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Economic development and theories of value

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If economics is to supply more reliable interpretations of development in concrete historical cases it is essential that it should break through the narrow limits within which it has been confined by theories of value based on the assumption of general equilibrium. The conception of value as power proposed by the author is aimed specifically at lessening the rigidity of the categories of economic analysis so that they can easily incorporate contributions from other social sciences.

The article begins with a critical review of the liberal neo-classical and Marxist theories of value and distribution, which, in the author's view, offer a distorted picture of the economic process and fail to throw proper light on the process of formation of relative prices or the dynamic genesis of the surplus in the development of capitalist societies. On the basis of this critique he sketches the outlines of an alternative theory, in which economic value is not the expression of magnitudes of social labour, or of 'sovereign' consumer preferences: it simply expresses power. And the specifically economic form of power is 'purchasing power', which finds its most general expression with the advent of the capitalist social order.

On the basis of the concept of purchasing power the author considers other concepts, such as those of economic value, income, capital, surplus and so on. In the final sections his interest focuses on the concept of the surplus in its different forms —the global surplus, the distribution surplus and the entrepreneurial surplus— and, in the light of recent propositions set forth by Prebisch, he raises the question of the way in which it relates to crucial aspects of economic development, such as the social forms of appropriation of the fruits of technical progress.

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I

General outline

The central argument of this article is that the capitalist economic process lacks self-regulating forces which would guide it towards positions of stable equilibrium accompanied by a socially 'open' distribution of the fruits of development. The corollary of this basic assertion is that it is the power positions and relations arising from the social structure which, in the final analysis, determine the form taken by the process of capitalist development.

This inability of the system to achieve positions of equilibrium in circulation, and equity in distribution, has already been pointed out by those who view the capitalist economic process as being subject to circular and cumulative tendencies which accentuate any existing asymmetry of power in the social process.[1]

In the same way, the idea that the market mechanism does no more than express in the economic sphere the asymmetries of power which stem from the social structure has been implicit in many concrete diagnoses and comprehensive interpretations drawn up by the structuralist economic school in Latin America, and has tended to be stated explicitly and more emphatically in some more recent contributions.[2]

[1]The logical and ideological significance of the concept of stable general equilibrium in economic theory was subjected to a lucid critique by Gunnar Myrdal in *Economic Theory and Under-developed Regions* (London, Gerald Duckworth, 1957).

[2]"As a first approximation to reality, we would consider peripheral development as consisting in penetration by the technology of the centres, accompanied by changes in the structure of society. This changing structure in turn affects the kinds of technology introduced and the intensiveness and extensiveness with which they are adopted.

"The structural transformation is varied and complex. The changes which occur in the income strata as technological penetration brings about a rise in productivity are of great importance for our analysis.

"The strata change according to the rate at which productivity increases and the way in which its effects are distributed. But as this happens, changes also take place in the social, political and organized labour power of the different strata and, consequently, in the relations between them.

"Now, the power relations which derive from the structure of society ultimately determine the distribution of income, and the pattern of this distribution conditions the penetration of technology and the ensuing rise in productivity." Raúl Prebisch, "A critique of peripheral capitalism", *CEPAL Review*, No. 1 (first half of 1976), p. 21.

In practical terms, this particular view of the capitalist process suggests the need for appropriate machinery for control by society capable of subordinating the different forms of power to the broader aims of social development and human advancement. The Universal Declaration of Human Rights contains perhaps the most significant succinct expression of those aims.

Curiously, however, the prevailing economic theories do not contain categories of analysis whereby this outlook on the world can be fully reflected. The two schools of thought with greatest present influence have developed a conception of the market and of economic value which is inadequate to describe how the power positions which stem from the social structure are specifically reflected in economic terms.

For very different reasons, based on their contrary views of the capitalist social order,[3] both Marxian and neo-classical liberal economic theory have assumed that the economic system possesses self-regulating mechanisms which guide it to positions of general equilibrium. Each theory, in its discussion of economic value, attempts to explain the structure of relative prices which should prevail in conditions of general equilibrium in fully competitive markets.

Marx developed a view of the economic process which is restricted to highlighting the 'fundamental contradiction' of the system, expressed in the irreducible class antagonism between the capitalists who own the means of production and the dispossessed workers who have only their own labour power. The labour theory of value states that value is created through the application of living labour in the production sphere. In the sphere of circulation, i.e., that of the markets, no-one can extract more value than that which is incorporated in his product, and the logical foundations of this law of value make it necessary to proceed from conditions of general equilibrium. If the operation of the market actually corresponded to the theory and law of value formulated by Marx, the only asymmetry of power which would make it possible to appropriate a surplus would be that arising from the irreducible antagonism between capitalists and wage earners. In this way Marx succeeds in giving expression, in his fundamental economic categories, to the dialectical dichotomy he perceives in the dynamics of the social process. The market —the context in which private owners negotiate— thus constitutes a kind of 'epiphenomenon' or projection of capitalism, and ought to disappear once this social order, which is regarded as intrinsically unjust, is left behind.

The neo-classical version of the liberal theory is restricted to translating into economic terms the basic idea that, in seeking their own personal advantage, men will behave in such a way that by virtue of natural tendencies which are latent within the social system itself, they can achieve stable positions of general equilibrium and equity. The marginal utility theory of value, formulated in circumstances of perfect competition, meticulously eliminates all the heterogeneities or asymmetries which might produce different positions of power. In circumstances of general equilibrium, each consumer obtains maximum utility and each factor of production receives remuneration which is equivalent to the marginal value of its contribution to production. Consequently, these two schools of thought formulate their conceptions of the workings of the market and economic value in order to place particular emphasis on their underlying views of the nature and operation of the capitalist social order.

According to Marx, the market sanctions and reproduces a fundamental contradiction, of which the market itself is an important expression. The recommended course of action is to exacerbate this fundamental contradiction and eliminate by revolutionary means not only the capitalist social order, but also the market mechanism, which is the expression of that order in the economic sphere.

The neo-classical liberals, for their part, draw a diametrically opposite practical conclusion. The market sanctions and reproduces consensus, integration, equilibrium, harmony and other virtues inherent in the very nature of the social process. The practical conclusion,

[3] On the subject of the theories of integration and conflict, see Jorge Graciarena, *Poder y Clases Sociales en el Desarrollo de América Latina* (Buenos Aires, Paidos, 1966), appendix 1.

accordingly, is that this beneficent process should be interfered with a little as possible, and that the fundamental role in the allocation of resources should be left to the market.

In the one case, when the trumpets of the dialectical apocalypse sound the system will collapse, and the market mechanism will disappear with it. In the meantime further analysis of its operation is pointless, since the theory of value furnishes us with the basic knowledge required.

In the other case, the market does no more than express the virtues of a social order which is 'naturally' fair and progressive. Any interference with its inherent laws should therefore be eliminated.

Fundamentally, both views of the role of the market are distorted because they reflect two equally extreme approaches to the operation of the social system, and, as we shall see below in greater detail, each theory demands —though for very different reasons— that the concept of general equilibrium should be placed at the centre of its field of analysis.

There is another point of convergence between the two views: their scepticism regarding the viability and desirability of efforts to devise machinery whereby society can control the different forms of power which are wielded in the social structure. In the first case, the scepticism is based on the inexorable need for a *prior* radical transformation of the system, while in the second case the scepticism reflects faith in its purely spontaneous action, which should not be tampered with.

Let us now examine more precisely how these views of the world 'infiltrate' into economic theory via its basic categories of analysis.

1. *Marx and his labour theory of value*[4]

The entire conception of history which presides over Marx's work gives a special place to the internally antagonistic dynamism which governs the structuring of social classes, and the way in which this conflictive process establishes relations of mutual causality with the rate and form of development of the productive forces.

His acute interpretations of the economic process were inevitably coloured by his 'pre-analytic vision', which included among its features the dialectically antagonistic nature of capitalist development, and the inexorable revolutionary advance towards a new social order, initially under the dictatorship of the proletariat.

His economic theory had to include in its basic analytical categories this central struggle between capitalists and wage earners and, more generally, between the owners of the means of production and the dispossessed workers.

The working class, which for Marx was the victim of an ***intrinsically*** unjust system, was in his eyes subjected to social relations which involved exploitation and which could only be abolished through a revolutionary victory over the capitalist social order.

The overwhelming force of Marx's message lay in the fact that he succeeded in translating this view into the central categories of his theory. In the economic sphere, his labour theory of value constitutes the *analytical expression* of this view of the world.

Marx's theory of value —with its 'law' of the exchange of equivalents— fulfils at least three basic functions designed to make his revolutionary message clear. Firstly, it is the basis for his theory of surplus value as the expression of a phenomenon of exploitation. Secondly, it enables him to eliminate from his field of analysis any other asymmetry of power which

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[4]Strictly speaking, for Marx commodities have a value in an 'absolute' sense expressed in terms of the social labour time they contain. Because it is purely a definition, this proposition cannot be disproved empirically, and it is profoundly rooted in Marx's view of the world. The concept of social labour in Marx has philosophical, ethical and social implications which go far beyond his conception of the capitalist economic process. The present article contains a critical analysis of his theory of value as a scientific hypothesis designed to explain the process of formation of relative prices and the genesis of the capitalist surplus. Hence the need for critical examination of the 'law of value' with its claim to be a norm regulating market circulation in a 'pure type' of capitalist system. This demarcation for the purposes of analysis implies no underestimation either of the value which may *ethically* be ascribed to social labour, or of its importance in the historical transformation of human society.

might distract attention from the above-mentioned fundamental antagonism expressed in the form of a dichotomy. Thirdly, it highlights the common class interests both among workers and among 'capitalists', and minimizes the asymmetrical power positions which may conceivably arise within their respective class positions. This means of focusing his analysis is not a 'deliberate tactic' designed to distort or simplify the power struggles in a capitalist society, but a natural result of his view of the world, and of his desire to highlight analytically what for him was the *fundamental contradiction* of the capitalist social order.

Since we do not subscribe to the dialectical inevitability of the total and drastic replacement of the capitalist social order and all the institutions associated with it, it is perhaps desirable to broaden the field of observation in order to throw light on those aspects of the social structure which remain unclear in Marx's analysis. Let us then, analyse the three features mentioned above.

In the first place, his theory of value constitutes the foundation of his theory of surplus value as the expression —in terms of economic value— of the phenomenon of exploitation. For Marx, only living labour *creates* value; by means of living labour the worker creates a new value and *transfers* to the commodity the value contained in the means of production he uses. Although there is no explicit formulation on an ethical level, surplus value is ultimately viewed as the expropriation of the unpaid labour of others. This asymmetry of power appears not in the market, where the commodity of 'labour power' is remunerated in accordance with the law of value, but in the *use* of this labour power, which makes possible the process of creating new value. The capitalist uses the labour power whose temporary services he has legitimately acquired, and appropriates the fruits of that use. This appropriation is legitimated by the institution of private ownership of the means of production, of the services of the labour force and of the products created by these human and material means of production. In this way Marx performs the feat of reconciling the phenomenon of exploitation with the application of the exchange of equivalents in the sphere of the market.

In the second place, this feat enables him to exclude from his field of analysis any other asymmetry of power which might distract attention from the fundamental antagonism expressed in the form of a dichotomy. ***This is the function of the law of value.*** If in conditions of general equilibrium the exchange of equivalents must necessarily obtain in the market, then the *only* asymmetry of power which need concern us in explaining surplus value —the expression of the surplus in economic value— is that which becomes crystallized in the exploitation of the labour force. This argument places the owners of the means of production as a group on one side of the fence, and the dispossessed workers on the other.[5]

This brings us to the third point: that the theory of value is formulated —whether deliberately or not— in such a way as to highlight the *common* interests of the owners of capital, on the one hand, and those of the working class, on the other.

The theory speaks of *abstract* and *unskilled* labour, performed with an *average* degree of intensity and in *average* technical conditions corresponding to a *specific period*. The concept of abstract labour is *independent* of the specific skills of each worker which effect the use value of the products, and relates only to a purely quantitative expenditure of *time* on *unskilled* labour. One of the weakest theoretical points in Marx's reasoning is his subsequent distinction between 'skilled' and 'unskilled' labour.

Marx explicitly recognizes that skilled labour is the product of labour power which *contains* a higher exchange value —it is more 'expensive' in terms of the social labour time required to produce it— and generates more 'valuable' labour per unit of time.

In drawing this distinction Marx abandoned the *time* spent on unskilled labour as the only unit of measurement and returned to the

[5]It should be reiterated that this manner of theorizing is designed to distil the purest expression of the movements and processes which are characteristic of a capitalist form of production. However, this high level of abstraction —legitimate in methodological terms— is not always understood by his more enthusiastic readers, who seek to apply its categories uncritically to historically more complex realities.

qualitative characteristics of the labour expended in that time. Since there are innumerable 'degrees of complexity' of labour, the calculation is ultimately completed in a *practical* manner, using the differences in wages which originate from the concrete dynamics of the labour power markets.

Marx recognizes this 'problematical' point, and forms his concept of an industrial reserve army, whereby the introduction of technical progress which economizes on labour power makes it possible to counter the greater trade union power which stems from a real or artificial shortage of labour power, so that the prices and the values of labour power tend to coincide. In this way the 'value' of labour power depends not only on the time required to reproduce it, but also on concrete market considerations linked to technical or social positions and relations which confer power. These relations and positions have to do with the distribution of technical progress in the production sphere and the distribution of wage incomes in the sphere of circulation.

The uneven distribution of technical progress, for example, is particularly severe in the societies of the periphery, giving rise to a situation of technological heterogeneity which contradicts the assumption of *average technical conditions* required for the operation of the 'law' of value.

It must therefore be concluded that the value of labour power cannot be calculated in terms of time spent on abstract labour, but must be calculated in concrete monetary units. Nevertheless, since it is essential to know the value of labour power and the value of the means of production it uses in order to calculate the value of *any other commodity*, these difficulties vitiate Marx's entire theory of value.

We may therefore conclude that the exchange value of all commodities depends on the *initial* distribution of technical progress and monetary income, and can be expressed only in terms of money.

The socialist planners accept on a *practical* level what they would not be prepared to accept in theory. Bettelheim, for example, has the following to say concerning the use of money in the centrally planned economies. Although the quotation is rather long, it is worth reproducing in full.

"In a planned economy based on collective ownership of the means of production, the work performed by each person is directly social work. Money, therefore, no longer plays the role that it plays in a private-property economy of showing to what extent a given kind of production is socially useful.

"Under these conditions, one may ask oneself why it is necessary to carry out economic calculation in terms of money, and why it is not possible to make this calculation directly in hours of labour, all of these being socially useful.

"This question has given rise to numerous discussions, especially among Soviet economists. It emerges from these discussions that what makes monetary calculation indispensable in the first stages of development of planned economy is the non-uniform nature of the labour expended. As Ostrovityanov says: 'This non-uniformity results in one hour of one worker's labour not being equal to one hour of another's. It is thus that the simple calculation of social labour, directly in units of production or of labour time, is not enough, and that it is essential to retain reckoning in money, for it resolves the different aspects of social labour, non-uniform in character, in terms of a single, abstract labour'.

"'The non-uniformity of labour shows itself either in the form of differences between skilled and unskilled labour, between mental and physical labour, or in the form of differences in productivity resulting from the *different technical conditions* (Bettelheim's underlining) under which one and the same type of labour can be expended (diversity of equipment between different enterprises in one and the same branch of production)."[6]

Thus Bettelheim makes it unnecessary for us to raise the question of the heterogeneity of the production structure and the independent importance which stems from the distribution of technical progress (expressed in the form of the instruments used in production and in

[6]Charles Bettelheim, *Studies in the Theory of Planning* (Bombay, Asia Publishing House, 1959), pp. 79-80.

workers' skills) and of money incomes in determining the structure of relative unit costs and prices.

However, in that case it is necessary to ask: if differences in workers' skills and technical progress cannot be expressed in the form of hours of work, what criteria are used to make the calculation in money terms?

It is obvious that in the socialist countries too there is a distribution of monetary income and technical progress —both in the form of tools and in the form of workers' skills— which corresponds to the power positions and relations characteristic of those socio-political systems. Consequently, money is used because it represents the only objectification and all-embracing measure of the general purchasing power expressed in the markets for labour power and consumer goods. The existence of these *markets* —for that is what they are in strict terms— is essential for the functioning of the socialist economies.

Technological heterogeneities *between branches of production* also introduce difficulties in the law of value. Marx develops his analysis of value within a context very similar to that which a neo-classicist of the marginal utility school would term perfect competition. In particular, he assumes a tendency for the rate of profit to become uniform, which implies technical and economic conditions that permit appropriate transfers of capital, and of the human and material resources mobilized by capital, from activities where rates of profit are lower to those where they are higher.

Here Marx faces a theoretical difficulty to some extent related to the phenomenon of technological heterogeneity discussed by Bettelheim in the above quotation. Once the average value of labour power and the institutionally sanctioned length of the working day have been established, the average rate of surplus value is also determined for the whole economic system.

Now, since there is no reason for the organic composition of capital to be the same in all the branches of production, whereas on the above assumptions the rate of surplus value must necessarily be the same, these conditions would seem to be incompatible with the equalization of the average rate of profit, or, alternatively, with the application of the law of value. Marx endeavours to overcome this difficulty by recourse to the concept of 'production prices'. These prices of goods are established in such a way that the share of each owner of capital in the total surplus value produced as a result of industrial activity as a whole is proportional not to the value of his variable capital, but to the value of his total capital. To put it more clearly, the overall average rate of profit is calculated, and then the total surplus value is 'distributed', allocating an equal share to each capitalist regardless of the organic composition of his capital (the ratio between the value of constant capital and the value of variable capital).

Given a certain rate of surplus value which is the same for all branches, the rate of profit calculated in values will be lower in those branches where the organic composition of capital is higher. Consequently, the equalization of rates of profit implies a transfer of surplus value from the sectors with a lower organic composition to those which use a proportionately greater value of constant capital.

This solution to the problem adopted by Marx involves a violation of the law of value, and is incompatible with the equilibrium —in terms of values— of his models of reproduction. Other writers, using more complicated algebraic methods,[7] have proposed solutions designed to ensure logical consistency between the law of value and the application of 'production prices'. A warning is necessary, however, that these solutions generally appear to be based on a *static* approach implicit in the solution of any system of *simultaneous* equations.

In addition to this methodological aspect, however, the general economic significance of this difficulty must be considered. Once the rate of surplus value has been determined for the entire economic system, it will be the technically more advanced branches which —in value terms— record the lowest rates of profit. In order to achieve the overall average rate of profit, they must sell at 'production prices' which involve the appropriation of a proportion

[7]For a simple and concise exposition of this subject, see Paul Sweezy, *The Theory of Capitalist Development* (New York, 1942), chapter VII.

of the 'external' surplus value. Hence the introduction of technical progress and the raising of the productivity of human labour —which are associated with a rise in the organic composition of capital— has the result that the technically more advanced firms must receive a kind of 'subsidy' from the technically more backward firms, which transfer to them part of their surplus value. The least that can be said of this process is that it is enveloped in a kind of aura of unreality.

In the final analysis, the cause of this lack of realism must be sought in the supposedly open appropriation of the benefits of the increased productivity of *living* labour. An increase in the organic composition of capital leads to a rise in the productivity of living labour: more units of output per man-hour. This decline in the share of living labour in each commodity must be transferred to the unit cost of each good, which in terms of living labour will also fall. However, in that case why economize on living labour by investing in machinery if the higher productivity must be transferred through a drop in prices to the other consumers? The entrepreneur must bear the increased costs of a higher organic composition of capital, yet cannot enjoy its benefits.[8] One of the principal purposes of this article is precisely to demonstrate that in practice there is no open appropriation of the benefits of technical progress, and that therefore the law of value is not fulfilled either in a 'direct' manner or in a 'transformed' manner through production prices. An attempt will also be made, following a recent argument put forward by Prebisch, to set out the theoretical reasons why the partially or totally closed appropriation of the benefits of increased productivity is *inherent* in the very logic of capitalist economic development.[9]

[8]Marx obliquely recognizes the existence of an extraordinary surplus value enjoyed by the innovating entrepreneur until such time as the technical advance introduced spreads throughout the branch. However, this surplus value, the result of the difference between the 'individual' and the 'social' value of the commodity, is a phenomenon of disequilibrium that has nothing to do with the stable sources from which, according to Marx, the rise in the rate of surplus value derives.

[9]See sections V and VI below.

2. *The neo-classicists and their marginal utility theory of value*

In order to understand the neo-classical concept of equilibrium, it is necessary to take as a starting point the marginal utility theory of value, according to which the relative prices of consumer goods are proportional to marginal preferences with respect to those goods.

It is also assumed that these preferences make it possible for each consumer to achieve maximum utility, satisfaction or welfare; expressed in different terms, this means that consumers prefer to buy the goods which provide them with greatest utility or satisfaction, and select their purchases with the aim of maximizing such satisfaction.

It is assumed that each consumer is familiar with the goods which are offered in the market and draws up his scale of preferences independently of his monetary income and the relative prices of the different goods. If this were not the case, any change in his monetary income or in relative prices would alter his scale of preferences. In other words, whatever his *specific* income in money terms, and whatever the specific relationship between the relative prices of the commodities, each consumer has defined an exhaustive set of preferences for any level of income and any relative price structure. In the neo-classical jargon, each consumer defines *his own* indifference map independently of his monetary income and the structure of relative prices of goods.

Hicks says on this point that "the objects bought and sold need not be consumers' goods, or they need not all be consumers' goods; the necessary condition is only that they should be objects of desire, which can be bought and sold, and which can be arranged in an order of preference (an indifference system) *which is itself independent of prices*" (Hicks's underlining).[10]

In other words, the consumer (or, more generally, the purchaser) has a scale of preferences which is sufficiently extensive to indicate what quantity of each good he wishes to purchase for each possible price. However, *a*

[10]J. R. Hicks, *Value and capital*, 2nd ed. (Oxford, OUP, 1946), p. 55.

distinction must be made between preference and satisfaction. If a consumer's monetary income is very low, the quantities that he prefers to buy at each price are not those which leave him satisfied, but those which, on the basis of his structure of preferences, correspond to his overall purchasing power. To put it briefly, each consumer's demand schedule indicates preferences backed by purchasing power. This consumer is 'in equilibrium' with respect to each good if *for a given relative price* the quantities he *wishes* to buy are the same as those which he actually can buy.[11]

If we assume that the individual demand and supply schedules for this good can be aggregated, the equilibrium price of each good in the market will be the price at which the quantities that all purchasers wish to purchase are the same as the quantities that all the suppliers wish to sell.

To put it more briefly, market equilibrium is achieved when the quantities sought are equal to the quantities realized with respect to a given price.

It should be noted, however, that general equilibrium in all consumer goods markets can be perfectly compatible with a situation in which a high percentage of the population is literally dying of starvation. For these weak, starving consumers too one could predicate an 'equilibrium' whereby the quantities which —bearing in mind their limited budgets— they 'wish' to buy are the same as those which the suppliers wish to sell.

Obviously, a preference backed by purchasing power is not the same thing as a preference *tout court*. A purchaser who completely lacks purchasing power is not a purchaser, but a beggar.

Hence, an economically viable preference presupposes purchasing power. And standing behind this apparently psychological phenomenon of preferences, there is a social phenomenon of power (or impotence) which is not at all psychological.

[11] "The equilibrium condition is that the rate at which the individual is willing to substitute be equal to the rate at which he can substitute Y for X", Milton Friedman, *Price Theory: a Provisional Text* (Chicago, Aldine Publishing Company, 1962), p. 40.

If a poor man is given only sufficient money to feed himself at a minimum level of biological subsistence, the neo-classical economist will find that the poor man has 'preferred', *at that price*, to acquire a certain quantity of food. If *on the basis of their money incomes* all purchasers of food wish to purchase exactly the quantity that suppliers wish to supply in the market at that price, our poor man will be informed that he is 'in equilibrium'.

In short, the neo-classical concept of equilibrium considers the distribution of personal income as an exogenous and constant datum, and ignores the *overall* levels of satisfaction or welfare which stem from that distribution for each individual. *The fact that, within his budgetary limitations, each purchaser seeks maximum utility according to his scale of preferences does not mean that he will feel satisfied, whatever the meaning that may be attached to that expression.* The point of interest for this school of theory is that equilibrium is determined, in the sense that the quantities and prices which compose it are unequivocally fixed, as a consequence of the fact that, on the basis of his scale of preferences, each purchaser seeks maximum utility compatible with his budget. The fact that this maximum may for him represent starvation is a distributive aspect which the theory of demand does not take into consideration.

This in no way means that neo-classical economics lacks a distribution theory. Such a theory relates to the remuneration paid for services rendered by the owners of the factors of production. It is assumed that the remuneration paid to each factor of production —strictly speaking, to its owner— is equivalent to the value of the marginal product stemming from the participation of the factor.

Accordingly, remuneration paid to the owners of the factors of production —in other words, the functional distribution of income— depends on, and is equivalent to, the value of the marginal product derived from their use. The value of this marginal product is in turn determined in the light of the consumers' scales of preferences. In this way the neo-classicists succeed in reversing the logic of the central argument: rather than the personal distribution of income determining the behaviour

of the market, it would seem that the behaviour of the market determines the functional distribution of income. The missing link for the neo-classicists is the connexion between the personal distribution of income and the composition of demand.

When each owner of a factor of production —say, each labourer as the owner of his labour power— receives remuneration equivalent to the value of his contribution to the marginal product, the neo-classical theory postulates that, *in conditions of perfect competition*, the factor markets are in stable equilibrium. It has already been observed that, even if this functional distribution of income signifies extreme poverty for certain recipients of income, this is an aspect which falls outside the neo-classical approach. Each 'factor' is assigned a marginal value equivalent to that which it contributes, and this proposition makes it possible to insinuate the subtle fallacy that the process involved is an equitable one.

In the above-mentioned conditions of perfect competition, any type of technological change which reduces average and marginal unit costs for each possible level of product in the long term will feed through to prices. This means that in long-term stable equilibrium any innovation which raises the productivity of the factors spreads to all competitors, eliminating extraordinary profits and ensuring a position of general equilibrium where average costs, marginal costs and unit prices are equal. These conclusions, which are specific to the micro-economic theories relating to partial equilibrium, involve the logic of a system where extraordinary profits cannot exist and where —given the relative availability of factors— any introduction of technical progress is 'openly' appropriated by a decline in unit prices in the branch concerned. This mechanism ensures that no extraordinary profits or surpluses exist which cannot be explained by the theory of marginal productivity.

In order for there to be a situation of general equilibrium, it is necessary that in each enterprise 'extraordinary profits' should be nil. Then, starting from a position of general equilibrium, the economic process could reproduce itself indefinitely in identical form. We will now endeavour to show that, without perfect competition, there can be no stable general equilibrium.

In oligopolistic conditions, for example, the profits of the oligopolistic enterprises will be the losses of the firms which operate in competitive conditions. According to Say's law, at the macro-economic level supply creates its own demand. This idea can be understood in the sense that production at factor cost generates incomes whose value is the exact counterpart of the value of supply in real or physical terms. If the physical composition of supply and demand coincide *ex ante*, this overall value should permit the complete disposal of the final goods which make up the product. However, as the value of the income generated is equal to the value of the product at factor cost, no 'extraordinary profits' will exist at the macro-economic level. In this way, the profits of enterprises which are monopolistic (or oligopolistic, or whatever term might be chosen to describe those which are best placed in the market structure) will have to be secured at the expense of the enterprises which do not share their privileged position. Within this 'zero-sum game', in which the profits of some can only be obtained from the losses of others, the tendency towards stable general equilibrium will have become transformed into a recurrent disequilibrium in which the initial asymmetries are accentuated. Left to its own 'internal logic', the system would reproduce the conditions of disequilibrium in a circular manner, recalling the processes of cumulative change suggested by Myrdal. Without stable *general* equilibrium it is not possible to postulate stable *partial* equilibrium, at least under the static conditions analysed here.

An economic system governed by general market equilibrium and the open appropriation of the benefits of productivity requires, both for the neo-classical economists and for Marx, static conditions of perfect competition which distort the concrete dynamics observed in the economic development of the capitalist societies.

II

General purchasing power and the nature of value

1. *Determination of value in barter conditions*

In general, purchasing power is one of the many social forms of power, since it enables those who possess it to appropriate objects owned by others. Coercion, in the form of violence or the threat of violence, may, for example, confer purchasing power on the stronger to the detriment of the weaker.

When violence is eliminated from the picture, we may assume an abstract and hypothetical barter situation. Let us suppose that a farmer regularly exchanges 50 units of cereal with a herdsman for 10 head of cattle; in this case, the purchasing power which each unit of cereal secures for the farmer is one-fifth when expressed in head of cattle, while the purchasing power which each head of cattle confers on the herdsman, expressed in units of cereal, is 5.

If we rule out any means of obtaining commodities without giving something in exchange —using violence, threats or persuasion— the only way of possessing commodities for exchange is to produce them first. And since the exchanges occur with a given frequency in time —for example, at monthly fairs— the number of units offered in each barter process will represent equal periods of time of living labour performed by each party, assuming *for the sake of simplicity* that each offers his entire production because no-one consumes what he produces or produces what he consumes. If in addition we assume rudimentary technologies, where negligible use is made of accumulated labour and where the entire process depends almost exclusively on living labour, the total quantities of each commodity offered by each participant will contain more or less equivalent quantities of labour, assuming that each works every day from dawn to dusk.

This imaginary economy, where everyone offers what he has personally produced, is governed by the exchange of equivalents as regards the labour content of each commodity —the law of value— in the sphere of circulation, and by the principle of 'to each according to his work' in the sphere of distribution.[12]

In terms of personal purchasing power, this means that the total amount of labour embodied in other commodities which each party can acquire is equal to the total amount of labour he has invested in the commodities which he is offering. If this is the case, both the ratio of exchange between the goods —the terms of trade— and the changes which occur in them depend on the *technical* conditions of production and any changes which may occur in them.

It should be noted in particular that, if one of the parties can offer a greater quantity of goods per unit of labour time, this is because his productivity has risen. This in turn leads to a rise in the relative abundance of that good in relation to the others which are offered, and, as a consequence, its exchange value declines. In this way technical progress does not prevent the terms of trade from reflecting simultaneously changes in the relative scarcity and labour content of each good.

To put it briefly, technical progress is compatible with the application of the law of value and at the same time with the points of equilibrium of supply and demand. In these conditions *the open appropriation of the benefits of productivity prevails*, except in the special case where the rise in productivity is not reflected in an increase in supply, but in an increase in leisure on the part of the most productive supplier.

If we eliminate the alternative of greater leisure, the rise in productivity by each producer participating in the exchange will be reflected in greater relative abundance of the good and, accordingly, in an increase in the general

[12]However, on the above assumptions, if there were more than two participants, there would still be no necessary reason for the law of value to be fulfilled, since individual preferences, for example, might generate exchange relations which were not in keeping with the law.

purchasing power of the remaining participants in the barter system.[13]

2. *Determination of value in market conditions*

However, *a market relationship is very different*. Those who possess useful objects have no 'face-to-face' relationship with one another as in barter, and do not identify one another by the commodity they produce, and thus offer. On the contrary, at any moment in the process, those who possess commodities are seeking those who possess money, without asking where, how or when they obtained it.

We might assume that access to money can only be secured by means of a sale, so that any purchaser would previously have to have been a seller. This would be a case of simple circulation of commodities,[14] where money is an expression of the exchange value of the commodities and serves only to eliminate the practical inconveniences of bartering.

However, a rapid and superficial glance at history would show us that there are many ways of gaining control of money and the sources of money, and in general terms the possession of money *in large quantities* is not initially derived from the *prior* production and sale of commodities but from a varied and changing set of power positions which stem from the concrete dynamics of the social structure.

Thus, the facts show the opposite: some participants come to the market in possession of money obtained from sources other than the sale of an object they have personally produced. This situation becomes clearer as the commodities used as money become more 'specialized' and cease to possess 'intrinsic value', either because they cannot be used for any other purpose, or because their exchange value does not depend on the amount of labour required to produce them. This is particularly true when money takes the form of a piece of paper whose acceptance is made obligatory by virtue of a simple determination on the part of the State.

[13]Here it is assumed that any absolute rise in the supply of a given good is totally absorbed by the other parties, but with modifications in the exchange value of the good.

[14]This, as is well known, corresponds to one of the modes of production analysed by Marx as pure types.

In our original idyllic and imaginary barter situation —or even in a similar situation where money was one more commodity functioning as a unit of account— the purchasing power of each party was linked to the work he performed.

However, all civilized societies have devised power mechanisms under which some of their members —to date a minority— have been able to share in the social product without having to justify their share as remuneration for their personal labour. Offerings to priests, taxes paid to the State and remuneration paid to owners of property are among the ways of receiving *surplus labour* in the form of products which will not be directly used by those who worked directly to generate them. This applies as fully and inevitably to Egyptian society of 5.000 years ago as to modern capitalist or socialist societies.

In these surplus-producing societies, the purchasing power of each producer is clearly distinguished from his productive power (or productivity) per unit of labour time, since part of his product will be consumed by élites engaged exclusively in political, martial, scientific, artistic, religious or other tasks.

In modern capitalist and socialist societies *personal income* takes the form of money for the most part, and knowledge of its distribution is a decisive factor in ascertaining the composition of demand. Goods are not exchanged for goods, but for money: as a result, any change in the magnitude or distribution of monetary income will in the short term affect the level and structure of relative prices. And this occurs *independently* of what happens in the technical sphere of production.

Money is the objectification and the measure of purchasing power —purchasing power which is predicated with respect to commodities. Part of those commodities constitute the social product, which is the flow of *final* goods and services periodically emerging from the process of production. Conversely, the counterpart of this physical flow is a flow of monetary units (essentially wages and payments for use of property) that productive enterprises pay as incomes to those who make the process of production technically possible.

As we shall see below in greater detail,

these money payments made by enterprises constitute circulating capital when they are transferred to the workers, recipients of payment for the use of their property, and others who make possible the process of production. Meanwhile, the same money flows which, from the viewpoint of the enterprises, constitute capital are regarded as incomes by their recipients.[15]

At this point it is necessary to ask: what is the general purchasing power which is ascribed to each unit of monetary income, and on what does it depend?

In an initial, *superficial* analysis, the general purchasing power of each unit of monetary income depends on the relative magnitude of two flows: a flow of concrete units of final consumption goods and services, and a flow of units of monetary income.

If, in order to eliminate from our field of analysis the question of insufficient effective demand, we assume that the entire global income is spent within the periods in which it is received, it is possible to calculate for each period a general level of prices which represents the *average* quantity of units of monetary income which are transferred in exchange for each concrete unit of social product. It is therefore clear that the general purchasing power of each unit of monetary income is inversely proportional to the average general level of prices corresponding to the period.

Still in macro-economic terms, it is possible to imagine three situations which make possible stability in the level of prices, and consequently in the purchasing power of each unit of monetary income. Firstly, where the total magnitude of physical and monetary flows remains constant per unit of time; secondly and thirdly, where the rate of growth (or decline) in the two flows is synchronized at a single rate.

Changes in the general purchasing power of each unit of monetary income allow a larger number of possibilities. This general purchasing power may *grow*: (i) because the total number of units of product flowing per unit of time remains constant, while the number of units which compose monetary income tends to fall; (ii) because both decline, but the flow of monetary income declines more rapidly; (iii) because both grow, but the flow of monetary income grows more slowly.

On the other hand, the purchasing power of each unit of monetary income may fall: (i) because the total number of units of product flowing per unit of time remains constant, while the number of monetary units which have been paid in the form of income tends to grow; (ii) because both flows decline, but the flow of monetary income declines more slowly; (iii) because both rise, but the flow of monetary income rises more rapidly. However, only some of these theoretical possibilities are historically significant.

We may use the term *unit of real income* for the general purchasing power ascribed to the possession of each unit of monetary income. It is equal to the monetary unit of income divided by the average level of prices corresponding to the period under consideration.

What is actually being measured by each unit of 'real' income thus defined? It does not measure magnitudes of utility, satisfaction or welfare, because there is no objective unit of measurement, and also because the concrete components of the social product also include arms which will be acquired by murderers, drugs and narcotics, products which will cause irreparable damage to the environment, and so on. Nor does it measure magnitudes of social labour —living or past— because the total quantity the product generated depends not only on the amount of labour contributed but on the average levels of labour *productivity*, which are constantly changing. Consequently, changes in the total quantity of the product have no constant or necessary relationship with changes in the total quantity of labour.

Each unit of 'real' income merely measures magnitudes of general purchasing power, and is inversely proportional to the average general level of prices. In fact, when we say that 'real' income expresses the purchasing power of monetary income, we are using an *incorrect* expression. Purchasing power can only be postulated with respect to human beings, who possess reason, awareness and will. It is a social

[15] We shall not consider here flows of circulating capital between enterprises; the argument will be based only on that part of the capital which leaves the sphere of the enterprises in the form of income.

form of power, or, more precisely, a translation to the economic sphere of many and varied forms of power which stem from the social structure. As a result, purchasing power belongs not to the monetary income, but to the owner of that income. A similar observation might be made, if a digression will be permitted, regarding the expression "payments for services rendered by the factors of production", which in fact are not paid to the 'services', but to the owners of the factors. Nevertheless, in the interests of brevity we may accept incorrect but succint expressions such as "the purchasing power *of* income".

Let us now delve a little more deeply into the factors which may affect the economic value —that is, the general purchasing power— 'of' monetary income; and let it be clear that what we are calling real income is the *economic value* of monetary income.

First and foremost it is necessary to inquire into the 'social justification' of the monetary incomes which are distributed as a counterpart of the flow of final products which emerge, after some delay, from the process of production. In this regard, the conventional wisdom in economic science holds that these monetary incomes are compensation for the contribution to production made by each owner of the factors of production used.

Discussion of 'merits' is associated with the problem of attribution, because it involves the question of whether it is possible to identify which proportion of the product, within each unit of production, *corresponds* to each owner of factors of production and *legitimates* the remuneration he seeks. Since we shall return to this point in the final section of the article, it will suffice for the present to say that these 'merits' cannot be logically 'deduced' from abstract, universally valid principles, nor can they be inferred from observation of the concrete processes of production which derive from each economic activity.

Here we shall assert that the relationship between participation in the process of production and the income received by virtue of that participation is a relationship of power. All those who share in the 'power to produce' or 'productive power' of enterprises must be remunerated so that they do not use their power to hinder or obstruct the process. Wages, consequently, should be regarded as a payment to the worker to ensure that he does not hinder the process of production by refusing to work, and the same may be said of the rent for use of land paid to its owner. They are of importance in the process of production and, since the factors are their private property, they can exert their power by omission —by refusing to make them available. The *extent* to which they can exert this power is a very different matter. The very size of the remuneration they receive is an economic measure of the bargaining power which arises from their respective positions in the social structure. This power is in part exerted 'by omission', through the creation of a relative scarcity of essential productive resources, but many other factors of a socio-cultural and political nature are also involved.

Taxes paid to the State, for example, constitute recognition of the 'active' power that the State can exert by, for example, ordering the closure of an enterprise which does not fulfil its tax obligations.

This social struggle out of which the distribution of money income arises is both *prior* and *external* to the process of production proper, simply because before producing it is necessary to be *able* to produce. To put it in a briefer and almost self-evident manner, production presupposes productive power, which is moulded by co-operation in the technical sphere between members of society who have opposed interests in the economic sphere.

Obviously, the distribution of monetary income becomes the distribution of real income only when the recipients of incomes come to the market and convert that income into demand, which becomes effective in respect of the final product which flows from the sphere of production. It is here that the purchasing power latent in each monetary unit becomes explicit and is realized.

However, the sphere of production is a 'mosaic' of heterogeneous technical processes which operate between branches of production, and even within each branch. This means that even workers with the *same* qualifications carrying out the *same* activity can record different levels of technical productivity. *Within* each branch, the enterprises with more advan-

ced techniques will produce more units per man-hour, and will consequently be able to pay higher wages and other benefits which, within certain limits, will be compatible with rates of profit at or above the average for the branch. However, only enterprises with sufficient capital —purchasing power applied to production— will be able to obtain access to these more advanced techniques and so raise the physical productivity of human labour.

If this process is viewed as a whole, and from a dynamic viewpoint, it is the power positions and relations stemming from the social structure which in the final analysis determine the distribution of both the purchasing power and the productive power generated in each economic system, and the way in which they may change as a result of growth.[16]

Finally, we may note the sterility of the conventional wisdom concerning the theory of value and distribution in conditions of general equilibrium as far as explaining the phenomenon of inflation is concerned.

It is precisely through its efforts to grasp this issue intellectually that Latin American structuralism has established a link between the themes of power, in its many social forms, and its concrete manifestations in the sphere of general purchasing power.[17]

Inflation is a persistent imbalance which takes the form of a sustained decline in the general purchasing power associated with the possession of each unit of monetary income.

Growth in the supply of money is the element on which 'monetarist' attention is focussed, and if we ignore the dynamics of the social structure and power relationships at the international level, we will have an explanation which is superficial but may be accompanied by concrete practical recommendations on ways and means of slowing down growth in the average general level of prices. These recommendations, which have connexions with the orthodoxy of virtuous fiscal and credit policies, have a social cost which usually takes the form of recession, unemployment and concentration of income distribution if they are not accompanied by 'real' measures which affect the power positions and relations arising from the social structure. Even if we ignore the structural imbalances which derive from each country's position in the world economic order, there still remain on the domestic level many factors of social conflict which constitute the expression of the power of the different social classes and groups to appropriate a share of the flow of the social product.

The study of inflation enables us to observe on a larger and in some cases 'blown-up' scale the social conflict which underlies fluctuations in the distribution of monetary income and in the structure of relative prices. However, this social conflict, which is *constantly* in existence, is particularly prominent when the total magnitudes of the real product sought by the different classes, subclasses and sectors which comprise the social structure are greater than those actually being generated by the system. The ***basic structural foundations*** of this struggle are connected with the network of social and technical positions and relations which

[16] The study of these differentiated *technical and social* positions and their influence on the distribution of general purchasing power in the societies of the periphery is usually approached in terms of the concept of *structural heterogeneity*. See, for example, Aníbal Pinto, "Heterogeneidad estructural y modelo de desarrollo reciente en América Latina", in his collection of essays *Inflación, Raíces Estructurales* (Mexico City, Fondo de Cultura Económica, 1973). For a dynamic appreciation of the subject of structural heterogeneity, see Raúl Prebisch, "Socioeconomic structure and crisis of peripheral capitalism", *CEPAL Review*, No. 6 (second half of 1978), particularly section III. See also Osvaldo Sunkel, "La dependencia y la heterogeneidad estructural", *El Trimestre Económico* (México City), No. 177 (January-March 1976).

[17] See, for example, Raúl Prebisch, *Hacia una Dinámica del Desarrollo Latinoamericano* (Mexico City, Fondo de Cultura Económica, 1963), section B-II, "El funcionamiento del sistema y la estructura social". See also the appendix, "El falso dilema entre desarrollo económico estabilidad monetaria". See in addition Aníbal Pinto, "Raíces estructurales de la inflación en América Latina", in *Inflación, Raíces Estructurales*, *op. cit.*; Osvaldo Sunkel, "La inflación chilena: un enfoque heterodoxo", *El Trimestre Económico*, No. 100 (October-December 1958); and Osvaldo Sunkel, "El fracaso de las políticas de estabilización en el contexto del desarrollo latinoamericano", *El Trimestre Económico*, No. 120 (October-December 1963). For a more strictly sociological approach to the question, see Jorge Graciarena, "Estructura de poder y distribución del ingreso en América Latina", in Alejandro Foxley, ed., *Distribución del Ingreso* (Mexico City, Fondo de Cultura Económica, 1974), and Rolando Franco, "Apuntes para un análisis sociológico de la inflación", *Revista Paraguaya de Sociología*, No. 36 (May-August 1976).

form around the processes of production, distribution and circulation of the means of production and the social product.[18] From these basic structural foundations arises a specific manner of distributing money income which interacts with the rate and distribution of technical progress within the structure of production. This process is by no means 'spontaneous', and is to a very large extent determined by the actions —or omissions— which derive from the government's concrete economic policy. This process especially complex in Latin American societies, both because of their position in the world economic order and because of the internal heterogeneity of their social structure, which is inherent in the peripheral forms of capitalist development. Since it is not our aim here to diagnose concrete situations, we will endeavour to adapt these arguments to the analysis of some essential categories required in order to explain the process of capitalist development.

III

Value and capital

1. *Money and economic value*

The earliest contributions to economic thought speak of value as 'something' which is 'contained' in the object of exchange. As long ago as the time of Aristotle[19] a distinction was made between the utility of an object and its suitability for exchange. The classical economists and Marx distinguished between use value and exchange value. Use value was the capacity of the object to meet the needs or fulfil the purposes of its users. Exchange value was the quantity of *other* goods which could be exchanged for a unit of the good whose value it was wished to calculate. The paradox of value, which preoccupied many thinkers, emphasized the fact that objects with little use value —such as diamonds or other precious stones— might come to have a very high exchange value, while very useful objects, such as water, had an infinitesimal exchange value per unit.

This led the classical economists, and also Marx, to make a categorical distinction between use value and exchange value, and focus attention on the latter. This gave rise to the theories of economic value based on labour, which held that the number of units of one good which could be exchanged for another depended on the labour content of each. We will not linger here on the nuances and complexities of this school, because they are not relevant to the argument to be presented; we need only note that for this school exchange value depends on 'something' incorporated in the object being valued, namely its labour content.

In the last third of the nineteenth century the neo-classical liberal economists turned again to the use value or utility of 'goods', finding an apparent solution to the paradox of value. They noted that the satisfaction furnished in each case by a 'good' depends not only on the qualities that confer utility on it, but on its relative abundance or scarcity. Hence as water is very useful, but also very abundant, its exchange value is low, while the opposite applies to diamonds. The very idea of an 'economic

[18]The structural heterogeneity of Latin American societies might be broadly defined as the coexistence of social and technical positions and relations which, in politically unified national societies, correspond to different phases and forms of regional development. This heterogeneity may be analysed in the light of its three main dimensions. The first relates to the structures of production, in which many technical processes coexist and interact. The second concerns the social relations which are formed on the basis of the processes of production. The third appears basically in the political sphere, and concerns the institutional order which endorses and guarantees the structure and functioning of the power system. See Aníbal Pinto and Armando Di Filippo, "Desarrollo y pobreza en la América Latina: un enfoque histórico-estructural", *El Trimestre Económico*, No. 183 (July-September 1979).

[19]"Twofold is the use of every object... The one is peculiar to the object as such, the other is not, as a sandal which may be worn, and is also exchangeable." Aristotle, *De Republica*, I, i, chapter 9.

good' sums up both features: utility and scarcity. Consequently, under this approach what is important is not the 'general' or 'average' utility of a good, but the utility which each additional or marginal unit of the good furnishes to each consumer individually. The inverse relation between utility and abundance is expressed in the law of diminishing marginal utility.

It can thus be seen that for both schools the exchange value of a commodity results not from the social relations of exchange, but from 'something' which is specific to the object. In the labour theories of value, the *starting point* for the exchange value of an object is represented by the amount of productive labour invested in it by its 'direct producers'. In the marginal utility theories it is represented by the marginal utility found in it by its 'direct consumers'.

The social relation of exchange arises subsequently, and normally appears first in the form of barter. In Marx's case, his whole theory of value *starts from* a situation of barter, and not of trade, with the barter operation split into two stages, purchase and sale. The neoclassical economists also begin their argument with an analysis of a hypothetical barter situation, or at most with money introduced as a 'neutral' unit of account.

But there is not need for us to become immersed in conceptual complexities. It will suffice to say that for all these theories, when the social relation of barter appears in the analysis, the fundamental fact of attributing value has already occurred, either because the commodities *already* contain the labour which confers value on them, or because the potential consumer has already —in a prior act of introspection— determined the relative utility of the goods he will consume.

In short, both theories come to the social relations of exchange not only belatedly, but also mistakenly. Belatedly, because they view the fundamental act of attributing value —incorporating labour or assigning utility— as external to that relation. Mistakenly, because they do not recognize the specificity of money, but treat it as one more commodity (Marx) or as a simple unit of account. In this way they lose sight of the central significance of money as the objectification and measure of general purchasing power, whose genesis and distribution must stand at the heart of any theory of economic value.

2. *General purchasing power and the use of money*

The broadest category we shall use here to examine the operation of a capitalist economic system is the concept of general purchasing power, which is associated with the possession of money. In capitalist societies, market relations of exchange attain general applicability by converting into commodities not only the products of human labour but also the means and conditions —human and non-human— of production. It is in this context that the purchasing power conferred by money acquires greatest significance.

Money is not a commodity in itself, but it is the general incentive which converts into commodities the objects of exchange which are bartered for it, thus conferring general purchasing power on its possessors. The social division of labour requires money, and money requires the social division of labour.

We call money the *general* medium of exchange, which has the quality of conferring on those who possess it similarly general purchasing power, which money itself is responsible for measuring; and we call commodities the remaining objects of exchange which are bartered for money. Money is not necessarily a commodity, though it may be one. Commodities are objects of exchange which are desired for their own sake, because of intrinsic properties which characterize them, whereas market practice may reduce money to a *mere token* lacking any use other than serving as such. Market relations are social relations which presuppose specific *social institutions* (such as ownership, contracts, and so on), legal regulations and obligatory standards of behaviour. The system of buying and selling presupposes relations of exchange based on the market which provide a framework for the exercise of general purchasing power.

Here we will refer to the specifically economic aspects of the subject of money —in particular, to economic value, which for us is inseparable from the use of money.

Both the labour theories of value and the subjective marginal utility theories assert that the economic value attributable to a commodity depends on factors external to the market relation proper, and they therefore ignore the significance of money. By leaving aside the independent influence which derives from the distribution of money, they also leave aside general purchasing power, which is measured and exerted through it, and as a result lose sight of the *essential* feature of all market relations. All market relations are basically *relations of power*. All these relations are closely interdependent as a result of the social division of labour. Since each market operation involves a clash of power, the result of this clash must be expressed in *units of power*.

As we have seen, the specifically economic form of power is general purchasing power. Economic value therefore expresses magnitudes of general purchasing power. This central idea has been developed more systematically in section II of this article, and there is no need to linger on this point here.

3. *Capital and the dynamics of attributing value*

Marx discussed the idea of capital with great percipience, but then obscured its meaning when adopting his labour theory of value. Capital, as we understand it here, is assimilated to the concept of money-capital in Marx as regards its cycles of circulation, but differs radically in terms of economic value. For Marx the economic value of capital lies in the social labour content it mobilizes and appropriates; in other words, money is converted into capital when it acquires potential labour and realizes its potential, i.e., when it extracts labour from its sources, namely workers. For Marx money appropriates not only potential labour, but also past labour crystallized in the form of various means of production which must be combined in a productive manner with that potential labour.

Marx was certainly in no doubt that the ownership of capital gives the capitalist power over the workers he engages. The whole body of Marxian sociology highlights the relations of domination involved when the owner of capital imposes his power on the owner of labour power.

However, Marx only partially reflected this relationship of power in his basic economic categories; his 'law' of value in fact assumes that all commodities are exchanged for their value.[20]

Equivalence is assumed in the exchange of commodities with respect to a common magnitude, i.e., the amount of unskilled average (social) labour they contain. Marx's theory of value takes as a starting point a barter situation in which all the commodities being bartered contain the same amount of social labour.

The power of each participant is measured in terms of the amount of labour contained in the commodity offered, and corresponds to the amount of labour —in the form of another good— which he can acquire. The theoretical significance of this proposition lies in the fact that it can serve as a hypothesis in forecasting in what proportions goods will be exchanged in practice. If this 'law' of value is applied, any technical progress which diminishes the labour content of a commodity will reduce its exchange value in relation to other goods. This condition is necessary in order to maintain equality or equilibrium between the labour contents of the different goods. *Under this hypothesis —which is certainly not borne out in practice— the bargaining power of each party in the market is tied to the labour content of his commodity.* If he invests one hour of social labour in his commodity, he will be able to receive only an hour of social labour in the commodities he purchases. If the 'law' of value is accepted, bargaining power or purchasing power loses all importance in determining in what proportions the commodities themselves will be exchanged, since this power is completely subordinate to a technological condition which is *external* to the market relation itself, namely the labour content of each commodity.[21]

[20] Karl Marx, *Capital*.

[21] We have already analysed the theory of 'modified' value in the light of the concept of 'production price' and the transfers of purchasing power between enterprises which it involves. We have also considered the efforts of the Marxist school to reconcile the concept of production prices with the 'law' of value.

The most significant aspect of this conclusion is that the influence of power relations on the appropriation and generation of the surplus is eliminated from the sphere of relations of exchange based on the market, and thus comes to fall exclusively within the sphere of production.

Of course, *from the very outset* the relations between capitalist and worker manifest an asymmetry of power which finds expression in the fact that the value contained in the money which the capitalist brings to the market is —or can be— incomparably greater than the value of the labour power of each worker.[22] Marx recognizes this asymmetry of purchasing power between the capitalist and the worker, which the market is responsible for reflecting and reproducing. What the law of value does is to eliminate from the field of analysis *every other* asymmetry of power than that of this basic relationship between capital and labour which is capable of affecting the process of appropriation of the surplus.

However, in order to expound the law of value in a comprehensive manner, Marx also considers money, in its most genuine expression, as a commodity —gold or silver— whose value is determined like that of any other commodity, on the basis of the amount of labour socially necessary to produce it in average technical conditions.

The shift from money as a commodity to the now widespread forms of money as a token —which can express economic values that are much higher than the actual physical content of the monetary units— involves a radical severance of links between the quantities of money which can be placed on the market and the quantities of labour required for the production of gold and silver.

[22]It is another matter to determine for what reason the capitalist is *able* to appear in the market *already* in possession of money-capital, which contains substantial quantities of value, while the worker comes to the market in a position to offer only the meagre value contained in his labour power. The explanation must be sought not in theory, but in history. Marx banishes this problem to the historical process of *primary accumulation*, where the struggles for power in the formative phase of the capitalist social order occur in all their rawness.

Not all the capitalists who appear in the market have obtained their money at the far-off starting point of primary accumulation; some of them have obtained it through much more concrete and real power positions and relations connected with a social structure in which money plays a role as a token and not as a commodity.

Nevertheless Marx's basic explanations concerning value and surplus value take as a point of departure money as a commodity and not as a token.

If the capitalist pays the labourer in copper coin, the coins must be the equivalent, in terms of labour time, of that contained in the commodity acquired. In other words, the wage must be equivalent to the labour time which is socially necessary to produce the labour power of the worker. For Marx, therefore, surplus value arises *in the production sphere* as the difference between the living labour appropriated by the capitalist and the labour contained in the means of subsistence consumed by the labourer. Since in the sphere of circulation the exchange of equivalents prevails, the *general purchasing power* which originates in market relations themselves has no meaning in Marx's theory.

For this reason, Marx sees money as no more than a 'form' into which capital is converted in its cycle of circulation; he holds that capital *has* a value which derives not from its specific form but from the *labour* which lies behind that form.

From our viewpoint money-capital is a magnitude of general purchasing power —and is consequently an economic value— which can only be *exerted* (as regards the power) and measured (as regards the magnitude) in terms of money. The purchasing power conferred by this money does not depend on the labour content of each monetary unit, but on technical and social conditions which mould the power structure in each society.

Capital is a magnitude of general purchasing power which acquires means of production and stimulates the productive power of the economic system with the aim of ensuring that the capital reproduces itself within a process of growth. This is the specifically capitalist form of capital.

4. *Capital and capital goods*

Viewed in this way, capital should be distinguished as a concept from capital goods. Capital is a magnitude of purchasing power used to acquire or hire the means of production (both human and non-human), which become capital goods. They are 'converted' into capital goods when the capitalist uses his purchasing power to appropriate them.

Under Marx's labour theory of value, the *technical* significance of producers' goods and their *economic value* become fused into a single whole when expressed in the form of social labour time.

When capital is distinguished from capital goods, a clear distinction is made between the sphere of circulation and the sphere of production.[23]

5. *Capital and time*

Moreover, this distinction demands a *dynamic* analysis, which is explicit in the process of capital circulation postulated by Marx, but which Marx forgot when elaborating further on the theory of value and surplus value at the macro-economic level.

When the phases of capital circulation which Marx himself highlighted (m-c-m') are distinguished, it is obvious that between them there exists an irreversible order and time sequence. Capitalists taken together as a social class pay wages to workers and rents to the owners of land, thus generating incomes which return in the form of demand to acquire the commodities that the capitalists themselves will offer.[24] If we disregard delays, the very incomes paid by the capitalists will return in the form of demand for the product generated in response to the payment of that remuneration. But these incomes are equivalent to the value of the product at factor cost, and *do not include* profit. Consequently, if only the same quantity of money which the capitalist enterprises have placed in circulation returns to them, from where do they obtain the profit, understood as a surplus over and above total costs? Profit thus remains unexplained because of the static nature of the approach.[25]

For the neo-classicists, as we have seen, the problem of profits does not affect the logical validity of their model of general equilibrium, which assumes static conditions of perfect competition. The concept of factors of production is used, and it is assumed that each factor receives payment equivalent to the marginal value of its contribution to the product. Entrepreneurs regulate their demand for capital (understood as purchasing power) in the light of the marginal productivity of capital (understood as a factor of production) in new investment. The suppliers of purchasing power which will be used as capital —i.e., savers— charge interest, which is compensation for the postponement of their consumption. Consequently the remuneration of capital as a factor of production exactly offsets the value of its marginal contribution to the total product, and includes no surplus. Meanwhile, payment for capital as a magnitude of purchasing power is expressed through the interest rate, and is compensation for the 'disutility' arising from the postponement of consumption.

In this way, the neo-classical economists ignore profit viewed as a net surplus over costs. Capital in the strict sense results from saving, and savers are compensated for the 'disutility' they suffer. Capital *as a factor of production* assumes an independent and active role in generating value, and merits compensation, which of course is received not by the 'factor' but by its owner.

This explanation of the marginal utility approach must be modified to take account of the contributions of a few neo-classical economists who have recognized the influence of time in

[23]The means of production are not capital goods in themselves. They are converted into capital goods when they are acquired by the capitalist. From this viewpoint, the process of capital accumulation does not necessarily involve the *capitalist production* of *new* capital goods; it may also involve the appropriation by capital of other, pre-existing producers' goods.

[24]No account is taken here of sales of intermediate inputs from one enterprise to another.

[25]When analysing the process of capital circulation, Marx adopts a *dynamic* approach in volume II of his principal work; however, his approach is *static* when he endeavours to explain the realization of surplus value at the macro-economic level. See section V below.

the logic of capital, and even its function as a repository of economic power.[26]

Böhm-Bawerk, following a path previously opened up by Jevons, establishes a significant association between time and capital. He defines capital (here in the form of a capital good) as an extension of the process of production which raises the productivity of human labour. However, after this auspicious start, Böhm-Bawerk returns to the fold of neo-classical theory. The supply of capital (understood as a value) from individuals who save has a price, charged by those savers. How is the magnitude of the savings which will be offered on the capital market determined? In answer to this question he presents his theory that future goods are valued less highly than present goods. In this way, the supply of capital capable of financing investment has a price which, in the final analysis, depends on the psychological attitude of savers.

Strictly speaking, what should interest us in Böhm-Bawerk[27] is not the length of the period of production —which is a false problem— nor the psychological attitude of individual savers, but the distribution of purchasing power which makes their saving possible and is added to the profit which remains in the enterprises.

IV

Development, capital, cycles and the surplus in Schumpeter's economic approach

The most appropriate theoretical framework for understanding the concept of capital used here, and the concept of the surplus formulated by Prebisch, which is dealt with in subsequent sections, is that derived from the work of Joseph A. Schumpeter.

Schumpeter held that economic development involves conditions of general disequilibrium which can only be introduced in the economic process thanks to the use entrepreneurs make of credit in order to incorporate innovations which raise the productivity of human labour.

In conditions of general equilibrium and full employment, or conditions of 'circular flow', as he termed it, macro-economic profit will be nil and interests, which in Schumpeter's view can exist only as a fraction of that profit, will also be nil. Profit as he conceives it is, strictly speaking, *a surplus derived from economic development.*

The innovating entrepreneur raises labour productivity in his technical processes and lowers unit costs; this brings him an extraordinary profit over his competitors.[28] This profit, clearly understood as a surplus over entrepreneurial costs, will remain until the innovation has spread to all competitors in the economic branch concerned. Then the innovation as such disappears, and becomes a generally used technical process.

The changes are introduced by the innovating entrepreneur, on the basis of access to capital which derives from credit and involves the creation of money which has as a counterpart not a *real* product, but a *potential* product. If, like Schumpeter, we take as a starting point 'circular flow' in conditions of full employment, this credit makes it possible to transfer material and human resources from their old

[26]An analysis of the significance of time in economic theory and the conception of capital adopted by the economists of the Austrian school appears in G.L.S. Shackle, *Epistemics and Economics: A Critique of Economic Doctrines* (Cambridge, Cambridge University Press, 1972).

[27]What merits consideration is not the length of the period of production but the increase in labour productivity per unit of time. This increase *can be observed* over time: however, it does not depend merely on the passing of time, but on the introduction of technical progress.

[28]This concept is similar to Marx's concept of extraordinary surplus value.

uses to the new ones involved in the innovation; this gives rise to additional and unexpected demand in the markets for factors of production, which succeeds in changing the direction laid down in the previous course of production. The capital appropriated and used by the innovating entrepreneur constitutes purchasing *power* which he exerts on the factor markets, and which, through the credit mechanism, is (involuntarily) transferred to him by the other entrepreneurs who have not been as successful in the financial market.

This necessarily initiates a cyclical process based on inflationary pressures on the cost side, until the emergence of the final product, which is the result of the innovation and generates the profit which is used to pay the interest that constitutes the price of the credit granted.

In short, in conditions of 'circular flow' with full utilization of the factors of production, profit could not exist as a net macro-economic magnitude. But the innovating entrepreneur 'breaks' the circular flow, acquires command over the purchasing power of the capital, imposes an innovation which lowers unit costs, secures extraordinary profits and pays the interest.[29]

For Schumpeter economic cycles represent the adaptation of the economic system to the unfolding process which stems from entrepreneurial innovations.

Schumpeter's contributions are of exceptional originality, especially as regards his conception of capital. In *The Theory of Economic Development* he speaks of *purchasing power* made available to innovating entrepreneurs, but later, in *Business Cycles*, when he observes that capital —in one of its acceptations, the monetary one— is not a factor of production but a differentiable agent which stands between the entrepreneur and the factors of production,[30] he appears to broaden his definition to include the general purchasing power controlled by all entrepreneurs, and not only innovators.

The issues which occupied Schumpeter's attention were economic development, cycles, profit as a surplus derived from innovation, and interest as a payment derived from the existence of that profit. Consequently, although he did not wish to press his attacks on the theory of general equilibrium, his scientific discoveries furnished very solid grounds for a critique of the neo-classical model based on the theoretical apparatus of the marginal utility school.

[29] "If entrepreneurs were in a position to commandeer the producers' goods which they need to carry their new plans into effect, there would still be entrepreneurs' profit, *but no part of it would have to be paid out by them as interest. Nor would there be any motive for them to consider part of it as interest on the 'capital' they expend* [emphasis in original]. On the contrary, the whole of what they make over and above costs would be 'profits' to them and nothing else. It is only because other people have command of the necessary producers' goods that entrepreneurs must call in the capitalist to help them to remove the obstacle which private property in means of production or the right to dispose freely of one's personal services puts in their way. No such help is wanted in producing within the circular flow, for firms already running can be, and in principle are, currently financed by previous receipts, which stream to them without the intervention of any distinct capitalistic agency." Joseph A. Schumpeter, *The Theory of Economic Development*, trans. Redvers Opie (Cambridge, Mass., Harvard University Press, 1951), p. 177.

[30] In *Business Cycles*, Schumpeter writes that "it is, perhaps, best to avoid altogether a term which has been the source of so much confusion and to replace it by what it means in every case —equipment or intermediate goods and so on— and this we shall do, except in cases in which no misunderstanding is likely to arise. But it is suggested that those two monetary concepts [interest and capital] open a serviceable door by which to introduce the element of money into general theory. Only the second is, however, relevant here. Capital in this sense is not goods but balances, not a factor of production but a distinct agent which stands between the entrepreneur and the factors. It can be created by banks because balances can. Its increase and decrease are not the same as increase and decrease of commodities or any particular class of commodities. Its market is simply the money market, and there is no other capital market. No realistic meaning attaches to the statement that, in the latter, 'capital' (= some kind or other of producers' goods) is being 'lent in the form of money'. But again as in the case of interest it is necessary to add that the introduction into our analysis of this concept of capital does not do away with the problems of what is traditionally referred to as real capital —on the contrary, they reappear though in a new garb— and that results arrived at by means of a monetary theory of capital do not always invalidate, but in many cases only reformulate, the propositions of 'real' theories of capital. If our understanding of the processes of capitalist society hinges in important respects on realizing the fact that monetary capital is a distinct agent, it also hinges in not less important respects on realizing how it is related to the world of commodities". J. Schumpeter, *Business Cycles* (New York, McGraw-Hill, 1939). vol. I, p. 129.

V

Global surplus, distribution surplus and entrepreneurial surplus

1. *The concept of the global surplus*[31]

The term "global economic surplus" might be applied, in its broadest sense, to that part of the social product which is not appropiated by those who have directly contributed to generating it by means of their personal labour. The exposition below, however, will be clearest if we distinguish two components of the overall concept of the economic surplus: the 'distribution surplus' and the 'entrepreneurial surplus'.

The distribution surplus is a condition of the existence of the civilized and urban societies which began to emerge more than five millennia ago, founded on systems of slave labour —as it is of all class societies in which some members of the society enjoy a dispensation from contributing their own labour to ensure the reproduction of the life of the society. The very feature which characterizes the recipients of the surplus is that there is no connexion between the product they appropriate and the labour they contribute.

Within contemporary capitalist societies, there is a *global surplus*, which may be broken down into a 'distribution surplus', corresponding to the different types of payment to the State and to owners of property made by capitalist enterprises, and an entrepreneurial surplus, which remains as a balance in the form of profit. Both economic forms of the surplus also exist in the centrally planned societies, but in obviously different institutional and socio-political circumstances.[32]

For the sake of simplicity, we will consider a 'pure' capitalist system with no public enterprises. Alternatively, we can consider public enterprises —self-financing through the sale of the goods they produce— as falling into the generic category of 'enterprises'.

Those who are provided with incomes by the State —Cabinet ministers, judges, legislators, bureaucrats, members of the armed forces and police, members of the diplomatic corps, and so on— receive remuneration which forms part of the distribution surplus, because they do not contribute *directly* to generating the global product produced by enterprises, and do not finance their incomes with the sale of goods, but with part of the revenues of the State. Thus the existence of a distribution surplus is a *prior* and *necessary* condition for the existence in economic terms of these public servants.

In order to understand the significance of the distribution surplus as presented in this article, and of the entrepeurial surplus as presented by Prebisch, it is best to begin with the concept of surplus value in Marx and to understand the theoretical difficulties which arise in connexion with the realization of this surplus value. These difficulties relate to what we have called a 'zero-sum game'. Let us examine how Marx himself outlines the difficulty, and how he endeavours to solve it. For that purpose it is necessary to reproduce his argument at some length.

[31] We should not overlook here the fact that Baran and Bettelheim, in their basic approach to the real economic surplus, maintain that it coincides with the excess of the social product over current consumption. However, from a sociological angle, it would appear preferable to regard the surplus as an income not derived from personal labour. See Paul A. Baran, *The Political Economy of Growth* (New York, Monthly Review Press, 1957), and Charles Bettelheim, *Planeación y Crecimiento Acelerado*, trans. Ramón Ramírez Gómez (Mexico City, Fondo de Cultura Económica, 1965).

[32] This distinction relates to the different types of *machinery for appropriation which operate in each case*. Concerning the social use of these forms of the surplus, we might perhaps speak of a surplus *for consumption* and a surplus *for accumulation*. However, it is possible that part of the former may be invested and part of the latter consumed, so that these analytical distinctions overlap in practice.

Marx states that 'before commodity capital is converted back into productive capital, and before the surplus value it contains can be invested, it must be transformed into money. Where does this money come from? This is a difficult problem at first sight, and one which has not been solved to date by Tooke or any other author.

"Let us assume that the outlay of £ 500 of working capital in the form of money capital, whatever its period of turnover, represents the entire working capital of the society, i.e., of the capitalist class, and that the surplus value totals £ 100. How does the capitalist class as a whole contrive to withdraw £ 600 continuously from circulation if it continuously places in circulation only £ 500?

"First the money capital of £ 500 is transformed into productive capital; then, in the process of production, the latter is transformed into commodity capital of £ 600 and places in circulation not only commodity capital of £ 500, equal to the original outlay of money capital, but also a newly produced surplus value of £100.

"The additional surplus value of £ 100 is placed in circulation in the form of commodities. This is incontestable. But the additional money required for the circulation of the additional value in commodities cannot emerge from this same operation.

"Therefore we must not attempt to avoid the difficulty by means of evasions of greater or lesser plausibility."[33]

A few paragraphs later Marx writes:

"In fact, however paradoxical this may appear at first sight, it is the capitalist class itself which places in circulation the money that is used to realize the surplus value contained in the commodities. However, it does not place this money in circulation as an outlay of money, i.e., as capital, but as a means of paying for its individual consumption. Consequently, it is not money advanced by the capitalist class, although this represents the starting point for its circulation". Later, he continues:

"At the end of the year our capitalist places in circulation a value of £ 6,000[34] in commodities and sells it. In this way he receives back: (1) his outlay of £5,000 of money capital; (2) the surplus value of £1,000 converted into money. The capitalist has made an outlay of £5,000, or has placed it in circulation as capital, and withdraws from circulation £ 6,000: £5,000 which represents the capital and £ 1,000 the surplus value. This £ 1,000 is realized in money form together with the money which he himself has placed in circulation, not as a capitalist but as a consumer. Now this £1,000 returns to him as the money form of the surplus value produced by him. And thenceforth the same operation is repeated each year. However, from the second year onwards, the £1,000 spent by him already constitutes the transformed form, the money form of the surplus value he produces. A surplus value which he spends each year, and which each year returns to him."[35]

Thus runs Marx's explanation for the case of simple reproduction, where there is no process of growth in capital accumulation. But how do the capitalists go about releasing *precisely* the quantity of money which enables them to reproduce, in the form of money, *exactly* the surplus value which 'corresponds to them' in accordance with the *calculation in terms of labour time?* If they did not the rate of surplus value in the form of money might not be the same as the rate of surplus value in the form of labour. This dilemma is resolved in the sphere of circulation, and not in the sphere of production —*in terms of purchasing power, and not in terms of social labour.*

The same question arises in the cases of extended reproduction, where capital is accumulated and the physical magnitude of the goods traded grows. It is this situation of expansion, moreover, which is historically significant. Marx poses the problem here with a question which does not cover the principal difficulty. In this regard he observes: "and here we

[33] Marx, *op. cit.*, vol. II.

[34] As the reader will observe, the figures in pounds sterling used by Marx in this second example differ from those used in the first. This change of scale, however, in no way affects the essential argument, as will be clear to any reader who takes the trouble to refer to the original text.

[35] *Ibid.*

encounter again the same problem which arose above: where does the additional money come from to realize the additional surplus value which now exists in the form of commodities?"[36]

In fact this is not the important question, which is: How is it introduced in the mechanism of circulation and, crucially, *how* is it introduced in sufficient and necessary amounts to realize the surplus value? If it is introduced in the form of an income paid by the enterprises, it must represent one more payment which must be acounted for under one more or less precise heading or another. But every payment for a factor of production forms part of the value of the product at factor cost. This payment may take the form of rent to owners of property, a wage for labour or for 'managerial responsibilities', and so on. Whatever the justification, this payment or remuneration will represent a cost for the enterprises and will not help to account for the profit. If it is a payment attributable as a cost incurred by the enterprises, we find ourselves within the 'zero-sum game'. It is not possible that the enterprises taken as a group should receive back in the form of income more than the amount which left them in the form of payments of factors; and consequently the macro-economic profit will be nil.

The principal cause of these obscurities and complexities obviously lies in the fact that the approach is based on a mistaken view of economic values, and is static in nature.[37] The Marxian theory of value and surplus value is expressed in terms of social labour and refers to the sphere of production. The undeniable difficulties which Marx encountered in the sphere of realization arise from his mistaken efforts to calculate surplus value and profit *before* the goods undergo the test of the market. This calculation is carried out assuming general market equilibrium and equivalence in exchange. Proceeding on the basis of these two assumptions, which not only simplify the analysis but also distort it, Marx is able to calculate his surplus value directly in terms of social labour.

What actually happens, however, is different. The appropriation of the distribution surplus —payments to owners of property and taxes to the State originating from the enterprises— derives from a concrete market process which distributes general purchasing power in favour of these recipients. Furthermore, the appropriation of the entrepreneurial surplus involves a more complex dynamic process in which there is a time lag between the sphere of production and the sphere of circulation.

2. *The distribution surplus*

The property-owning class and the State do not appropriate the surplus directly, and enterprises cannot do so either. The total social product must be converted into commodities and be realized in the market. But who will buy that proportion of the commodities in which the distribution surplus is imbodied, and with what incomes? More precisely: what is the specifically capitalist mechanism for the appropriation of the distribution surplus?

It is clear that part of the capital which flows from the enterprises is converted into different forms of payments to owners of property and taxes to the State which entrepreneurs must pay in order to secure control of the means of production they require but do not necessarily possess, and to comply with the prevailing tax regulations.

For the sake of simplicity we might apply the term *rents* to the various payments which are appropriated by the owners of means of production who transfer them to the enterprises. These payments form part of the value of the final product at factor cost, and together indicate the power of the recipients of these rents to appropriate a portion of the total income.

The 'owners' —understood here as a subclass distinct from that of 'entrepreneurs'— use part of the rents they receive to compete, in the markets for final consumption goods, with the wage incomes of the workers, with the aim of acquiring a share of the social product which, when deducted from the purchasing power of

[36] *Ibid.*

[37] Static in the precise sense that no account is taken of time lags which form an *essential* part of the explanation relating to the very existence of macro-economic surplus value.

the workers, acquires the social form of a distribution surplus. The same occurs with the taxes payable to the State.

Through the medium of the incomes which enterprises pay to the owners of property and to the State, there is an increase in the magnitude of the 'nominal' or monetary flow of global income over and above that which corresponds to total money wages. In this way the purchasing power of each unit of income is diluted, because the general level of prices in the market for consumer goods is higher than it would have been if wages had been the only component of total incomes.

It should be noted that this 'dilution' of the general purchasing power of each unit of monetary income does not necessarily imply an inflationary process, because payments to owners of property are a permanent structural component of the distribution of income. If for the sake of simplicity we assume theoretical conditions of a Schupeterian circular flow, then prices will be *stabilized* at a certain level which is higher than if wages had been the only monetary income.

This form of appropriation of the part of the social product which flows towards the property-owning class is based on a specifically market mechanism, founded in turn on a specific manner of distributing general purchasing power.

In the final analysis this distribution surplus is a reflection of the complex power relations which underlie each social structure. *However, since the entrepreneurs will receive back only as much money as they introduced into circulation, this explanation is necessary but not sufficient to cover all the components of the global surplus, since in the conditions outlined so far profit could not exist as a macro-economic magnitude.* But a capitalist system without profit lacks all historical validity. Consequently, this calls for a thorough examination of the dynamic mechanisms which account for the entrepreneurial surplus.

Before continuing, however, it should be stressed that the interpretation of the distribution surplus set forth here is not compatible with the prevailing theories of value in conditions of equilibrium, according to which the relative prices of commodities are proportional to their social labour content, or to the marginal preferences of their consumers.[38]

Strictly speaking, the economic value of a commodity is an expression of the relative magnitude of *general purchasing power* which must be exerted in order to acquire it. It does not depend on the labour invested in generating it, or on the 'average' or 'marginal' 'utility' (a metaphysical concept) ascribed to it. Economic value is thus a *phenomenon of power*, and is expressed through the structure of society.

3. *The entrepeneurial surplus*

Having drawn a conceptual distinction regarding the distribution surplus —as we have endeavoured to describe it here— we will now turn to the 'entrepreneurial surplus' and refer to Prebisch's argument mentioned above.

Prebisch speaks of a surplus *tout court*. We suggest, however, that the present conceptual distinction is necessary. Viewed historically, the process of economic development has traditionally been marked by two basic features: a systematic increase in the productivity of human labour, and an equally constant increase in population and the employment of labour power. Capital accumulation is the means by which rises are achieved in both productivity and employment, which at first sight have contradictory implications. Rises in productivity reflect a fall in the amount of living labour per unit of final product, whereas rises in employment permit an increase in the total amount of

[38] The basic line of argument in this explanation may be found in the works of P. J. Proudhon, who clearly postulates this 'dilution' of wage earners' purchasing power by virtue of the additional demand based on the use of incomes from property. In general, this explanation is regarded as trivial and superficial by the theorists who have accepted general equilibrium as a situation towards which the workings of the market tend. See Marx's criticism of Proudhon in *The Poverty of Philosophy* (1847). See also Böhm-Bawerk's criticism in his monumental work *Capital and Interest* (1884-1889). With regard to the present subject see Proudhon's *Système des contradictions économiques ou Philosophie de la misère*, (first published in 1846), with introduction and notes by Roger Picard (Paris, Librairie des sciences politiques et sociales, 1923), 2 vols. As an economist Proudhon undoubtedly had by no means a systematic training, and his theoretical observations in this field are frequently superficial and contradictory. In this exposition of the distribution surplus we have cited only his principal thesis.

living labour within each period of production.

Obviously, in order for a *decline* in the living labour time per unit of final product to be compatible with an *increase* in the total labour incorporated in the economic system, the social product *must grow*. The relationship between these three magnitudes may be tackled mathematically. Thus, for example, if productivity is growing at 2% and there is a need to create jobs at a rate of 3%, it will be necessary for the social product to grow at 5% over the period in question. Against the background of these conditions of growth in the product and in employment, Prebisch explains the emergence of an entrepreneurial surplus as follows.

Firstly, there is a time lag between the circuits of production and circulation, so that the incomes generated in the system are spent before the emergence for sale of the social product generated against payment of those incomes. For the sake of simplicity we might say that today's income is used to purchase yesterday's product.

Secondly, if productivity is increasing, the product will have a lower 'human cost' in terms of the labour time invested to produce each unit. Accordingly, if the average wage per man-hour has not changed, its total *unit* economic cost will have fallen.

However, since employment, and consequently the total value of wages, are increasing, the incomes which will be applied to purchasing the product will have a higher value, and this will lead to a struggle of demand which will permit the total realization of the entire supply without any need for reductions in price, and even with the possibility of rises in the general price level. At the same time, however, this process is perfectly compatible —at least in theory— with a situation of price stability. For that purpose it is sufficient for the rise in incomes generated and spent to occur at the same rate as the rise in the physical quantity of final goods and services.

Thirdly, if this process is to occur, it is necessary for the working capital of the economic system to be growing so that this constant expansion in economic activity and in employment can be financed through the inevitable growth in money. This is an incomplete summary of the explanation furnished by Prebisch concerning the closed appropriation of the increases in labour productivity made possible by the existence of an entrepreneurial surplus.

4. *'Closed' appropriation and the entrepreneurial surplus*

With regard to the entrepreneurial surplus, described in outline in the previous section, there is one aspect which may perhaps require clarification. It is theoretically possible to conceive a situation where prices are falling in the same proportions as productivity is rising, but where nevertheless the entrepreneurial surplus persists.

The sole condition for the existence of the entrepreneurial surplus is that within each period average total unit costs should be *lower* than average unit prices. Prices may be declining at the same rate as unit costs, though always remaining proportionately higher than the latter. This will permit the existence of a permanent surplus in the enterprises together with parallel declines in the prices and unit costs of final products.

Let us assume a simplified situation with only two social classes: on the one hand, entrepreneurs/property owners/financiers, and on the other wage-paid workers. If employment grows at a rate of 3% and productivity at 2%, the physical product will expand by 5%.

Let us assume that monetary wages per worker remain constant; then total monetary wages will increase by 3%. These wages, in our simplified example, represent the totality of the available income in each period; therefore, if the quantities produced increase by 5% and the incomes which will furnish demand for them by 3%, prices will fall at the same rate as productivity is rising.

In order for the surplus to disappear, it will be necessary for prices to fall by 5%; in other words, the fall in prices must correspond not to the increased *productivity*, but to the increased *output*.

In the development of Prebisch's argument this difference is not always sufficiently emphasized, although there are some passages where it is stressed more clearly. Thus, for example, Prebisch observes that:

"In the upward movement of production each circuit calls for more employment than the one before, and, in consequence, generates more income and more aggregate demand. And this greater demand partly accounts for the fact that the prices of the goods whose circuit is completed do not fall correlatively with the increase in production due to additional employment and higher productivity."[39]

Although in the example used here prices fall correlatively with the rise in *productivity* (2%), there will be a surplus because they do not fall correlatively with the increase in output (5%).[40] The workers appropriate all the increase in productivity, but not all the increase in output.

Obviously rises in *productivity* can also undergo 'closed' appropriation, at least in part. This means that it is conceivable that part of these increases may be converted into a distribution surplus, with no rise in the real wages of the labour force. We shall endeavour to explain this point in the next section.

5. *Interrelations between the global surplus, the distribution surplus and the entrepreneurial surplus*

The *distribution surplus* will be viewed here, in a simplified manner, as the real income appropriated in the form of rents by the owners of property —rural or urban— and in the form of taxes by the State.

Let us assume that only enterprises pay taxes and rents, in addition to remuneration to workers. This assumption raises the share of wages in total income, which would be lower if we accepted that wage earners also have to pay rents and taxes. Likewise, if rent recipients paid taxes, total net incomes in the form of rents would decline by that same amount to the benefit of the State.

The *entrepreneurial surplus* is the net excess at the end of each economic period which the enterprises hold as a balance after payment of wages, rents and taxes. The *global surplus* is the sum of the distribution surplus and the entrepreneurial surplus at the end of each period. Finally, the difference between the total income (including profit) and the global surplus should correspond to the earnings of workers in the private sector.

This reasoning is carried out in terms of real income, since the purchasing power ascribed to the possession of each monetary unit of income remains constant. We will further assume a situation of growing employment with periodic increases in productivity.

In these general conditions it is possible to conceive of a dynamic process in which the growing labour force appropriates only part of the increases in labour productivity, the remainder of these increases being converted into a distribution surplus and an entrepreneurial surplus.

Let us assume that average labour productivity —expressed in units of final product per worker employed during the period— is growing at a rate of 2%, and the number of workers employed at 3%. This means that the total number of units produced is growing at a rate of 5%. If individual wages are growing at 1%, and employment at 3%, then total wages will necessarily be growing at a rate of 4%. The growth in wages is not sufficient to 'absorb' the growth in the physical product. As a result, in order that demand should not fall and that prices should not decline, it is necessary for the payments made by the enterprises to the recipients of the distribution surplus to grow at such a rate that, on the assumption of price stability, it will be possible for global income to grow at the same rate —5%— as the physical product.

This process can reproduce itself in a stable manner, with the global surplus growing more rapidly, and total wages more slowly, than the total product.

The labour force appropriates only a part of the increases in productivity, since average individual money wages are rising at a rate of 1%, while productivity is increasing by 2%.

[39] Raúl Prebisch, "Socio-economic structure and crisis of peripheral capitalism", *CEPAL Review*, No. 6 (second half of 1978), p. 190.

[40] In order for prices to fall correlatively with the rise in output of final goods, the value of the monetary income required to produce this rise must remain *constant*. If in period 1 the physical quantity produced is 100 units, and the monetary income generated and spent is $ 1,000, average prices will stand at 10. If the product doubles in period 2, with a constant flow of incomes, prices will fall to 5 if all the income is translated into effective demand.

Total unit costs and the general price level remain constant because the physical quantity of the final product is growing at the same rate as monetary incomes. And the enterpreneurial surplus is growing at more or less the same rate as the total product.

In this example the entire rise in productivity is transferred to costs as a result of a rise in the remuneration received by the owners of the factors —wage earners and rent recipients— and by the State. As a result, total unit costs remain constant.

The distribution surplus, which in our example grows faster than total wages, forms part of the economic cost which must be borne by the enterprises in order to constitute their productive power, or, to put it more simply, to be able to produce.

VI

Development, disequilibrium and the surplus in Prebisch

In this section we will pursue our examination of the concept of the economic surplus which remains in the enterprises, as recently advanced by Raúl Prebisch, which cannot be separated from his general view of peripheral development and his specific concerns regarding this broad range of issues.

The presentation of his argument is linked with and old issue which has always been a concern of his —the social forms of appropriation of the benefits of growing productivity.

Prebisch originally analysed this question in order to subject to critical examination the theory of comparative advantages which then predominated in international trade. He argued that productivity increases in production of the manufactures exported by the central countries led to a proportionally smaller drop in unit costs because workers in the centres had greater power to increase their real wages in line with the rise in productivity. At the same time he postulated that prices did not tend to coincide with unit economic costs or to decline in proportion to the falls in such costs in the case of the manufactures exported by the centres, because the income elasticity of demand for those products was greater than unity.[41]

Thus this difference between average prices and unit costs with regard to each specific level of rising labour productivity led to the 'closed' appropriation of part of the benefits of technical progress, either by the owners of the factors of production, or by the exporting enterprises in the centres.[42]

The concept of the surplus now proposed by the same author cannot be considered independently of this background.

At the end of the 1940s these reflections led him to adopt an unorthodox and controversial position concerning the comparative advantages derived from the international division of labour which began to take shape with the industrial revolution. These same concerns, now viewed from a different angle, are now reflected in an equally unorthodox and controversial approach to the concept of the economic surplus.

[41] "Theoretical and practical problems of economic growth" (E/CN.12/221).

[42] "The academic discussion, however, is far from ended. In economics, ideologies usually tend either to lag behind events or to outlive them. It is true that the reasoning on the economic advantages of the international division of labour is theoretically sound, but it is usually forgotten that it is based upon an assumption which has been conclusively proved false by facts. According to this assumption, the benefits of technical progress tend to be distributed alike over the whole community, either by the lowering of prices or the corresponding raising of incomes". Raúl Prebisch, "The economic development of Latin America and its principal problems", *Economic Bulletin for Latin America*, vol. VII, N.° 1 (February 1962), p. 1.

In both cases he deals with the fact that average prices and unit costs fail to coincide or to behave symmetrically, and with their influence on the distribution of the benefits of the growing productivity of human labour.[43]

Now, this phenomenon has been considered a temporary 'anomaly' because it clashes with two fundamental aspects of the prevailing economic approaches. The first is the claimed tendency of the economic system to assume positions of stable equilibrium; the second relates to the prevailing theories of value, either in their subjective marginal utility version —specific to the neo-classical liberal school— or in the classical and Marxian labour theories of value.

However, the view of capitalist development which is implicit in Prebisch's theory regards this discrepancy between prices, costs and productivity levels as structural in nature and inherent in the logic of the system. Hence general disequilibrium is the very nature of the system, and a *necessary* requirement for its survival. *More precisely, it is a condition for the existence of macro-economic profit.*

Notwithstanding the affirmations of the neo-classical economists, macro-economic profit is the central category which must be explained in the interpretation of capitalist development. Any model or paradigm which does not succeed in explaining profit will have left aside both the basic *motivation* driving the system and the essential source of the process of accumulation. This applies to the static model of perfect competition which, in conditions of stable equilibrium, reaches the conclusion that profit is nil. In short, for the neo-classical school the tendencies towards positions of stable equilibrium mean that the incomes of the factors rise (or that prices fall) *pari passu* with rises in productivity and permit the appropriation of the benefits of technical progress by a broad spectrum of society, eliminating any surplus whose existence and manner of appropriation would call in question the equity of the system.

The labour theory of value also assumes positions of stable equilibrium. Prices are proportional to values, and changes in values are inversely proportional to rises in productivity. Under the 'law of value', goods are exchanged in quantities proportional to their abstract labour content. For Marx, the existence of a surplus results from a phenomenon of exploitation which is based on his theory of value, and is perfectly compatible with a situation of general equilibrium in all markets. What is more, his theory makes it obligatory to proceed from this situation of general equilibrium, as a proof that the surplus is a phenomenon arising from exploitation.

In short, the predominant theories of value are valid only in stable conditions of general equilibrium.

However, in such conditions the theories do not account for the *essential* condition for the existence of capitalism as a *viable* economic system: that the macro-economic profit should be positive in value.

Until our static and 'economistic' approach to the mechanics of the process of attributing value[44] is suitably modified, it will not be possible to understand the theoretical significance of the solutions proposed by Prebisch for the recurrent discrepancy between prices and productivity level.

The concept of the surplus retained by the enterprises which Prebisch postulates is dynamic because its very existence, in the form of macro-economic profit, depends on the mechanisms which make its appropriation possible and which can only be understood through a dynamic analysis.

[43] Prebisch distinguishes between two sources of possible changes in *total* unit costs: those which derive from a change in productivity, assuming stability in the unit price or income received by the owners of factors of production —and especially workers— and those which derive from changes in these real incomes. If the unit incomes of the factors remain stable, the rise in real productivity will automatically be shifted to costs, which will fall proportionately. If incomes rise at the same time as productivity, unit prices will not fall. Hence "if, in spite of greater technical progress in industry than in primary production, the price relation has moved against the latter instead of in its favour, it would seem that the average income, per capita, has risen more in industrial centres than in the producer countries of the periphery". *Ibid.*, p. 6.

[44] We refer here to the process whereby a unit price is attributed to the goods which are traded in the market.

And this dynamic approach brings us to the need to reconsider some basic macro-economic magnitudes.

Within each period considered, the value of the income which is generated *is not equal to the total cost of the product being offered for sale.* The difference between the two is, precisely, the entrepreneurial surplus.

Income measures a potential product or productive power which has been *constituted* but not yet *consumed* or *realized;* the product measures a real volume of final goods which are for sale, each valued at unit cost. However, the two magnitudes are compared during each period, and from their comparison stems the entrepreneurial surplus. Once the goods are realized the product, now including the macro-economic profit, is the same as the income.

Before realization, the total value of the product being offered for sale is equal to its cost of supply, and corresponds to the incomes paid for its manufacture.

In the circumstances of a development process, which are those of interest to Prebisch and those which are historically significant in the analysis of capitalism, labour power is constantly supplying a *potential quantum* of output which is higher than the *real 'quantum'* it can acquire with the incomes derived from that transfer.

Marx would apply the term 'exploitation' to this phenomenon, arguing that the value of the labour power is lower than the value of the products of the labour performed by it. He would consider the difference as surplus value, and would explain it on the basis of his labour theory of value, which is essentially static.

When Prebisch encounters the same phenomenon, he elaborates a *radically different* explanation. This explanation is not compatible with any of the theories of value currently in contention in the field of economic thought. In order to understand this radical change of perspective fully, it is necessary to start from the concept of *purchasing power.*

Within each period, entrepreneurs use the money they control —their own or borrowed money— in order to buy commodities from one another and acquire the services of the owners of factors of production. The money thus used behaves like capital.[45] This generates two effects which occur successively. Firstly, within the same period monetary incomes are generated which are the counterpart of a *potential product* that will exist only in subsequent periods. Secondly, during subsequent periods the final goods emerge which are the counterpart of those monetary incomes, which have already been generated and spent.

If we now replace our diachronic approach by a synchronic one, we shall see that the income generated *within* each period fulfils two functions. The first is to measure the purchasing power of the money-capital spent by the entrepreneurs in order to secure the use of the factors of production. The second is to measure the purchasing power of the income received by the labour force and the owners of the factors of production. When this money leaves the coffers of the entrepreneurs for the pockets of wage earners and the other owners of factors of production, it constitutes the use of capital and also *the generation of income.* The *purchasing power of this use of capital is measured with respect to the quantity and price of the factors of production whose services have been acquired.* When it immediately[46] leaves the pockets of the recipients of incomes (wage earners, rent recipients, and so on) for the purchase of final products, it becomes a use of income or final demand. The *purchasing power of this use of monetary income, or final demand, is measured with respect to the quantity and price of the final consumption goods acquired.*

A single monetary magnitude thus links together, within a single time period, two real magnitudes: that of the purchasing power of the working capital spent to secure the use of the means of production, and that of the purchasing power of the income used to express demand for final consumption goods.

Now, if we are in a situation of expansion, with growth in employment, and if we assume

[45] That is, capital in the form of money, which is applied directly to production through the acquisition of means of production or the right to use them.

[46] Here we assume that there are no gaps in effective demand and that the entire income is converted into final demand within each period under consideration.

that today's production will be tomorrow's supply, the growing total monetary incomes which are paid to the owners of the factors of production, and in particular to wage-earning workers, when immediately spent, encounter supply whose overall cost is lower than that of the incomes. The difference constitutes the entrepreneurial surplus, whose value is the macro-economic profit.

Prebisch's theory concerning profit and the entrepreneurial surplus had already been vaguely sensed and outlined by a representative of utopian or pre-Marxist socialism.[47] Both the classical economists and Karl Marx, in discussing value and surplus value, eliminate explicit consideration of the time factor and modify the nature of the reasoning. In addition, their traditional contempt for monetary phenomena, which they felt obscured reality, prevented them from adopting the dynamic view required in order to grasp this concept of the surplus.

Prebisch's reasoning explicitly reintroduces the time factor and is closer to the conception indistinctly perceived by Sismondi than to the classics or Marx. The idea developed in his two latest studies was foreshadowed in a short passage in the *Economic Survey of Latin America, 1949*, where he stated that: "It is obvious that the increase in income has its counterpart in the value of the goods and services the production of which yields this income". And he adds in a footnote: "This statement is theoretically incorrect, as in any process of increasing production the cash income is always greater than the value of the finished production".[48] In this way, as early as 1949, though not explicitly, he looks forward to the machinery for the appropriation of profit.[49]

Another Latin American structuralist, Celso Furtado, took up the same idea without developing its theoretical implications, although he outlined it fairly precisely. Furtado states that: "Taking an industrial economy as a whole, we find that within the value of each article sold are included the payments for all factors participating in its production. The price of a yard of cloth is basically the sum of the payments for labour (wages), capital (interest, rents, lease of land, etc.), and the entrepreneur (profit). In paying for labour and other factors in advance of sale, the entrepreneur carries out a credit operation: he is advancing a part of the value of a yard of cloth that is going to be sold in the future. On the other hand, when he sells his yard of cloth the entrepreneur gets back not only those payments he has already made but also an additional payment which constitutes the profit. Hence this additional payment amounts to a kind of credit operation in reverse: it is an amount of income incorporated into the value of the yard of cloth *sold*, and which remains in liquid form in the hands of the entrepreneur. *In other words, the profit coming into the possession of the entrepreneur is the counterpart of the value of other goods which are being produced and have not yet been sold*" (emphasis added).[50]

Unfortunately, Furtado did not elaborate further on this idea, nor did he go deeper into its scope and dynamic implications, which are clearly related to Prebisch's reflections on the closed appropriation of the benefits of growing labour productivity.

Nevertheless, the subject is of vital importance, because profit and the surplus are given a dynamic interpretation which links them indissolubly to the theory of economic development.

[47] "A combination may arise, in opposition to land, of the other two sources of wealth: life, which makes work possible, and capital, which sustains it through the wage. When these two powers are combined they jointly possess a force for growth, *so that the labour performed by the labourer this year is worth more than the labour of the previous year, with which the worker is supporting himself.* Because of this appreciation, industry obtains a constant increase in wealth which can either form the incomes of the industrious classes or add to their capital". J. Simonde de Sismondi, *Nouveaux principes d'économie politique*, 2nd. ed. (France, 1827), quoted in Pedro Bravo, ed., *Socialismo Premarxista* (Caracas, Universidad Central, Instituto de Estudios Políticos, 1961), pp. 72-73. (Emphasis added.)

[48] *Economic Survey of Latin America, 1949* (United Nations publication, Sales No. 1951.II.G.1), p. 10.

[49] Prebisch's dynamic conception of the surplus is, so to speak, 'latent' throughout his discussion of the economic cycle and its influence on profits in the centre and the periphery.

[50] Celso Furtado, *Development and Underdevelopment*, trans. Ricardo W. de Aguiar and Eric Charles Drysdale (Berkeley, University of California Press, 1964), p. 111.

Without profit the very existence of capitalism is inconceivable, and profit cannot exist in static conditions, as is clearly shown in the neo-classical arguments which consider profit as a transitory phenomenon arising from a situation of imbalance.

In Marx, profit is a phenomenon of exploitation which is *theoretically* independent of the dynamic conditions characteristic of economic development. His theory, which is unassailable on the 'real' level, encounters insurmountable difficulties in the sphere of the realization of commodities.[51]

Prebisch's approach to the surplus helps to clarify the shortcomings in these theories, and enables us to draw greater benefit from their useful elements.

The macro-economic approaches adopted by Keynes, and particularly by Kalecki, made it possible to view profit as a *global magnitude* whose existence has to be explained. However, the *explicitly dynamic* nature of this explanation, and the *conditions and mechanisms* which permit the recurrent existence of profit at the macro-economic level, were not dealt with by those writers.[52]

Prebisch clearly faces up to this task, which falls within the context of his more concrete and comprehensive concerns relating to the development of Latin America. He makes his reflections at a time when the theory of general equilibrium has reached a *cul-de-sac*, and when this fact is beginning to be recognized in the Western academic world.[53]

VII

The distribution of technical progress and its benefits

1. *Background*

Both the liberals —classical and neo-classical— and the Marxist school have endeavoured to establish a strict relationship between technical productivity and prices and incomes. Firstly, they have assumed that it is possible to *attribute* to the participants in the process of production specific shares in the product which derive from their personal contributions. Secondly, they have postulated that *the economic system as such* remunerates the participants in the process of production with an amount of income which has a significant relationship with that contribution from an ethical point of view. Thirdly, the ethical aspect of this relationship between productivity and income is regarded as *inherent in the logic of the system* and, for the Marxists, accounts for its intrinsic wickedness, while for the neo-classicists it stands behind the equity inherent in the innermost logic of its operation. Fourthly, the resulting recommendations for action are, on the one hand, the radical transformation —generally by revolutionary means— of an essentially pernicious economic system or, on the other, the elimination of the institutional or technical obstacles which make it difficult for a fundamentally equitable economic

[51] It is true that the rate of relative surplus value tends to grow as a result of a rise in the productivity of labour engaged directly or indirectly in producing means of subsistence for workers, which is undoubtedly a phenomenon of development. But Marx's explanation, we repeat, is *static* because it takes no account of *explicit* time lags between the spheres of production and circulation. Moreover, surplus value in Marx *can* exist even if total employment, output and incomes are not growing, while for Prebisch the expansion of current incomes is a necessary condition for the existence of a surplus. Finally, for Prebisch the surplus arises from a global macro-economic disequilibrium, and is then distributed among the various economic activities. All this is viewed from a macro-economic angle.

[52] Kalecki has penetratingly examined more or less related issues, such as the effect of a general rise in wages on rates of profit. See "Class struggle and the distribution of national income", *Kyklos* (Basle), vol. XXIV (1971), fasc. I, pp. 1-9.

[53] Nicholas Kaldor, "What is wrong with economic theory", *Quarterly Journal of Economics*, vol. LXXXIX, No. 3 (August 1975), p. 347.

system to achieve optimum levels of equilibrium and welfare.

Now, one of the objectives laid down for this article was to suggest that no such strict relationship exists between technical productivity and prices and incomes. Firstly, because it is not possible to identify the contribution of each factor of production to the product. Secondly, because even were such identification possible, that would not automatically imply a 'merit' which, from the ethical viewpoint, would justify the attribution of that part of the product to the owner of the factor. Thirdly, the logic of the capitalist system is such that the payments received by the owners of factors of production are not strictly derived from the contribution of those factors to production, but from the *combination* of *technical* factors in the sphere of productive power with *social* factors in the sphere of purchasing power. Fourthly, intrinsic virtues or vices cannot be attributed to the market mechanism. It is an impersonal mechanism which expresses in terms of value —general purchasing power— the distribution and use of the forms of power which stem from the social structure.

We will now endeavour to elaborate on these propositions somewhat more fully.

Our starting point is to deny that a strict relationship can be established between the technical productivity of a factor of production and prices and incomes generated. We have already seen, following Prebisch, that there is no symmetry in the behaviour of prices and technical or real productivity levels at the level of each unit of production. This is due to the fact that the income elasticity of *monetary* demand for a good depends on certain basic regularities in the behaviour of consumers which lead to asymmetrical expansion in the structure of their 'baskets' of consumption. However, these asymmetrical orientations cannot be understood or formulated without prior knowledge of the distribution of monetary income. Strictly speaking, the causal relationship is more complex, and takes the form of the existance of *economic* and not merely technical productivity which is expressed in units of purchasing power.

While changes in prices do not symmetrically reflect changes in productivity, changes in total unit costs do not do so either. In fact, costs can vary for *technical* reasons —changes in needs for a factor of production per unit of product— or for *economic* reasons— changes in the incomes received by the owners of the factor as a result of changes in their purchasing power. These changes in relative purchasing power in turn reflect the complex power relationships which derive from the social structure. This is clearly incompatible with the theories of value formulated on the basis of positions of general equilibrium.

In the case of the marginal utility school, equilibrium and full employment are assumed in conditions of perfect competition. Consequently, the production function *necessarily* reflects the relative provision of the factors of production, since all available factors are occupied. To ensure the logical consistency of this fiction a number of assumptions are necessary, including the assumption of perfect technical substitutability of one factor of production by another. *Consequently, the technical phenomenon is successfully reconciled with the economic phenomenon.* Firstly, according to the technical law of diminishing returns, or variable proportions, as the relative abundance of a factor increases, its contribution to the marginal product declines. Secondly, under the economic law of supply and demand, as the relative abundance of a factor increases, its price or remuneration tends to fall, and vice versa. The point of equilibrium is decided upon by entrepreneurs, who contract factors up to the point where the value of their marginal product is equal to their price. However, in a macro-economic production function, the stock of capital can only be expressed in *values*, and this act of attributing value to capital, understood as a factor of production, demands knowledge of the relative prices of capital goods. But at any moment in the economic process these relative prices of capital goods depend on the value of the product to whose manufacture they contribute. In this way, under the neo-classical approach, we have a tautological production function in which calculation of the value of the social product demands knowledge of the value of the inputs of capital goods, and calculation of the value of those capital goods demands

knowledge of the value of the social product.[54] This tautology shows that the economic process is not self-contained in its technical and mercantile relations, but that the value of the factors of production depends on the positions of power in the social structure occupied by those who control the factors, and these positions are reflected in the personal distribution of monetary income. The power relations which derive from those positions also determine the allocation of technical progress, which constantly modifies the productivity of the factors.

In the labour theory of value too, and especially in the Marxian version, the technical phenomenon is successfully harmonized with the economic phenomenon, but on the basis of very different reasoning.

Here we shall refer exclusively to Marx, because his argument enjoys particular recognition in extensive academic circles. Marx holds that the value of a good is equal to the amount of labour socially necessary in average technical conditions to produce it. Consequently, if we accept the equivalence in exchange postulated by the 'law' of value, prices will vary proportionately with values, and accordingly there will be open appropriation of technical progress and its benefits. The law of value operates only in conditions of general equilibrium; if prices fall more than proportionately compared with values, for Marx this will mean that an 'excessive' amount of social labour has been allocated to the production of that commodity.

In other words, when prices differ from values, we are in a situation of disequilibrium which is corrected through a reallocation of social labour. But in that case social labour is allocated *firstly* for tehcnical reasons, and secondly for *economic* reasons. The technical reasons are related to the physical productivity of each specific process of production, which determines the amount of labour —living and past labour— contained in each process. The economic reasons stem from the structure of relative prices, which cannot be dissociated from the composition of monetary demand or, consequently, from the distribution of nominal income.

Let us now assume that in a society with an income which is high per capita but exceptionally concentrated, the poor require larger quantities of bread. If increasing quantities of social labour are reallocated to bread production, prices will fall rapidly below values if the monetary distribution of personal income is such that the poor have no money to buy it.

In accordance with the law of the exchange of equivalents, society would seem to have allocated 'excesive' quantities of labour to the production of bread. Of course, demand is the expression of social needs backed by purchasing power, and possession of this purchasing power depends on the personal distribution of income. Consequently, the allocation of social labour which corresponds to general market equilibrium will vary with the distribution of monetary income. In short, given the technological structure of the economic system, the allocation of living social labour is a variable which is dependent on the distribution of monetary income.

Marx's entire theory of exploitation is *based* on technical and institutional factors and is *expressed* in units of social labour. And since, by definition, to work is to create value, the ethical postulate that the entire product *belongs* to the worker is derived almost 'unconsciously'. However, under the institution of private property the entire product belongs to the owner of capital. The rules of the game in the market lay down that commodities are sold for their value, and labour power is also sold for its value, which is equivalent to the amount of labour contained in the commodities it consumes. The crux of the matter lies in ascertaining how the value of labour power is determined. Marx recognizes that its real cost of production is conditioned by historical and moral factors. But to reproduce labour power is to reproduce its readiness to work; and this readiness to work to a certain degree reflects the purchasing power of capital and the structural

[54] Let us, for example, imagine a case of obsolescence. Equipment designed for the manufacture of black and white television sets has a different value *before* and *after* the introduction of colour television, depending on the behaviour of demand. But this demand will in turn react differently depending on the distribution of monetary income in the society.

changes in the power relations between classes. Here we return to our concept of the distribution surplus. In short, the distribution of purchasing power among social classes depends in part on the distribution of nominal income, and cannot be expressed as the mere result of processes of production calculated in terms of labour time.

We therefore arrive at the conclusion that the structure of relative prices of products depends on the technological structure on the one hand, and the distribution of monetary income on the other. The magnitude and orientation of changes in the technological structure and in the distribution of monetary income depend on complex power relationships which stem from the social structure.

Economists in the Latin American structuralist school understood this process fairly early on, and gave this interpretation concrete form in specific diagnoses of Latin American societies.

2. *'Monetary' and 'real' productivity levels*

Within the Latin American structuralist school, this separation in the theory between productivity levels and incomes was proposed by Aníbal Pinto in his article on the concentration of technical progress and of its benefits.[55] It is neccessary to reproduce his argument at length in order to permit subsequent comparison with other propositions deriving from the 'Prebischian' theory of the surplus.

"In order to throw light on the matter it is necessary to examine more closely the significance and origins of the rise in productivity, with a distinction drawn from the outset between the *real* and the *monetary* form of the phenomenon. The former would correspond to the situations where, as a result of innovations in the mode or forms of production, an increase occurs in the volume (or quality) of the goods created, and where these real changes form the background to the raising of the incomes of the labour force and the owners of capital. The monetary form, in contrast, would be that in which the rise in payments for factors is independent of the greater material or actual yield from them, as a consequence of causes external to the production unit or sector under consideration.

"In order to illustrate the problem more clearly, let us cite a few extreme examples. First, let us imagine the case of a firm in which an innovating executive or a Stakhanovite worker establishes a new, more effective work routine which, *using the same resources*, makes it possible to increase the volume of goods which can be made available for the market. This will lead to greater real productivity of the factors, and also higher monetary remuneration —i.e., a higher income— if there is no offsetting decline in prices as a result of the increase in supply, or other interference which we shall rule out in this and the other examples.

"Secondly, let us imagine a firm which, because of a ban on the import of competing goods or an exchange rate devaluation, experiences an overnight rise in the prices of its products without any rise in its costs. In this case, even though there has been no change in their real yield, there will be an increase in the income of the factors, and this will be taken as a sign of a proportional improvement in productivity.

"Let us now consider a more complicated possibility: the case of a semi-public firm which is established with or benefits from State investment which enables it to attain a relatively high level of real productivity, with consequent high remuneration for the factors. This version combines the two aspects referred to above; nevertheless, it is clear that the situation is principally due to the public investment which has financed the acquisition of the equipment for use in production."

This argument contains two fundamental propositions. Firstly, that the structure of economic (or 'monetary', to use the author's term) productivity levels is, at least in part, a result and not a cause of income distribution; and secondly, that behind these changes in income distribution function complex power relations which are inherent in the dynamics of the social structure.

[55] A. Pinto, "Concentración del progreso técnico y de sus frutos en el desarrollo latinoamericano", *El Trimestre Económico*, No. 125 (January-March 1965).

Since neither changes in incomes nor changes in prices are tied to 'real' movements in technical productivity, this makes it possible to introduce systematically the effects of the dynamics of the social structure on the structure and level of relative prices. The remainder of Pinto's argument deals with this specific issue.

The relatively independent effect of monetary demand has recently been highlighted by Prebisch. Its clear corollary is that movements in prices do not symmetrically reflect movements in technical productivity levels in the branch concerned, but the general trends of the economic process. At the same time, the roots of this asymmetrical behaviour should not be sought only in the monopolistic or oligopolistic situations which may be involved.

Prebisch's argument here complements and reinforces Pinto's, since he demonstrates that 'monetary' changes in productivity and the asymmetry between prices and productivity levels do *not* derive *only* from policy measures, or from power relationships which are 'external' to the economic process proper, but also from the use of the surplus which stems from actual global economic activity.

There is a passage in Prebisch which hints at the basic logic needed to deal with this complicated question:

"It is sometimes maintained that if prices do not fall as productivity rises, this is due to the intervention of monopolistic or oligopolistic combinations which restrict competition, through customs protection, through patents or licences whereby competition is barred, or by other well-known means. This is not my interpretation. What is involved is simply the same phenomenon of the internal distribution of the total surplus. Widely different cases arise: prices which remain static or increase, despite exceptional improvements in productivity, or in the absence of any change in productivity at all. In all such instances, the monopolies or oligopolies appropriate a larger share of the surplus than they would otherwise have obtained.

"The conclusion is perfectly logical. Monetary expansion is brought about not by the action of these combinations which restrict competition, but by the growth rate of production as a whole. With such combinations appropriating a larger share than they would otherwise have had, a smaller share is left for other goods and services, owing to the corresponding shifts in demand".[56]

VIII

Conclusions: theory and ideology

On the unsullied Olympus of some 'pure' theoreticians, the views of economists from the periphery are often regarded as lacking in rigour, or as broadsides incapable even of scratching the surface of the theory set out on more 'serious' foundations.[57]

These foundations are, in the final analysis, those which underlie theories of value in static conditions of general equilibrium. We must therefore begin this section with a question prompted by a certain bewilderment: if the theories of value based on conditions of general

[56] Raúl Prebisch, "A critique of peripheral capitalism", *op. cit.*, pp. 39-40.

[57] I cannot resist reproducing a sample which distorts and crudely caricatures some structuralist ideas: "All that I find in Prebisch's study and in the other literature along similar lines emanating from the United Nations and elsewhere is the dogmatic identification of agriculture with poverty, and the explanation of agricultural poverty by inherent natural historical laws by virtue of which agricultural products tend to exchange on ever-deteriorating terms for manufactures, technological progress tends to confine its blessings to manufacturing industry, and agricultural populations do not get the benefit of technological progress in manufactures even as purchasers, because the prices of manufactured products do not fall with the decline in their real costs. These natural laws seem to me for the most part mischievous fantasies, or conjectural or distorted history, or, at the best, mere hypotheses, relating to specific periods and calling for sober and objective testing." Jacob Viner, *International Trade and Economic Development* (Glencoe, Ill., Free Press, 1952), p. 62.

equilibrium do not help to explain the innermost nature of economic value or the concrete dynamics of the process of attributing value, then what purpose do they serve?

There is an answer to this question. The theories of value based on conditions of general equilibrium do not play a theoretical, but a 'practical' role as instruments for the scientific legitimation of a specific view of the world which justifies a 'praxis': they claim to justify in the field of analysis 'a pre-analytic cognitive act', as Schumpeter termed it. This is no reason to regard them as less 'scientific', since any theoretical structure in the social sciences must necessarily be founded on a 'vision' which is 'loaded' in value terms. This view of the world percolates into the discourse through the process whereby the basic concepts are defined.[58] The alleged objectivity to which Viner refers [see footnote 57] simply cannot exist in the process of *formulation of hypotheses* or, still more broadly, of the *basic questioning* which is the starting point for the analysis. Max Weber provided a particularly telling explanation of this essential point: "There is no absolutely 'objective' scientific analysis of culture —or put perhaps more narrowly but certainly not essentially differently for our purposes— of 'social phenomena' which is independent of special and 'one-sided' viewpoints whereby —expressly or tacitly, consciously or unconsciously— these phenomena are selected, analysed and organized for expository purposes".[59]

Thus, for example, it must be intuitively obvious even to anyone completely ignorant of economic theory that the distribution of monetary income cannot be unconnected with the power relationships which stem from the social structure, and that it in turn exerts influence on the structure of relative prices and on the concrete process of attributing value. However, it was in the *notion of general equilibrium*, based on the analysis of 'real' magnitudes, that the most widely held theories of value found solid common ground on which obvious scope for communication was established. Consequently, economic theory is only now 'rediscovering' this intuitively obvious fact. Thus Maurice Dobb observes, as one of the principal conclusions of his analysis of theories of value and distribution, that the structure of demand in the market can only be derived from the wishes, preferences or behavioural reactions of consumers, on the assumption that consumers have a specific amount of monetary income. Hence, he continues, implicit in the general process of price formation is an initial distribution of income between individuals, in the sense that this distribution must be included as one of the determinants of the structure of demand, from which all prices derive (including the prices of the factors of production); the whole process of price formation is related to this postulated distribution. In other words, concludes Dobb, a theory of distribution, if conceived as a theory of prices derived from productive services, cannot be independent of the initial distribution of income, as an essential premise.[60]

Dobb then focuses his attacks on the neoclassical theory, and endeavours to 'absolve' Marx and the classical economists. However, they too omitted to ascribe due importance to monetary flows and the distribution of nominal income in the process of attribution of value.

At all events, Marx deserves special consideration, since his view of the world places power relationships and the struggle between irreconcilable social classes at the heart of his conception of the historical process. However, he performed the feat of combining this all-embracing view with a theory of value founded on conditions of general equilibrium.

When the concept of *stable equilibrium* is abandoned, the *validity* of those theories in *formal logic* does not disappear, but their practical importance does. Economic value ceases to be regulated by forces 'inside' the economic

[58] This does not mean that social science is 'a matter of opinion', since these views of the world ultimately generate hypotheses which are susceptible of empirical proof.

[59] Max Weber, "'Objectivity' in social science", in his collection of essays *The Methodology of the Social Sciences*, trans. Edward A. Shils and Henry A. Finch (Glencoe, Ill., Free Press, 1949), p. 72.

[60] Maurice Dobb, *Teoría del Valor y de la Distribución desde Adam Smith (Ideología y Teoría Económica)*, trans. Rosa Cusminsky de Cendrero (Mexico City, Siglo XXI, 1975), p. 47. The first English edition dates from 1973.

system itself (average social labour, or the marginal preferences of consumers), which bring it to equilibrium, and it becomes the expression of the power relationships which stem from the social structure. It is these power relationships which, in the final analysis, determine the criteria governing the distribution of technical progress and of monetary income.

As history shows without a single exception, human beings need to find a rational justification and an ethical legitimation for their behaviour. In order that these justifications and legitimations can be placed within an authentically humanistic perspective, at the service of *all* men in the full measure of their individuality, it is necessary to discover the hidden forms of power and show clearly the social responsibility of those who control its mainsprings.