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**ECONOMIC INEQUALITY AND PARETIAN WELFARE
ECONOMICS:
SOME INSINUATING QUESTIONS**

Khandakar Quadrat-I Elahi

Associate Professor

Department of Economics and Social Science

BRAC University

Dhaka, Bangladesh

Email: kqe53@yahoo.ca

ABSTRACT

This paper examines the academic soundness of the Pareto welfare criterion as a normative rule for evaluating alternative economic inequality scenarios and suggests that the criterion has several weaknesses, which wear off its usefulness: First, the Pareto principle is of limited use in the inequality debate, because labour markets hardly satisfy the conditions of perfect competition, the pivotal assumption of the theory. Second, the proposition, competitive equilibrium leads to 'common good' of society, is difficult to defend. Third, the Paretian welfare economics barely answers the questions society demands, because perfect competition does not guarantee fairness in the determination of relative prices in the initial situation of income distribution. Fourth, the marginal productivity principle does not determine how, profits, the huge surpluses generated by the businesses, are distributed. Fifth, income distribution is a political issue, but Pareto's primary motivation was to alienate the distribution debate from policy and political discourses. Finally, the public earning structure is much more equitable than that of the private sector. This brings out a very serious question: which earning structure reflects improvement in social welfare: public or private?

Keywords: Economic inequality, Income distribution, Pareto Principle.
JLC: I300; D310.

I. INTRODUCTION

A survey conducted in America in 2020 shows that median salary of Chief Executive Officers (CEOs) of the top 100 US companies was US\$33.4 million (Lewis 2003). If these CEOs are assumed to work eighty hours a week, then their hourly income turns out to be about \$7731.00. Compared to this, the hourly incomes of high public officials, professionals and ordinary workers appear pathetic: General Tommy Franks, the former Joint Chiefs of Staff of US military, earned an hourly salary \$69.10, while the average earnings of doctors, school teachers and fire-fighters were respectively the following- \$60.14, \$28.01, and \$17.16. The average hourly wage of an ordinary worker was \$16.23, while the downsized and unskilled workers got half of that rate.

Is this income distribution justified in a democratic society? Some economists believe that such distribution is not economically justified but also socially desirable. Feldstein (1999, p.32) says: "According to official statistics, the distribution of income has become increasingly unequal during the past two decades. A common reaction in the popular press, in political debate, and in academic discussions is to regard the increased inequality as a problem that demands new redistributive policies. *I disagree* [emphasis added]. I believe that inequality as such is not a problem and that it would be wrong to design policies to reduce it. What policy should address is not inequality but poverty." In different words, Welch (1999) expresses a similar opinion: "[...] I believe inequality is an economic 'good' that has received too much bad press. I also think you will agree that it is a good, which like any other, can be scarce or overly abundant. I am neither trying to praise nor defend poverty, and I hope it is understood that the link between wages and income is not especially close, particularly at lower incomes where non-employment dominates."

This unqualified support for promoting economic inequality seems to contradict the principle of promoting equality among citizens- the maxim on which the democratic political system is founded. Then, the original source of inequality among human beings is natural, meaning that, if inequality were so good as is claimed, the humankind would have perpetual peace and progress in society. The reason there are so much interests in the issue, is because the creation of humane society requires curtailing unequal powers of individuals, both natural and social, through law and government. And democracy is believed to be the most desirable political system that can achieve this goal.

Thus, questions naturally beg about the theoretical foundation of such overwhelming opinions, which is the famous Pareto principle- economists' value-judgement criterion for making choices in formulating public policy: "I am interested only in evaluating changes that increased incomes of high-income individuals without decreasing the income of others. Such a change clearly satisfies the commonsense Pareto principle: It is good because it makes some people better off without making some people worse off. I think such a change should be regarded as good even though it increases inequality (Feldstein 1999, p.34)."

The above normative judgement is critical to understanding the nature of public debate on economic inequality. For, public policy, of which economic policy is the most important component, is a political issue. Public policy concerns the activities of government- the most powerful political institution in the state. Therefore, the social desirability of an economic policy should be assessed from the political perspective of society under review. The economic policy regarding the distribution of income of a communist country cannot be compared with that of a non-communist country, because the objectives of these political systems are fundamentally different. Similarly, in the category of non-communist country, objectives of democracy cannot be compared with those of a non-democracy, because government's obligations towards citizens are very different.

This paper examines whether the Pareto principle is an appropriate analytical tool for formulating economic policy in democratic society. The next section examines the theory of 'economic inequality' from political and economic perspectives. Section III discusses the Pareto principle in order to pinpoint its major economic logics. Section IV analyses the limitations of this popular economic value-judgement in evaluating economic policies of democracy. And the paper is concluded in Section V.

II. INEQUALITY: POLITICAL AND ECONOMIC

Political Inequality: Normative Principle

The word, 'inequality', means the want of equality between objects or ideas of the same kind, meaning that each object or idea is equal to itself. Therefore, we perceive inequality when objects or ideas of same kind differ with respect to certain criterion or criteria. The idea of inequality this paper concerned with refers to three main kinds of human relations- social, political and economic. Intellectual inquiries about the issue first appeared in moral and political discourses, suggesting that examinations of economic aspects of inequality should follow political discussions. Besides this historical reason, political discourses set the tone of economic discussions.

One of the most classic treatments of political inequality is Rousseau's (1992) *Discourse on the Origin of Inequality*. He wrote this discourse for the Academy of Dijon's essay competition- 'What is the origin of inequality between men and is it authorized by the natural law'? In answering this question, Rousseau conceives of two kinds of inequality in the human species- natural or physical, and moral or political. Physical inequalities, which consist of differences in age, health, bodily strength and qualities of minds or souls, are inborn. In other words, god, taking the term in its most secular sense, institutes natural inequalities among human beings. The other kind of inequality is described as moral or political, 'because it depends on a kind of convention and is established or at least authorized, by the consent of men'. This latter type of inequality consists in different privileges enjoyed by some at the expense of others, such as being richer, more honoured, more powerful than they, or even causing themselves to be obeyed by them.

The interest in the subject, therefore, must necessarily concern with moral or political inequalities that are created through social customs and conventions, values and beliefs, and law and government. Since natural inequalities are native qualities of human beings, there must be inequalities in the distribution of social resources and positions. Accordingly, an inquiry in the subject concerns the foundation of political inequalities that members of society voluntarily accept as just or fair. Rousseau suggests that all citizens should be distinguished and favoured in proportion to services they render to society, because all members of the state owe its services proportionate to their talents and contributions. For this reason, Socrates, Rousseau says, praised the Athenians for knowing how to distinguish which of the two sorts of equality was more socially desirable- proportioning the same advantages indifferently to all citizens, and distributing them according to each one's merit. The Athenian able politicians banished the unjust equality that does not differentiate between wicked and good men and adhered inviolably to that equality which rewards and punishes each according to one's merit.

Inequality, or distributive injustice, therefore, does not mean differences, for example, in salaries between a janitor and a university professor. For paying them equal salaries would be the worst injustice. This is because this distribution system would ignore differential merit of services these people provide to society: Inequality, or distributive injustice, concerns fundamentally with the fairness of difference or disparity that exists in the distribution of social resources and positions in democratic society.

Economic Inequality: Concepts and Measures

This paper is concerned with the fairness of disparity that exists in the distribution of economic resources in democratic society. More specifically, this paper investigates the normative principles of judging the fairness of difference in the distribution of national income in democratic society. The vast economic literature, developed on the issue over centuries, deals primarily with two aspects of this important social variable- concept of income and methods of measuring inequality in income distribution.

National income is defined as the sum total of the values of goods and services that society produces over a given period of time, normally a year, by employing the factors of production it commands: land, labour, capital and entrepreneurship. Concerning the distribution of this income, economists employ two ideas- functional distribution and size or personal distribution. Functional distribution refers to claims on national output that results from the ownership of factors of production and is paid as rent (land), wages and salaries (labour), interest (capital) and profit (entrepreneurship). The size distribution, on the other hand, involves the actual division of income among individuals and households. Evidently, functional distribution is a theoretical concept that particularly interests members of economic discipline. The size or personal distribution, on the contrary, is a very policy issue, for which it is of constant concern of policymakers and socially interested individuals.

From the perspective of personal distribution, the important issue is individuals' access to, and control over, economic resources, because their welfare depends upon the possession of these resources. There are several ways to measure this critical variable- before and after tax incomes, monthly, annual and lifetime incomes, wage incomes, etc- which suggests that the measures of income inequality are sensitive to how income is defined. Thus, the same measure produces different inequality indices if more than one definition of income is used in the research.

Methodologically, two types of income inequality estimators are available in economic literature: positive or objective and normative or subjective (Sen 1973). The positive estimators include statistical tools that calculate relative variations in incomes received by different individuals or households. The normative notion, on the other hand, concerns the social welfare aspect of income distribution. For example, a higher degree of income inequality is normally thought to be an indicator of a lower level of social welfare for a given amount of national income and vice versa.

Thus, there is a duality in the economists' conception of income inequality. This could create a great deal of confusion in theoretical as well as policy discussions, if the harmonious correspondence between the two measures is not clearly comprehended. Without normative maxim, objective measures are merely numbers having little policy implications, while without objective measures, the normative notion is just intellectual speculation with little implications for policy analysis and formulation.

Like different conceptions of income, there are different measures of distribution of income and hence different inequality indices (Ryscavage, 1999; Sen, 1973). These measures include: income classes, income share, percentile ratios, range, coefficient of variation, variance of Natural Logarithm of income, Gini index, Theil index, Atkinson index, etc. Since the technical aspects of income inequality measures are no interest to this paper, this discussion will not be extended any further.

What the above paragraphs say is that there are several definitions of personal income as well as measures of its distribution. Consequently, one would get different pictures of the state of inequality in a country depending upon the concepts and measures used. But, these different measures do not necessarily tell us whether the created inequality was justified. For example, Ryscavage (1999) measures that the income inequality in America- as indicated by the coefficient of variation- increased from 0.775 in 1979 to 0.909 in 1989. In other words, according to coefficient of variation, income inequality in America increased by 17.3 percent during a period of ten years, while the Gini index shows only a 9 percent increase (0.376 in 1979 to 0.410 in 1989) over the same period. This difference in changes in the degree of inequality is due to different statistical tools used. However, they say little about whether the 17.3 percent or the 9 percent increases in income inequality were desirable. This is a normative/policy question that needs normative principles to answer. And the answer to this normative analysis will invariably depend upon one's moral aptitude about the role of equality in democratic society.

III. THE PARETO PRINCIPLE

Feldstein's Arguments

The normative notion that economists use to judge alternative scenarios of income inequality is called Pareto principle. To examine the appropriateness of this principle in settling this critical policy, the fundamental ideas of welfare economics are discussed below briefly. The discussion begins with the points that Martin Feldstein makes in his influential article published in the *Public Interest*. For two reasons, his arguments are particularly important. First, he addresses the American people to mitigate their concern over increasing inequality in the country. Second, he applies the theoretical logic of welfare economics to do this.

Feldstein 'rejects' all the conventional arguments, which either supports or criticise economic inequality. First, he criticizes those who consider increasing income inequality as socially undesirable even though this increased income of the wealthy did not come at the expense of the poor. Feldstein describes these people as 'spiteful egalitarians', because they cannot 'even stand the sight of others getting better off'. He justifies his position with this example: "Later today, a small magic bird appears and gives each *Public Interest* subscriber \$1000. We would all think that this is a good thing. And yet, since *Public Interest* subscribers undoubtedly have above average incomes that would also increase inequality in the nation. I would think it would be wrong to consider these \$1000 windfalls morally suspect (p. 33)."¹

Second, some economists and policy makers favour redistributive policies and tax progressivity on the ground that 'the social value of incremental income' is negative. In other words, the social marginal utility of income declines as incomes of some individuals rise relative to others. Thus, an extra \$100 means a lot to an individual or a family that earns \$10,000 a year, but this income might mean nothing to a millionaire. Feldstein counters this group in two ways. Firstly, he invokes the conventional ordinal argument that the interpersonal comparison of utility cannot be achieved in any uncontroversial manner, because there is no objective way to compare how much pleasure two different individuals get from money or from goods that money buys². Secondly, he contends that the 'Gini coefficient'- normally calculated to support this argument- has a built-in limitation. It measures the concentration of incomes in a nation, which means that a higher Gini coefficient implies higher income inequality. Since the Gini coefficient does not consider the Pareto principle, it would reveal a higher level of income inequality although the Pareto principle might have been satisfied. In other words, the Gini coefficient is an automatic affirmation of the negativity of the social marginal utility of high incomes- 'that something bad has occurred when the well to do become better off'³.

Third, Feldstein asserts that his opinion does not depend upon functional arguments, which some authors offer in the defence of inequality: Firstly, 'an unequal distribution of income may contribute to general economic growth, and therefore, to the poor's standard of living, by increasing national saving rates. Secondly, inequality is a reflection of Schumpeterian innovation, which eventually helps most, if not all, individuals in the economy'. Thirdly, the affluent support for charitable causes is a 'high culture' in democratic society. Feldstein says: "I am not

relying on such arguments here, because I want to stress that there is nothing wrong with an increase in the well-being of the wealthy or with an increase in inequality that results from a rise in high incomes (pp. 35-36).”

Paretian Value Judgement

Vilfredo Pareto, who obtained degrees in mathematical and physical sciences and in engineering from the University of Turin, began his career as an engineer at the Joint Stock Railway Company of Florence in April 1870- a profession he continued for more than twenty years. He then joined the University of Lausanne in April 1892 as the chair of Political Economy and began his new academic career in economics and sociology (Busino, 1987). His training as an engineer, his command in mathematics, his passion to classical Greek, Roman and Renaissance humanistic literature and his professional activity of more than twenty years as an industrial engineer evidently influenced Pareto's academic interests. He was a strong advocate of laissez-faire policies in his early life and later leant toward fascism impressed by Benito Mussolini's success to restore order in Italy (Feiwel and Feiwel, 1991).

Pareto's political passion found well expressed in his famous book, *Manual of political Economy*, which seems to be treated as the Bible of welfare economics. He begins his book by outlining three main objectives that a writer might have in studying political economy. First, the writer might gather together prescriptions that are useful to private individuals and public authorities in their social activities. Here the writer is simply interested in private and social usefulness in studying political economy. Second, the writer might have good doctrine that shows all kinds of benefit to the nation and the human race. The purpose here is again usefulness, but a much more general and less prosaic usefulness. The basic difference between the two objectives is that the former is a collection of precepts, while the latter is a treatise on morality. Finally, the writer might intend only to search for uniformities present in phenomenon, without worrying, in any way, with giving recipes or precepts, without seeking happiness, benefits, or well being of the humanity or the part of it. The pure purpose of the writer here is scientific; he wants to know and understand political economy, nothing more. Pareto's purpose in writing the Manual is the third one: "I ought to warn the reader that in this Manual, I have in mind this third objective exclusively. It is not that I deprecate the other two, I sincerely intend to distinguish and separate the methods and to point out the one, which will be adopted in this book (Pareto, 1971, p. 2).”

To accurately understand Paretian welfare criterion, one should look at the purpose of his analysis. His purpose in writing the Manual is entirely scientific, not anyway concerned with 'seeking happiness, benefits, or well being of the humanity or the part of it'. In other word, Pareto supplies the economic discipline a positive analysis of the normative issue. Naturally, this welfare analysis raises two critical questions. First, can a normative issue be examined with the methodology of positive economics? If the answer were affirmative, then the division of economics into positive and normative branches is of little meaningful. Second, the fundamental objective of welfare analysis is to improve social welfare through choosing

appropriate economic policy, suggesting that Paretian value judgement contradicts with the very objective of welfare economics.

As noted above, economics is divided into positive and normative parts from methodological perspectives. Positive part is concerned with analysing, in words of Neville Keynes (1891), 'what is' phenomenon, while normative economics is concerned with 'what ought to be' phenomenon. This normative branch of economics is nowadays called welfare economics. It is the theory of how, and by what criteria, economists and policy makers make or ought to make choices between alternative policies and between good and bad institutions: "Theoretical welfare economics is ... that branch of study which endeavours to formulate propositions by which we may rank, on the scale of better or worse, alternative economic situations open to society (Mishan, 1969, p.13)." And the criteria that economists and policy makers use to make their choices are the well-established welfare propositions of classical economics- perfect competition, free trade and direct taxation. Therefore, the origin of modern welfare economics can be traced back to Adam Smith, because he was the first to present a clear conceptual framework of how competition can lead to economic prosperity of non-communist society. Smith's theory of economic progress- economic welfare- can be described in terms of three propositions: The first proposition concerns a philosophical truth about the human nature; the second one predicts what could happen to total wealth of society if individuals are not prevented from materializing their selfishness; and the final proposition suggests what ought to be the nature of government policy concerning the pursuance of economic activities by private individuals.

The first proposition says that individuals are persuaded by their native nature to undertake economic activities for realizing their selfishness, which means, in economic terms, that their motive is to accumulate wealth by using the resources under their command, in the best possible ways. The second proposition states a belief about outcomes of the first assumption: if these selfish individuals are not prevented from achieving their goals, economic welfare of the entire society will enhance because the invisible hand automatically transforms the self-interest of many into the common good. Given that the first two propositions are true, the final proposition follows unambiguously- the best government policy for the growth of a nation's wealth is that policy which governs least (Feldman, 1987). Smith drew this inference to counter the then mercantilist trade policy recommendation that restricting imports and facilitating exports could increase wealth of a nation.

Thus, the fundamental theorem of welfare economics- that the laissez-faire public policy leads to the "common good" of a nation- is firmly founded on the classical conceptions of perfect competition and free trade. This theorem is ordinarily articulated by sketching a general equilibrium model of an economy as follows: Assume all consumers and producers are price takers meaning that individually they are unable to influence market prices. Now given the selfish nature of human character, individuals are supposed to be activated by two completely different motives in their roles as consumers and producers. As consumers, they maximize utility subject to budget constraints, which suggests that they can be lured to buy more of the commodities they consume only by lowering prices. As producers, they maximize profits, which suggests that they can be persuaded to

supply more of the commodities they produce only if consumers are willing to pay higher prices. Equilibrium is reached when demand and supply curves of the commodity in question intersect. This market equilibrium is optimal as well as desirable, because it takes place under perfect competition. Feldman writes: "The invisible hand of competition acts through prices; they contain the information about desire and scarcity that coordinate the actions of self-interested agents. In the general equilibrium model, prices adjust to bring about equilibrium in the market for each and every good. This, prices adjust until supply equals demand. When that has occurred, and all individuals and firms are maximizing utilities and profits, respectively, we have competitive equilibrium (Feldman, 1987, p. 889)."

This well-known economic doctrine says that welfare economics- popularly perceived as the normative science of public policymaking- is founded on the value judgement of competitive equilibrium. Since the sub-discipline's primary concern is judging alternative policy scenarios that the public authorities encounter in performing their everyday duties, they need a criterion to make their choice. And this much needed judging criterion is supplied by another type of value judgement, called Pareto principle. It says exactly what Feldstein has stated: 'a change is good if it makes someone better off without making anyone else worse off'.

This Paretian principle of judging alternative policy regimes available to sovereign society contains three important ideas (Rowley and Peacock, 1975): (1) Society has an ordinal social welfare function whose arguments include the level of welfare (utility) of individuals comprising the society. (2) An individual is the best judge of their own welfare meaning that no one is allowed to impose his or her preferences on others. (3) If any change in the allocation of resources increases the welfare of at least one individual without reducing welfare of any other individual, then this change is treated as improving social welfare. There are three first-order conditions for the Pareto optimal choice of a policy regime (Ng, 1980): (i) exchange optimum- the marginal rate of substitution (MRS) between any pair of goods be the same for all individuals, (ii) production optimum- MRS between any pair of factors must be the same for all units using the factors, (iii) top-level optimum- for any pair of reproducible goods, the common MRS must be equal to their marginal rate of transformation (MRT). The second-order or the sufficient conditions for the Pareto optimal social choice are that the indifference curves representing MRS between goods and the isoquants representing MRS between factors of production be respectively convex and concave. These requirements of convexity and concavity are equivalent to the assumptions of the diminishing MRS (both for goods and factors) and the diminishing MRT.

IV. THEORETICAL AND PRACTICAL LIMITATIONS OF PARETO PRINCIPLE

The question that this paper has set out to investigate is whether the Pareto principle is an appropriate economic tool to judge social desirability of alternative public policy measures in democracy. Such a question is supposed to be provocative, because it manifestly intends to insinuate the very foundation of welfare economics. As one welfare economist remarks: "The Paretian value judgement is only a value

judgement. It may well be rejected by some. But before it is rejected, either explicitly or by implication, it must be remembered that virtually the entire edifice of economic theory as we know it is today built on Paretian premises. If these premises are rejected, that theory becomes irrelevant to the world in which we live in (Winch 1971, pp 190-200)."

Yet, as Ravi Kanbur (2002) says in the Cornell conference on 'Conceptual Challenges in Poverty and Inequality', it is now time to develop a new conceptual ferment of welfare economics. For, the old one- conceptualised, consolidated and applied to policy debates over the past three decades- has exhausted all its potentials. And given the severity of inequality situation in the non-communist world, one might argue that it is absolutely necessary to put the whole opus of welfare economics under review. More specifically, it seems quite important to re-examine the theoretical merits of Pareto principle in making policy decisions concerning income distribution and practical issues of income distribution that the popular media, policy makers and politicians are concerned about. This section attempts to make a few points in this regard.

First, the assumption of Paretian welfare theory is at variance with reality. This theory is founded on the assumption of perfect competition, which says that both consumers and producers are price takers, meaning that they individually have no influence on market prices. This scenario has little relation to the reality of labour market. While the labour supply function sufficiently satisfies the requirements of perfect competition, the labour demand function does not. Then the labour supply function is continuously shifted downward through population increase in developing countries and in case of developed countries, through manufacturing carried out in the developing countries by the multinationals. Therefore, the merits of perfect competition assumption are limited for judging real world income distribution problem.

Second, Paretian welfare economics is founded on the value-judgement that the laissez-faire economic idea is a desirable policy regime for democratic society. This inference has been derived from three propositions of welfare economics described above and therefore, constitutes the conclusion of categorical deductive syllogism system of logic, where the first two propositions serve as premises, while the last one as the conclusion (Harrison III, 1992). By the rules of logic, an argument is deductively valid if and only if the conclusion is true when its premises are all true too. If this principle is applied, the first value judgement of welfare economics turns out to be lacking in truth-value, because the second proposition, which claims that the competitive equilibrium leads to 'common good' of the society, is hardly defensible.

Third, the Pareto principle states that the change in the existing policy regime is desirable if it makes at least one individual better off while none worse off. In other words, the merit of Paretian value-judgement lies in the social desirability of the initial income distribution. For, if the initial distribution is unjust, then subsequent changes would only worsen the social distribution of income, instead of improving it.

Although the idea of initial position is quite new in economics discipline, it has a prominent place in both social theorizing and actual governance, toady called.

public administration. The idea first originated in religion, the most ancient form of public administration. Thus, in the Jewish-Christian-Islamic tradition, everything on earth belongs to God, Who made Adam His heir. Therefore, the initial distribution begins from Adam. Since this ancestry relates all human beings, religions teach their followers to give charity generously and not to accumulate excessive wealth. In political philosophy, the idea seems to have originated in Aristotle. He began his famous treatise, *The Politics*, with this statement: "We shall, I think, in this as in other subjects, get the best view of the matter if look at the natural growth of things from the very beginning (1962, p. 26)." However, it was Hobbes, who made the idea of initial position famous in political analysis. This initial position, described as the state of nature, was the condition of human society, where there was no civil government. Men lived by the rules of nature and because they were equal in terms of both physical and mental powers, it was a state of war. To escape this situation, they made a social contract to place themselves under civil government headed by a king. The idea of social contract also became the starting points in Locke and Rousseau's political philosophies. Thus, from political perspectives, the formation of civil society through social contract is understood as the initial position.

To economists, however, the initial position refers to the economy's general equilibrium situation determined under the environment of perfect competition where economic efficiencies are attained in production of output, exchange of commodities and equity in income distribution (Salvatore 1991). And given this initial general equilibrium situation, a policy is to be called Pareto optimal if it can alter this input mix, or commodity mix, or nature of income distribution, which makes some individual better off without making anyone worse-off. Two limitations of this theory seem obvious. First, the theory is articulated on a critical value-judgement; it assumes that relative prices determined under perfect competition are socially desirable. However, perfect competition says little about the fairness or desirability of relative prices of either outputs or inputs. For example, demand in economics is defined as desire backed by purchasing power. The theory of demand does not discuss how the consumer's purchasing power is determined, meaning that the demand theory is deficient from welfare point of view. On the other hand, economists make two mistakes in discussing the issue in input market. First, economists treat the theory of distribution as an extension of the theory of value (Gupta 1960). It is just a problem of pricing the factors of production, meaning that all the four factors receive equal treatment. There is no difference between land and labour. This is perhaps one reason why the theory of distribution is being excluded from the definition of economics: "Economics is the study how societies use scarce resources to produce valuable commodities and distribute them among different people (Samuelson and Nordhaus 2004)." If we accept this view, there is little reason to be concerned about income distribution and economic inequality. Second, real markets, particularly the labour market, are far from meeting the conditions of perfect market. Therefore, Paretian principle, no matter how elegant it is in terms of mathematics, is of little use for determining practical policy issues.

Fourth, the ideas of four factors of production were conceived when the banking sector was very underdeveloped. Therefore, the owners of capital and entrepreneurs were ordinarily the same individuals, which suggest that there were

little needs to be concerned about the difference between interests and profits earned by the business class. This is no longer true today, because capitals borrowed from banks constitute an overwhelming proportion of investments made by modern companies. The distribution theory says that each factor of production is supposed to be paid according to its marginal productivity, which is determined by competitive markets. If we assume that rents, wages and interests of borrowed capital are determined by the market forces, then questions arise as to whom the surplus belong and how this surplus is to be distributed. In other words, the Pareto principle of income distribution seems to have limited use today, since the economic environments of both production and consumption have changed dramatically.

Fifth, income distribution is a political issue. Therefore, questions naturally arise as to whether the Pareto principle does at all address this political concern. Sen rightly says, "Much of modern welfare economics is concerned with precisely that set of questions which avoid judgements on income distribution altogether... The so-called 'basic' theorem of welfare economics is concerned with the relation between competitive equilibria and Pareto optimality. The concept Pareto optimality was evolved precisely to cut out the need for distributional judgement ... The almost single-minded concern of modern welfare economics with Pareto optimality does not make that engaging branch of study particularly suitable for investigating problems of inequality (Sen, 1973 pp. 6-7)."

Finally, this paper was inspired by the public interest in the income inequality issue in democratic society, America in particular; and its main concern is to see whether the Pareto principle could address this issue. For the convenience of discussion, income distributions reported at the beginning of the paper are reproduced here: While, the CEOs of 100 top corporations earn hourly US\$7731.0; General Tommy Franks earns \$69.10, doctors \$60.14, ordinary workers \$16.23 etc.

This data show two distinct earning structures in involve public and private sectors of the non-communist society. This suggests that the appropriate examination of the equity aspect of income distribution in the non-communist society involves comparing individual earnings in each sector of employment. Thus, General Frank's wage income should be compared with that of a private, while the earning of an ordinary worker in the private sector should be compared with that of a CEO. And if we do this, we will see that there is a remarkable degree of equality in wage structure in the public sector, which reflects the merits of services provided by each employee. However, this judgement cannot be extended to the private sector. It is difficult to comprehend any good reason for the 476 times income deferential in the private sector. This begs a vital question: Which earning structure reflects social welfare-public or private?

Then there is a real question about how the private sector determines remunerations of its top executives. Suppose General Franks retires from military and is hired as the CEO of a large corporation. His earning will instantly jump to the average CEO rate. Does this mean that the public sector underestimated the merit of his services to society? Is the responsibility of CEO is more valuable than that of the Chief of Staffs of US armed forces? An affirmative answer to these questions would imply that the earning structure of the private sector, not the public sector, reflects social welfare. Is a university professor qualified to do the job of a CEO, if they want

to take up this career? If the answer were yes, then it would further confirm the irrationality of the earning structure of the public sector.

V. SUMMARY AND CONCLUSIONS

Economic inequality, measured by variations in personal income distribution, has worsened worrisomely in western democracies. This phenomenon has provoked popular demands for formulating public policy measures to counteract the ominous inequality trend. However, many eminent economists are of the view that the prevailing income distribution is not only economically important, but also socially desirable. This controversial policy prescription is justified by the Pareto Principle-economists' value judgement about public policy choice- which says that an income distribution is socially desirable if it makes someone better off without making anyone worse off.

To input some fresh ideas in this crucial social policy debate, the paper examines the intellectual foundation of the Pareto Principle. The paper first clarifies the conception of inequality by inspecting the principle from both political and economic viewpoint. From political viewpoint, the analysis of inequality or 'distributive injustice' is concerned with determining the fairness of disparity in the distribution of social resources and positions. Economists, on the other hand, study inequality as a problem of distribution of national income. Although, there are two types of income distribution measures- functional and personal- the social debate on inequality is concerned only with the personal distribution. Personal distribution is also analysed with two types of measures- one objective and the other normative. The objective measures include coefficient of variation, Gini coefficient, Theil index etc., while the most popular normative measure is the Pareto principle.

After this preliminary discussion, the paper briefly discussed the Paretian welfare economics in order to evaluate its intellectual ability to settle practical policy questions and examine its merit in judging alternative policy scenarios. The analysis shows that the Pareto principle has several theoretical as well as practical limitations that diminishes its usefulness in answering questions demanded by policymakers and policy analysts. Here four such limitations are particularly underlined.

First, Paretian improvement in social welfare critically depends upon the fairness of initial income distribution. However, perfect competition does not guarantee the fairness in the determination of relative prices, while economists treat the distribution theory as a special case of value, meaning they do not differentiate between, say, how rewards of land and labour are determined. Thus, the Paretian welfare economics hardly analyses the issues that society demands. Second, rewards of the factors of production are determined by the marginal productivity theory. If we assume that rents, wages and interests are determined by this theory, then questions arise how the huge surpluses, profits, generated by the businesses are divided among the people involved with the business. Third, income distribution is a political issue. But Pareto has consciously tried to separate income distribution debate from political and policy discussions. Finally, by invoking the Pareto principle, economists seem to be avoiding the real issues of public debate on personal distribution of income. Personal income distribution truly refers to the

division of income generated by a group of people working together and therefore, ought to be analysed with reference to the sector of employment. Thus, Tommy Franks' earning should be compared with that of a private, while an ordinary worker's salary should be compared with that of the CEO. History testifies that the public earning structure is much more equitable than that of the private sector. This poses a very serious question: Which earning structure reflects improvement in social welfare: public or private?

In spite of all these and other defects pinpointed earlier, economists are obsessed with Pareto's efficiency criterion. They have made it as the foundation of modern welfare economics- the branch of economic science that deals with normative public policy issues- although Pareto himself has clearly stated that society's welfare or happiness is not his concern. However, in their obsession, they have overlooked a serious implication of Pareto principle that concerns social and political stability of society:

By the Pareto Principle, an income distribution is economically justified and socially desirable if it makes someone better off without making anyone worse off. Thus, the income of the rich can be increased enormously without adversely affecting the income of the poor. This, in turn, would imply improvement in social welfare, because the rich are better off, while the poor are not worse off. Thus, by the Pareto Principle, increased inequality is tantamount to improved social welfare. One could then conclude- by paraphrasing Feldstein's argument- that the Pareto Principle is an automatic affirmation of the public policy that inspires inequality in democratic society! And since unfair inequality is the true source of all conflicts in society, this policy prescription necessarily invites more social and political unrest!

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