**Analyzing the Impact of International Sanctions on Iran's Inflation Rate and Economic Growth**

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**Abstract**

International sanctions against Iran, especially in recent years, have had a significant impact on the country's macroeconomic variables. These sanctions, which mainly target Iran's financial and trade resources, have reduced the volume of foreign investments and reduced economic growth. In addition, sanctions have increased the inflation rate and exchange rate fluctuations by restricting access to technology and international markets. Based on econometric models and time-series data analysis methods, sanctions have had a direct and significant impact on increasing the inflation rate by increasing the government budget deficit, increasing liquidity, and reducing oil revenues. Moreover, sanctions have put pressure on economic growth by reducing the competitiveness of domestic industries and reducing the volume of foreign trade. This situation has led to increased unemployment and reduced purchasing power of the people. To counter the negative effects of sanctions, policies such as increasing domestic production, diversifying exports, attracting foreign investment, and developing new technologies have been proposed. Furthermore, strengthening international relations and regional cooperation can help reduce the effects of sanctions. The results of this study show that international sanctions, as a key factor, have reduced Iran's economic growth and increased the inflation rate.

***Keywords***: international sanctions; economic growth; investment; exchange rate; inflation rate

**1. Introduction and Statement of the Problem**

International sanctions, as a means of political and economic pressure, have played an important role in determining the economic path of target countries, especially Iran, in recent decades. Iran has been repeatedly subjected to extensive sanctions by the United Nations, the United States, and the European Union due to its specific geopolitical conditions and nuclear activities. These sanctions cover a wide range of economic sectors, including oil, banking, insurance, transportation, and foreign trade, and have directly and indirectly affected the country's macroeconomic indicators.

One of the most important consequences of imposing sanctions is an increase in the inflation rate and a decrease in economic growth. By limiting Iran's access to global markets, reducing foreign exchange earnings, disrupting the import of basic goods and advanced technologies, and creating obstacles to financial transfers, the sanctions have led to an increase in production costs and a decrease in investment. These factors, in turn, have increased the general level of prices and reduced the country's production capacity, which has ultimately led to a decline in economic growth.

A detailed and scientific study of the impact of international sanctions on Iran's inflation rate and economic growth is of great importance, because understanding the mechanisms and dimensions of these effects can help policymakers make appropriate decisions to reduce the vulnerability of the national economy. In this regard, an empirical and theoretical analysis of this issue, using statistical data and econometric models, can provide a clearer picture of how sanctions affect macroeconomic variables.

This article attempts to answer the question of to what extent and through what channels international sanctions have increased inflation and reduced economic growth in Iran by examining the historical trend of sanctions and analyzing economic data. It will also present solutions to reduce the negative effects of sanctions and strengthen the resilience of the country's economy.

**2. A Review of the History of International Sanctions against Iran**

International sanctions against Iran have a long history, dating back to before the Islamic Revolution of 1979. The first sanctions were imposed by Western countries, especially the United States and the United Kingdom, in response to the nationalization of Iran’s oil industry and the policies of the then Prime Minister, Dr. Mohammad Mossadegh. These sanctions mainly included restrictions on oil purchases and the prevention of economic cooperation with Iran, which paved the way for more extensive sanctions in the following decades.

After the Islamic Revolution, and especially following the occupation of the US embassy in Tehran in 1979, US sanctions against Iran intensified. The US froze Iranian assets worth about $12 billion and severed diplomatic relations with Iran. These sanctions gradually became broader in scope and included a ban on arms sales, banking and oil sanctions, and trade restrictions. The accusation of Iran's support for terrorist groups and nuclear activities was also cited as the main reasons for imposing further sanctions.

In the 1990s and 2000s, sanctions against Iran continued to intensify, and especially after 2006, the United Nations Security Council issued several sanctions resolutions against Iran aimed at restricting Iran's nuclear program. These sanctions included financial and trade restrictions and a ban on the export of sensitive technologies to Iran. The European Union, along with the United States, imposed sanctions on various sectors of the Iranian economy, including banks, oil, and shipping.

From 2010 onwards, sanctions became more widespread and complex. Sanctions on the Central Bank of Iran and severe restrictions on oil exports had a profound impact on the Iranian economy. The termination of cooperation with international companies such as SWIFT with Iranian banks disrupted financial transfers and reduced the country's foreign exchange earnings. These sanctions caused a sharp decline in oil exports and reduced government revenues, which in turn increased economic and inflationary pressures.

In addition to international sanctions, the United States passed several domestic laws, such as the ILSA Act, which restricted foreign investment in Iran’s oil and gas industries. These laws were implemented with the aim of containing Iran’s economy and preventing the development of its nuclear and military programs. Sanctions related to Iran’s support for regional armed groups and terrorists, especially the Revolutionary Guard Corps and the Quds Force formed an important part of the sanctions policy of the United States and its allies.

The European Union’s sanctions also gradually expanded and, in addition to the financial and banking sectors, targeted the shipping, aviation, and dual-use goods (military and civilian) industries. These sanctions were imposed with the aim of increasing pressure on Iran to stop its nuclear program and change its regional policies. In recent years, the sanctions have been tightened in a more coordinated manner and with the cooperation of different countries.

The United Nations has also issued several sanctions resolutions against Iran under Chapter VII of its Charter, including economic, trade, and military restrictions. These resolutions were adopted after the Security Council assessed and determined the threat to international peace and security, and all UN members are obligated to implement them. These sanctions, along with unilateral sanctions by the United States and the European Union, have put extensive pressure on Iran’s economy.

Despite the sanctions pressure, Iran has tried to reduce the effects of the sanctions by adopting alternative policies, developing domestic industries, and expanding relations with non-Western countries. However, the sanctions remain a major constraint on Iran’s economic growth and inflation control. These sanctions have reduced foreign investment, disrupted the supply chain, and increased import costs.

In summary, the history of international sanctions against Iran reflects a long and complex process that began decades ago and has changed in intensity and scope in response to political developments and Iran’s nuclear program. These sanctions are recognized as one of the key factors in shaping Iran’s economic conditions in recent decades, and a detailed examination of them is essential to understand their economic impacts and find countermeasures.

Therefore, a historical and analytical understanding of sanctions provides the necessary context for analyzing their effects on inflation and economic growth and can help policymakers to provide more informed and effective solutions to mitigate the harms caused by sanctions. This article will examine these impacts and countermeasures in more detail.

**3. Typology and Classification of Sanctions**

International sanctions against Iran can be classified in different aspects, each of which affects a part of Iran’s economy and politics. The first category is the UN Security Council sanctions, which were imposed under Chapter VII of the UN Charter and include economic, trade, and military restrictions imposed to ensure international peace and security. These sanctions are binding on all UN members and are usually implemented after the adoption of numerous resolutions against Iran’s nuclear program.

The second category is the unilateral or multilateral US sanctions, which include the most extensive and severe sanctions. These sanctions include restrictions on banking, oil, transportation, shipbuilding industries, and sensitive technologies, and their main goal is to curb Iran’s nuclear and missile programs and regional activities. The United States has imposed more than a thousand sanctions on individuals, entities, and various sectors of the Iranian economy through executive orders and domestic laws.

The European Union sanctions are also known as another set of sanctions that, in addition to coordinating with UN and US sanctions, have imposed restrictions on Iran in the areas of finance, banking, shipping, aviation, and exports of dual-use goods (military and civilian). These sanctions are designed to pressure Iran to halt its nuclear program and change its regional policies.

Thematically, the sanctions can be divided into four main groups: nuclear sanctions, missile sanctions, human rights sanctions, and counterterrorism sanctions. The majority of economic sanctions affecting Iran’s economy are in the form of nuclear sanctions, which include restrictions on oil exports, asset freezes, and bans on financial and banking cooperation. Missile and counterterrorism sanctions also target most entities and individuals associated with military programs and armed groups.

Legally, most sanctions are imposed by executive orders issued by the US President, which can be revoked or suspended at the president’s discretion. These sanctions are usually set out in long lists of individuals, companies and Iranian and foreign entities that cooperate with Iran, and include broad bans on trade and investment.

Finally, sanctions can also be categorized in terms of time and severity. Some sanctions are imposed permanently or for a long time, while others change periodically, depending on political developments and international negotiations. For example, after the JCPOA agreement, some sanctions were suspended, but when the US withdrew from the agreement, the sanctions were tightened again. This diversity in the typology of sanctions has created many complexities in analyzing their effects on the Iranian economy.

**4. Mechanisms of Transmission of Sanctions Effects to the Iranian Economy**

International sanctions have their effects on the Iranian economy through several main channels and mechanisms, the most important of which is the reduction in foreign exchange revenues resulting from restrictions on oil exports. Oil, as the main source of income for the Iranian government, has been severely restricted by oil sanctions, which has led to a reduction in government financial resources, a budget deficit, and ultimately a reduction in the ability to pay for public expenditures and development investments. The reduction in oil revenues has also reduced the supply of foreign exchange in the domestic market and increased the exchange rate, which in turn exacerbates inflation.

The second channel is the disruption of financial and banking transfers, which is imposed through banking sanctions and blocking Iran's access to international financial systems such as SWIFT. These restrictions make money transfers difficult and costly, and reduce imports of basic goods, advanced technologies, and raw materials. These disruptions ultimately lead to increased production costs, reduced domestic production, and increased prices, which increase inflationary pressures.

The third mechanism is the psychological effect and economic expectations that sanctions affect. Sanctions create uncertainty in the economy and increase inflationary expectations. These expectations lead to increased anticipatory demand for goods and currency, which exacerbates exchange rate fluctuations and inflation. Also, the decline in confidence of economic actors and investors in economic conditions reduces investment and limits economic growth.

In response to these pressures, Iran has made efforts to circumvent sanctions, including the use of alternative financial methods, developing relations with non-Western countries, and creating parallel financial channels. However, the breadth and complexity of sanctions, secondary sanctions, and dependence on the global financial system have limited complete success in this regard. In addition, domestic challenges such as corruption, policy incoherence, and structural problems in the economy have reduced the effectiveness of these measures.

To better address the effects of sanctions, recent research has provided recommendations in five steps, the most important of which are reducing the level of sanctions through active diplomacy, engaging the interests of other countries in the Iranian economy, diversifying the economy, strengthening the sectors targeted by sanctions, and improving economic policy coordination. These strategies can help reduce the vulnerability of the Iranian economy and mitigate the negative effects of sanctions.

**5. The Impact of Sanctions on Inflation Rate**

International sanctions have had a significant impact on the inflation rate in Iran from 1988 to 2014. Econometric studies using the ARDL model show that sanctions have had a direct and significant impact on the increase in the inflation rate through increased exchange rate fluctuations and government budget deficits. In addition, variables such as interest rates on bank deposits and liquidity have directly exacerbated inflation, while tax revenues and oil revenues have had a reducing effect on inflation.

One of the most important channels for the impact of sanctions on inflation is the increase in the exchange rate. The decrease in foreign exchange revenues due to restrictions on oil exports and disruptions in financial transfers has reduced the supply of foreign exchange in the domestic market and increased the exchange rate. This increase in the exchange rate has increased the cost of importing basic goods and raw materials, and as a result, has intensified inflationary pressure. Inflation expectations resulting from economic uncertainties have also increased the anticipatory demand for goods and foreign exchange, which in turn has caused prices to rise.

Sanctions have also caused a government budget deficit; reduced oil revenues and limited access to international financial resources have forced the government to borrow from the central bank and increase liquidity. This increase in liquidity, in a situation where production has decreased, has led to an increase in inflation. Fuzzy studies show that severe economic sanctions, along with liquidity, inflationary expectations, and the budget deficit, have played the largest role in increasing Iran’s inflation rate.

During the period when sanctions were tightened, the monthly inflation rate increased rapidly and inflationary pressures on people’s livelihoods were felt strongly. For example, in 2012-13, the monthly inflation rate rose from less than 2 percent to about 5 percent. This trend occurred in the wake of the tightening of sanctions and a sharp decline in foreign exchange earnings, causing a significant increase in the price of basic goods and a decrease in the purchasing power of households.

With the signing of the JCPOA and the relative reduction of sanctions in 2014-2017, the inflation rate decreased and was in single-digit and even negative levels for a while, but after the US withdrew from the JCPOA and the return of sanctions, inflation resumed its upward trend. This shows that sanctions, as a structural factor, play an important role in creating inflationary instability in the Iranian economy and their control requires comprehensive and coordinated economic policies. Below, Figure (1) shows the annual percentage change in prices in Iran affected by sanctions from 2000 to 2020:



*Figure 1*: Annual change in consumer prices (%) in Iran (Source: [www.ft.com](http://www.ft.com))

**6. Impact of Sanctions on Economic Growth**

International sanctions have had a significant impact on Iran's economic growth, which has been manifested through reduced exports, limited access to advanced technologies, and reduced foreign investment. The reduction in oil exports, as the country's main source of foreign exchange earnings, has reduced government revenues and limited financial resources for development investments. This has led to reduced production and limited economic capacities, significantly reducing economic growth.

In addition to reducing oil exports, sanctions have increased production costs and reduced the competitiveness of domestic industries. Restrictions on the import of raw materials and spare parts, an increase in the exchange rate, and problems in financial transfers have increased production costs, reducing productivity and negative growth in various economic sectors. This situation has also led to an increase in the unemployment rate and a decrease in national income.

Sanctions have also had a negative impact on domestic and foreign investments. Many foreign companies have refused to enter the Iranian market due to sanctions, and foreign direct investment has declined. On the other hand, economic uncertainties caused by sanctions have also prevented domestic investors from investing in long-term projects, which has limited economic growth.

Econometric studies show that severe economic sanctions have significantly reduced Iran’s economic growth. This negative impact is due to the increasing budget deficit, declining exports, and financial and banking restrictions that have reduced the ability of the government and the private sector to develop economically. In addition, the rentier economic structure and weak economic management have exacerbated the effects of sanctions.

Finally, sanctions have affected Iran’s economic development prospects by creating economic instability and reducing trade opportunities. To address these challenges, it is recommended that Iran move towards reducing its dependence on oil, developing domestic industries, improving the business environment, and attracting non-oil investments in order to reduce the negative effects of sanctions and maintain sustainable economic growth.

**7. Examining the Impact of Sanctions on other Macroeconomic Indicators**

In addition to their direct effects on inflation and economic growth, international sanctions have also had significant effects on other macroeconomic indicators of Iran. One of the most important of these indicators is the gross domestic product (GDP), which has experienced a significant decline in the years of sanctions intensification. For example, between 2011 and 2014, Iran’s gross domestic product decreased by about 28 percent, and Iran fell from 21st to 28th place among the world’s largest economies. This sharp decline was due to a decline in oil exports, reduced investment, and financial restrictions.

Another indicator that has been affected by sanctions is domestic and foreign fixed investments. By restricting access to international financial resources and increasing economic risks, sanctions have significantly reduced investment in various economic sectors. In addition to having a negative impact on economic growth, the reduction in investment has also limited the country’s productive capacity and led to a decrease in employment and an increase in unemployment.

Severe exchange rate fluctuations and increased liquidity are other macroeconomic indicators affected by sanctions. Sanctions have reduced foreign exchange earnings and restricted imports of basic goods and technology, which have led to severe fluctuations in the foreign exchange market and a depreciation of the rial. In addition to exacerbating inflation, these fluctuations have increased production costs and reduced household purchasing power. In addition, increased liquidity resulting from government borrowing from the Central Bank has increased inflationary pressures.

Finally, sanctions have created structural problems in the Iranian economy, which are also reflected in indicators such as the trade balance, external debt, and outstanding bank loans. Restrictions on exports and imports, reduced foreign exchange earnings, and disruptions in the banking system have put pressure on the country's trade balance and increased external debt and outstanding loans. These factors, along with corruption and domestic inefficiency, have made the business environment unsuitable and prevented investment from being attracted and sustainable economic growth.

**8. Summary and Conclusion**

International sanctions have had profound effects on the Iranian economy over the past years, the most important of which are the increase in inflation and the decrease in economic growth. These sanctions have limited the country's financial and foreign exchange resources by restricting oil exports, disrupting financial transfers, and reducing domestic and foreign investments. As a result, inflationary pressures have increased and the capacity for production and economic growth has decreased. The sanctions have also caused severe fluctuations in the exchange rate and a decrease in people's purchasing power, which has affected the livelihoods of households.

A study of the transmission mechanisms of the effects of sanctions shows that these effects have been transmitted to the Iranian economy through a decrease in oil revenues, restrictions on imports of basic goods and technology, an increase in production costs, and the creation of economic uncertainties. These factors, along with the structural weaknesses of the economy, have intensified the negative effects of sanctions and have made controlling inflation and maintaining economic growth a serious challenge. Other macroeconomic indicators such as GDP, investment, exchange rate, and trade balance have also been negatively affected by the sanctions.

Despite the sanctions pressures, Iran has made efforts to reduce the damage, including developing domestic industries, creating alternative financial channels, and diversifying trading partners. However, these measures have not been able to completely neutralize the negative effects of the sanctions. Therefore, to effectively deal with the consequences of the sanctions, there is a need for comprehensive and coordinated economic policies, structural reforms, increased transparency, and improved business climate.

Finally, reducing the effects of sanctions requires active diplomatic engagements, diversifying the economy, and strengthening non-oil sectors. Adopting long-term strategies to strengthen the economy and reduce dependence on oil revenues can help improve the country's economic situation. This article, by carefully analyzing the effects of sanctions on inflation and economic growth, has provided a basis for policymakers to better understand the challenges and formulate more effective strategies for the sustainable development of the Iranian economy.

**9. Policy Suggestions and Solutions**

To reduce the negative effects of international sanctions on the Iranian economy, the first step is to strengthen domestic economic structures and reduce dependence on oil revenues. Developing domestic industries, especially in the intermediate and capital goods sectors, can reduce the need for imports, create jobs, and increase production capacity. In addition, improving the business environment, facilitating investment regulations, and combating corruption are key factors in attracting domestic and foreign investments that can help increase economic growth.

The second important solution is to diversify trade partners and expand economic relations with non-Western and regional countries. Creating alternative financial channels and utilizing payment systems that do not rely on the dollar can reduce the restrictions caused by financial sanctions. Moreover, developing economic cooperation with neighboring countries and emerging markets provides new opportunities for exports and imports and mitigates the negative effects of sanctions.

Finally, it is essential to adopt coordinated and targeted monetary and fiscal policies to control liquidity and manage inflation expectations. The Central Bank should prevent excessive liquidity increases and maintain exchange rate stability through precise policymaking. In addition, strengthening economic diplomacy and efforts to reduce sanctions through international negotiations can help improve economic conditions. These approaches, along with structural reforms, can pave the way for Iran’s economy to become more resilient to sanctions pressures.

**References**

Akhavi, S. & Hosseini, S. (2014). Evaluating the Impact of Economic Sanctions on Inflation in the Iranian Economy. *Applied Economics Research*, Allameh Tabatabaei University.

Consultants Institute. (2018). Main Economic Variables and Their Role in Macroeconomics. *Research Report*.

Hashemi, S. F. *et al*. (2019). Presenting a model of trade sanctions on monetary variables of the Iranian economy. *Economic Research*, University of Tehran.

Mohabati, M. (2018). The Impact of Financial Sanctions on Iranian Development Projects. *Quarterly Journal of Economic Studies*.

Sadat Akhavi, S., & Hosseini, S. (2017). Evaluating the Impact of Economic Sanctions on Inflation in the Iranian Economy. *Applied Economics, 7*(21), 33-50.

Sadeghi, A. & Tayyibi, S. (2018). *Effects of International Sanctions and Other Factors Affecting the Inflation Rate in Iran* (1981-2014).

Sharif, A. (2008). Analyzing Economic Issues and Forecasting Future Changes. *Journal of Macroeconomics*.