroleum), Iran disposes of 158 billion barrels of oil reserves and 33.5 trillion cubic meter natural gas reserves (Anonymous, 2017). Iran remains the fourth largest exporter of crude oil worldwide, after Saudi Arabia, Russia, and the UAE. In 2008, Iran exported 2.5 million barrels of oil per day. Iran's net revenues from oil exports totaled $73 billion in that year. Iran exports primarily to Asian countries and European countries that are a part of the OECD. Export markets for Iran are Japan, China, India, South Korea, and Italy. More than 40% of the world's oil traded goes through the Strait of Hormuz, a channel along Iran's border. The Strait of Hormuz is considered a global "chokepoint" because of its importance to global energy security. A fall in oil prices and subsequent economic downturn may increase political dissent among Iranians, already facing high unemployment and inflation levels. China, which is engaged in a trade dispute with the United States, is saying it won't reduce the amount of oil it imports from Iran, which may be enough to counteract the most severe effects of the sanctions (Calamur, 2018, Downs and Maloney, 2011).

Refined Petroleum Imports

Despite Iran's vast oil reserves, the country must import close to half of all the refined petroleum products it needs to meet domestic consumption requirements. In 2009, Iran gasoline imports totaled about 130,000 barrels of oil per day, close to 80% of all of or Iran's total imports of products. The Swiss-based wholesalers Vitol, Glencore, and Trafigura have been longstanding suppliers of gasoline to Iran. While they reportedly sold gasoline to Iran in 2009, these companies have since stopped shipments due to the mounting political and commercial risks of doing business with Iran. In the first half of 2010, Malaysia's Petronas, Russia's LUKOIL, and Royal Dutch Shell reportedly stopped selling gasoline to Iran. Iran's longtime suppliers of gasoline from Europe are being succeeded by smaller Dubai-based and Chinese companies. Oil consumption also is declining as consumers are moving more toward natural gas use. In recent months, there have been reports that Iran has been increasing strategic reserves of gasoline. Analysts have noted a rise in Iran's gasoline imports, which likely is accounted for by Power and Iran's attempt to build up its strategic reserves.

Trading Relationships

After the Islamic Revolution in 1979, and by losing the United States as an important trade partner, Iranian oil exports shifted towards Asian countries (Hassanzadeh, 2014). In 2009, Iran's top overall trading partner was China. Iran's next largest trading partner was Japan, followed by the United Arab Emirates, India, and Korea. Significant export markets for Iran included China, Japan, India, and Turkey. Major merchandise suppliers for Iran included China, Germany, the UAE, and South Korea Afghanistan as destinations for Iranian exports of natural gas condensates, industrial and agricultural products, minerals, carpets, handicrafts, and petrochemicals. The UAE, in particular, is a major trading partner for Iran, with trade largely dominated by UAE exports to Iran. The bulk of merchandise supplied to Iran by the UAE is believed to be products imported into the UAE from foreign markets and subsequently repackaged for shipment to Iran. The United States has called on the UAE to make its

export controls more stringent. In recent months, the UAE appears to be taking actions to regulate trade and investment relations with Iran in a more stringent manner.

While U.S. trade with Iran is low compared to U.S. trade with other countries, there has been notable growth in U.S.-Iranian trade in recent years U.S. exports to Iran include soybeans, pharmaceutical preparations, wheat, wood pulp, and medical equipment. Major U.S. imports from Iran include textile and floor coverings; artwork, stamps, and collectibles; fruits and related products; nuts and related products; and vegetables and related products. There is evidence that Iran is able to obtain embargoed U.S. goods through the re-export trade, mainly through Dubai. U.S. Sanctions against Iran may curtail U.S. economic activity, imposing costs on American workers and businesses and reducing U.S. exports.

In 1995, Iran became a WTO observer state and, since then, has repeatedly put forth applications to become a permanent WTO member. Accession to the WTO is a stated priority of the Iranian government. Iran cites the more favorable treatment that WTO members give to one another and competition from Asian countries in textiles and manufactures as important challenges to Iranian exports. The United States repeatedly blocked Iran's bids to join the WTO over concerns about Iran's nuclear program. On the other hand, many European Union countries and developing countries have supported Iran's accession. Iran and many other countries maintain that WTO membership should not be based on political reasons, but rather, one economic and business ground.

International Financial Flows

Iran's foreign exchange reserves, which include the Oil Stabilization Fund, tend to follow international oil prices. Based on IMF estimates, Iran's international reserves grew from $60.5billion in FY2006 to $82.9 billion in FY2007.138 For FY2008, Iran's international reserves was estimated to total $79.6 billion [139]. Owing to the recent drop in oil prices, Iran's international reserves may shrink. There is concern that domestic economic mismanagement has reduced funds available through the OSF to smooth economic vulnerabilities facing Iran in the present global economic environment.

Iran now hopes to offset the lost share of oil market in a short-term period with contribution of foreign oil corporations (Alipour et al., 2017). The country potentially has a significant market for foreign businesses. However, foreign direct investment (FDI) in Iran historically has been low relative to other countries in the region due to a combination of political and structural factors a stringent domestic regulatory environment and government reluctance to allow foreign investment have contributed to low levels of FDI. Under this system, international oil companies that contract with an Iranian affiliate pay a fee—such as an "entitlement to oil or gas from development operation." In 2006, buybacks were projected to reach $500 million. Elements of the Iranian establishment have resisted foreign investment. Iranian officials have encouraged foreign companies to enter into the Iranian market. However, many business contracts have been won by quasi-state actors, such as the base and commercial entities of the IRGC. International sanctions and political uncertainty have clouded Iran's economy and have made some foreign business and investors wary about economic involvement in Iran.

Iran receives loans from the World Bank. As of February 25, 2010, the net principle amount of World Bank loans totaled Iran $3.1 billion, of which $2.7 billion had been disbursed currently, the World Bank has two active portfolios in Iran, focused on the environment and poverty alleviation .In terms of bilateral official development assistance (ODA), major donor countries to Iran are Germany, France, the Netherlands, Norway, and Japan. Total ODA given by countries of the Organization for Economic Cooperation and Development (OECD) to Iran amounted to $63 million in 2008.

Conclusion

Analysts debate the impact of sanctions on Iran's economy. Some analysts point to Iran's low levels of foreign investment, difficulties obtaining trade finance, and challenges in developing its oil and gas sectors as evidence of the impact of sanctions. In addition to the impact of sanctions on Iran's economy, some lawmakers question the effectiveness of sanctions, noting that despite decades of sanctions, the United States has not been able to significantly shift the Iranian government's policies.

Due to the high dependence on oil revenues, oil price fluctuations have a special impact on the Iranian economy. By applying a VAR approach, this paper analyzes the dynamic relationship between asymmetric oil price shocks and major macroeconomic variables in Iran. Contrary to previous empirical ¯endings for oil net importing developed countries, oil price increases (decreases) have a significant positive (negative) impact on industrial output. Unexpectedly, we cannot identify a significant impact of oil price actuations on real government expenditures. The response of real imports and the real erective exchange rate to asymmetric oil price shocks are significant. Furthermore, the response of intention to any kind of oil price shocks is significant and positive.

There are four major energy carriers in Iran as crude oil, natural gas, coal and hydropower (Mollahosseini, 2017). Iran's economy relies heavily on crude oil export revenues, representing about 80-90 percent of total export earnings and 40-50 percent of the government annual budgets. State as a sole receiver of petro-dollars in Iran is in itself the largest supplier and demander of foreign ex-change in the market. This situation enables the government to control the official exchange rate. This artificial control of exchange market created the considerable gap between the official exchange rate (subsidized rates) and market rates, providing another channel of rent-seeking and unproductive activities in this section of the economy This paper is one of the rare studies of a developing net oil exporting economy with a high dependence on oil revenues.

There are several studies addressing the question of whether there is a relationship between oil price shocks and macroeconomic key variables. One of the pioneer works on oil price erects was carried out by who focused on the US economy. The oil price shocks (in a linear definition) were an important factor in almost all US recessions over 1949-1973. Hamilton concludes that changes in oil prices Granger-caused changes in unemployment and GNP in the US economy. Following Hamilton (1983), proposed an asymmetric definition of oil prices and distinguished between positive and negative oil price changes. He concluded that positive oil price changes have a strongly negative and significant relationship with changes in real GNP while negative oil price changes exhibit no significant erects.

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