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THE POLITICAL ECONOMY OF EQUALITY AND INEQUALITY: INCOME DISTRIBUTION, TECHNOLOGICAL CHANGE AND POWER

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### **Abstract**

Although income distribution is one of the oldest parts of economic theory, we are still far from having any satisfactory theory explaining why income distribution in one country is more or less equal than in another, or what makes distribution move towards or away from equality over time. Behind the development of equality and inequality lie a variety of forces that do not guarantee that this development necessarily continues in the same direction, towards either a greater or smaller degree of equality. At the heart of this combination of forces that shape income distribution lies the key factor of the nature and rate of technological progress. But technology is not the only factor. There is also the nature of power structure, the rate of population growth and the degree of integration with the outside world. This paper attempts to show the likely impact of each of these factors on the trend and changes in the degree of equality and inequality. A final section applies this analysis to the development of the pattern of income distribution in Egypt over the last 200 years, followed by a few observations comparing Egypt in this respect with other Arab countries.

ملخص

# Introduction

Although income distribution is one of the oldest parts of economic theory, we are still far from having any satisfactory theory explaining why income distribution in one country is more or less equal than in another, or what makes distribution move towards or away from equality over time.

Two centuries ago, British classical economists considered such questions the most important questions of political economy, but their theories of distribution provide almost no assistance to us today, neither in explaining the changes that occur in the degree of equality or inequality nor in predicting what is likely to happen in this respect. Almost all their theories of distribution were based on Malthus' theory of population (which Ricardo regarded as true as Newton's theory of gravity), but Malthus' theory was shown to be valid only under very strict assumptions with regard to agricultural output and birth rates, which have often not been realized (Malthus 1803). Thus, the Iron Law of Wages did not last long beyond the middle of the 19<sup>th</sup> century, and the law of the Falling Rate of Profit was shown to be subject to too pessimistic assumptions about technological progress.

The Neo classical economists were much less ambitious than their predecessors, but they virtually abandoned altogether the attempt to answer the big questions of income distribution and confined themselves to the much less interesting questions of what determines the wage rate per hour, rent per acre and profit percent. The answers to such questions, even if true, would hardly throw light on what makes income distribution more or less equal, and the Marginal Productivity Theory of Distribution was hardly a theory of distribution at all. It is merely an application of the theory of price, and even as such, is true only under assumptions of absence of monopoly and trade unionism. For economists to continue to regard this as a 'Theory of Distribution' really means that they were no longer interested in answering the big questions or equality and inequality.

Economists may have good reasons to abandon this attempt. John Stewart Mill had admitted in 1848 that there is a basic difference between a theory of production and that of distribution (Mill 1848). While the former could be subject to scientific enquiry like any subject of physics or chemistry, since production is a material process like any other natural phenomenon, distribution is heavily influenced by subjective factors, which may make it impossible to discover objective laws about its behavior. This admission by Mill may have been one reason why later economists discarded the attempts of the classical economists to formulate theories of 'Distribution' in the proper sense, but it should not have prevented them from trying to discover patterns of behavior of equality and inequality had they not been so keen on sticking to 'pure economics'. In other words, there is really little or no hope of having a purely 'economic' theory of distribution. An institutional or historical approach may however, be very fruitful in understanding what causes distribution to become more or less equal in one country compared with another, or over time.

# **Historical Theories of Inequality**

Of historical theories of equality and inequality, the Marxist theory of Historical Materialism is of course the most famous and indeed the most important, and it assigns the key role in the development of inequality to class struggle. Economic factors are of course of primary importance in this theory, but their impact on income distribution occurs through their impact on the balance of power. Power, as a factor in income distribution is almost completely absent from the Classical and Neo classical theories of distribution, and its incorporation in Marxist analysis is a major reason for the attraction and greater success of Marxist theory in explaining inequality. No understanding of inequality is possible if the factor of power is left out, but of course you can recognize the role of relative power and still make mistakes, as indeed Marx has done.

Marx (together with Engels) traced the development of equality and inequality through history, from the earliest times to the middle of the 19<sup>th</sup> century (Engels 1955). Equality was complete under what they called 'Primitive Communism', because there was no class system and hence no state oppression. This was followed by a system of inequality because of the power imposed by slave owners. Under "Feudalism", power was transferred to the feudal lords and the slaves were promoted to serfs. Capitalism shifted the power to the owners of industrial (and commercial) entreprizes and promoted the serfs to wage laborers. Socialism was bound to replace capitalism and perfect equality was again bound to prevail because power was to be held by all people in common. Marx and Engels thought that the coming of socialism was to be 'The End of History', as Fukuyama (1992) thought the victory of capitalism over socialism was to become 'The End of History', 150 years later. Neither was correct, of course, and the cause of error was one and the same in the two cases.

Underlying the development of equality and inequality was the continuous development of technology. This was recognized most clearly by Marx and Engels since, to them, the underlying factor behind the change in relative power and hence in income distribution and property relationships was what they called the 'Forces of Production', which was little else than the state of technology. It was technological change that led to the replacement of primitive communism by slavery (the discovery of agriculture), and replaced slavery by feudalism (the improvement in agricultural methods of production) and replaced feudalism by capitalism (innovation and improvement in means of transport followed by the development of industrial technology) and would finally replace capitalism by socialism (the advance in the division of labor and mechanical techniques). But if technological progress is the underlying factor behind the change in power relationships and hence the change in equality and inequality, it is most surprising that socialism, according to Marx (and for that matter, also Fukuyama's capitalism) could be the final destination. Technological progress is bound to continue, for it seems to have a momentum of its own and to be driven by basic forces in human nature that hardly need any further driving force. And if technology continues to progress, why should not power relationships also change and with them, the degree of equality or inequality?

A much more modest historical theory of income distribution is that of the American economist and statistician Simon Kuznets. Based on a statistical study of long term development of income distribution in a few industrial countries, Kuznets (1966) presented the theory that in the early stages of economic development inequality tends to increase, but only up to a point beyond which it starts to fall. Kuznets did not mean this to be a general theory of all countries or all times, but other economists offered explanations that could make the hypothesis of more general application. In the early stages of industrialization, inequality may grow because of the wide opportunities for profitable investment while real wages may remain constant because of the abundance of labor. As industrial development proceeds, new investments may become less profitable (so that smaller fortunes are formed at the top), while labor grows more scarce and trade unions become more able to raise wages. Population growth may also slow down with the rise in average income, leading to lower growth of supply of labor. At some stage, moreover, redistribution of income in favor of lower income groups may become a condition for the continuation of economic growth, since large scale production would require mass consumption and this requires a more equal distribution of income.

Kuznets published his findings in the mid 1950's, and the development of income distribution in the industrial countries seemed to confirm his conclusions for another twenty years. The trend towards greater equality seemed however, to be reversed from the early 1970's onward. Thus, even if Kuznets theory was thought by some to promise a lasting tendency towards greater equality, it has now become clear that what happened during the first 150 years of

rapid industrial development was merely one phase in the history of income distribution. Behind the development of equality and inequality lies a variety of forces that do not guarantee that this development would necessarily continue in the same direction, towards either a greater or smaller degree of equality.

# **Technological Progress**

At the heart of this combination of forces that shape income distribution lies the key factor of technological progress. This important place was emphasized in Marxian theory, as we have already seen, and is implicit in any attempt to explain the rise and fall of Kuznets' curve, which illustrates what happens to inequality over time. But technological progress is of different types, and does not always proceed at the same speed. One should not expect the same impact on equity of all varieties of technological change, proceeding at different rates.

Large scale techniques of production introducing labor-saving devices should be expected, at least initially, to have a negative impact on manual labor, while innovation in information and communication technologies may have more negative impact on white-collar workers. A higher rate of globalization, which is largely the result of lower transport and communication costs, would have different impact on real incomes in countries hosting multinational corporations, from that which occur in countries which such corporation have left, and again different from its impact on consumers in both types of countries.

Overall, the impact of technological progress over a long period of time have certainly contributed to the growth of the size of the middle class in almost all countries, and to the rise of its standard of living. This growth in the size and comfort of the middle class may have reduced income gaps between social classes in some instances and may have widened the gap in others, but the degree of inequality, as measured by the Gini coefficient, is most likely to have decreased over the long period of a century or more in most countries. This process of decreasing inequality must have started from the beginning of modern economic growth, and even before the first industrial revolution, even though cycles of a rise and fall of inequality were bound to occur within this long period. In other words, technological progress has a similar effect, in the long run, to that of a steamroller in eradicating wide gaps of income and lifestyles and bringing the great extremes closer together. This is probably one meaning of that bold statement made be Alexis de Tocqueville (1835) more than 170 years ago (in his "Democracy in America")

"if, beginning with the eleventh century, we examine what has happened in France from one half-century to another, we shall not fail to perceive that at the end of each of these periods, a two-fold revolution has taken place in the state of society. The noble has gone down the social ladder, and the commoner has gone up; the one descends as the other rises. Every half-century brings them nearer to each other, and they will soon meet. Nor is this peculiar to France. The various occurrences of national existence have everywhere been turned to the advantage of democracy, all men have aided it by their exertions, both those who have intentionally labored in its cause and those who have served it unwittingly; those who have fought for it and even those who have declared themselves its opponents, have all been driven along in the same direction ..."

But during such long periods of time, technological progress does not proceed at a constant rate. Periods of rapid scientific and technological advance are followed by periods of much slower progress. During the former periods, in which rapid change is sometimes referred to as a 'revolution', one should expect a rise in inequality. For while rapid increases in profit and wealth are reaped by the introducers of innovation, there is no reason why wages should rise at the same rate. Indeed there are reasons to expect the actual and potential investors to succeed in putting enough political pressure on the government to reduce its interference in

favor of lower income groups. The investors are likely to have in support of their demand for 'Deregulation', the beneficial effects of their innovation on the rate of growth of the economy as a whole, as well as on consumers benefiting from the introduction of new products and of greater variety of old ones. 'Deregulation' has thus accompanied the first industrial revolution of the late 18<sup>th</sup> century and first half of the 19<sup>th</sup>, and again, the information and communication revolution of the last quarter of the 20<sup>th</sup> century. As the rate of technological progress starts to peter out, pressure may increase for greater equality, redistribution of income in favor of labor income groups and for a more active role of government. This seems to be what happened during the third quarter of the 19<sup>th</sup> century which witnessed the rapid growth in the strength, and increasing success of trade unionism. Could one predict a similar change to happen following the recent international financial crisis which came after the force of the information and communication revolution was spent out?

Reviewing the history of socialist movements in light of the above observations, it seems to make sense that the relative neglect received by the early socialists of the first industrial revolution; stands in glaring contrast to the much greater success and true concern which met the Marxist and other socialist movements during the third quarter of the 19<sup>th</sup> century. It is interesting in this regard, to note that even John Stewart Mill (being the youngest of the great classical economists) could not hide his sympathy with socialism, although he preferred to have it postponed until suitable changes occur in human nature.

If this reading of the history of equality and inequality contains some truth, a pattern seems to emerge of repeated cycles of increasing inequality followed by greater equity, as a direct result of cyclical change in the rate of technological progress.

### **Power Structures**

But the technological change, however important as a determinant of the degree of equality and inequality, is of course not the only such determinant. There is also the factor of power structure. Given the nature and the rate of technological change, the degree of equity must be influenced by the distribution of power which itself must be influenced by the state of technology, as Marx and Engels have successfully shown, but not exclusively so. One can indeed explain the rise of the Soviet Union in 1917, which brought a radical redistribution of power in Russia, by the need of Russia to catch up technologically with the more advanced countries of the West. One may even go as far as to look at the fall of the Soviet Union in 1991, as largely the result of its failure to compete technologically with the West. But there must be other factors as well. It looks as if a system of distribution of power cannot forever be opposed to the prevailing state of technology, but it could be so opposed for a prolonged period of time. Within any large epoch in the history of technology, whether it is ancient Greece, the Roman Empire, medieval Europe or the European Renaissance, there have been changes in income distribution as a result of a change in the distribution of power, but without significant change in technology. The human desire for power is only partly caused by the desire for material gain and hence could cause a change in income distribution independently of any change in material or technological conditions. But to admit this does not necessarily deny that in the last analyzing it is the state of technology which determines the long term changes in the degree of equality and inequality.

The Pattern of income distribution in a colony or a politically dependent country is of course largely shaped by the nature and degree of power practiced over it by the colonial or dominant country. No pattern of income distribution could be allowed if it is opposed to the interests of the more powerful country. Equality of income, for instance, is inconceivable in a country dominated by another which is interested in exporting large quantities of private motorcars that cost much more than the average income in the dominated country. For under a highly equal system of distribution in a poor country, no one may be able of afford to buy a

motor car. Similarly, the high dependence on cotton cultivation in Egypt, which largely determined the Egyptian pattern of income distribution under British rule, gave way, under the period of American domination, to a big increase in the size of the middle class which consisted of excellent consumers of American products. This change could be regarded as an indirect result of a change in system of power resulting in its turn, from a change in the political and economic relations between the dominant and dominated countries. But behind these changes lie again changes in technology.

Another major determinant of the degree of inequality, beside the nature and the rate of technological change, and the balance of economic and political power, is the rate of population growth. Malthus was concerned about the impact of population growth on average income and not on the gap between incomes, but this was because he did not distinguish between the birth rates of the rich and the poor. Now, such distinction has to be recognized, and its impact is obviously to increase inequality, since the poor have a tendency to have larger families than the rich.

But a high rate of population growth contributes to inequality in another way. By reducing the ability to save for the country as a whole, an agricultural country would find it more difficult to industrialize, and industrialization has been one of the main factors leading to the growth of the middle class and hence to the reduction of inequality in the long run.

One is much less certain about the impact on inequality of the degree of integration with the outside world. For one thing, much depends on the state of the world with which a country is being integrated. For another, a great deal must also depend on the nature of the relationship. A country may be more integrated with the world either as a colony or as a colonial power. Globalization may have brought greater inequality in Russia or China during the last few decades, and may have also been responsible for the increase in inequality within the U.S. and Western Europe during the same period. But one can easily imagine a favorable impact of globalization on income distribution if it opens new outlets for exports on which a large majority of the population of a poor country depends. By breaking barriers which previously protected a country from the outside world no one can tell whether the net impact will be beneficial for the majority of the people or just to bring greater prosperity for only a few.

### The Case of Egypt

I think I have gone through enough factors to be able to explain the major changes that occurred in the pattern of income distribution in most countries. I will now try to do this for Egypt, by tracing the major changes in its income distribution over the last 200 years. This will be followed by a few observations comparing Egypt, in this respect, with other Arab countries.

During the first half of the 19<sup>th</sup> century, Egypt witnessed a significant increase in total income and one may add, albeit less confidently, a decline in inequality. Integration with the outside world was largely responsible for the high rate of growth, while the monopoly of economic and political power by the autocratic ruler prevented the accumulation of wealth in the hands of a few. The significant improvement in the material conditions of the majority of the people is evidenced by the doubling of the size of population in 50 years, after centuries of stagnation or even decline in population.

In the six decades that followed (1850 – 1914), Egypt was much more integrated in the world, and technological progress in agriculture continued at a high pace but inequality rose significantly, largely as a direct result of this greater integration. Private property in land was now legally recognized and encouraged, private wealth started to accumulate and the colonial powers, even before the British occupation of 1882, encourage such accumulation while putting an end to Mohamed Ali's industrialization efforts.

During the following four decades (1914 – 1956) both growth rates and equality suffered a great deterioration. Bent Hansen (1965) estimated that real per capita income in Egypt in 1956 was hardly above what it was in 1913, and the ownership of land (which continued to be the major source of wealth) became much more concentrated. The industrialization efforts of that period, associated with the name of Talaat Harb, the two World Wars and the Great Depression, were too modest to have an impact on employment and the life of the poor. The responsibility for such deterioration in equity must fall largely on the rapid growth of population accompanied by a much slower increase in cultivated land. Charles Issawi described the process of growth and distribution in Egypt during this period as very much a 'Ricardian situation.'

The short period of eleven years of Nasserism (1956 – 1967), saw an undoubted improvement in equity (in spite of continued rapid population growth) which can be easily explained by the change in power structure within Egypt (and indeed in the world at large, with the replacement of the old colonial powers by two new superpowers), and by Nasser's ambitious and successful industrialization efforts.

If we ignore the terrible eight years that followed the 1967 military defeat, in which nothing seemed to happen neither in terms of GDP growth nor to equity (both largely as a result of the military defeat), the next ten years (1975 – 85) was a period of very high growth rates, rapid increase in inequality but also a significant improvement in the state of the poor. The greater integration with the world (and regional) economy, as a result of Sadat's Open Door Policy, brought about all the three results, but it must be emphasized that the favorable impact on the standard of living of the poor was the result of a particular, and unusual form of such integration, namely massive migration of Egyptian labor to the oil-rich Arab countries. This time, greater 'globalization' seems to be good for the poor, even though inequality also increased (Amin 1995).

The following twenty years (1985 – 2004) saw a deterioration on all fronts: GDP growth, equity and the state of the poor. The explanation is not hard to find. The degree of integration with the outside world was hardly less than that of the previous ten years, but it was now not so favorable to the poor as it had been during the first ten years of the Open Door Policy. Migration rates declined because of the decline in oil prices and the change of policies of the Arab oil-rich countries, while the structural adjustment policies imposed by the IMF had severe impacts on the life of the poor. Meanwhile increased corruption and the continued monopoly of power by a few at the top, allowed a rapid growth in the gap between income levels which was made even wider by the continued high rate of population growth. During those twenty years, industrialization did not proceed at a sufficiently high rate to prevent a big rise in unemployment.

During the last four years (2004 - 2008) some change seem to have happened, as far as the rate of growth of GDP, largely as a result of even greater integration of Egypt in the world economy (the big rise in private foreign investment, tourism and greater export efforts) but it is very unlikely that this was accompanied by an improvement in equity. In fact, all evidence suggest that the opposite is the case, since there is no improvement in power structure, no decline in corruption, no significant rise in the rate of industrialization and no significant decline in unemployment (Amin 2009).

# **Equality and Inequality in the Arab World**

The same factors (technological change, including the rate of industrialization, power structure, population growth and the degree of integration in the world economy) have been at work in the other Arab countries as well, to produce fluctuating performance with regard to income inequality, but with inevitable differences due to variations in resource endowment

and political changes, two differences that have bearings on the impact of all the above factors.

The Arab oil-rich countries (with the exception of Iraq) have not witnessed important changes during the last 50 years, either in power structure or in the degree of integration in the world economy. Because of the nature of their resource endowment, neither technological change nor the rate of population growth had much impact on the degree of inequality. Inequality in this group of countries is of importance only with regard to the gap between the native and expatriate population, and in this respect inequality does not seem to have changed much during the years (Amin 2000).

The degree of integration in the world economy and the nature of power structure do not also seem to have played any important role in determining the change in income distribution in Lebanon, Jordan or in the Arab countries of North Africa, since these countries have been consistently open to the world, and none of them witnessed a radical change in its political system. Thus, the changes in income distribution in these countries seem to have been less significant over the last 50 years than in Egypt. The failure of this last group of countries to bring about a significant reduction in inequality could be attributed mainly to their failure to realize a high rate of industrialization, which may be explained in turn, as in the case in most other Arab countries, by the nature of power structure.

### Conclusion

Having said all this about factors affecting the degree of equality and inequality, one may stop to wonder whether such an issue is important at all. Why should one be so concerned about reducing inequality when there is no historical evidence of a prolonged period of a high degree of equality in any society, in any epoch of history? Neither social history nor indeed physical nature provides evidence that equality is more frequently present than its opposite. Growth may be inevitable in one form or another, but inequality seems to be in the very nature of any process of growth: economic, social or even of natural phenomena. Perfect economic and social equity may not even be a very desirable state of affairs, once the basic needs of everyone are satisfied. We have every reason to be concerned about the failure to satisfy basic needs of anyone, but why should equality be such a cause of concern once this goal is achieved?

It seems that the real reason of concern about equity is the concern about poverty, but we know that the two are very different issues. Poverty may prevail in a highly equitable society (look at Arabia before the discovery of oil), and may vanish in a very inequitable society (as may be nearly the case in some Scandinavian countries). Once basic human needs are satisfied, an increase in inequality may even be a good thing, since some degree of inequality is conducive to progress in the arts and sciences, to greater initiative and to a less dull and monotonous life.

One suspects that the persistent concern about equity may largely be an expression of a feeling of guilt about the failure to satisfy the very basic needs of a large proportion of the people. Very poor people may not have a very strong case for demanding greater equity but they surely have a very strong case for demanding the end of their deprivation of some very basic conditions of a good life. Such persistent failure to solve the problem of poverty may indeed be explained by the factors which I have gone through in this paper: the nature of technology, power structure, the degree and nature of integration in the world economy and/or the rate of population growth. But this failure may also have a more grim cause. A cause which may also lie behind some of the factors just enumerated. George Orwell (1950), in his famous gloomy futuristic novel "1984", wondered about the possible cause of the

persistent failure to solve the problems of both poverty and inequality, and came out with the following explanation:

"From the moment when the machine first made its appearance, it was clear to all thinking people that the need for human drudgery, and therefore to a great extent for human inequality, had disappeared. If the machine were used deliberately for that end, hunger, overwork, dirt, illiteracy and disease could be eliminated within a few generations. And in fact, without being used for any such purpose, but by a sort of automatic process - by producing wealth which it was sometimes impossible not to distribute – the machine did raise the living standards of the average human being very greatly over a period of about fifty years at the end of the 19<sup>th</sup> and the beginning of the 20<sup>th</sup> centuries...But it was also clear that an all-round increase in wealth threatened the destruction - indeed, in some sense was the destruction of a hierarchical society. In a world in which everyone worked short hours, had enough to eat, lived in a house with a bathroom and a refrigerator, and possessed a motor car or even an airplane, the most obvious and perhaps the most important form of inequality would already have disappeared. If it once became general, wealth would confer no distinction. It was possible, no doubt, to imagine a society in which 'wealth' in the sense of personal possessions and luxuries, should be evenly distributed, while 'power' remained in the hands of a small privileged caste. But in practice such a society could not long remain stable. For if leisure and security were enjoyed by all alike, the great mass of human beings who are normally stupefied by poverty, would become literate and would learn to think for themselves; and once they have done this, they would sooner or later realize that the privileged minority had no function, and they would sweep it away. In the long run, hierarchical society was only possible on a basis of poverty and ignorance."

What Orwell is saying is mainly this: while there is no technological or economic reason for poverty to persist, it does persist owing to this sordid aspect of human nature: the hunger for power. Power requires inequality, and inequality helps to perpetuate poverty.

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