

# **The Impact of Economic Sanctions on Women's Economic Rights in Case of Iran**

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## **ABSTRACT**

Economic sanctions are one of the political tools that one country or group of countries, applies in other countries for putting them under pressure because of a variety of political and social issues. Most of the studies tried to measure the impact of sanctions on different economic sectors or on the wellbeing of the society (e.g. Neuenkirch and Fneumeier, 2014; Peksen, 2011). There are very few of them investigating the gender impact of the sanctions (e.g. Drury and Peksen, 2012). Previous studies on the impact of economic sanctions show that the overall impacts of economic sanctions are negative. The aim of this paper is to investigate the effect of economic sanctions on women's economic rights in Iran. The study will cover the years from 1990 to 2013. To investigate the effect of economic sanctions on women's economic rights; female labor participation rate; as an index measurement of women's economic rights, regressed on economic sanctions (size), GDP per capita, and economic cost of sanctions. Results indicate that economic sanction has negative impact on women's economic rights.

**Keywords:** economic sanctions, Iran, women's economic rights

## ÖZ

Ekonomik yaptırımlar, belli ya da bir grup ülkeler tarafından başka ülkelere uygulanan çeşitli politik ya da sosyal nedenli ambargolardır. Literatürdeki çeşitli çalışmalar yaptırımların farklı ekonomik sektörler ya da toplumun genel refahı üzerindeki etkisini ölçmektedir (ör. Neuenkirch ve Fneumeier, 2014; Peksen, 2011). Aralarından sadece küçük bir kısmı yaptırımların toplumsal cinsiyet etkisini ölçmektedir (ör. Drury ve Peksen, 2012). Ekonomik yaptırımların etkileriyle ilgili önceki çalışmalar söz konusu etkinin negatif olduğunu göstermektedir. Bu çalışmanın amacı ekonomik yaptırımların İranlı kadınların ekonomik hakları üzerindeki etkisini ölçmektir. Çalışma 1990'dan 2013'e kadar olan zaman aralığını içermektedir. Ekonomik yaptırımların kadınların ekonomik hakları üzerindeki etkilerini ölçmek için, kadınların iş gücüne katılım oranı bir endeks ölçüm aracı olarak ekonomik yaptırımların boyutu, fert başına GSYİH ve ekonomik yaptırımların maliyeti üzerine regresyon edilmiştir. Ampirik veriler ekonomik yaptırımların İranlı kadınların ekonomik hakları üzerinde de çeşitli negatif etkiler yarattığını doğrulamıştır.

**Anahtar Kelimeler:** Ekonomik yaptırımlar, İran, kadınların ekonomik hakları.

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# Chapter 1

## INTRODUCTION

The Millennium Development Goals (MDGs) are eight international development goals that were established by 189 countries in United Nations, and approximately by 23 international organizations that committed to help to achieve those goals by 2015.

The third goal of the MDG is about gender equality and women empowerment which it is important not only by itself, but also contributing to the achievement of other goals. According to United Nations Development Programs (UNDP) there are three indicators to define gender equality that are indirectly or directly in connection with women's economic rights (UNDP, 2015).

- Closing the gender gap in education: Increasing the level of women's education has a positive effect on the quality of family life.
- Increasing women's share of wage employment in the non- agricultural sector: Financial independence can balance the power within the family
- Increasing political seats in national parliament for women: As half of the population, women should be equal in the case of having parliament seats and political power and country can use the huge potential of them.

Female labor participation has a close relationship with economic rights of women. Iran as a country in MENA, had a quiet, low performance, especially after the Islamic

revolution (1979) in case of female labor participation relative to other developing countries. According to the World Bank, Female labor participation (FLFP) in Iran could not rise more than 20% during three decades. However, Iranian women left behind two remarkable 'revolutions' during this period of time. The first one is the sharp rise in education levels of women relative to men that not only gender gap in education of youth is eliminated but young women's education surpasses young men's. The second one is the fast and large decline in fertility rates, in less than two decades, from about seven to almost two births per woman (World Bank, 1950-2015).

According to studies decreasing fertility rate and increasing education are two important determinants of increasing female labor participation, especially in developing countries (Youssef, 1976). Therefore we would also expect a dramatic increase in FLP in Iran in response to these changes which does not.

The FLFP rate in rural areas had an initial rise and then fluctuated at around 25% between 1993 and 2003, when these economies were becoming stronger after the Iran-Iraq war.

In urban areas, on the other hand, FLFP remained around 15% during the same period. One can easily conclude that there is little change in urban areas relative to rural ones. The distribution of women's employment, in rural and urban areas shows that women concentrated limited number of sectors. Women's employment in rural areas; they are equally divided between agriculture (44%) and manufacturing (51%) sectors. In urban areas the majority of women (39%) are in the manufacturing sector and the rest are employed in education (31%) and health care (6%) (Majbouri, M. (2010):16-17).

There are many factors that had contributed to the low FLP in Iran such as urbanization, family law, culture, market discrimination and government policies and

political, economic events such as war, crises and sanctions (Zarra Nezhad, 1998: 9-10).

For solving this puzzle that why FLPR in Iran is low relative to other developing countries, despite of low fertility rate and high level of education, this study investigates the effect of economic sanctions as one of the factors which have a negative impact on FLP.

Iran is one of the countries which had economic sanctions for a long period of time. Since 1976 till now the US and subsequently UN has been imposing severe economic sanction on Iran. They caused significant economic hardships in different areas such as economic sectors and humanitarian. Inability of women to have the same social and economic status, plus the culture and traditional norms and attitudes against women make women extremely sensitive to the economic sanction.

### **1.1 Research Problem and Purpose**

The effect that sanctions have on different economic sectors such as the political and humanitarian consequences of sanctions has been the primary concern of previous literature (e.g. Caruso, 2003; Neuenkirch and Fneumeier, 2014; Peksen, 2011). The studies relating to the gender effect of sanctions are limited. With evidence coming from Burma (Vuorijärvi, 2005), other countries (Drury and Peksen, 2012) and Iraq (Al-Ali, 2005; Al-Jawaheri, 2008). The studies mentioned looking into the consequences of sanctions on women and find that the most affected group by sanctions is women. This is due to many reasons, but mainly pertains to their lack of economic power, education and political decision making power. The constant underrepresentation of women in all areas of life stops them from their socioeconomic

and political empowerment, which further allows the hierarchal social structure to remain intact. These problems are heightened and highlighted in the presence of economic sanctions. (Caprioli, 2004a; Coleman, 2004; World Bank, 2001). This is why it is so necessary to have a gender focused analysis of the sanctions. For it becomes necessary for both female empowerment and social position. This study, hence will provide an insight into how economic sanctions have dire consequences on women's economic rights between the years 1990-2013 in Iran.

## **1.2 Data and Methodology**

### **1.2.1 Data and Materials**

The data for this paper incorporate years from 1990-2013. The data are time series and is gathered from World Bank. Economic sanction which is imposed in Iran is divided into two parts, moderate: the time that's just US enforced sanction in some areas, sever: the period that US, UN and other countries applied sanction on Iran.

The reasons for selecting data of 24 years is the data availability. The data before 1990 is hardly available and their authenticity is questionable. It was better if we could use the data for the period of time when there were no economic sanctions on Iran but unfortunately they are hardly available and reliable.

### **1.2.2 Empirical Approach**

This paper adapted the model of used in Dury and Peksen's (2012) study that investigates the impact of economic sanctions on women's economic rights in 146 countries. Findings of the Dury and Peksen's study show that sanctions have a significant negative effect on women's right. The dependent variable that Dury and Peksen used to measure the economic women's rights was female labor force participation. I used the same in this paper along with three independent variables of

their model. The rest of the variables were not included as they were not relevant to my study. One of the independent variable is Economic Sanctions dummy which takes the value of 1 if a country is under severe sanction and 0 otherwise. Other independent variables include GDP per capita as a measurement of economic wealth and Sanction Cost which measures the average cost of sanctions.

### **1.3 Structure of The study**

Following the introduction, Chapter 2 defines economic sanctions and provides types and history of economic sanctions, in particular economic sanctions imposed on Iran. Next Chapter (Chapter3) is the relevant literature review that summarizes the findings of the previous studies on the impact of economic sanctions. Chapter 4 is a review of the Iran's macroeconomic and labor market indicators with a gender perspective. Chapter 5 includes the data, the econometric model, the estimation and the findings. Chapter 6 includes the discussions of the findings and the conclusions.

## **Chapter 2**

### **ECONOMIC SANCTION**

#### **2.1 Definition of Economic Sanction**

Economic sanction is a way for a country to change the behavior of another country without the use of military force. The sanctions are of different types and magnitude. There can range from arms bans, travel bans and trade embargoes. Sanction has many dire consequences and can cause great distress on the people. For this reason, they are also successful in changing a country's behavior. Sanctions have also been credited with limited human rights.

#### **2.2 Purpose of Economic Sanction**

Many countries impose sanctions on the other country to achieve foreign policy goals. Even though the probability of forcing an actual change is low, this method is popular amongst many countries. The reason for this is that the alternative option; going to war with the country is too massive with much more severe consequences and repercussions for both the target country and the imposer. Also sanctions will be faced with much less opposition than actual war from other countries. Another factor is the cost of sanctions. The cost of war is high, then the sanction cost, however it should be noted that sanctions are not costless and sometimes sanctions cost can be huge for both the imposer and the targeted country.

Looking at the goals of economic sanctions historically in the literature we can see that the goals of sanctions can be categorized as follows;

1) The first category is that of punishment. This economic sanction can be compared to that of a criminal. Just like the prisoner is sent to prison for doing something wrong, the country is put under sanction for transgressing. The main purpose is not rehabilitation, but punishment in this case. This also serves as an example for other countries not to follow such behavior as was done by the offender. This is very important for another reason as it sets international standards for what is acceptable and what is not. This is a way to show that the imposer disagrees with the policy and will retaliate (try to punish) any transgression.

2) The second is compliance or coercion. This method is used to make the target company adopt a different policy and behavior that is in line with the imposer preference and policy goals. For example imposer may want the target company to follow some international standards, status quo or desired action.

3) The third category is destabilized. This is an attempt by the imposer of the sanction to destabilize the current government in the targeted country. The reason for this type are mainly political.

4) The fourth category is signaling. This is when the imposer wants to relay a message to the target countries and its own allies of its resolve against the other country.

5) The last category is symbolism. Sometimes the purpose of laying a sanction on the other country is not some final policy goal but it's a symbol of disapproval. By imposing a sanction they try to signify the displeasure of the imposer country and the international audience.

For the people living in the target country the sanctions are good compared to military action.

### **2.3 Types of Economic Sanctions**

Historically the imposter has used four main methods to apply sanction on the target country. They have been freezing the financial assets, suspension of technical and aid assistance for the county, trade controls and putting target the country in the blacklist for all other countries.

In the goods and service (trade control) sanction type, one or some of the following are employed (Elliott, Hufbauer, Oegg, 2008):

1. Import/Export quota
2. Licensing restriction on Import/export
3. Limiting exports (embargoes) of the target country
4. Limiting imports of the target country (boycott)
5. Tariff policy against the target country
6. Complete cancellation or restriction of fishing rights
7. Cancellation/suspension of agreements of trades
8. Ban on export of technology

The aid and technical assistance suspension include some or most of the following elements (Elliott, Hufbauer, Oegg, 2008):

1. Cancellation and reduction of credit facilities at market rate.
2. Cancellation or suspension of assistance in military, development and training.
3. Inability due to lower number of votes to get grants, subsidies and loans in international organization.

Freezing the financial assets of the target country includes some or most of the following elements (Elliott, Hufbauer, Oegg, 2008):

1. Freezing of the assets in the bank of nationals and government.
2. Confiscation of different form of assets such as the investment in the target country.
3. Stopping transfer payment and interest.
4. Not paying the debt or rescheduling debt payment and interest.
5. The refusal/suspension to do joint projects.

Lastly the blacklisting of the country involves some or most of the following elements (Elliott, Hufbauer, Oegg, 2008):

1. The blacklisting of the target company which makes it unable to do conduct business (trade and investment) with other countries.
2. The blacklisting of the countries that are doing business (trade and investment) with the targeted country.

## **2.4 History of Economic Sanction**

Sanctions are becoming increasingly important these days and many major powers are employing the sanctions to achieve political goals. The sanctions, however are not a new thing in the international world.

Since ancient Greek sanctions have existed and were first employed when Athens embargoed Megara in 432BC. The result of these sanctions was a prolonged war between the two countries which lasted for thirty years (Hufbauer, Schott, Elliott, 1990:4).

The world is now more integrated than ever and in the global world of the 20th century, economic sanctions are a powerful and effective tool. The US particularly has been employing this tool since the 1990s.

Another time when it was very popular was the Nazi Germany. To affect the behavior of other countries, Germany used this tool very effectively, especially for eastern European neighbors. After that there was a decrease in economic sanctions, but they became popular again during the end of the Cold War. To pursue their goals great powers are realizing the importance of economic sanction instead of war which is often too expensive.

The number of cases between 1914 and 1998 for economic sanctions was 165. The US was involved in most cases with 68. The Russian Federation was the second one with almost 35 cases during the period of 1992 and 1997. The reason for Russia was to extract concession from the Newly Independent States (NIS). The UN council during its first 45 years imposed the sanction just twice, one from South Africa (1977) and the other one a decade before that on Rhodesia. This significantly changed after the 1990s, when the UN imposed sanctions 16 times more.

During the last couple of decades the form of sanctions has changed, specifically in the area of assessment and fees. There are five aspects that are included now that were not included before:

1. There is an increase in the variety of monetary sanctions
2. Increase in courts usage of sanction meaning courts is passing more judgment and laying more economic sanction

3. There is an increase in the amount of countries that are put under sanction for just having a single offense
4. Fees increase
5. Increase in the area where countries are sanctioned especially compared to the last 20 years. The economic sanction has increased a lot and is becoming a popular practice.

## 2.5 History of Economic Sanction Against Iran

For more than three decades, economic sanction plays a serious role in Iran's economy. After Islamic Revolution in 1979, the United States imposed sanctions against Iran and in 1995 it expanded them to influence Iran's policies. After 2006, following to a uranium enrichment program in Iran, the UN Security Council joined US to increase the economic sanction items and make them more severe. Economic sanctions generally targeted oil, gas and petrochemicals, exports of refined petroleum products, import some raw materials, banking and insurance transaction and having business partnership and so many other things.

Table 1 shows the most important economic sanctions by year, reasons and type of sanction which other countries imposed on Iran.

Table 1. Iran Sanction History

<b>Year</b>	<b>State reasons for sanction</b>	<b>Nature of sanction</b>
November, 1979	The followers of Khomeini (mostly students) stormed the US embassy and took hostages	Iranian imports are banned Iranian assets worth \$12Billion are frozen
April, 1980		Iranian deposits in the US bank are frozen along with foreign subsidiaries Export Embargo of US except that of medicine in Iran

January, 1982		Return and resumption of commercial and business contracts between US and Iran
January, 1984	In October 1983 Iran is blamed for the bombing of US Marine Barracks in Lebanon	Grants, Foreign aid and credit, financial assistance + transfer of weapon is restricted to Iran by US
March, 1984		Aircrafts along with related components of it is prohibited to be exported by Iran
February, 1987	Insufficient action by Iran to control money, narcotics production and trafficking	All sorts of financial assistance to and from Iran are prohibited and the Overseas Private Investment Corporation is prohibited. All representatives of US are urged to vote against Iran for loans
September, 1987	Iran`s support of international terrorism along with non-satisfactory calls for peace during Iran-Iraq war	Export and re-export of self-contained underwater breathing apparatus and related equipment to Iran are prohibited Prohibition expands to include 15 high-tech products
October, 1987	Illegal action against US flag vessel and the support of terrorist	U.S. imposes ban on Crude oil (other goods and services)
1989–1991	The acquiring of ingredients for manufacturing biological weapons	All exports related to biological weapons and chemicals are banned
October, 1992	With the use of military trying to get access to sophisticated technology	Dual-use item export is prohibited
March, 1995	The opposition of Iran to the peace in the middle east and acquiring weapons of mass destruction	Orders are issued by President Clinton preventing all companies of US from trading with Iran in the sector of oil and gas
May, 1995		Banning of trade and banning of investment by US with and within Iran
April, 1996	Terrorism support	The US imposes sanctions on any firm (foreign) that is investing more than \$20m a year in Iran's energy sector.
December, 2006	Due to Iran not stopping its uranium enrichment program in July2006	Sanctions are imposed on Iran`s trade on: Nuclear material Nuclear technology Freezing of assets of companies and individual that are related to nuclear activity

March, 2007		There is a voting in the UN council and it is decided that sanctions should be toughened on Iran. There is a ban on: Export of arms, Extending the stoppage of assets, Ban on certain Iranian individual and companies
October, 2007	Support of terrorism	New sanctions are announced against Iran from the US. The sanctions cut more than 20 organizations associated to Iran's Islamic Revolution Guard Corps from the US financial system and 3 owned banks.
March, 2008		More sanctions are passed in Iran that include the monitoring on Iranian banks, ships and planes. Asset freezes are also extended.
June, 2010		The 4 <sup>th</sup> round of sanctions is imposed against Iran over its nuclear program. This includes more embargo on arms and financial curbs. This also prohibits Iran from buying military equipment such as missiles. The Congress of US imposes new sanctions on the energy and banking sector of Iran. New penalties are imposed for countries that buy petroleum from Iran over a certain limit.
August, 2010		Prohibition of joint programs and project with Iran by the EU on Natural gas, Oil industries, Arms and weapons related to nuclear power. Supply and transfer of technological equipment
May, 2011		For transactions with previously banned institutions, US puts under the blacklist 1) 21 <sup>st</sup> Iranian state bank, 2) Bank of Industry and Mines of Iran
November, 2011		Iran faces bilateral sanctions from Canada. US expands sanction to countries that aid Iran's oil industries UK- Stops all of its financial business institutions to work with Iran

January, 2012		Sanction on the central bank of Iran, center for its oil export profits. Iran's response is to threaten the US by saying it will cut off the transport of oil through the Strait of Hormuz. EU announces an oil embargo on Iran until it lets go of its nuclear program.
June, 2012		Ban of US on the world's bank to complete oil transactions from Iran Exemption of seven countries from sanctions for cutting imports of Iranian oil. Seven countries being India, South Korea, Malaysia, South Africa, Sri Lanka, Taiwan and Turkey
July, 2012		Sanctions are tightened by the EU in banking, trade, energy sectors. Embargo on Iran's natural gas. Prohibition of transaction with Iranian banks

The impact of economic sanctions differs from one country to another. In the following chapter I will discuss the impact of sanction in different countries.

## Chapter 3

### LITERATURE REVIEW

There are many studies that address the impact of economic sanction on different countries. Studies on the impact of sanctions on target countries' economy clearly establish that sanctions have a negative impact on the economy. Many studies found that it has a negative impact on trade, GDP growth rate and finances (e.g. Neuenkirch and Nneumeier, 2014; Mazro and Njanike, 2011). The extent of the impact depends on the severity of the sanctions; whether the sanction is a low, medium or high. Besides the economic impact there are also studies that investigate the humanitarian effect of the sanctions. They found that there is a negative relationship between economic sanctions and public health, population and women's rights (e.g. Caruso, 2003; Neuenkirch and Fneumeier, 2014; Peksen, 2011). This study aims to investigate the impact of economic sanctions on women's economic rights in Iran. So the following literature review on the impact of economic sanctions on target country will begin with the specific studies investigating the impact of economic sanctions on women.

#### **3.1 Impact of Economic Sanction on Women**

The studies on the gender impact of the sanctions are highly new and limited. They are summarized below.

Dury and Peksen's paper (2012) shows that; sanctions have significant negative effects on women's economic rights. They use data (from 1971 to 2005) of 146 countries. The variables they used to calculate the impact of economic sanctions on women's

economic rights are women political, social and economic rights. They categorize women's economic rights as equal pay for an equal amount of work, the market factor that is non-discrimination while hiring and promotion, no random layoffs or firing, the maternity leave and unemployment benefits. The ability to choose any occupation, or sector to work without the need for a male approval, the right to be free from sexual harassment and to work late at night in the office. Also, they included two more categories the right to work in any occupation, including those that are termed as dangerous and the right to be part of the police and military.

The dependent variable that they put for this is the female labor force participation that is a constant measure of the female labor force over the total labor force available for a given year. This measure is used to assess the women's socio-economic condition in a country.

They define economic sanction as; a deliberate government led intervention to imports and exports of a country. They include data for both the multilateral sanction (sanction by many different countries) and unilateral sanction (sanction by a single country) between the years 1971 to 2005. They reported that 71 countries were put under the economic sanction during that period. The independent variables that are used in the study are: economic sanction dummy variable, human sanction dummy variable, sanction cost, multilateral dummy variable, and  $e\text{-sanction} * \text{GDP}$ , log of sanction duration.

The results show that the effect of the sanction on women's rights is negative. The countries which were hit hardest by the economic sanctions were the poor countries. The methodology used in this study comes from this paper.

The basic purpose of Vuorijärvi's study (2009) was to find out the impact of sanctions on the country Myanmar and to investigate the situation of women who are emigrate to Thailand due to economic sanctions on Myanmar. The data that she used was taken from the NGO's and the author used feminist theory to explain the women's rights situation. The findings of the study showed that economic sanctions increase inequality in Myanmar and the impact on women is more than men.

Yasmin Husein Al-Jawaheri, (2008) interviewed 227 women in Iraq. The age of the interview group was between ages 15-55 and the women represented a variety of income, family and educational background. Then she puts stories with similar pattern that were told by the women and describes how the economic sanctions from the year of 1990 to 2003 had different effects on female labor force participation, their family relationship, literacy level and psychology.

The UN's sanction on Iraq was a mark that liberalization was at an end. The impacts of these sanctions were massive, especially monetarily Iraq's economy went down a lot. In the labor force the women were hit more than men, both showed a negative response to the economic sanction. The women could not work in the private sector due to the social restrictions that exist and due to the economic sanction the women that were earning faced losses due to high inflation level following the sanctions that affected the government and in turn affected the salaries of the workers in the public sector.

The sanction also had an effect on women's education. After the sanction funding of the education sector reduced to virtually nothing. Even when the education funding was reinstated by the government, the level of funding of the education was not the

same as before. To add to these problems there was the problem of brain drain. Due to the financial condition of the country, many professors and teachers left the country, seeking employment elsewhere. This further enhanced the negative educational situation of the country.

In almost all categories the Iraqi women suffered most due to the sanctions. She concluded that the only reason the western country put and keep the sanction on another country is because they did not realize the effects that the sanctions had on the people of Iraq, especially the women. What was even more disheartening according to her was that they were put in place to remove Saddam Hussein from power which they failed to do so. Hence the sanction purpose, according to her became “if they were aimed at destroying the economy and the people of Iraq, they have very definitely succeeded”.

### **3.2 Impact of Economic Sanction on Humanitarian Issues**

Petrescu (2010) investigates the effects of the sanctions on infant weight, infant mortality and child height from 69 countries till the year of 2006. The model she used was OLS estimation. She found a negative relationship between sanctions the height and weight of the infant. Also, she found that the probability of death of a child of three years old increased.

Peksen (2011) reviewed the effect that sanctions had on public health. The indicator that he used was child mortality under the age 5 for measuring the effect of public health. The years that were used for this were 1970-2000 and both a cross sectional and time series analysis was conducted. He concluded that the level of sanction determined the effect that sanctions had. He also showed that the negative effect of the

sanctions by the US was larger than other countries. He also found that the negative effect of sanctions on economic growth was higher for UN sanctions than US sanctions.

### **3.3 Impact of Economic Sanctions on Economic Sectors**

Neuenkirch and Nneumeier (2014); focused on the effect of sanctions on GDP growth. The data that was used was from 68 target countries and from the year 1976-2012. They used GDP per capita (2005 US dollar) as the main indicator and regressed on country specific effect. They found that sanctions had an inverse effect on GDP per capita.

Caruso (2003) used a gravity model to measure the effect of sanctions on international trade between the US, G7 and 49 countries on which the sanction was imposed. They found that bilateral trade was hugely affected by sanctions.

Mazro and Njanike's study (2011) is about the effect of economic sanction on financial services of commercial banks of Zimbabwe. Questionnaires and interviews were conducted with 14 commercial banks. They found that the sanctions had a negative effect on Zimbabwe's financial services (i.e. Letter of credit, transfer of money and other accounts).

Coleman (2000) analyses the effect of sanctions on three things. Trade, investment and economy. The comparison he made was before the sanctions and after the sanctions. He looked into different sectors for this such as the banking and insurance sector, tourism, agriculture and telecommunication sector. The effect on transportation surprisingly, was positive because of the sanction. Telecommunication and banks he found were hugely inversely effected because of the sanctions.

Boone et al. (1997) analyzed the effect of sanctions imposed by the UN on the general public of Iraq. The paper mainly focused on the population and economic effect of sanctions. The study focused on the entire Iraq except the three governors in Iraqi Kurdistan. The data for the study comes from the 1996 survey for which it took 5 years to complete the research (research begun in 1991). The survey was conducted with the aid of the UN and other international organizations. The survey was based on market, economic enterprises, households and interviews.

The main focus of the study was the increase in poverty, especially with special attention on the issue of food security. They found that the main reason for the reduction in the well-being of Iran is petroleum. They also found that the Iraq oil embargo has two distinct effects. First, it reduced by a huge amount the amount of money that was available to the government and secondly the decline in the Iraqi currency. These two factors in turn affected the economy because it caused very high unemployment and reduction in the wages, hence overall well-being went down.

### **3.4 Impact of Economic Sanctions on Iran**

Many papers have tried to measure the effect of economic sanction on Iran, especially the effect that it has had on gas and oil industries. Kitous et al (2013) tries to analyze the macro impact of the oil embargo using the GEM-E3. The result gives the impact of the supply shock caused by the sanctions. The POLES model is used to analyze the energy and oil market. This gives us the impact on quantities and prices of the different demand, supply situation in the following five scenarios. The Hormuz, Grand Coalition, Small Coalition, Intermediate Coalition and Baseline. They measure the impact of the trade flows using OURSE model.

Their results showed that an embargo that was by a small coalition did not have any effect on Iran`s economy. The impact came from the Hormuz and Grand Coalition scenario. They calculated both these two had a 17-18% impact on GDP of Iran. The impact of the intermediate scenario was 5.7% of GDP. For the world economy the lower availability of oil causes a reduction in.34% of GDP in grand coalition scenario. The EU it is calculated suffers more than the global economy, its GDP decrease is 0.49%.

CRS Report (Katzman, 2014) analyzed the effect on Iran`s economy of strict sanctions in the sectors of energy and finances. It argues that Iran should indeed consider restricting its nuclear program so that sanctions can be eased. He mentioned Iran`s sanction background and effect of them on trade, petroleum, foreign investment, financial and banking, political right and human right. Also, he argued about the effect of Iraq, Korea and Syria sanction on Iran`s economy and contract cancellation between Iran and other countries because of US and UN pressure. In addition, he tried to show the effect of sanctions on Iran`s nuclear program decision.

Torbar, 2005; tries to analyze the effect of sanctions on different sectors. Due to the export sanction, US exports significantly decreased in Iran. Most of these goods for Iran were highly valuable with almost no substitute. This in turn caused the demand for these goods to become inelastic in the short run. As a result the loss was huge and it was calculated that welfare loss is equal to 25% in 1994. Also, due to the sanctions, Iran has been paid a higher rate of interest on the load that it gets, which again has had detrimental effects on Iran`s economy.

## Chapter 4

# MACROECONOMIC ANALYZE OF IRAN AND THE LABOR MARKET

### 4.1 Iran's Economy After Sanction

In the Middle East and North Africa (MENA), Iran is the second largest economy after Saudi Arabia. Iran has a Gross Domestic Product (GDP) of 366 Billion Dollars in 2013-2014 (World Bank). From the years of 1990-2013, Iran experienced an average annual GDP growth of 4.33% (Central Bank of Iran, 2013). However, this GDP growth was stunted after the multilateral sanctions (2006) and in fact, Iran started experiencing negative growth rates (from 5.89% in 2010 to -5.8% in 2013).

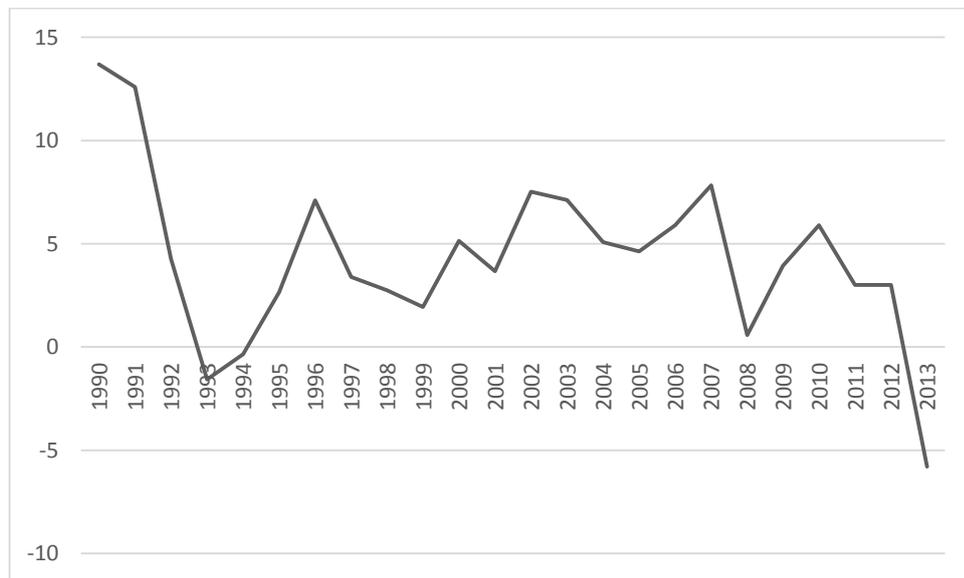


Figure 1. GDP growth (Annual percentage)

Iran`s economy is heavily reliant on petroleum. The contribution of oil and gas exports is 80% of the total percentage of exports (World Bank, 2011). Hence the main exports constitute of oil and gas reserves. One of the heaviest causality of the sanctions after 2006 is petroleum sector. On July 2010 there was a ban that took place which exhibits 27 members of the European Union of buying oil from Iran and also the oil tankers that carry it are in this prohibition. Before this the US puts a sanction that punishes any country that is buying Iran`s oil. All this is greatly affecting the economy of Iran, which is hugely reliant on oil that accounts for eighty percent of its public revenue. Data reported by the Central Bank of Iran show a downward trend in the share of Iranian exports from oil-products (2006/2007: 84.9%, 2007/2008: 86.5%, 2008/2009: 85.5%, 2009/2010: 79.8%, 2010/2011 (first three quarters: 78.9%).

As can be seen from Figure 2, the oil exports went from an increase of 10% in 2009-2010 to a continuous declining trend leading to a 29% decrease in 2011-2012. (US energy information, administration, 1990-2013).

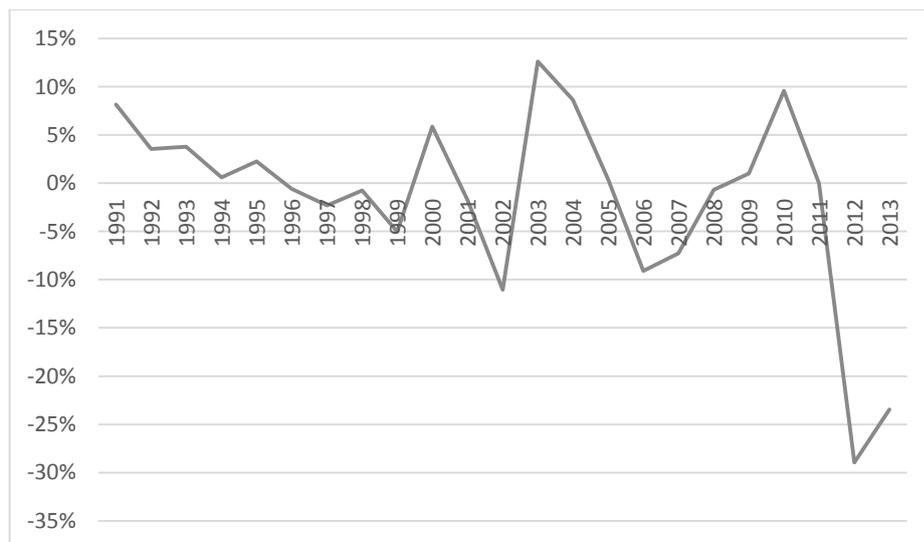


Figure 2. Percentage Change in petroleum net export (thousand barrels per day)

Besides decreasing net oil export another significant impact of sanctions is high inflation. Although it should be mentioned that these problems existed before as well they have expanded with the operating costs getting higher along with the disruption of supply chain due to sanctions. This problem of inflation, though after the sanctions has greatly increased and prices are not stable and the real incomes and buying power of the people are becoming lower than ever before. Also, people's wealth decreasing due to the sanctions. This is worsened by internal economic policy in 2010 such as removing subsidies in many areas such as food staples, electricity, water and gas.

Inflation, especially rose over the multilateral sanction period 2006. The sanctions further tightened in 2011 especially on the oil industry. The result shows a steep increasing trend (Figure 3). The inflation went up from around 10% to the high of around 35.2% in 2013.

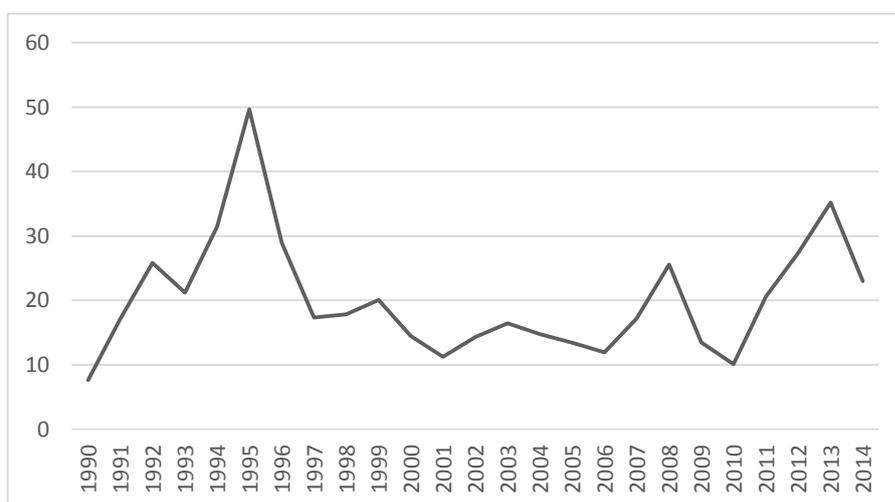


Figure 3. Inflation, Consumer prices

The increasing inflation rate led to a depreciation of the Iranian currency and also contributed towards economic instability. Therefore Iranian Rial depreciated rapidly. The Iranian Rial had already fallen to half of its value as compared to foreign

currencies in 2010. This is particularly made worse by speculation that exists in the Iranian market about the Rial which again forces the Rial to go down. The depreciation of Rial triggered more with the decreasing supply of US dollar due to the sanctions which obstruct the free transfer of money. On the other side the demand for the US dollar is also increasing as it is seen as a more stable currency, especially compared to the Iranian Rial, with all these Iran's government decisions that prohibits the supply of the dollar at a low exchange rate for those who are going abroad led to many black markets in Iran. This large amount of black market has created a source of foreign currency for Iran.

As a result of inflation under the effect of sanctions and internal economic policies the rate of unemployment grew and the economic uncertainty continued to increase. The unemployment had an inverse relationship with investment and inflation and it was reported by the World Bank about 28.9% in 2013.

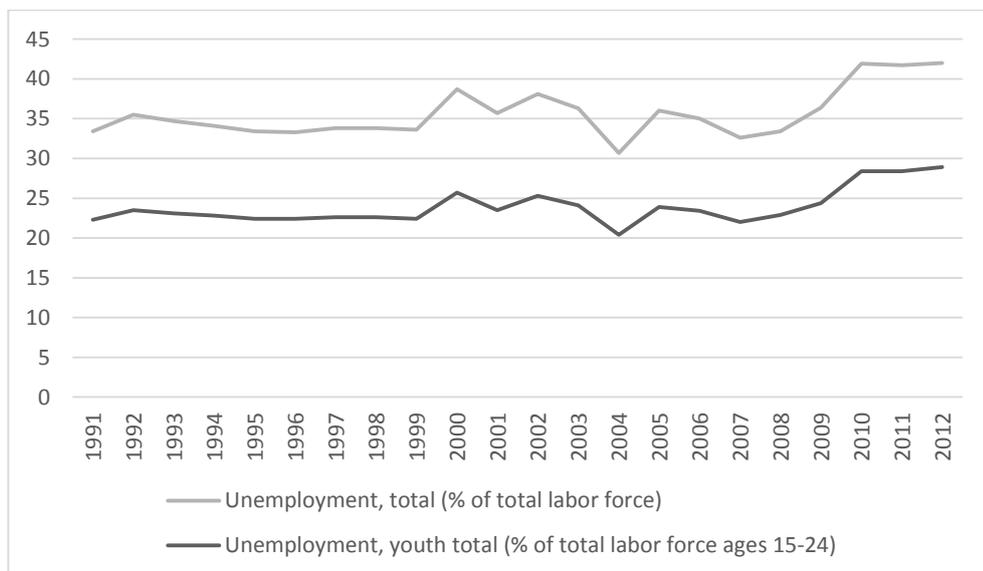


Figure 4. Unemployment rate 1991-2011

This is even worse for females with the unemployment rate for females being 40.5% of the youth population.

## 4.2 Iran Labor Market

By population size, Iran is the second highest in the region, coming after Egypt with a population of 77.3 Million people in 2013. The percentage growth of the population of Iran for the year 2013 was 1.3% (Statistic Center Iran, 2013). After an initial increasing trend, there is a decrease in growth, especially since the 1980`s.

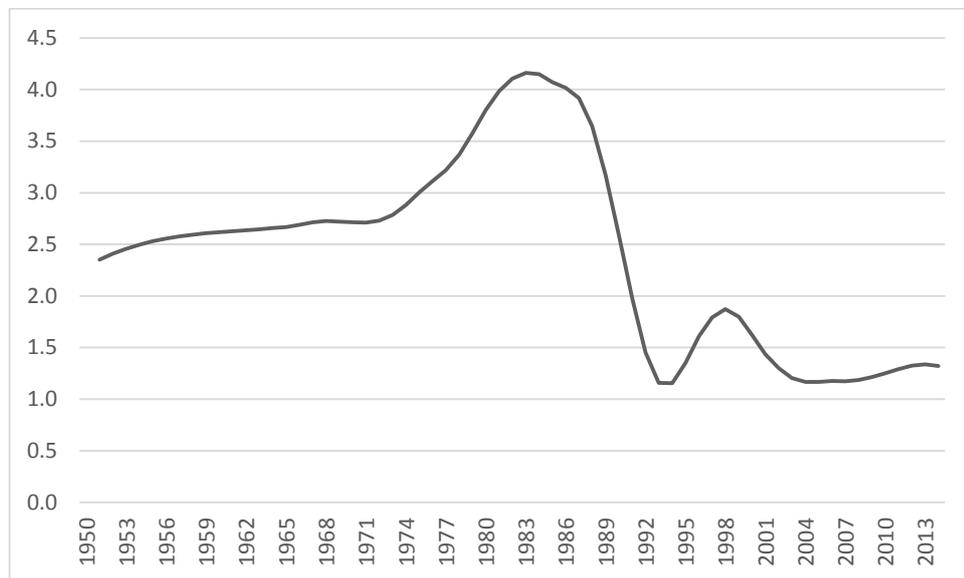


Figure 5. Population growth in percentage (1950-2013)

Iran`s young population composed of people aged 15-24 is almost double compared to people in the adult population (30-64). The young people make up for 80% of the total adult population. People who are under the age of 30 make up for 60% of the total population. With so many young people in the labor force participation of Iran should be high, but just 31.29% (2011) of the young people are economically active.

During the year from 1996 to 2006 (Table 2), the statistic center of Iran reports that there was an increase in the growth of the labor force between the years of 15 to 64

reaching the highest growth of about 4.19% and 3.85% per year respectively (Salehi-Isfahani, 2013:3).

Table 2. Working age and economically active population ages 15-64

Year	Labor force	Working age population
1991-1996	1.84	3.06
1996-2006	4.19	3.85
2006-2011	0.62	0.52

At this rate the new labor force that was added in the market was 1.82 million people and the new people that joined the labor force were 0.75 million. The huge disparity between these two numbers can be explained by the schools which explain the bulk of this difference. The labor force that was entered during these times was 3 times higher than in 1991-1996. This was unexpected and the Iranian government was not prepared for this. (Salehi-Isfahani, 2013:3-4).

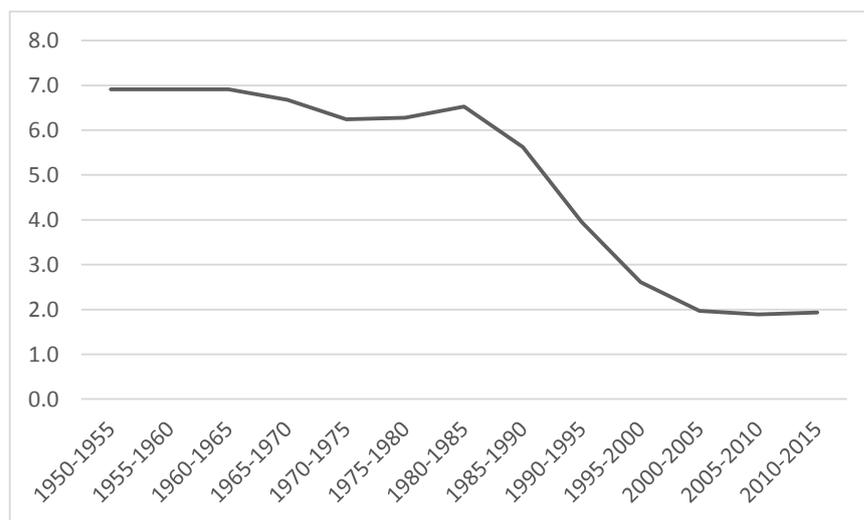


Figure 6. Fertility rate (1950-2015)

The sharp decrease in fertility rate during the 1990`s (Figure 6) declined the labor force significantly during the coming years. The working age population that is added to the

population reduced to below 1 %. The working age population grew by about 0.82 million each year while 0.14 were added to the labor force. This decreased should have caused the unemployment to decrease as well, but the government reduced the number of jobs that were available by about 70,000 per year, actually causing unemployment to increase. (Salehi-Isfahani, 2013:3).

The consequence of this is that 750000 youths are estimated to enter the workforce each year. A large number of them, however after remaining unemployed for a while quit the workforce and become economically inactive.

The 2001 census showed that during the previous 5 year Iran has produced just 0.5 million new jobs, that is six times lower than the rate of creation of new jobs a decade before (Salehi-Isfahani, 2013:3). The reason for this is the stoppage in foreign investment due to the sanctions.

One of the phenomena's that is prevalent in Iran is the impact of unemployment on the youth. During the years of 1996-2006, Iran had 6 million new jobs, but surprisingly the unemployment for the youth also increased. The older generation unemployment roughly remained the same. The situation got worse for both young and old people after 2006, both had increased rates of unemployment.

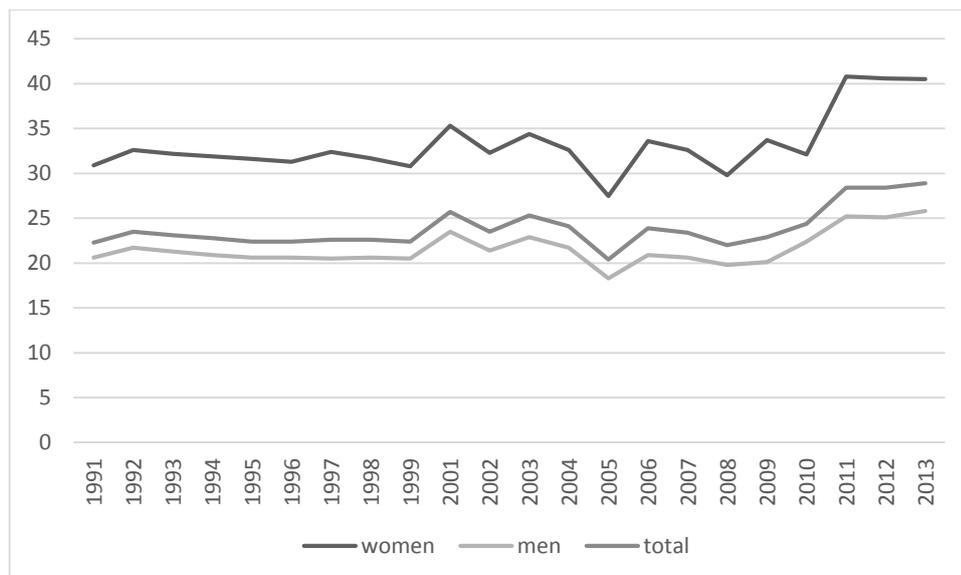


Figure 7. Unemployment rate ages 15-24 (1991-2013)

In 2011 again Iran's unemployment became higher for men and women both. The reason for this is rigidly in the Iran's market (Salehi-Isfahani, 2013:7). For older workers there is nearly a lifetime guarantee and the new workers, hence need to suffer long periods of unemployment. The young people, hence wait for a long time before finding a stable job and due to the sanctions new jobs are not created equal to the supply of the new labor force, there is huge unemployment.

The new youth plus the new women that are coming into the labor force make matters worse for an already bad economy. As can be seen from figure 5, women are much less likely to participate than men. The ratio is about 1/5.

Surprisingly dramatic decline in the fertility rate, which is the fastest and largest ever experienced in human history (Figure 5) did not translate in female labor participation rate.

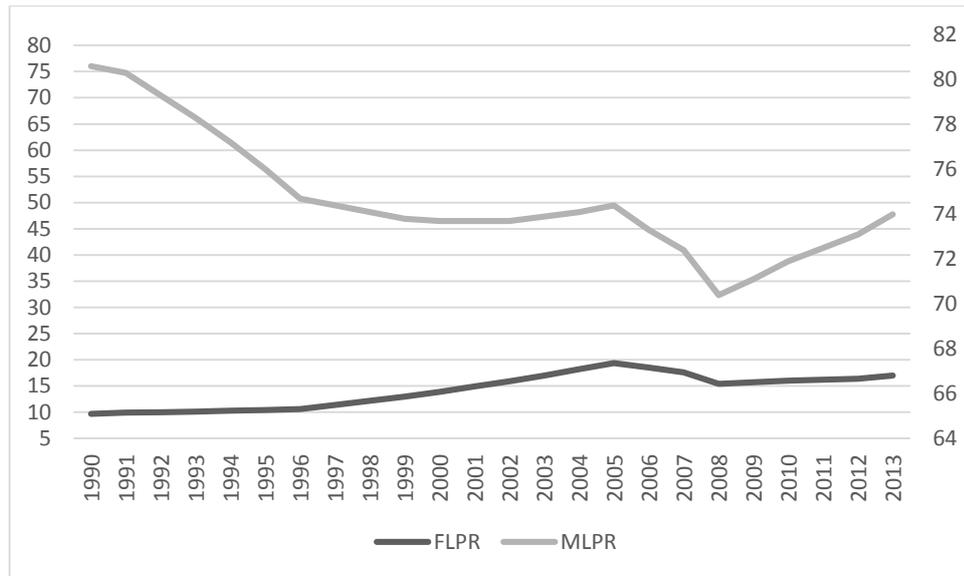


Figure 8. Labor force participation rate 1990-2012

Education on the other hand has been on a constant and steady rise. The education of women is so high that currently more women in their late twenties are educated than their male counterparts (Figure 9). This increase in education, however has not translated into an increase in labor force participation for women, which relative to even developing countries still remains very low. In fact, female labor force participation of Iranian women has hardly increased during the past two decades (figure 8).

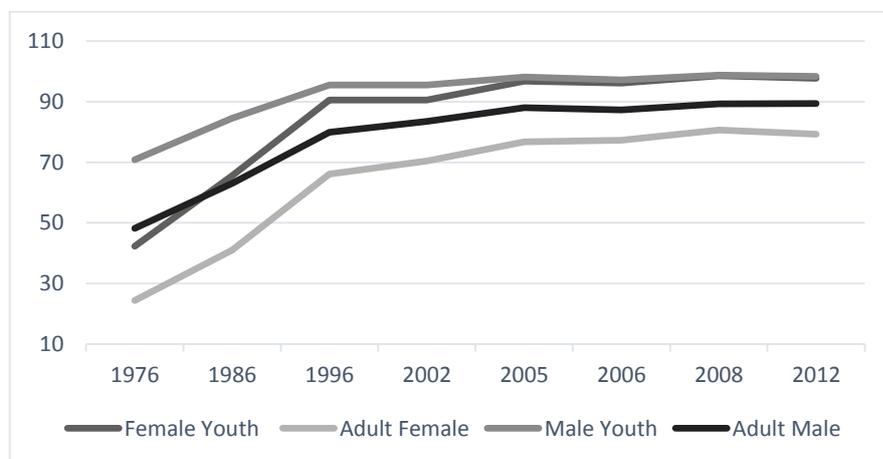


Figure 9. Literacy rate 1976-2012

In the Middle East and North Africa (MENA), the gender gap in participation for men and women is huge. While for the Iranian men, the rate of participation is comparable to the other countries in the MENA and the world, the rate for Iranian women is much lower than the world and even the developing countries.

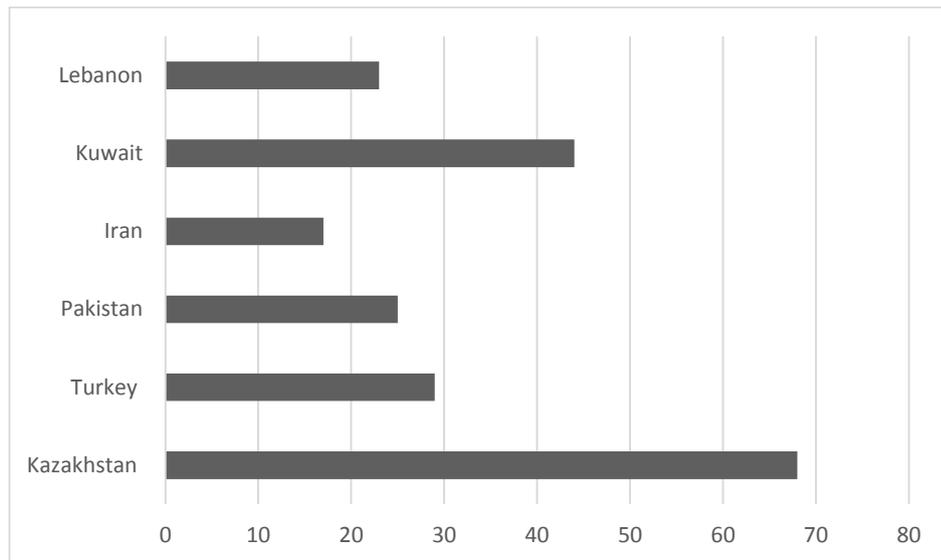


Figure 10. Female labor participation rate of Iran to compare with other developing countries (2010-2014)

According to gender gap index (2014), Iran was ranked 137 out of 149 countries in terms of the gender gap and 139 in terms of economic participation and opportunity. The female earnings average were \$4656 while for men it was \$26644. The ratio is about 0.17. This ratio clearly shows the huge wage and gender gap that exists between males and females.

### 4.3 Reasons for Low Participation

Female labor force participation did increase after the revolution, but compared with the new labor force that came after the revolution, the number is too low which is disappointing especially with low fertility rates and high level of education.

Maybe one reason for the low participation of women is the lack of opportunities for finding a job in Iran for women. This lack of opportunity results in more female unemployment than men as jobs are preferred to men more than women in Iran. There are many other reasons for low female labor participation rate, which can mention as below.

### **Family Law**

The family law also prohibits the Iranian women from participating in the labor force. The family law restricts women from working outside without the permission of the husband. In a patriarchal society such as Iran, men do not want their wives to work outside the house.

### **Customs**

The custom of Iran is still traditional and maintains the old belief that men should be the breadwinner of the family. The duty is divided into men and women of the family, the men should work outside and earn money. The women should stay at home and raise children and take care of household things.

### **Education**

Women are more interested, especially these days in having a high level education which again adversely affects their ability to work as they have to spend time in the university rather than at work.

### **Market Discrimination**

The employers prefer to hire men rather than women. There are multiple reasons for this. Women should be given maternity leave and cannot work very late in Iran.

### **Unstable Economic Condition of Iran**

The economy of Iran makes the situation worse because of lack of new jobs. There are very few chances and as mentioned earlier they mostly belong to men as they are given preferential treatment. Also, there is widespread inequality between the wages. Seeing this bad economic conditions make the situation of Iranian women worse. Most of this is down to sanctions and that is exactly what this paper tries to measure. The effect of these sanctions on the labor force participation rate.

## Chapter 5

### EMPIRICAL STUDY

Many studies have documented the main determinants of female labor force participation. According to the studies the main determinants of Female labor force participation are education, fertility, GDP, marital status and family income along with cultural and social factors (Youssef, 1976). The main aim of this paper, hence is not to determine the main factors of female labor force participation in Iran, but rather to find out how sanctions have had an effect on female labor force participation in Iran.

#### 5.1 Data and Variables

To test the hypothesis that economic sanctions have an effect on women's economic rights or not, I use the time series data from 1990 to 2013, unable to cover the years before 1990 due to the lack of data.

The data were collected from Central Bank of Iran for GDP and World Bank for FLPR. In case of the variable cost of sanction I use the percentage change in oil export as a proxy from US energy information administration because the economy of Iran relies on oil incomes and sever sanctions target this industry.

##### 5.1.1 Dependent Variable

I use the female labor participation rate as the dependent variable. The variable was selected based on "The Cingranelli-Richard (CIRI) human rights database" (Cingranelli and Richard, 2006). The paper gives a lot of variables to measure the women's economic rights. For example non-discrimination by employers, equal pay and equality in promotion and hiring and female labor force participation. I however,

choose female labor force as the dependent variable due to availability of data and the ability for the variable to be measured easily.

### **5.1.2 Independent Variables**

Economic sanction has effect on different areas of the economy like the financial part, exports/imports and lots of limitations in the targeted country. The first variable is the economic sanction. It takes the value of 1 if a country is under severe sanction and takes 0 otherwise. Iran after the revolution was always under the sanction, but till 2006 only US put the sanction on Iran. After 2006 Iran had multilateral sanctions with the UN and other countries also putting sanctions on Iran. I assume that the first period is moderate sanction and the second period after 2006 as severe sanction.

As a measure of the wealth in the target country, GDP per capita is being used. GDP per capita indicates and encompasses all economic aspects and the paper expects a relationship between the wealth of a country and the female labor force participation. Perhaps the trickiest and hardest measure of this econometric model is the sanction cost. By accounting for the severity of economic coercion, I hope to tap the extent of the sanction-induced economic disruption and political hardship. As the cost of economic coercion increases, we expect greater disruption of women's livelihood. The economic cost of sanctions is hard to measure. Due to it being so hard to measure exactly, I use the proxy for this variable. The proxy that I used is the percentage change in petroleum net export. The reason for using this proxy is that Iran's main economic export (80%) is that of oil and gas. Hence this is where the major impact of sanctions lie. . As can be seen the sanction costs, especially after the severe sanctions increases a lot (Shown by a percentage decrease in petroleum exports).

The econometric model is below:

$$FLPR = B_0 + B_1 SANC + B_2 \text{Log GDP} + B_3 \text{SANC COSTS} + \varepsilon$$

FLPR Female labor participation rate

SANC Sanction dummy variable

Ln GDP log of GDP per capita

SANC COST Cost of Sanction in the target country

The model had a Heteroskedasticity problem. To solve this problem I adjust the degree of freedom with White. Specification of the model is appropriate.

To solve the serial correlation problem I added one lag of the dependent variable to the model. The Durbin Watson test shows 1.87 which is acceptable. I did not have Multicollinearity (VIF test).

All variables are within the 1% level of significance just Sanction Cost variable is significant at 10%.

Table 3. The effect of sanction on women's rights

	<b>Female Labor Participation</b>
<b>Economic sanction</b>	<b>-2.69***</b> <b>(0.418)</b>
<b>Log GDP per capita</b>	<b>1.28***</b> <b>(0.279)</b>
<b>Sanction costs</b>	<b>-0.0007*</b> <b>(0.0004)</b>
<b>Female Labor Participation (-1)</b>	<b>1.02***</b> <b>(0.037)</b>
<b>R-Squared</b>	<b>0.97</b>
<b>Observations</b>	<b>23 after adjusted</b>

Note: Standard errors appear in parentheses. Constant are not shown. \*\*\* p<0.01; \*\* p<0.05; \* p<0.1

To compare the effect that the sanctions have on female labor force participation and male labor force participation a second regression was run. In this regression the equation was the same, but for males. So male labor force participation was the dependent variable. All other variables were the same (Appendix A).

As a third regression I use three macro determinants of FLFP (Fertility, Literacy and Urban growth rate) plus Sanction to measure the effect of them and sanction at one equation (Appendix B).

## 5.2 Findings

Table 2 reports the regression of Female labor participation as a deputy of women's economic right on Sanction, GDP per capita, Sanction costs and female labor participation rate of the previous year.

The result supports our hypothesis which sanction will decrease the economic status of women. As regression shows female labor participation rate decreases by 2.6 percent when the sanction is severe compared with moderate one. GDP per capita increases FLPR by 1.28 percent. Sanction cost has a negative effect on FLPR by 0.07 percent and FLPR of previous years has 1.02 percent positive effects on FLPR of next year. All coefficient signs have supported the expected hypothesis.

It was found that indeed sanctions do have a negative impact on male labor force participation as well. However the impact is less than female labor force participation. The female participation was affected by a percentage of 2.69%, while male participation was affected by 1.45% points.

Other macro determinants which I used in a third regression had correct sign, but were highly insignificant which, according to figure 6 and 9 and compare them with FLPR I expected the results.

## Chapter 6

### CONCLUSION

In this paper I examine the impact of economic sanctions on the economic rights of women. Severe economic sanctions will pave the way for the violation of women's human rights. In this article I investigated empirical evidence to support this relationship.

Researches show that women's human rights are largely depend on political and economic events of the world. So sometimes political and economic decisions which seem non-violent it has negative gender-specific consequences in the target country. As mentioned in the literature review most studies focus on the economic or the societal effect of economic sanctions hence, my main focus is on the impact of sanctions on women's economic rights in Iran as one of the most vulnerable groups of the country.

The results show that sever economic sanctions on Iran had substantial damage to the whole economy and Iran's industrial sectors, particularly oil and gas industry. With respect to the findings of the previous studies and empirical findings of this study, economic sanctions have significant negative impact on women.

The results of this study should be of interest to political decision makers, particularly those who are considered women and vulnerable groups' rights for finding better

alternative ways to deal with political conflicts between countries. According to the claims of the world powers, the purpose of imposing economic sanctions on target countries is applied political stability and put pressure on governments to abide by the global peaceful rules and sometimes to force them to respect human rights in those countries.

But as it seems, increasing political and economic pressures cause greater damage to the livelihood of the people, especially vulnerable groups such as women and children.

Many human rights organizations in Iran or outside the country in favor of economic sanctions against Iran for the sake of human rights. The results of this study and similar studies can alert them from damages caused by economic sanctions on human rights.

An important finding in correlation with the theory is that women indeed are the most affected group due to economic sanctions. This of course has widespread consequences, especially policy ones. Policy wise it means that countries which put sanctions are actually decreasing and worsening the situation of the country in which they put the sanctions. This is very important as it relates to the humanitarian aspect. It means basically that by putting sanctions, the countries that are responsible for putting it are curbing human rights. “The irony in this situation is that women's rights are being violated by the very economic sanctions that are put in place by human rights organization in the name of human rights” (Drury, Peksen, 2012).

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## **APPENDICES**

## Appendix A: The Effect of Economic Sanctions on Male Labor Participation Rate

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	Male Labor Participation
Economic sanction	-1.45** (0.587)
Log GDP per capita	1.20*** (0.342)
Male Labor Participation (-1)	0.87*** (0.033)
R-Squared	0.94
Observations	23 after adjusted

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Note: Standard errors appear in parentheses. Constant are not shown. \*\*\* p<0.01; \*\* p<0.05; \* p<0.1

## Appendix B: Macro Determinants of FLFP in Iran

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	Female Labor Participation
<b>Economic sanction</b>	<b>-2.28***</b> <b>(0.622)</b>
<b>Log GDP per capita</b>	<b>0.003</b> <b>(0.649)</b>
<b>Urban growth</b>	<b>-0.101</b> <b>(1.591)</b>
<b>Fertility</b>	<b>-0.07</b> <b>(1.120)</b>
<b>Literacy</b>	<b>0.145</b> <b>(0.148)</b>
<b>Female Labor Participation (-1)</b>	<b>0.81***</b> <b>(0.115)</b>
<b>R-Squared</b>	<b>0.98</b>
<b>Observations</b>	<b>23 after adjusted</b>

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Note: Standard errors appear in parentheses. Constant are not shown. \*\*\* p<0.01; \*\* p<0.05; \* p<0.1