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**THE RELATIONSHIP BETWEEN POVERTY, INEQUALITY INCOME AND  
ECONOMIC GROWTH IN RURAL AND URBAN AREAS**

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**ABSTRACT**

One of the most important aims of development studies is to reduce poverty and its interaction with justice that this issue can be studied by the relationship of economic growth with income distribution. In the 1990s with the introduction of the benefits of growth, while a general consensus about the weakness of the growth tool as an only tool for poverty reduction, many researchers focus was attracted on policies of income redistribution and wealth alongside economic growth. Therefore, reducing poverty is depended to the average of income and inequality. Increasing the average of income causes to reduce the poverty and increasing the poverty inequality. Economic growth causes to increase the average of income; however, inequality can have both increase and decrease. In this study which is done to study the relationship between poverty, inequality income and economic growth during the period of 1981 to 2012 in two sectors of rural and urban areas of Iran, VAR method is used. The results of research show that the relationship between poverty and inequality is positive in both areas. On the other word, increasing the poverty leads to weaker the low income segment which increases the class antagonism and inequality income and on the word, increasing inequality income weakens the middle class and expands the poverty. This effect in urban areas is more and deeper, because, class conflict is wider in urban society. Also, the results show that the relationship of

poverty and inequality with economic growth is negative. On the word, increasing the poverty and inequality causes to reduce the healthy situation of labor force and it reduces the security of society and increase the production risk that all those can reduce economic growth of the country.

**Keywords: Economic Growth, Poverty, Inequality Income, Urban Areas, Rural Areas**

## INTRODUCTION

In two past decades, some economies have appeared in developing countries which have higher growth rates than developed countries. The start of this process is from 1990s when this space increase considerably. Class conflict leads to increase human development and decrease the poverty. In this regard, an amazing decrease in global poverty has happened that much of it is related to China. However, even when China is excluded from the sample, decreasing poverty is still under the attention (**Chen& Ravalion, 2008**). This research has had different findings with other researches that it has shown the decrease and or the increase the poverty. A part of this disappointing performance is attributed to tedious and slow growth that among these instructions, many African countries in the 1980s and 1990s can be cited. Historically, high and developing inequality income in many Latin America countries can be mentioned as an obvious issue. In China, poverty reduction has been quiet remarkable, its future reduction also can continue in growth condition in parallel with increasing

inequality income simultaneously (**Ravalion and Chen, 2007**) and even among African countries those it seems that lack of growth as main factor of this issue, there are considerable inequalities in countries capability for exchanging growth in decreasing poverty (**Fosu, 2008, 2009**).

Since the 1980s, the poverty rate had a significant downward trend (**Global Bank, 2006**). Economic literature related to this case mentions that growth is the main factor in this reduction and income distribution has not played any specific role in this tem (**Dollar and Kraay, 2002**). However, the importance and role of income distribution in reducing poverty has been more under the attention (**Brono et al, 1998; Global Bank, 2006**). In country level, the numbers of studies have analyzed the effect of inequality and income on poverty (**Dot and Ravalion, 1992; Kakwani, 1993**). Both **Dot and Ravalion (1992)** and **Kakwani (1993)** have estimated considerable share of distribution factors in parallel with growth. According to the area studies of African countries, it can also

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observe that poverty had more sensitivity to compare with inequality income rather than the level of income.

### **Theoretical framework**

Poverty reduction is one of the important targets for the development of developing countries and developed countries (**United Nations, 2000**). Progress towards the realization of this goal is what many policymakers have been following it; especially in developing countries in recent two decades. However, the results of poverty are different in all around the country widely.

As it is mentioned in the studies of **Brogingon (2004), Dagdeviren et al (2004) and Lopez (2006)**, poverty is determined by the variables of income growth and income distribution. Consequently, it might be predicted that during the especial period, poverty changes are because of changes in growth and income distribution. Therefore, economic growth reduces poverty in one side and economic downturn increase poverty generally. In the other side, improvement in the way of distributing income reduces poverty (inequality reduction) while increasing inequality increases the level of poverty as well. Finally, the combination of these economic factors in relation with decrease or increase the poverty is effective.

**Cortes, Hernandez, Hernandez-Laos, Szekely, and Vera (2007)** by using of presented method by **Dot and Ravalion (1992)** have been dealt with to study the poverty. The obtained findings from this research shows that increasing in the average of incomes has positive effect on poverty, secondly, change in income distribution in national level is not important, however, it plays important role in rural sector.

**Nong ZHU and Xubei LUO and Cuizhen ZHANG (2007)** in an article entitled “growth, inequality income and poverty reduction: case study in relation with eight areas in China”, have been dealt with to study the economic growth, inequality income and poverty reduction in eight urban innovated areas in China during the period of 1989 to 2004. The main findings of this research show that increasing productivity increases income growth. Poverty reduction can also have more satisfaction, especially when it will not lead to increase inequality income in urban areas and among wealthy. The analysis of variance based on determining families’ incomes also shows that total income changes during 15 years studies can be attributed to increase in education returns and the difference in jobs rewards. Inequality reduction in opportunities and improving the access to public education

especially in rural areas shows that in order to increase growth, inequality should be reduced and it should fight against poverty.

**Alberto Javier and Iniguez Montiel (2014)** in an article entitled “growth along with equity towards developing the country of Mexico: poverty, inequality income and economic growth (1992-2008)” have been dealt with the study of this issue. The main findings of this research show that growth with redistribution of income (low levels of inequality income) simultaneously, is the key of reducing persistent poverty during the period of 2000-2006. However, after the year 2006, decrease in income per capita along with high and persistent inequality (Gini coefficient equals to 52%) has caused to change this optimal process after the year 2006 and the amount more than year 2002 has increased poverty. Consequently, it can be argued that for country of Mexico as a middle income country, it was indicated that the growth rate is low and inequality income level are high and if this country wants to improve its situation, income distribution is necessary in this country which can be in benefit for poor people as a active growth policy.

### Research model

This research has been dealt with to estimate and analyze the results by time series VAR method and pattern stipulated below.

$$Y = \alpha_1 + \alpha_2 g + \alpha_3 P + \alpha_4 POP + \varepsilon$$

The variables of research are included of poverty index, Gini coefficient, and added value growth in urban and rural areas.

### Model estimation

The objective of this research is to study existence or lack of any relationship between dependent variable and independent variables. For investigating these relationships, VAR method is used and for processing the information and its summarization, Eviews software is used.

To measure the stationary of variables and ensure that they are not dynamic in second degree and all of them are dynamic in zero and one degree, adjusted Dicky-Fuller test is used.

As it is obvious in **Table 1**, all research variables are stationary with one difference. Then, it has dealt with to determine the optimal lag in model that in two states of rural and urban, it is indicated to determine optimal lag of one. In this study, to find the number of co integration vectors, two statistical tests of especial amount ( $\lambda$  Max) and the effect test ( $\lambda$  Trace) are used. The results of test show the co integration of variables.

According to the **Table 2**, added value in urban areas with one lag has positive effect on added value in urban areas. Population with

one lag has positive effect on added value in urban areas. Poverty with one lag has negative effect on added value in urban areas. Inequality with one lag has negative effect on added value in urban areas. Added value with one lag in urban areas has positive effect on population. Population with one lag has positive effect on population. Poverty with one lag has positive effect on population. Inequality with one lag has negative effect on population. Added value in urban areas with one lag has negative effect on poverty. Population with one lag has negative effect on poverty. Poverty with one lag has positive effect on poverty. Inequality with one lag has positive effect on poverty. Added value in urban areas with one lag has negative effect on inequality. Population with one lag has positive effect on inequality. Poverty with one lag has positive effect on inequality. Inequality with one lag has positive effect on inequality.

According to the **Table 3**, added value in rural areas with one lag has positive effect on

added value in rural areas. Population with one lag has positive effect on added value in rural areas. Poverty with one lag has negative effect on added value in rural areas. Inequality with one lag has negative effect on added value in rural areas. Added value in rural areas with one lag has positive effect on population. Population with one lag has positive effect on population. Poverty with one lag has positive effect on population. Inequality with one lag has negative effect on population. Added value in rural areas with one lag has negative effect on poverty. Population with one lag has negative effect on poverty. Poverty with one lag has positive effect on poverty. Inequality with one lag has positive effect on poverty. Added value in rural areas with one lag has negative effect on inequality. Population with one lag has positive effect on inequality. Poverty with one lag has positive effect on inequality. Inequality with one lag has positive effect on inequality.

**Table 1: the study of stationary of research variables by Dicky-Fuller (ADF)**

The studied situation of variables in test			Name of variable
With difference			
Probability	Crisis amount	Statistic	
0.0006	-2.986225	-4.901745	Gini coefficient
0.0024	-3.622033	-5.083684	Poverty
0.0443	-2.986225	-3.045220	Added value of urban areas
0.0001	-3.065585	-24.97040	Added value of rural areas
0.0002	-2.998064	-5.469102	Population

Source: research calculation

Table 2: dynamic pattern estimation in urban areas

Inequality	Poverty	Population	Added value in urban areas	
-60.96892	-0.003057	10.52427	1.093192	Added value in urban areas with one lag
(19.1098)	(0.00128)	(4.76908)	(0.25429)	
[-3.19547]	[-2.33657]	[2.21606]	[4.29894]	
1.868757	-0.08881	0.041968	0.044621	Population with one lag
(1.07363)	(0.05104)	(0.01900)	(0.01731)	
[1.74778]	[-1.74475]	[2.15770]	[2.31312]	
16.95586	1.151038	87.73506	-0.409888	Poverty with one lag
(8.9682)	(0.07356)	(38.4780)	(0.18599)	
[-1.89741]	[15.6482]	[2.28132]	[-2.19905]	
0.258364	2.48E-05	-0.060646	-0.044973	Inequality with one lag
(0.13157)	(1.11711)	(0.03108)	(0.02072)	
[1.90240]	[2.22261]	[-1.93962]	[-1.93967]	
0.981236	0.988921	0.724554	0.953704	R-squared
0.975978	0.988274	0.559286	0.925927	Adj. R-squared

Source: research findings

Table 3: dynamic pattern estimation in rural areas

Inequality	Poverty	Population	Added value in rural areas	
-1016113.	-0.294625	32.02207	5.88E-05	Added value in rural areas with one lag
(543375.93)	(0.13615)	(16.50515)	(1.97315)	
[-1.87303]	[-2.13171]	[1.94383]	[2.98554]	
35.46798	-1.531885	29.85763	23.52671	Population with one lag
(151.5683)	(0.48726)	(14.1469)	(13.6744)	
[2.34680]	[-3.14626]	[2.11729]	[1.72601]	
1.11E-07	1.85E-11	3.63E-09	-0.091457	Poverty with one lag
(0.35350)	(0.92964)	(1.50622)	(0.05321)	
[3.14631]	[1.99718]	[2.41308]	[-1.71815]	
4604.188	30.62089	-21061.34	-177.3181	Inequality with one lag
(2182.0758)	(15.38693)	(10077.1961)	(554.0937)	
[2.11401]	[1.99269]	[-2.09527]	[-0.32944]	
0.981236	0.988921	0.724554	0.953704	R-squared
0.975978	0.988274	0.559286	0.925927	Adj. R-squared

Source: research findings

## CONCLUSION

The results in this research which is done about the relationship between poverty, inequality income and economic growth in two parts of urban areas and rural areas of Iran, show that relationship between poverty and inequality in both areas is positive. On the

words, increasing poverty is led to weaken the low income which increase the class conflict and inequality income and on the other hand, increasing the inequality income weakens the middle class of society and expands the poverty. This effect is more and deeper in urban areas, because, class conflict is wider in

urban areas. It is recommended to adopt reduction policies of class conflict for reducing poverty in country, on the other word, with adopting reduction policies of inequality income, middle class of society will be stronger and poverty will be reduced.

Also, results of research show that the relationship between poverty and inequality with economic growth is negative. On the other word, increasing poverty and inequality causes to reduce the situation of labor force healthy and increases the security of society and increases the production risk which all of them can cause to reduce the economic growth of the country. This issue is more in rural areas. Because, class conflict in urban society sometimes leads to assemble capital and consequently, it can increase the economic growth but in rural society, this class conflict causes to immigrant and increase the consumption and etc. it is recommended to adopt policies based on decreasing the conflict income and poverty especially in rural areas with adopting policies of expanding rural to increase the growth and economy development. On the other word, with adopting reduction policies of poverty and inequality, it is caused the increasing the situation of labor force healthy and security of society and it reduces the

production risk which all can increase economic growth of the country.

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