

Research Article

Survey of Oil and Non-oil Export Effects on Economic Growth in Iran

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Abstract

In the present article, we are going to examine the effects of oil and non-oil export on economic growth. Along with this concept, we have used the theory of time series and the method of VAR (Vector Auto Regressive) for the dependent variables RGDP (Real Gross National Production), ROEX (Real Oil Export) and RNOEX (Real Non Oil Export) for the years 1973-2007. At the end of the test, it is concluded that both the variables have positive effect on the economic growth of Iran. Considering the different theories about the economic growth in countries dependency to the income of oil, they all agree on the decrease of these dependencies. The increase of non-oil export and suitable policies should be applied to decrease the dependency to the oil income (considering its positive relationship with Iran's economic growth).

Key Words: Oil export, Non oil export, Economic growth, Iran.

1. Introduction

One early explanation of the phenomenon is social: that easy riches lead to sloth. The sixteenth century French political philosopher Jean Bodin [1576, reprinted 1962] asserted as much when he claimed that: men of a fat and fertile soil, are most commonly effeminate and cowards;

whereas contrariwise a barren country make men temperate by necessity, and by consequence careful, vigilant, and industrious.

The global commodity price booms of the 1970's promoted additional research about the economics of natural resource booms. An excellent summary of this literature can be found in the volume edited by Neary and Van Wijnbergen [1986]. One of the main subjects in this literature was how macroeconomic policy responded to commodity price booms. The question about the long - term growth effects of natural resource production and/or natural resource booms was studied implicitly through the issue of whether natural resource production promoted de - industrialization (the Dutch disease). The further link between de - industrialization and slow growth was probably presumed to exist in many cases but was not the subject of extensive analysis. Overall, this literature did not yield a cross country study examining the relationship between natural resource abundance and growth.

Another line of argument focuses on the global conditions of the natural resource industry. For one reason or another, the general theme has been that natural resources were likely to be a declining industry at the world level. The famous hypothesis of Raul Prebisch [1950] and Hans Singer [1950]¹ of a secular decline in the terms - of - trade of primary commodities vis - a - vis manufactures can be put into this category. They argued that resource - based growth would be frustrated by secular decline in world prices of natural resources. Closely related views forecasted that world demand for primary products would grow slower than demand for manufacturers or that productivity growth would be faster in manufacturing than in natural resource production.

The "Prebisch hypothesis" of declining relative prices of raw materials was widely taken to mean that developing countries should shun their dependency on natural resource export by promoting industrialization.

The Export of oil has a noticeable share in the economics of our country. The income earned from export of oil is very important because it is providing part of our country's foreign exchange needs and a major part of government spending. Moreover there is no positive opinion about the economic development based on natural resources and it is perhaps due to being uncertain of revenue. On the other hand, Increase non oil export and its revenues was considered in the macro-policy making of country and to achieve this goal, Attempt to encourage non oil export with the tools of monetary, fiscal, trade and currency politicizes. In this paper tried to be evaluated effect of non-oil and oil export of Iran on the economic growth during the period 1973 – 2007.

2. Discussion

2.1 Background of research

The oil export in oil-rich countries such as Iran has a considerable share in the economic situation of country. These revenues provide a major share of foreign currency needs of country and these are the main supplier of government spending. Basically in such countries, the planning of developments needs such incomes.

Since the oil resources are placed in the category of natural resources, also be noted the articles shows the relationship between economic growth and natural resources.

The start - up of the new era of the theory of development growth in late 1980s and publication of internationally comparable data in the wide range, is making possible studies of the growth of the country in the different branches of growth including abundance of natural resources such as oil in the 1990s. Baro (1991) has provided the base of the international growth studies and Gelb (1988) and Auty (1990) have provided the bases of the assumptions test of the studies of the inter-country growth in the economies with natural resources. Duncan (1993) showed that the Sub-Saharan Africa countries have failed to diversification of export of unprocessed raw material to export with faster economic growth. Berg and et al (1994) have revealed the negative effect of Stock of natural resources on the industrial export growth. Fosu (1996) showed that the development of the primary products export has a trivial effect on the non export GDP growth however it has a positive effect on the economic growth. Sala - i - Martin (1997) and Doppelhofer and et al (2000) were considered natural resources as one of the main variables in the empirical studies of economic growth. Rodriguez and Sachs (1999) offered an alternative explanation for this literature. They showed that the consumption of over average amount can be the reason of the slower economic growth of these economics. They showed this phenomenon with using a dynamic general equilibrium model for Venezuela's economy (as an oil exporting country).

Sachs and warner (2001) showed the positive relationship between the abundance of natural resources and the general level of prices for 99 countries during 1970 until 1980, as another explanation of the weak economic performance of the countries having natural resources. Using the Criteria of Leamer (1984) for measuring the abundance of natural resources (the net export of resource per worker), Lederman and Maloney (2003) achieved an interesting conclusion: this positive relationship between natural resource abundance and economic growth.

The studies on the relation between the export and economic growth have mainly been in two forms. First, those estimated the export function in which export has been introduced as a dependent variable and the economic growth as an independent one. Regarding this subject, can be pointed to studies done in other countries like Houthakker and Magge (1969), Goldstein and Mohsin Khan (1978), Band (1987), Pesaran (1994) and Lukonga (1994). In Iran, this method has been used by vakil (1973), Ahmadi (1976), pirre and verbiest (1978), Keyhani (1994), Zarghami (1996) and Asali (1998).

In the second method, using the growth formulas and the production function has been examined the relations between the export and the economic growth or the export and GNP. Here, the GNP has been mentioned as a variable which is dependant to export as an independent variable with various patterns. In other countries, this method has been applied by Feder (1982), Mohsin Khan and Reinhart (1995), Salvatore and Hatcher (1991), Serleties (1992) Yaghmaian (1994) and Gylfson (1997) and in Iran, by Javad Naeeni and Rezazade (1996) and Rahbar (1997). In this section we confine an explanation on two recent cases in Iran.

Jalali Naeeni and Mohammadi in their paper titled as the export and economic growth have divided the whole products and services produced inside the country into two "production for inside" and "production for export". Based on this assumption the final model of their theory discussion has been offered as following equation is presented:

$$g = a.k + b.l + c.(s_x . x) + d_o . (s_m . m) d_1 (r_m . s_m . m) \quad \text{Expression 1}$$

That the form of the per capital final equation has obtained as:

$$g_{pc} = a.k + b.l + c.(s_x . x_{pc}) + d_o . (s_m . m_{pc}) d_1 (r_m . M_{pc}) \quad \text{Expression 2}$$

In which:

g_{pc} : Real GDP per capita growth rate

K: Capital stock

s_x : the share of export in GDP

$X_{pc} . s_x$: (the share of export in GDP) multiplied by the rate of growth of the real per capital export

s_m : The share of import in GDP

$s_m . m_{pc}$: The share of import in GDP \times the rate of growth of the real per - capital import

r_m : The remain of the regression of import share in GDP on the explanatory variables such as

area, population and per capital GDP

The reason of not using the first Equation and using the per capita variables is the meaningless of the variable coefficient of population in the major pattern of growth.

This equation has been tested by three periods 1960-73, 1973-81, and 1980-85. The results show that in the first period one percent increase in "the export share in GDP multiplied in the growth rate of real per capita export" has caused 75 percent increase in the growth rate of per capita GDP. The export coefficient includes the external positive effects of export on the other sectors and it show that export in oil countries has positive effect on production. In second period, this effect decreases and this is because of the way of appropriation of oil incomes to the other sectors. Simultaneously, the export shows their positive effects on the economic growth obviously.

Dr Farhad Rahbar tries in a paper titled "explanation of growth model relies on foreign trade" and With regard to relies Iran's economy on oil and oil export, with design a model explain how economic growth with Two factors of extracted from underground reserves and accumulation of foreign exchange reserves. His model is as follows:

$$Y_t = F(R_t, F_t, L_t) \quad \text{Expression 3}$$

Y_t : The national product in the period of t.

R_t : The amount of extraction of reserves of natural resource (oil) in the period of t. L_t : Number of labor in the period of t.

K_t : The amount of capital in the period of t. F_t : The amount of existing currency reserves

Using the production function of cub Douglas, Dr Rahbar explains relation between export and economic growth and his final expression is a follows.

$$\text{Log}Y = B_1 \text{Log}(F) + B_2 \text{Log}(R) \quad \text{Expression 4}$$

In this model it has been indicated that increase in currency reserves resulting from the expansion of export, will increase national product. In the above – mentioned model, it has been proved that share of net export is exactly equal to productive elasticity of "factor of underground resource extraction". Then based on data from the last two decades, productive elasticity of underground resource extraction in the economy of Iran is calculated. Using this way is determined the optional amount of the export of the country that it is a guarantee of Sustainable growth and Maximum welfare for society.

"oil and non - oil export and economic growth, the time series analysis for Kuwait (1970 - 2004)" is the title of a paper by Ibrahim Mirza, in which has been Survey the theory "Export Leads to Growth (ELG)" The paper analyzes the relation of two export variables (oil of non-oil export) to the economic growth and to using the yearly

time series data for the economy of Kuwait during the period 1970 - 2004. This survey includes too many econometrics techniques such as the unit root test, Cointegration test, the Error Correction Model (ECM), the Impulse Response Function (IRF) of the Granger Causality test and he finally concluded that this theory is true in Kuwait.

Emery (1967) examines the relationship between export and economic growth for 48 developed and developing countries. He conducts a time series analysis using annual data for the period 1953 - 1963 employing a regression equation using GNP as the dependent variable and total export as the independent variable. The results indicate that there is a significant positive relationship between export growth and economic growth. Further, his results suggest that in order to increase the economic growth, countries should follow the stimulated export policy and should not follow the import substitution policy.

Balassa (1978) examines the relationship between export and economic growth using a data set of 11 industrial developing countries for the period 1960 to 1973. This study is different from previous studies, as it uses three different measures including export growth versus output growth, export growth versus the growth of output in net export, and the average ratio of export to output versus the growth of output. In this study, Balassa finds that there is a positive relationship between export and economic growth, and he points out that export oriented policies lead to a better growth performance than import substitution policies.

2.2 DATA AND METHODOLOGY

In this study, we use the annual time series data for Iran for the period from 1973 to 2007, collected from the Economic Time Series Database by the Central Bank of Iran (CBI). The data comprise Real Gross Domestic Product (RGDP), Real Oil Export (ROEX), and Real Non - oil export (RNOEX). All values will be in real terms. In addition, they will be expressed in the logarithmic form. The war years, revolution and oil shocks have respectively been applied in the model with the titles DUMW, DUME and DUMS. Table 1 shows the data in during 1973-2007. The virtual variable of war (DUMW), for measuring the effect of the imposed war on the economic growth has been shown. It gets number (1) for years of imposed war (1980-88) and (0) for the rest of the year of the time period. For the virtual variable of revolution, with regard to change of governmental system of the Iran from the kingdom to Islamic Republic, there are major changes in economic structure, the type of policy making and planning. Some years are considered along with the kingdom and it is given a value of (1) and for the rest of years the value of (0) is observed. The value (1) is considered for the years 1978, 1985 and 1991 as the virtual dependent of oil shocks (DUMS).

In the present paper, we have used the model of Vector Autoregressive Models (VAR), in other words, the econometric technique of the applied time series in order for analyzing the cointegration amongst the dependent variables. For this purpose, first we are evaluated the static of major dependent variables (RGDP, ROEX, RNOEX) and using the VAR Model, we have examined the cointegration amongst them. Vector autoregressive models can be written as following:

$$x_t + A_0 + A_1 x_{t-1} + A_2 x_{t-2} + \dots + A_p x_{t-p} + e_t$$

Expression 5

In which:

x_t : A_n Axis ($n \times 1$) including the applied dependent variables in VAR

A_0 : The axis of fixed values

A_t : The matrix of Coefficients ($n \times n$)

e_t : The axis of ($n \times 1$) of the error sentences.

In This model after analyzing the Stationary and cointegration of the dependent variables, we calculate the criteria of IRF and VD. About the criteria of IRF can write:

$$x_t = \mu + \sum_{i=0}^{\infty} \phi_i \varepsilon_{t-i} \quad \text{Expression 6}$$

In which, ϕ_i are coefficients that can with them survey effects of shocks caused by the sentences error on model variables, so that, the set of coefficients $\phi_{11}(i), \phi_{12}(i), \phi_{21}(i), \phi_{22}(i), \dots$ is named IRF. In addition, we can calculate another criterion named as variance decomposition. If we want to analyze the share and performance rate of dependent variables (oil and non - oil export) on the economic growth or we want to calculate the variance decomposition of forecast errors for the dependent variable of GDP (caused by shock Imported of the two variables), we can use the following expressions.

$$\frac{\delta_{pc}^2 [\phi_{11}(0)^2 + \phi_{11}(1)^2 + \dots + \phi_{11}(n-1)^2]}{\delta_{pc}(n)^2} \quad \text{Expression 7}$$

$$\frac{\delta_{it}^2 [\phi_{12}(0)^2 + \phi_{12}(1)^2 + \dots + \phi_{12}(n-1)^2]}{\delta_{pc}(n)^2} \quad \text{Expression 8}$$

Table 1. The RNOEX, ROEX and RGDP data in during 1973-2007

Year	rnoex (billion rial)	roex (billion rial)	rgdp (billion rial)	Year	rnoex (billion rial)	roex (billion rial)	rgdp (billion rial)
1973	3322	43510	174668	1991	804	4861	245036
1974	2638	95263	196581	1992	707	3993	254822
1975	2516	85145	206114	1993	17981	68782	258601
1976	2018	90353	242326	1994	18249	55163	259876
1977	1547	69376	236645	1995	8227	38150	267534
1978	1462	42162	219191	1996	6401	39537	283807
1979	1960	58312	209919	1997	5098	27105	291769
1980	1272	22972	178149	1998	4728	14744	300140
1981	618	19307	170281	1999	4872	21126	304941
1982	450	34548	191667	2000	4589	26652	320069
1983	518	30668	212877	2001	4499	19056	330565
1984	496	22967	208516	2002	20362	88720	357671
1985	576	16993	212686	2003	23074	95111	385630
1986	802	5473	193235	2004	23939	115348	410429
1987	719	6662	191312	2005	30945	157926	438900
1988	493	4603	180823	2006	36957	163180	467930
1989	440	5068	191503	2007	36062	182693	499071
1990	473	6481	218539				

Source: center of statistics of Iran

Table 2: Unit Root Test for Stationarity

ADF Unit Root Test					
variable		ADF Value (Intercept)		ADF Value (Trend and Intercept)	
		Level	First difference	Level	First difference
RGDP		0.2923	-3.2047	-1.8544	-3.5589
ROEX		-1.3951	-4.4253	-1.5216	-4.8421
RNOEX		-0.8318	-4.0910	-2.2453	-4.2954
Critical Values	1%	-3.6422	-3.6496	-4.2605	-4.2712
	5%	-2.9527	-2.9558	-3.5514	-3.5562
	10%	-2.6148	-2.6164	-3.2081	-3.2109

The * indicates rejection the null hypothesis of unit root at 5% significant level.

The ** indicates rejection the null hypothesis of unit root with intercept at 5% significant level.

2.3 EMPIRICAL RESULTS

2.3.1 Unit Root Test

This test helps to identify which variables have a unit root. In other words, it determines the non-stationary variables. It defines the variables that have a definite positive or negative trend over time. To do this, the Augmented Dickey-Fuller (ADF) will be used to test the variables under investigation, real GDP (RGDP), oil export (ROEX), and non-oil export (NOEX). The results of the test are shown in the Table 2.

The results for the ADF test, as appear in Table 2, show that all three variables, RGDP, ROEX, and RNOEX, are non stationary on the logarithmic level whether we include an intercept both an intercept and a time trend in the regression.

These results urge us to investigate the unit root hypothesis for the same variables, but after taking the first difference. These results appear in columns 3 and 5 in the Table 2. These results support the stationarity of all three variables at the first difference, but the null hypothesis for unit root was rejected for RGDP at the 5% level, for ROEX and RNOEX at the 1% level. Since all variables are stationary in the first level, this supports performing the cointegration test.

2.3.2 Cointegration Test

This test is used to see if a long-run relationship exists among a set of variables that are non-stationary at their levels but stationary after first differencing. In our case, the variables (RGDP, ROEX, and RNOEX) are found to be non-stationary at their levels but stationary after first differencing, that is, $RGDP \sim I(1)$, $ROEX \sim I(1)$, and $RNOEX \sim I(1)$. Accordingly, the Engle-Granger Cointegration technique (the two-step technique) was used to estimate that relationship. We start this test by examining an equation of the form:

$$RGDP_t = \alpha + \beta_1 ROEX_t + \beta_2 RNOEX_t + e_t \quad \text{Expression 9}$$

Where α is a constant, and β_1 and β_2 are coefficient to be estimated.

The second step is to save the residuals and to perform the ADF test on the residuals. If we reject the null hypothesis (H_0 : the residuals are not stationary), the residuals are stationary and the variables RGDP, ROEX, RNOEX are cointegrated. The result for the first step appears in the following equation, where the t-statistics are shown in parentheses:

$$RGDP_t = 11.16 - 0.0485 ROEX_t + 0.1093 RNOEX_t - 0.174 DUMW - (40.16) (1.04) (2.62) (-1.97)$$

$$0.2977 DUME + 0.1128 DUMS \quad \text{Expression 10}$$

$$(-2.98) (1.21)$$

Then, we saved the fitted residual, and after applying the ADF test on that series, the null hypothesis for non-stationary series was rejected at the 5% significant level.

To confirm this result, this research would apply another methodology to confirm the existence of a long run relationship among RGDP, ROEX, and RNOEX. Johansen's approach is performed in order to explore the cointegration relationship. This test allows estimating the cointegration relationships among the non-stationary variables using Trace and Maximum Eigenvalue tests to examine the rank r , where r stands for the number of cointegrating relations (or cointegrating vectors).

The information about the existence of the long-run relationship among real GDP, oil export, and non-oil export is shown in Table 3.

Table 3 shows both Trace and Maximum Eigenvalue tests. The results from Table 3 indicate that the null hypothesis of no cointegrating vector is rejected by both the Trace and Maximum Eigenvalue tests. Thus, RGDP, ROEX, and RNOEX are cointegrated, and there is a long-run relationship among them.

Table 3: Johansen Cointegration Test Results

Trace Test				
Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	5 Percent Critical Value	1 Percent Critical Value
None **	0.806762	154.8143	104.94	114.36
At most 1 **	0.693245	100.5678	77.74	85.78
At most 2 **	0.620709	61.57156	54.64	61.24
At most 3	0.378886	29.57962	34.55	40.49
At most 4	0.282508	13.86370	18.17	23.46
At most 5	0.084347	2.907903	3.74	6.40
(**) denotes rejection of the hypothesis at the 5%(1%) level Trace test indicates 3 cointegrating equation(s) at both 5% and 1% levels				
Maximum Eigen Value Test				
Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	5 Percent Critical Value	1 Percent Critical Value
None **	0.806762	54.24650	42.48	48.17
At most 1 *	0.693245	38.99627	36.41	41.58
At most 2 *	0.620709	31.99194	30.33	35.68
At most 3	0.378886	15.71592	23.78	28.83
At most 4	0.282508	10.95580	16.87	21.47
At most 5	0.084347	2.907903	3.74	6.40
(**) denotes rejection of the hypothesis at the 5%(1%) level Max-eigenvalue test indicates 3 cointegrating equation(s) at the 5% level Max-eigenvalue test indicates 1 cointegrating equation(s) at the 1% level				

2.3.3 Error Correction Model (ECM)

The general form of the ECM with two variables is as follows:

$$\Delta y_t = \beta_0 + \beta_1 \Delta x_t - \beta_2 [y_{t-1} - \gamma_1 - \gamma_2 x_{t-1}] + u_t \quad \text{Expression 11}$$

The coefficient β_2 is assumed, theoretically, to have a negative sign and to have a value between zero and one. Once cointegration among the variables (RGDP, ROEX, and RNOEX) has been identified, the ECM is performed in order to detect the gradual adjustment of the dependent variable toward its long run value. We applied the ECM for the three variables RGDP, ROEX, and RNOEX. The result appears in below equation, where the t-statistics are shown in parentheses:

$$\begin{aligned} \Delta \text{RGDP}_t = & 0.0454 + 0.0762 \Delta \text{ROEX}_t - 0.0609 \Delta \text{RNOEX}_t - 0.0166 \text{DUME} \\ & (3.13) \quad (2) \quad (-2.1) \quad (-0.1) \\ & - 0.0531 \text{DUMW} + 0.0355 \text{DUMS} + 0.018 e_{t-1} \quad \text{Expression} \\ & (-2.05) \quad (0.1) \quad (0.1) \end{aligned}$$

The optimal lag structure for ROEX and RNOEX in the ECM is determined according to

Schwarz Criterion (SC). ΔROEX_t and ΔRNOEX_t are the manipulated variables, and e_{t-1} is mutually uncorrelated white noise residual.

Top equation relates the RGDP to ROEX and RNOEX. It shows that the short-term changes in ROEX (positively) and in RNOEX (negatively) affect changes in RGDP and these effects are significant at the 1% level. In addition, before equation shows that 0.018 of the short-run adjustment coefficient of the deviation of the actual RGDP from its long-run equilibrium level is corrected each year. That is any disequilibrium in the error term for the dependent variable in time t-1, will be adjusted the next year in the amount (speed of adjustment) of 0.018.

2.3.4 VAR Specifications

As a final approach to the question of whether oil export and non-oil export influence economic growth, this study estimates a VAR model that includes all three variables under consideration: RGDP, ROEX, and RNOEX.

The VAR model is estimated with two lags of each variable plus a constant term in each equation. To summarize the VAR results, before equations show the results for the VAR specification with the t-statistics shown in brackets below the corresponding variable.

$$\begin{aligned} \text{RGDP}_t = & -0.1 + 1.02 \text{RGDP}_{t-1} - 0.02 \text{ROEX}_{t-1} - 0.008 \text{RNOEX}_{t-1} \\ & (-0.09) \quad (10.88) \quad (-0) \quad (0.39) \\ & + 0.029 \text{DUME} (-1) - 0.076 \text{DUMS} (-1) - 0.015 \text{DUMW} (-1) \end{aligned} \quad \text{Expression 13}$$

(0.53) (-1.65) (-0.34)

$$\begin{aligned} \text{ROEX}_t = & -11.74 + 1.34 \text{RGDP}_{t-1} + 0.43 \text{ROEX}_{t-1} - 0.1 \text{RNOEX}_{t-1} \\ & (-1.25) \quad (1.63) \quad (2.15) \quad (0.51) \\ & 0.98 \text{DUME} (-1) - 0.73 \text{DUMS} (-1) + 0.104 \text{DUMW} (-1) \end{aligned} \quad \text{Expression 14}$$

(2.03) (-1.81) (0.26)

$$\begin{aligned} \text{RNOEX}_t = & -23.43 + 2.33 \text{RGDP}_{t-1} - 0.24 \text{ROEX}_{t-1} + 0.1 \text{RNOEX}_{t-1} \\ & (-2.69) \quad (3.04) \quad (-1.32) \quad (0.51) \\ & + 0.37 \text{DUME} (-1) - 0.29 \text{DUMS} (-1) - 0.28 \text{DUMW} (-1) \end{aligned} \quad \text{Expression 15}$$

(0.83) (-0.79) (-0.76)

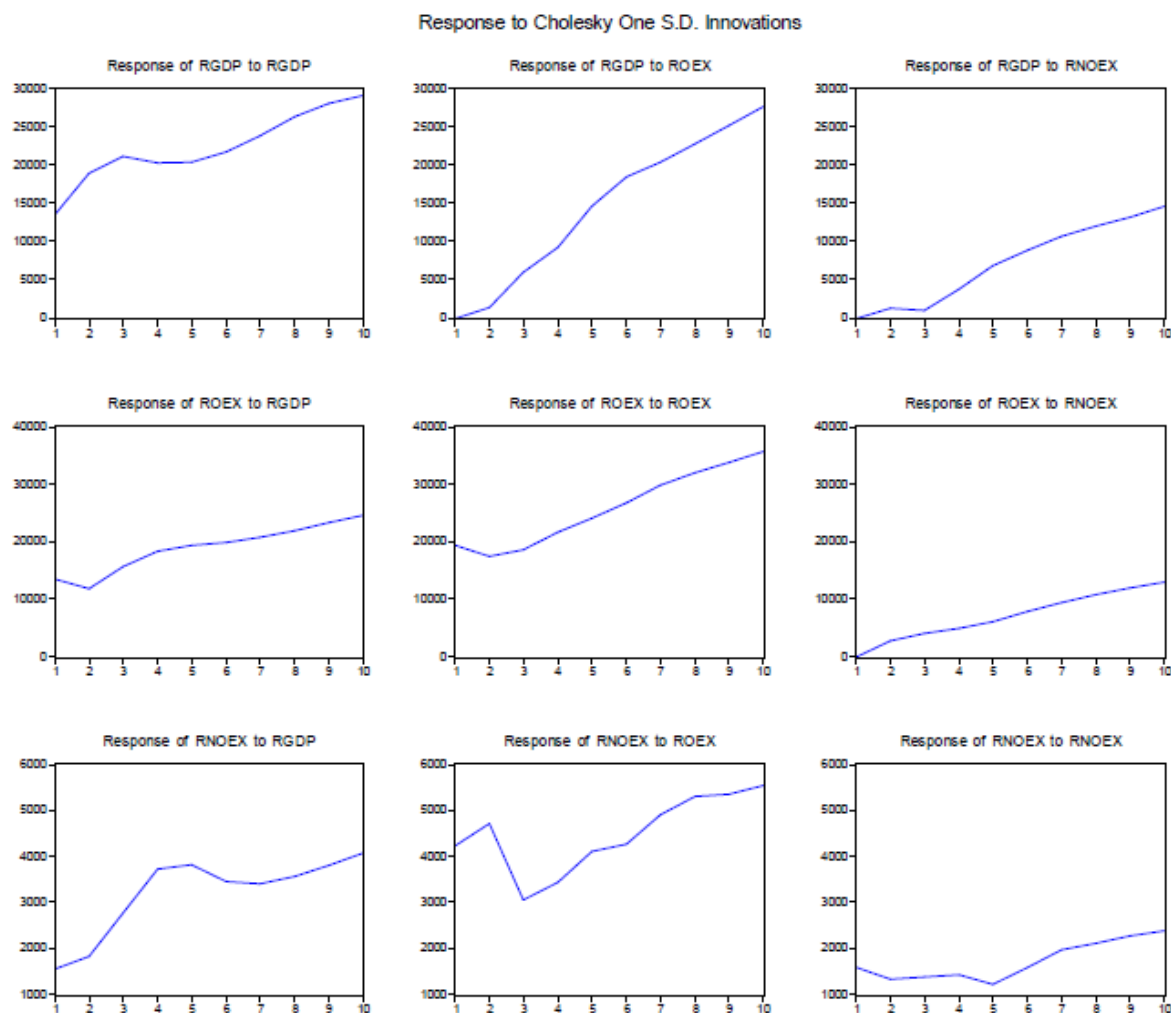
What is important in a VAR model is to construct the Impulse Response Function (IRF) to get the responses of each variable to a shock in all other variables including the variable under consideration. Note that the Cholesky decomposition is used for ordering the variables when estimating the IRF.

In Figure 1, shows the responses of real GDP to shocks to oil export, and non oil export. The real GDP responds positively to a shock in oil export but this happened after 2 lags. Also this variable responds positively to a shock in non-oil export. Response of RGDP to ROEX after 8 lags is reduced but response to RNOEX has increased process.

In this figure shows the responses of oil export to shocks to real GDP, oil export, and non-oil export. Oil export responds positively to a shock in real GDP. The reason for that is because an increase in the real GDP of the country, an increase in its income, encourages the country to spend more on the oil sector, which will increase its ability to export more. At the same time, oil export responds positively to a shock in non-oil export after 4 lags.

Also in Figure 1 shows the responses of non-oil export to shocks to real GDP, oil export, and non-oil export. The non-oil export responds positively to a shock in real GDP. The same interpretation of why oil export responds positively to real GDP shocks applies here. Higher income encourages spending more to enhance the production ability of other sectors including the non-oil sector, which works to support variation in export. More response of non-oil export to oil export show high fluctuations.

The result of variance decomposition shows that after 10 periods 0.51 percent of the differences of RGDP by RNOEX and 5.39 percent of changes via ROEX are explained that can approve the importance of oil export in economic growth.

Figure 1: The Impulse Response Function Results

3. Conclusion

The purpose of this study is to answer these questions will oil and non oil export lead to economic growth? If the answer is yes, "which is more important?"

In the present paper, in order for analyzing the relationship between oil and non - oil export with economic growth of Iran, have been used of the time series data during 1973 until 2007. Then the Stationary of the dependent variables were calculated using of the Dickey - Fuller (ADF) test. The findings show that the three variables are non – Stationary but they would get static with once difference.

The results of cointegration test show the long run equilibrium relationship between these three variables and the Error - Correction Model (ECM) applied for showing relationship between the short run and long run equilibrium that it shows this relation, however its coefficient is small.

In Iran, the main source of revenue of government is Oil and the government Expenditures is mainly based on the forecast of the oil export revenue. Since, the results show the positive effect of non - oil export on economy in long run, with changing in policy makings can improve the importance of this part for increasing the revenues. This changing in policy makings requires to Comprehensive and long term programs. These programs and policies should be in order variation - making in production and the export of products with high comparative advantage.

In the present condition maybe, Iran's economy have seen growth in GDP during this period but this can be because of high price of oil and the price of oil is also unstable. It would be better to apply the extra revenues caused by increase of oil price for development of non – oil export until have sustainable revenues.

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