

SANCTIONS' IMPACT ON THE EXCHANGE RATE (2005-2013, Iran)

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December 28, 2018

Abstract

The Iranian economy had been experiencing very different conditions between 2005 and 2013. Nuclear ambitions of the government caused the international organizations to harshly react against Iran and they imposed severe sanctions. Subsequently, the condition of the main economic elements such as the exchange rate and inflation deteriorated and caused deep popular disapproval (Namazi, 2012). This study evaluates the sanctions' effect on Iran's economy by focusing on the exchange rate behavior. Impacts of the sanctions on the exchange rate are traceable by the amount of exporting oil and banking condition.

Introduction

Khatami as the previous president could simplify the exchange rate to one unique rate but after a few years of Ahmadinejad's presidency the exchange rate came back to parallel. There was a big difference between the market exchange rate and the official rate; this damaged the market. Some experts (Levy-Yeyati et al, 2009) believe that the government lost its control on the exchange rate. Ordinary people felt the high inflation rate between 2005 and 2013, even those who never heard the word "inflation". The government has been following the policy of controlling interest rate and the fixed exchange rate. However, some factors impacted the government's efforts to stabilize the economy. The main external factors on Iran's economy are oil and sanctions (Borszik, 2014). The price and amount of exporting oil severely varied during Ahmadinejad's presidency; this study tries to analyze how this could affect the exchange rate and what was the role of the sanctions on the amount of exported oil in that time. In this study three main fields are targeted to picture Iran's economy during Ahmadinejad's presidency; oil and gas in the energy sector, banking system and the sanctions regarding their severity and consequences. Economic sanctions against Iran started in 1979 by the United State government (Borszik, 2014, Haidar & Mirjalili (2016), and Haidar (2017)). Sanctions turned to be more severe during 2005-2013 (Torbat, 2005) and (Katzman, 2016). In this study by using "sanction" the meaning refers to the sanctions during Ahmadinejad's presidency. Different studies had been done to examine Iran's economy during the years of sanctions and they calculated various aspects of Iran's economy (Gharibnavaz & Waschik, 2017) over export and import, (Nephew & Salehi-Esfahani, 2015) over oil price, (Crane et al, 2008) over Iran's economy and its mismanagement, (Sharifi-Renani & Mirfatah, 2012) over the foreign direct investment. This study tries to draw a scientific conclusion to answer the following research question (RQ); **whether the sanctions affected the exchange rate in Iran between 2005 and 2013, or didn't they?** First, Iran's economy is pictured in the background section, then we focus on the exchange rate variances. Second, this study argues

how sanctions affected oil and gas export and how this phenomenon impacted the exchange rate. Then the banking system reforms are investigated to show how sanctions caused more corruption and absorbed the exchange reserve that led the government to lose its control on the exchange rate. On the other hand, Iran's efforts to control the economy and moderate the sanctions' impact will be reviewed. The evidences are gathered from the other scientific studies, IMF reports and Central Bank of Iran (CBI).

Background

By accepting the interpretation of scholars (Crane et al, 2008) who emphasize on goods 'subsidy, trade procedure and multiple exchange rate as the main problems in Iran's economy then based on the minister of economy and finance affair's statement (Ja'fari, 2005), Iran's economy recognized its major weaknesses and tried to solve them by some reforms. In 2002, Khatami unified the exchange rate; this increased the competitiveness of the market by eliminating less efficient importers who benefited from cheaper exchange rate due to their linkage to the government (Table 1). Ahmadinejad sat on the presidential seat while the economic conditions were improving. In those improving conditions, some experts (Crane et al, 2008) anticipated more reforms such as more economic integration and a more independent Central Bank (Crane et al, 2008). The oil price was 10\$ per barrel in 1999 and then increased to 145\$ per barrel in 2008. Ahmadinejad's government experienced an inflow of foreign currency into the Iranian economy (Maloney, 2010). This increase in revenue led the government to spend more, follow privatization program and performing some reforms on subsidies. Using less experts to perform these reforms and facing sanctions forced government to change the exchange rate but still these changes were far from what was necessary and it did lead the market to operate with its own informal exchange rate. In 2010, the economy slowed

down while the inflation was high. In such conditions, the government refused to shift its expansionary policy toward tightening via taxation.

Table 1

Year	Inflation rate	Lending Rate (Housing)	Exchange Rate (US Dollar)
2000	20.1	15-19	1,775
2001	12.6	15-19	1,775
2002	11.4	15-19	7,928
2003	15.8	14-18	8,250
2004	15.6	15-21	8,709
2005	15.2	15-21	8,995
2006	10.4	15-16	9,184

Retrieved from: Central Bank of the Islamic Republic of

Iran http://www.cbi.ir/default_en.aspx

Table 2

Year	Inflation	Lending Rate (Housing)	Exchange Rate
2004	15.6	15-21	8,709
2005	15.2	15-21	8,995
2006	10.4	15-16	9,184
2007	11.9	14- 17	9,294
2008	18.4	12-13	9,304
2009	25.4	12	9,939
2010	10.8	12	10,381
2011	12.4	12-14	10,546
2012	21.5	11-15	12,260
2013	30.5	14-15	24,789
2014	34.7	21-22	26,303

Retrieved from: Central Bank of the Islamic Republic of Iran

http://www.cbi.ir/default_en.aspx

Exchange Rate

Iran's government determines the exchange rate by considering trade, financial and political variables (Levy-Yeyati et al, 2009). High amount of political uncertainty made financial variables more volatile, this led to less investment, less trade, more volatile exchange rate and more capital flight. (Crane et al, 2008; Maloney, 2010; Hall et al, 2010). Prior to this, Iran as a country had been suffering from inflation; Iran used to manipulate its exchange rate to decline the inflation (Mohseni & Jouzaryan, 2016). As the increase of sanctions created a more unstable situation, the government faced a higher deficit. Weak interaction between the

government and CBI plus isolation and being deprived from international assistance and provisional plans due to sanctions caused the conditions to deteriorate more (Levy-Yeyati et al, 2009). Diversity of sanctions did not led Iran to benefit from its currency depreciation. If the market is not relatively sure about the exchange rate, it reacts by doing less trade due to the negative effects that the exchange rate might have on the revenue. Even tough, an accelerating economy is crucial, stability is also vital. Some scholars (Sharifi-Renani & Mirfatah, 2012) and (Bahmani-Oskooee & Hegerty, 2007) may argue risk-aversion side of the market trade less. Meanwhile as the trade have two sides of importer and exports with opposite interest, more a volatile situation on one side means more profit for the opposite party. This mechanism of depreciation on Iran's currency had not been compensated through more export; nonoil export increased 6.4% in 2013 but this effect in general were so small on the government's revenue (Nephew & Salehi-isfahani, 2015).

On the other hand, the elements that can affect volatility of the exchange rate may be monetary or non-monetary. Monetary shocks can make the exchange rate extremely volatile. This effect is big enough to lead some scholars (Sharifi-Renani & Mirfatah, 2012) to conclude that the stability of the exchange rate mainly defined by the monetary elements and in a much lesser way by nonmonetary elements. In this scenario, the exchange rate instability that Iran experienced is mostly due to the government's monetary policy rather than some external factors such as sanctions. However, even in this conservative approach still nonmonetary elements have an impact. In this study, energy sector and banking system will trace the sanctions' effect on the exchange rate.

Figure 3

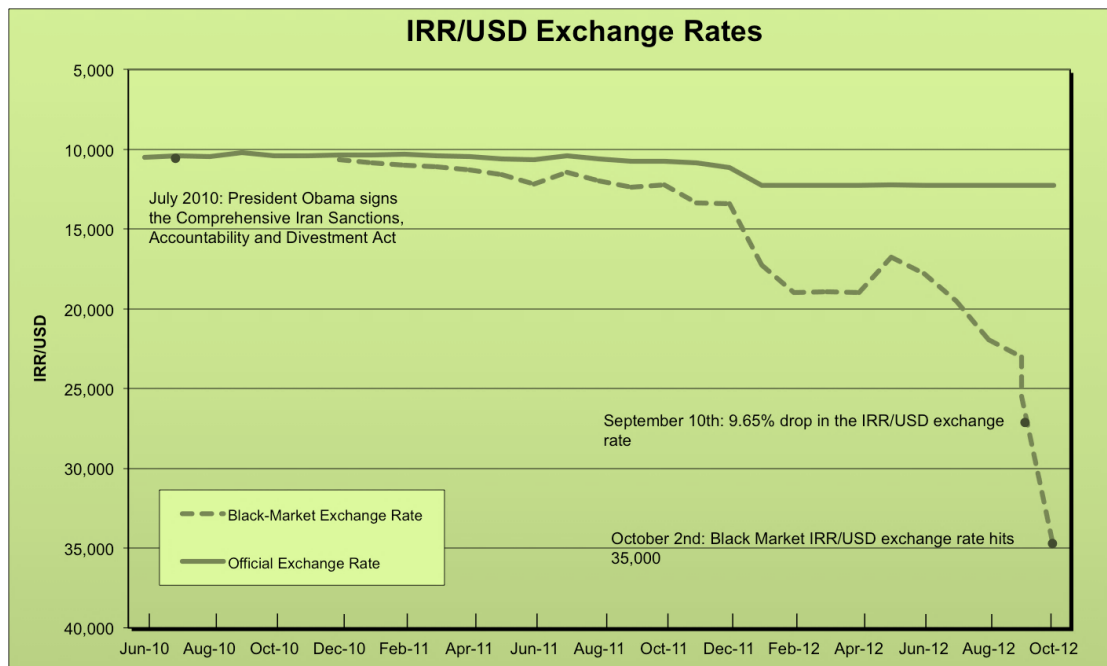


Figure 3 shows the parallel exchange rate after sanctions became severe in 2010, Adaption from *Cato institute*, S.H.Hanke . 2012, Retrieved from <https://www.cato.org/publications/commentary/iran-down-not-out>. Adapted with permission

Energy Sector

The government follows the policy of varying the exchange rate due to its revenue from exporting oil and gas. Despite the government's efforts to export more gas, sanctions forced Iran to continue consuming high amount of its produced gas rather than exporting it. In 2008, Iran consumed 97% of its produced gas. Iran's Gas sources are larger than its oil reserves but its export plays a smaller role in Iran's GDP (Crane et al, 2008). In 2002 Iran and Turkey made a pipeline to transfer gas. Turkey signed some contracts to receive gas from neighboring countries and bought less gas than Iran expected. Iran was considering increasing its gas' export by reaching the European market through Turkey via more pipelines at the beginning of

Ahmadinejad's presidency. Iran was also determined to import technology to transform its natural gas to diesel fuel. These two projects remained theoretical plans due to the sanctions (Crane et al, 2008). Iran's economy vulnerability to oil could be demonstrated by some statistic; If oil production changes by 10% it will lead to a 2.7% change in the GDP. Iran's government controlled the banking system and other financing networks in addition of controlling the oil production. When the global oil price increased Iran's government didn't let the Rial appreciate as the response. This is possible on the condition that the government has enough asset reserves to stabilize the economy. At the beginning of Ahmadinejad's presidency Iran's asset reserve was rich enough to protect Iran's economy from the oil global variances (Crane et al, 2008). However, this situation did not last long; Europe stopped purchasing crude oil, petrochemical and refined petroleum in 2012 and it excluded one quarter of the entirety of Iran's oil export revenue in that time (Nephew & Salehi-isfahani, 2015) and the embargo over Iran's oil export led to an estimated negative effect of 6%-17% on Iran's GDP (Gharibnavaz, & Waschik, 2017).

Banking System

Financial sanctions, asset freeze and isolation of the banking system decreased the exchange reserve while illegal activities in this system were increasing. Iran reached the highest credit ratio in banking between the Islamic banking systems because of the high credit of private banks (Guillaume & Sensenbrenner, 2011). However, this wouldn't have been a good sign due to less international provisionary and high dependency of CBI on the government. The CBI would have decreased cross-shareholdings but this could not continue doing it due to the sanctions. Banks must have some deposit in the CBI; this become so low in 2010 because of the implementation of a large public house building program of Maskan-Mehr. (Guillaume & Sensenbrenner, 2011).

Figure 1

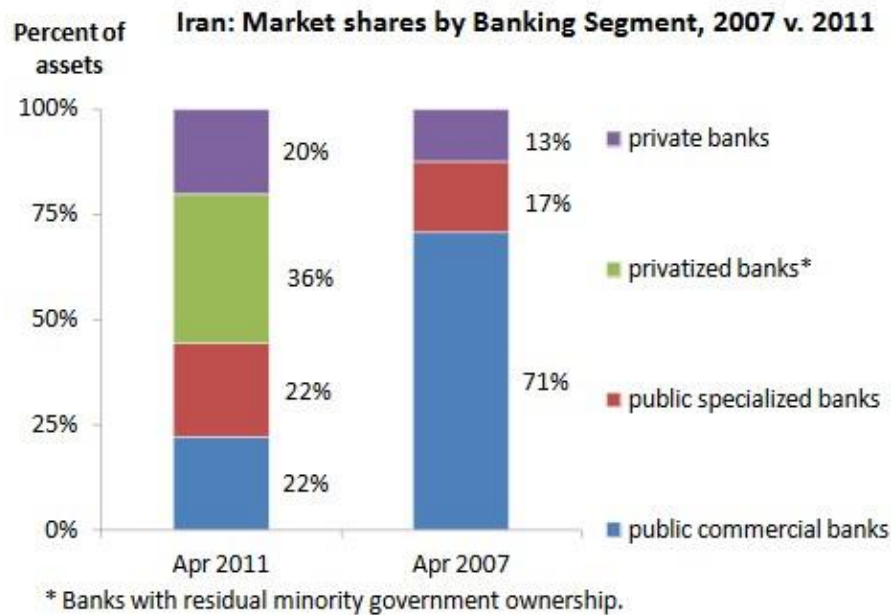


Figure 1. Market shares by banking segment comparing 2007 versus 2011. Adapted from "Islamic Republic of Iran: Selected Issues Paper" by Author D. Guillaume & G. Sensenbrenner, 2011, *International Monetary Fund*, P.15. Copyright (2011) by the International Monetary Fund. printed with permission

CBI also announced the low interest rate from 2007 on and this led people to save money in other forms rather than through the bank such as stock market, gold and foreign exchanges. Demand for foreign exchange dramatically increased and caused more exchange rate volatility (Guillaume & Sensenbrenner, 2011). On the other hand, decreasing the interest rate made less foreign investment and this decreased the demand for money and Rial became even more depreciated. (Sharifi-Renani & Mirfatah, 2012).

Iran's Responses to the Sanctions

Regardless of Iran's efforts to moderate the effect of the sanctions, the demand for the Rial decreased. Iran has been responding to the sanctions by investing more in the defense sector. As the defense is the part of growth, the sanctions have been caused a boost in GDP in the long term (McDonald & Reitano, 2016). The increase in militarization helped Iran's internal market operation. Although Iran can benefit from this investment in the long run still there is no evidence to show that militarization could mitigate the short-run effects of sanctions.

Figure 2



Figure 2 shows the variation of military expenses through years between 2007 -2016, Adapted from *Trading Economics*, n.d., 2018, Retrieved from <https://tradingeconomics.com/iran/military-expenditure>. Adapted with permission

By accepting the positive side of military expenditure in Iran, at the beginning of the sanctions, Iran statistically received less negative effects from moderate sanctions but after the imposition of smart sanctions Iran's growth deteriorated. Smart sanctions included: asset freeze, monetary sanctions, financial sanctions, embargoes and travel bans. 1% increase in Iran

defense expenditure leads to 0.11% increase in total growth; however, the studies show that smart sanction could decrease 6.5% total of the economic growth (McDonald & Reitano, 2016). The United States and the United Nations both started to impose smart sanctions since 2010 (Drezner, 2011). Sanctions may be seen successful through making economic difficulties for Iran although how much it could shift Iran's policies is still a worthwhile question (Takeyh & Maloney, 2011). Iran was banned from using the international financial system. In response to financial pressure, Iran started to do trade in exchange by gold and imported other country's currency. However, shipping insurance market is highly concentrated and run by few British companies and they avoid collaborating with Iran's oil transportation due to this reason Iran's government faced a challenge that they couldn't manage. The execution of the financial sanctions by the EU in 2012 banned the Iran Central bank and suspended all its financial connection except for humanitarian transactions. Iran's oil export revenue decreased by 40% in 2011 (Gharibnavaz, & Waschik, 2017). Sanctions reduced Iran's oil export by 2.5 million oil barrels per day and immobilized 120 billion USD of Iran's assets in foreign banks (Katzman, 2016). Stockpiling oil is the other response to the sanctions. One estimation from International Energy Agency says Iran had the capacity of 45 million barrel to stockpile oil. There is a consideration that Iran government purchased oil during the sanctions period from its own. The stockpiled oil could be sold to Asian countries with lower price at the black market. The small part of the total harm could be covered by this strategy and this might have some positive effects on the Rial. Iran mitigated the harm of the sanctions by some loss on the government's revenue through selling oil with discount (Monshipouri & Dorraj, 2013). While Iran was deprived to use Society for Worldwide Interbank Financial Telecommunication (SWIFT), the government was seeking some remedies in the black market. In this condition the exchange rate became so volatile.

Conclusion

This is not easy to exclude the effect of government's mismanagement on the exchange rate to comprehend the pure effects of the sanctions. Any oil price changes severely affect Iran's GDP, government's balance of payment and the exchange rate. In that regard, the sanctions were effective on the exchange rate through oil export changes. Expansory policies of the government accelerated the economy at the beginning of Ahmadinejad's presidency. Those policies were followed while the effects of the sanctions started to annoy Iran's economy. Reserve exchange dramatically decreased and this deteriorated the low asset reserve that already was existing because of the low lending rate of the banks, the Maskan-Mehr program and the high rate of non-performing banks loan.

While the government was keeping the interest rate lower than the inflation rate; high demand for foreign currencies made the government to lose its control on the exchange rate. Iran was suffering from corruption years before 2010 because of a massive control of government on different part of the economy; less evidences are available to demonstrate how the severity of the sanctions in 2010 changed the size of the black market in Iran and which probable interest groups benefited from this illegal economic network especially through the years that different exchange rates drove the market.

This study concludes that the mismanagement weakened the government's ability to mitigate the instability of the exchange rate while sanctions became severe. At the end, there is no way to reject the effect of sanctions on the exporting oil and subsequently on the exchange rate.

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