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Growth, Poverty, and Inequality in Algeria During 1980-2010

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Abstract

Economic growth holds the field of social research. Even now, many researchers agree about indispensability of growth, while others emphasis that it's insufficient until the possibility of coexistence of negative effects is still realized. For example: Weaknesses in economic balance (sectors and regions), and enlargement of the gap between society classes mentioned as inequality.

In this paper, descriptive statistics are used to diagnose economic growth, poverty and inequality in Algeria based on a policy oriented work looking for a judgment about decisions made to eradicate poverty. The main findings emphasis a positive effect of economic growth on poverty, and can't emphasis a clear link between inequality and growth.

Key words: Economic growth; Poverty; Inequality

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1. INTRODUCTION

Reconsidering the fact that economic growth is good for the poor; other studies show us that both of poverty and growth could co-exist. Therefore, even with high level of national income we could see inequality worsen.

If we could swallow national efforts to eradicate poverty, it's hard to understand why this later matters the international financial institutions and the world community, for instance there is an engagement with the millennium development agenda, in order to submit to the new form of aid conditionality.

One of the interesting reasons to choose this subject is to give a suggestion, if needed, as a feedback for policy making about economic growth impact on poverty.

The study comprises of five different sections. Introduction of the study is given in section one. The second section reviews the relevant literature. Theoretical evolution of economic growth and poverty and methodological issues have been presented in third section. Fourth section consists of the discussion of empirical results. Concluding remarks and policy suggestions are presented in fifth section.

2. LITERATURE REVIEW

Kuznets study (Kuznets, 1955) is premier work on the positive relation between economic growth and poverty shown in an inverted U shape described by the well known "trickle down effect".

In the paper entitled "Growth is good for the poor" (Dollar and Kraay, 2000) the authors that there is a proportional change in poor revenue due income variations, their findings represent a dominant approach in many developed countries, but it was criticized following hiding externalities and fasten inequality due to oriented economic growth policies (Weisbrot et al., 2001).

The empirical study by a team of researchers about poverty and growth in Algeria (Maliki et al., 2012) shows that primary education attainment has a negative effect on subjective poverty for inferior poverty classes.

The paper contains two parts; we devote the first one to theoretic overview on growth, poverty, inequality, and the second to expose empiric results about the link between growth, poverty and inequality in order to achieve the last section which contains empirical study, in conclusion we will evaluate accordance with theoretical assumptions, for this reason; inclusive approach by statistical method instruments appears more preferable. We used also conclusive approach to identify assumptions validity on Algerian economy.

Economic growth is defined as an increase of production for a long period. As a continuous quantitative process; growth is better than expansion - which holds for a short time - as fundamental aspect of development. Whereas depression is long-lasting and severe recession (trade and industrial activity are reduced. For example: The great depression of 1929), and the latest recession due to American financial crisis in 2008.

Economic growth is qualified as:

Extensive: If boosted by a quantitative increase in factors;

Intensive: If boosted by a better use of factors (productivity enhancement).

It's easy to determine either conjuncture is growing up or moving downward, we have just to measure changes in production of the whole society. The main issue to analyze growth in the production of society is aggregation, and the usual aggregates of gross domestic product & gross national income (GDP) & (GNI) are the best index to estimate the growth rate. Then we should careful about expansion induced just by prices augmentation (inflation); to avoid overestimation of growth rate, that is why economists tend to use real growth rates (current prices corrected by a deflator).

There is another method to measure growth which consists on aggregating production increase, and then subtract the demographic growth rate from it between two periods generally measured by years. The first year will be considered as a benchmark to evaluate improvement in the second or final year.

The classical school leaders described economic growth outputs by a pessimistic view (David Ricardo described it as stationary state, while R. Malthus talked about a limited or restraint economic growth theory due to the demographic factor characterized by geometric growth rate of population. Contrarily to capitalistic view of the former ideologies, Marxian school (referred to Karl Marx) was interested by economic growth as a process; and mentioned the importance of material value of labor in evaluating all commodities, as well as socialism which refutes capitalistic principle "laisser faire", and appeal for common ownership of production materials.

It's just since the 1950's where Economic growth theory had been treated seriously with many neoclassical studies (as an extension of the Harrod-Domar model based on post Keynesians assumptions), models were also described as exogenous according to the assumption of being external in production process.

The complains of J. B. Say, Kaldor and the Nobel prize Robert Solow (in 1956) promulgated the optimistic view and finally leaded to the new theories of growth, characterized by an endogenous factor of growth, by breaking most of the classical dogmas.

The focus on growth enhanced the propagation of poverty, another social phenomenon destabilize society security which is inequality.

Poverty can be defined as "The state in which a given person or group of persons has not enough, in regards to some defined norm or threshold. The problem occurs of course when one attempts to define what is that norm or threshold, supposedly socially admitted". (Diallo, 2009). There are two streams to identify vulnerability amongst individuals: (i) the welfarist approach "WA" (ii) and the non-welfarist approach "non-WA".

The "WA" is tied to individuals' utility or preferences and finds its roots in classical microeconomics. Under income or consumption criterion a person could be poor or not.

If we consider Poverty as an economic well-being three kinds are available: (i) monetary or income poverty "IP"; (ii) potentialities or capacities poverty "CP"; (iii) life conditions or existence poverty "EP".

The "IP" expresses level aspect of life and results from insufficiency of resources which engenders insufficient consumption (low welfare level). Their measure relies either on income, or consumption, transferred into monetary value.

The Welfare theory serves as reference to monetary poverty analysis. Due to the impossibility of measuring utilities, it relies on income use (or consumption) as measure of welfare.

We define a monetary threshold under which a person is considered as poor, and we calculate the number of poor with reference to this threshold (Poverty Line "PL"). This threshold may be estimated by means of either income, greatly variable, or consumption more stable over time.

Absolute poverty matters, by considering necessary income to buy minimal food basket indispensable to daily survival (which correspond, according to FAO norms, to 2400 calories for poverty and 1800 calories from extreme poverty) which has to be augmented by necessary income to buy indispensible non-food goods (clothes, energy…).

The threshold may be determined relatively with consideration, on income distribution or consumption, of population percentage: either the 20% poor population or those they have less than median or mean income. So we obtain relative poverty estimation.

The "EP" could be perceived in its exclusion dimension relatively to certain mode of material and cultural life, resulting to impossibility to satisfy essential needs [reference to essential needs theory].

The analysis is enlarged to the whole needs permitting to bring decent life about a given society; which lead to the notion of society integration/exclusion.

This "poverty of life conditions" or "poverty of existence", viewing more qualitatively the poverty, traduce a situation of lack in domains related to food (nutritional disequilibrium), to health (inaccessibility to primary cure), to education (non-schooling), to habitat, etc. But the on-satisfaction of a given need, judged as essential could have many reasons (a service unavailability, inaccessibility, cost, differences in perceiving essential character of needs, etc.) [Immaterial threshold], which refers to a notion related to sociocultural environment. As a result it's more difficult to choose pertinent indicators in order to retrace poverty of life conditions.

The "CP" traduces the fact of inability to dispose by means (different forms of capital) that'll permit to subtract from poverty, to live correctly and to enhance individual capacities. This insufficiency (K=accumulation) causes insufficient enhancement of individual capacities.

This approach permits to tackle poverty from its source by considering it as a result of incapacity to determine appeared opportunities due to lack of capacities resulted from deficient health, insufficient education, nutritional disequilibrium…etc. In a dynamic view; one become poor as a result of patrimony modifications (by failure), in human "K" (handicap) or in social "K" (exclusion or a family rupture) [poverty in term of stock].

The "WA" is characterized by following:

It is difficult to implement in practice, as it requires substantive information on revealed preferences and because it's hard to assess utility or happiness.

Preferences are heterogeneous and therefore avoid making inter-personal comparisons. Looking to "WA" disadvantages the analysts move toward a recent tool "non-WA", which came as a criticism of characterizing Welfare; rather this latest may depend on many other factors. No attempt is made in to compressing these many dimensions of Welfare into a single one such as utility or happiness.

Non-Welfarist stream consists mainly of two sub-schools, both derived from the influential works by Prof. Amartya K. Sen 1992, (i) the functioning or basic needs school "FS"; (ii) and the capabilities school "CS".

The "FS" can be understood to be the constitutive elements of well-being, the beings and doings each person has the right to have access to. They're in this sense slightly different of basic needs, which are the minimum physical inputs individuals need to achieve functions.

Whereas functionings are universal by definition (e.g., to be literate, going to vacation, "appearing in public without a shame" (Adam Smith), etc.), basic needs depend on individual characteristics. In this approach, a person is judged poor if these minimal requirements are not met.

The "CS" approach is defined by Sen as the capacity to achieve functionings. It relays on the philosophical notion that humans are born equal and each human being has the right to enjoy substantial freedoms, notably the right to live well and in good health. A great role is given to the freedom of choice. Capabilities are in this sense the substantive freedoms a person enjoys to live the kind of a person values.

A multidimensional aspect of poverty has to be considered, especially in developed countries, like:

(i) Subjective poverty inverse in meaning to objective meaning. A subjective "PL" depends on minimal ease wanted by household; this could be deduced from questionnaires given to selected individuals in order to have a survey: Minimal desired salary, social opportunities, and goods in need.

(ii) Transitory/structural poverty, judged as structural if conjunctures yield permanent poorness, and vice versa the transitory poverty is caused by spontaneous conditions (commercial cycle...).

Structural poverty needs special policies in order to eradicate extreme poverty, but almost spontaneous poverty needs just a transitory alleviation [vulnerability].

(iii) Instantaneous / life cycle approach which has depended on Friedman concept of permanent income, so permanent poor are different from those who are poor transitorily (students as example), they sacrifice yesterday income for best revenue in future.

3. THEORETICAL FRAMEWORK

3.1 Absolute Versus Relative Poverty

Absolute poverty is "a condition characterized by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education and information. It depends not only on the income but also on the access to services".

This definition goes beyond minimum subsistence ideas of absolute poverty. In addition Townsend 1979, Sen 1983 and Doyal and Gough 1991 have argued that basic human needs cannot be understood purely in physical terms – the essence of humanity is the capacity to make choices and any (absolute) measure of poverty has to take account of capabilities –including the capacity to participate, (Alkire, & Santos, 2013).

While Relative poverty looks at "how the incomes of people living in poverty compare with the average incomes of people in general" (Seymour, 2009), in other words "People are said to be living in poverty if their income and resources are so inadequate as to preclude them from having a standard of living considered acceptable in the society in which they live". For Townsend: "Individuals… can be said to be in poverty when they lack the resources to obtain the types of diet, participate in the activities and have the living conditions and amenities which are customary, or are at least widely encouraged or approved, in the societies to which they belong".

There is also another method to identify relative poor persons "using the median income as benchmark", for example in Europe people below 60% of median income are said to be "at-risk-of poverty".

The comparison between absolute and relative poverty could be summarized in 3 following points:

These two concepts are complimentary, also considered as normative (far from being a felt index).

Absolute poverty measure is frequently used in developing countries, where most of the population lives around minimal survival threshold, while in developed countries, where food security is ensured, poverty is based greatly on comparisons.

Also, absolute poverty measure is useful in crisis conjunctures, since it permits to estimate individuals falling under considered objective threshold (“PL”). While in growth circumstances a relative poverty measure enhances the “outcasts” of growth.

Measuring poverty frequently used a specified line, standards that could be based on: (i) minimum expenditure standard, i.e. the US poverty standard; (ii) minimum income standard (iii) social indicators (iv) other standards.

The first standard is the favorite once; by just fixing a threshold we obtain a new poverty line.

Recently, analysts are more conscious about using more than one measure of poverty at the same time. Layte, Nolan and Whelan had developed in 2000 the technique by using social indicators in combination with income thresholds.

Using a specified line we could measure poverty index, the mostly used indices are as follows:

3.2 The Poverty Headcount (H)

The (H) represents the percentage of people under the “PL” in a specified society, community or even over the world.

$$H = \frac{q}{N} \tag{01}$$

Where n is the total size of population and q the number of individuals having resources (i.e. revenues) less than the “PL”.

As a policy tool; this measure holds court in across countries analysis and comparative studies especially held by World Bank and the UNDP, due to divulgence character and simplicity in perception. While this index complies with the focus and additive decomposability axiom, it didn’t satisfy the monotonicity and transfer axiom; thereby it represents a restricted guide to policy, since it does not show the extent of resources assigned to every individual (i.e. distance between the proper income to a person and the “PL”; especially for poor people) and it doesn’t consider an important issue of distributional analysis (Amiel et al., 1998).

3.3 The Poverty Gap Index (PGI):

The (PGI) defines how far the poor are from the “PL” as a percentage of the “PL” (Haughton et al., 2009).

If G_i represents the poverty gap for the i[th] poor individual, then poverty gap is calculated as:

$$PG = \sum_{i=1}^{q} G_i = \sum_{i=1}^{q} (z - y_i) = q \cdot (z - \bar{y}) \tag{02}$$

Accordingly the (PGI) is written as follows:

$$PGI = \frac{1}{n}\sum_{i=1}^{q} \frac{(z - y_i)}{z} = \left(\frac{q}{n}\right)\left(\frac{(z - \bar{y})}{z}\right) \tag{03}$$

Note that $\bar{y}$ is the mean income of the poor population, $(z-\bar{y})/z$ is the income gap ratio or poverty incidence (PI) which indicates the average distance between the revenue of poor and the “PL”, it could be explained as the average gap of expenditure/income needed to reach the “PL”, and as the (PI) breaks the monotonicity principle; it is not a good indicator of poverty: if, for example, the income of a non-poor person decrease below the “PL”, the mean income of the poor will rise which reduce (PI), despite the fact that poverty had risen.

3.4 The Severity or the Foster, Greer and Thorbecke Index (FGT_2)

Formally The (FGT_2) index is written as follows:

$$P_\alpha = \frac{1}{n}\sum_{i=1}^{q}\left(\frac{z - \bar{y}}{z}\right)^{\alpha} \tag{04}$$

Where á ≥ 0 represents a parameter named as “inequality aversion”, to give selected weight to differences in income distribution between poor individuals.

With á = 0, we have the poverty head count (H);

With á = 1, it equals the poverty gap index (PGI).

A measure that has been used extensively in the measurement of poverty is $P_á$ with á = 2 (or FGT_2), as it satisfies the transfer and monotonicity axiom. Every index of the FGT family is also additively decomposable.

Inequality is considered as an essential cause of poverty, as a result it takes two aspects, the material aspect and the broad aspect which consists on all kinds of disparities in resources distribution. And yet broader perspectives on inequality are being developed, as example the concept of political inequality which treats problems as: Rrent seeking, institution efficiency, political stability…etc. (Savoia et al., 2009).

Inequality as a socio-economic phenomenon imports because of two reasons, the first is pragmatic, arguing that inequality can exacerbate poverty, while the second is moral, arguing that inequality somehow reflect a relative sense of poverty.

First mentioning that poverty and inequality are both closely in meaning: There are poor relatively because of riches, so we could find parallel segmentation: (1) monetary inequality, (2) inequality of life conditions, (3) potentialities inequality.

3.4.1 The Pragmatic Approach

The practical approach relies on studies emphasizing a significant negative impact of inequality on growth throw 2 axes (Barro, 2000):

Effects of Economic policy due to redistribution: [(Alesina et al., 1994); (Benabou, 1996)…etc.].

Capitals market imperfections: [(Galor et al., 1993); (Banerjee et al., 1993); (Aghion et al., 1997), (Piketty, 1997)].

But we should mention that there is an interrelationship between inequality and growth, each of the two variables exerts an effect to the other one and this had been creating some challenges to statistical results.

According to many empirical studies, inequality has a negative effect on both economic growth and poverty levitation.

For example: Suppose that we have two societies; (A) and (B) with the same poverty line, annual growth rate (by 2,5%) and per capita income (about 3000 $), with different inequalities, 1% share of income obtained by the lowest decile of population for (A), and 8% share of income obtained by the lowest 10% of population for (B), means that while the poorest person in (B) gained in average [60$=0,8×3000×2,5%]; the poorest person from (A) gained in average just [7,5$=0,1×3000×2,5%]; consequently the poorest people in (B) gained 8 times more than the poorest from (A).

The difference is purely due to greater inequality of income distribution in (A).

3.4.2 The Moral Approach

Inequality is sometimes seen as a form of poverty, and the capability approach to poverty shows us why. By definition, any society with inequality means that some people have less money, resources or power than others do. These people will often be described as 'relatively poor' but there are sometimes questions about whether they are 'absolutely poor'. From a purely financial perspective, they may even seem well off.

At this point it is helpful to think in terms of human freedoms or capabilities. The requirements to realize one's basic needs are often higher in rich countries. For example, a secondary education may be necessary to find a steady job in industrialized countries, whereas this may not be necessary in a developing country. Someone with material resources may thus still be 'absolutely poor', i.e. lacking basic capabilities. This may explain why almost all societies place some intrinsic value on equality, as well as much political philosophy, the international system of human rights, and many of the core moral and ethical teachings of the world's leading religions.

3.5 Relative Versus Absolute Inequality

To see the difference between these two concepts, we consider an economy with just two households with incomes: $1 000 and $10 000. If both incomes double in size then relative inequality will remain the same; the richer household is still 10 times richer. But the absolute difference in their incomes has doubled, from $9 000 to $18 000. Relative inequality is unchanged but absolute inequality has risen sharply (Ravallion, 2005).

Inequality measurement

The most useful index to measure inequality is the Gini index; eq. 08 shows how to calculate this later.

(a)

$$\text{Gini} = \frac{10000 - \sum_{i=1}^{n} \text{bi}\left(a_i + (a_i + c_i)\right)}{10000} \qquad (05)$$

where (i) is the share of class; (a) accumulation of income shares; (b) percentage of income receivers; (c) % share of income.

There are many other tools to estimate inequality, we can cite:

(b) Kuznets index

$$K = \frac{\sum_{i=1}^{n} d_i}{20(9,5)} \qquad (06)$$

where (i) is the class; (d) absolute difference between the share of 5% population and its share under absolute equality line (which is 5%).

(c) Thiel index:

$$E = \frac{1 - \text{antilog} \sum_{i=1}^{n} Y_i \text{Log}\left(\frac{1}{Yi}\right) / n}{(n-1)/n} \qquad (07)$$

Where: (i) indicates the class, (Y) the income share.

All values of index are comprised between the zero (extreme inequality) and one (absolute equality).

3.6 The Link Between Growth, Poverty and Inequality

3.6.1 The Link Between Growth and Poverty

There are common findings in empirical studies about the relation between growth and poverty, mentioned as followed:

- Growth is a necessary condition but insufficient, since inequality affects poverty.
- A high pace of growth over extended periods of time is a necessary, and often the main contributing factor in reducing poverty.
- Sustained, high growth rates and poverty reduction, however, can be realized only when the sources of growth are expanding, and an increasing share of the "L" force is included in the growth process in an efficient way.
- Growth effects on poverty vary across countries according to many factors between them: Poverty deepness, distribution, poverty characteristics, social needs etc..

3.6.2 The Link Between Growth and Inequality

Kuznets postulated, in an answer to the question "Does growth worsen inequality?", that Germany, the U.K, and the U.S.A appeared to have transited from relative equality at an earlier stage in their economic development, through episodes of greater inequality, to a more egalitarian societies in recent times. This pattern became known as Kuznets's curve.

The glorious years were characterized by a higher growth rates with a decrease in inequality, due to financial expansion profits moved from manufacturer to "K" gains, correlation lined by Kuznets shown in inverse U indicates a negative effects in earliest steps of growth.

Early economic growth induce a raise up of inequalities, this situation changes by the time, we could see a continuous enhancement in income distribution.

Labour transfer from less productivity sectors to high ones explains the down shift.

The Kuznets relation between growth and inequality could be explained by the sectoral shift mechanism (Kuznets, 1955). Growth occurs by rural "L" shifting to the urban sector, benefits accumulation intend to remedy unequal distribution, this is the well-known in growth literatures as trickle-down effect (Figure 2).

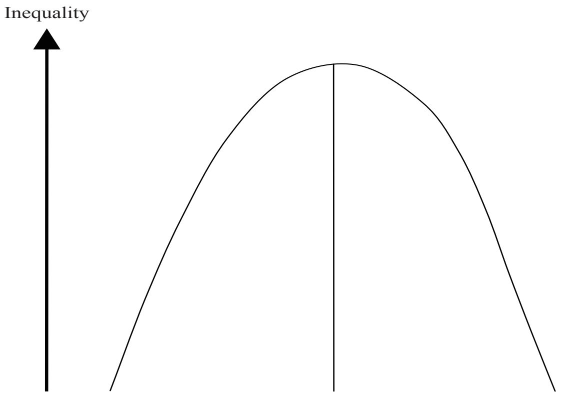

Figure 1
The Relationship Between Inequality and Average Income (Kuznets Inverted U Curve)

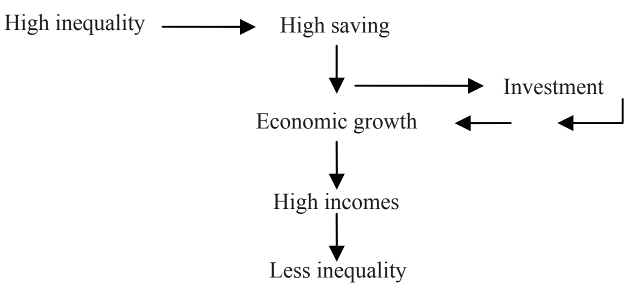

Figure 2
Trickle-Down Effect of Economic Growth

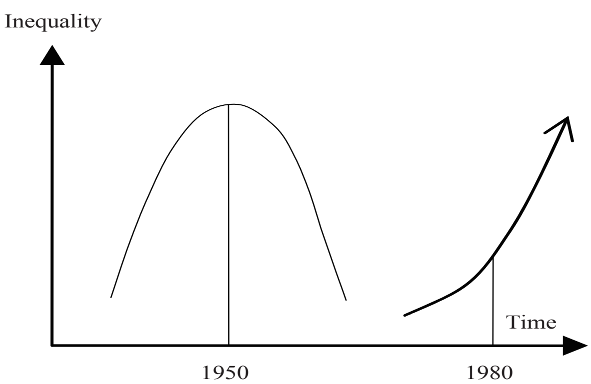

Figure 3
The Reversal Inverted U Curve of Kuznets

The Kuznet's hypothesis had been reconsidered also because of the incapability of described mechanical process to explain the inverted trend of inequality during the 1980's. Ahluwalia and Chenery's (1974) model of 'redistribution with growth' could be regarded as the inception of the whole debate on pro-poor growth, as well as a culmination of the trickle-down criticism (Ahluwalia, & Chenery, 1974).

3.6.3 The Link Between Poverty and Inequality

The effect of higher inequality on a standard measure of absolute poverty at a given mean income is ambiguous. While In theory, the empirical relationship is somewhat clearer. A number of empirical studies have found that higher inequality is associated with higher poverty at a given mean income.

There has been one empirical result reported in the literature that might be taken to be evidence against a poverty inequality tradeoff (PIT). In a comment on Besley and Burgess (2003), Honohan (2004) reports that the income share of the richest 10% is significant when he adds it to a regression of the (H) index on the mean income of the poorest 90%. This prompts him to ask: "..what is it about societies where the rich are richer that tends to results in more people falling into poverty?".

In a recent contribution, Kraay (2006) decomposes poverty changes into three parts: (i) Growth in average incomes; (ii) the sensitivity of poverty to growth; (iii) changes in the distribution of income.

Fast poverty reduction (Growth policies) will be hard to achieve without declines in inequality, especially in very unequal countries. (i) Inequality hampers poverty reduction, both because of its negative impact on the growth elasticity of poverty (as stressed in the literature) also because of its negative impact on the inequality elasticity of poverty; (ii) for a given "PL", the impact of growth on poverty is stronger in richer than in poorer countries, and hence the latter will find it harder than the former to achieve fast poverty reduction; (iii) the share of the variance of poverty changes attributable to growth should be generally lower in rich and more unequal countries; (iv) Given the initial levels of development and inequality, the relative poverty -reduction effectiveness of growth and inequality changes depends on the "PL"- the higher the "PL", the bigger the role of growth and the smaller the role of variations in distribution of income amongst individuals.

An important example is that higher inequality tends to have more impact on poverty when the incidence of poverty is lower. And lower (higher) poverty tends to come hand in hand with lower (higher) relative inequality.

The story changes dramatically if one move forward to the concept of absolute inequality. The evidence suggests that a rising (falling) inequality is associated with a falling (rising) poverty (Ravallion, 2005).

4. EMPIRICAL RESULTS

We emphasis a positive effect of economic growth on poverty measured by headcount ratio (from Figure 4), statements are proved both in long and short term, in average we could see a negative correlation between growth and poverty (trend of both variables in disjoint lines), which means that the increase (decrease) in economic growth leads to reduce (rise up) absolute poverty, for instance the economic slow-down during 1986-1995 had worsen people's life conditions, so the rate of poor had approximately doubled (from 8,1% to 14,1% of the population were poor).

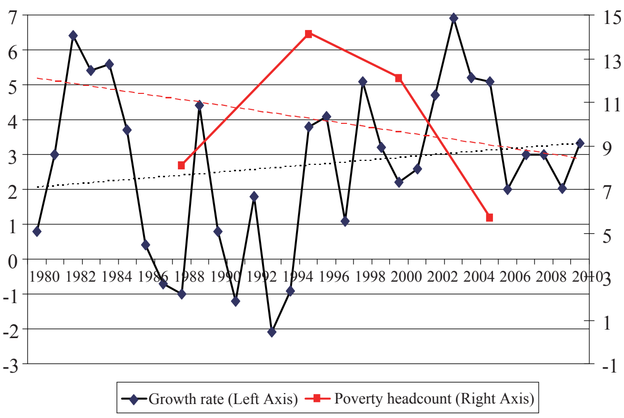

Figure 4
Growth and Poverty Evolution During 1980-2010
Source: ONS and World Bank data.

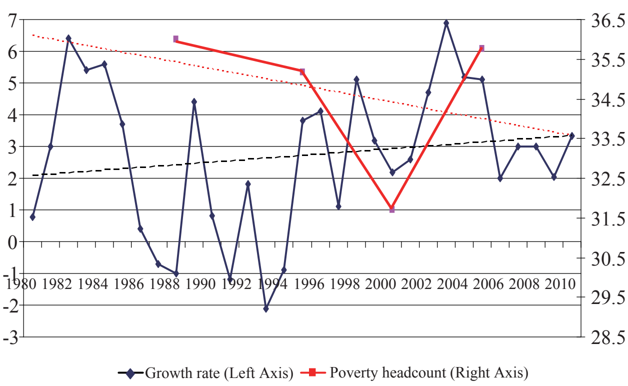

Figure 5
Evolution of Growth Rate and Gini Index During 1980-2010
Source: ONS and World Bank data.

The new millenary was marked by a substantial boom of oil markets, hence Algerian Economy -considered dependent on petroleum revenues- escaped from the 90s embarrassment due essentially to exterior debt.

In the other hand we can't emphasis a clear link between inequality and growth because of two reasons: the first is the high dependence of Algerian Economic growth on oil prices, and the second is coexistence of negative and positive effects during the examined period [dominance of positive correlation between the variables during the sequenced period from 1995 to 2005; and a negative correlation elsewhere in Figure 6].

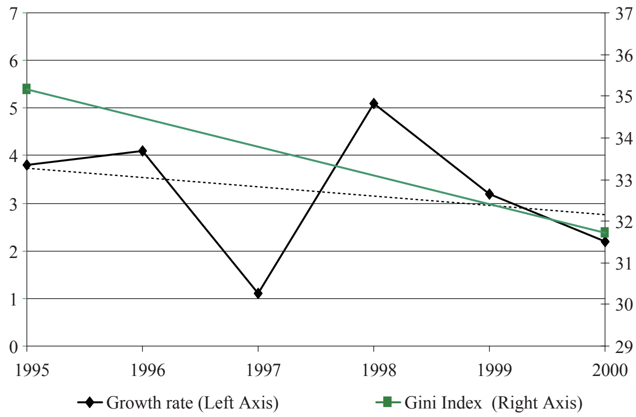

Figure 6
Evolution of Growth Rate and Gini Index During 1995-2000
Source: ONS and World Bank data.

Through our study we could emphasis the negative effect of economic growth on poverty, in accordance with Kuznets finding in first stage of development.

We found also a positive link between growth and poverty due to the enormous reduction of inequality, but statistics showed that more growth is followed by a rise of inequality (see Figure 7 compared to Figure 6), especially in the recent years, which characterized growth in Algeria effect as a trickle-down, this implicates: (i) adoption of structural change in Algerian economy, (i) more poverty diagnosis; especially of the income inequality phenomenon.

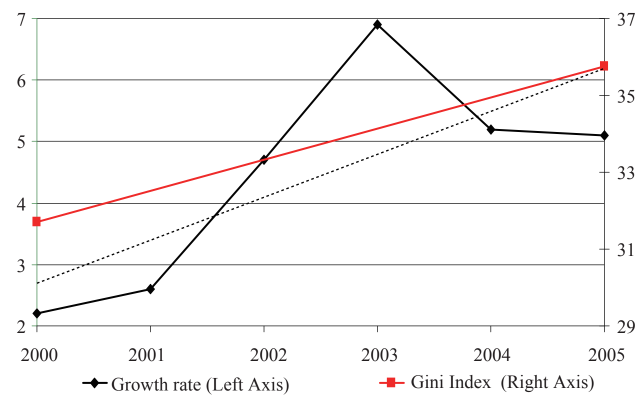

Figure 7
Evolution of Growth Rate and Gini Index During 2000-2005
Source: ONS and World Bank data.

To be obvious with growth – inequality analysis in Algeria we need fulfilling some important conditions:

a. Be attentive when concluding from across national analysis, because there are some kinds of disparities at regional level.

b. Choosing best index to represent variables, in this contest researcher mentioned that absolute poverty is likely to be best for using in developing countries, contrary to developed nations which are submerged by relative poverty and also inequality.

c. Long run analysis is advised to exclude all temporal determinants, since economists are affected by new stream of strategies among them (inclusive growth, sustainable growth, tradeoff between broad-based growth and pro-poor targeted, the new development strategy of Stiglitz "NDS", Sen and the capability approach etc.)

d. Understanding poverty and inequality traps is the headway to avoid exclusion.

The fact that economic growth is good for poor had been reconsidered, so a recent wave of researchers took pro-poor growth analysis as a key factor in determining influence of economic growth on both poverty and inequality, they found numerous index, in fact this lead us to think that the main purpose still verge on growth investigating more than understanding strictly poverty as a multidimensional phenomenon, like it had already been looking for since the beginning of development literatures.

Investigating the link between growth and inequality in Algeria, by using statistical data about just two variables, could be a run into the sand, because of two reasons: (i) Empiric study should include more than one dependent factor on inequality. In addition, socio-economic variable seems to be the more influential. (ii) there a wide spread range of strict and definite indices.

CONCLUSION

The field of poverty analysis shows us miscellaneous subjects, the most treated stay interrelationship with socio-economic variants. Our culminant point is that we had analyzed the link between growth and poverty in Algeria, economic growth has a negative effect on inequality instead of difficulty to emphasis the link between poverty and inequality.

REFERENCES

Kraay, A. (2006). When is growth pro-poor? Evidence from a panel of countries. *Journal of Development Economics, 80,* 198-227.

Aghion, P., & Bolton, P. (1997). A theory of trickle-down growth and development. *Review of Economic Studies, 64*, 151–172.

Ahluwalia, M. S., & Chenery, H. B. (1974). *Redistribution with growth.* London: Oxford University Press.

Alesina, A., & Rodrik, D. (1994). Distributive politics and economic growth. *Quarterly Journal of Economics, 109*, 465-490.

Alkire, S., & Santos, M. E. (2013). A multidimensional approach: Poverty measurement & beyond. *Social Indicators Research, 112*, 239-257.

Amiel, Y., & Cowell, F. (1998). Thinking about inequality. Ruppin Institute, Israel and London school of economics. Retrieved from http//: www.mediatrust.org/uploads/126633788669442/original.pdf‛

Banerjee, A., & Newman, A. (1993). Occupational choice and the process of development. *Journal of Political Economy, 101*, 274-298.

Barro, R. J. (2000). Inequality and growth in a panel of countries. *Journal of Economics Growth 5*(1), 5–32.

Benabou, R. (1996). Inequality and growth. *NBER Macroeconomics Annual,* 11–73.

Besley, T., & Burgess, R. (2003). Halving global poverty. J*ournal of Economic Perspectives, 17*(3), 3-22.

Diallo, A. B. (2009). Four essays on the links between poverty, inequality and health with empirical application to developing countries: Africa compared to the rest of the world. Doctorate in economic sciences, SRCID, University of Auvergne - Clermont-Ferrand 1, France, 34-35.

Dollar, D., & Kraay, A. (2000). *Growth Is good for the poor.* The World Bank, Development Research Group.

Galor, O., & Zeira, J. (1993). Income distribution and macroeconomics. *Review of Economic Studies, 60*, 35-52.

Haughton, J., & Khandker, S. R. (2009). *Handbook on poverty and inequality.* Washington D. C.: World Bank.

Honohan, P. (2004). Inequality and poverty. *Journal of economic perspectives,18*(2), 271-276.

Kuznets, S. (1955). Economic growth and income inequality. *The American Economic Review, 45*(1), 1-28.

Piketty, T. (1997). The dynamics of the wealth distribution and the interest rate with credit rationing. *Review of Economic Studies, 64,* 173–189.

Ravallion, M. (2005). A poverty-inequality trade-off?. *Journal of Economic Inequality, 3*(2), 169-181.

Maliki, S.B.E. Benhabib, A.. Bouteldja, A. (2012). Quantification of the poverty-education relationship in Algeria: A multinomial econometric approach. *Topics In Middle Eastern and African Economies, 14*.

Savoia, A., Easaw, J., & McKay, A. (2009). Inequality, democracy, and institutions: A critical review of recent research. *World Development, 38*(2), 142–154.

Seymour, D. (2009). *Reporting poverty in the UK: A practical guide for journalists.* UK: Joseph Rowntree Foundation.

Baker, M. W., Naiman D. R., & Neta, G. (2001). Growth may be good for the poor –But are IMF and world bank policies good for growth? A closer look at the world bank's recent defense of its policies. CEPR Briefing Paper.

