

## FUNDAMENTALS OF A THEORY OF DISTRIBUTION IN SELF-GOVERNING SOCIALISM

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### (a) Distribution According to Work Performed

Since the time of Proudhon, and particularly since Marx authoritatively reproduced the Proudhonian dictum<sup>1)</sup> in his Critique of the Gotha Program (1875), distribution according to work has been generally accepted as *the* socialist principle of distribution. In fact, it has been considered such an important principle that it has often been used as an economic definition of socialism. It is, therefore, rather strange that, so far, this principle has not been subject to a rigorous analysis. There is a lot of talk about distribution according to work. There is practically no analysis to tell us what that should really mean.

One of the reasons for this state of affairs is to be found in the fact that the results of individual work are to a considerable degree socially determined. It looks rather difficult to establish an objective basis which may enable us to disentangle individual and social components of productivity and remunerate only the former. In order to do exactly this I propose to proceed as follows.<sup>2)</sup>

In a general case, the output of a particular commodity depends on two groups of factors which may be denoted as labour and non-labour factors. We wish to remunerate the former, but in order to do that, we have to specify the latter as well. Moreover, for allocational purposes, we have to »remunerate« the latter too. The evaluation of the importance of a factor in the overall productive result means attaching a value weight to that factor. Thus the task of distributing income according to work performed implies establishing a theory of price formation in a socialist economy. For our purposes only a rudimentary sketch of such a price theory will suffice.

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<sup>1)</sup> Made in opposition to an earlier Louis Blanc formula of distribution according to needs which Proudhon considered to be unrealistic.

<sup>2)</sup> In this section I am adopting the same general approach as in my book *Towards a Theory of Planned Economy*, chapter 6 (Kultura, Beograd, 1961; Institute of Economic Sciences, Beograd, 1964).

The labour component consists of two separate factors: (a) *individual work* and (b) *collective work*. These factors may also be called (a) *direct work* and (b) *entrepreneurship*. The former requires individual rewards, the latter collective rewards.

*Individual or direct work* has been well described in the literature and so requires little elaboration. The result of individual work is determined by two different causes: (1) by intensity and duration of work and (2) by skill. Now, skill depends partly on innate talents and partly on learning, the latter being a result of a learning effort and of educational opportunities open to the worker. If, in order to avoid *reductio ad infinitum*, we ignore the fact that aspiration levels, value patterns, etc. depend on family background and immediate social environment and so are socially determined, we can distinguish three different elements in the factor »direct work«. An individual is fully responsible for the intensity and duration of work and for the learning effort. Talent is an exogenously given gift of nature. Differences in educational opportunities are socially determined. Thus, strictly speaking, the distributional principle is applicable only to the first element. Talent requires a special treatment. Educational opportunities ought to be made equal for everybody.

In a capitalist or in an etatist firm, the owner or his representative is an entrepreneur. In a labour-managed firm, the society is the owner and all the workers are society's representatives. They appear as a *collective entrepreneur*. Entrepreneurship as a factor of production reflects the fact that work is not performed in isolation. As a rule, it is organized and performed collectively. Entrepreneurship consists of three different elements.

(1) First, the workers must somehow establish work relations in their firm. They may quarrel or cooperate. Work atmosphere may be favourable or unfavourable to the productive efforts. Human groups in the firm may be integrated or disintegrated. The emotional and physical energy of the collective may be expanded in productive efforts or wasted in mutual accusations and copings with personal and group conflicts. Experience shows (and one would hardly expect anything else) that work productivity is a very sensitive function of the human relations existing in a collective.

(2) The second element is more of a technical nature. Entrepreneurship implies coordination of all activities. Coordination has to be carried out at several levels, starting from the level of the economic unit and ending at the overall level of the firm. Coordination entails technical coordination, control and supervision.

(3) The third element consists in decision-making under uncertainty including innovation. The working collective bears the responsibility of the decisions made. In case of success everybody will share of in the surplus; in case of failure everybody will suffer his share of loss. The basic ingredient of entrepreneurial decision-making is a constant stream of innovations. Economic growth implies continuous increase in productivity and that implies innovations. Those who fail

to innovate fast enough, will see their wage bill lagging behind the general trend. If the innovational failure is more serious — e.g. if the quality of the commodity produced ceases to satisfy consumer requirements — the working collective will suffer losses and the wage bill will shrink in absolute terms. In the opposite case of high productivity growth, personal income will rise faster than the national average.

Thus entrepreneurship is determined by *human relations*, by *organization of work* and the *creativity* of the working collective. Consequently, the personal income of every particular worker has two ingredients. One reflects his own individual contribution (wages). The other is the result of the collective efforts of his firm (share in surplus, or profit, due to innovational activities). The undistributed part of profits remains in the firm and is used to finance investment.

We may summarize. Wages plus distributed profits represent personal income. Personal income plus undistributed profits represents labour income. The practical procedure to determine labour income is to find total income and deduct non-labour income.

Non-labour income consists of various types of rents. The best known, is, of course, land rent. Technically, it can be absorbed by the taxation according to the cadastral revenue of the land. The cadastral revenue is established on the basis of the quality of land and the average conditions of production. The differences in cadastral revenue are taxed away. Surplus produced above the cadastral revenue is a result of work and innovational activities and remains to the farmer or the farming collective.

Closely related is *urban rent*. By studying demand and supply relations on a particular locality it is not difficult to establish the equilibrium price of the land or of its service per unit of time. The imposition of an appropriate tax rate will absorb the rent.

There is a long practical experience on how to extract *mining rent* by an appropriate system of royalties.

A very different type of rent is represented by capital income known as *interest*. Since capital is scarce and socially owned, the working collective has to pay a price for the privilege of using it. In an idealized textbook case, marginal efficiency of investment would be equalized throughout the economy and the equilibrium interest rate would be set in such a way as to equalize the demand for investment with the supply of available investment funds. This investment is financed out of borrowed funds, the interest being included in the annuity for the repayment of the loan. This is the reason why some economists insist that in a labour-managed economy all investment must be externally financed.<sup>3</sup> But there is no real need for that. In fact, that would be rather dangerous because the autonomy of the working collectives would be reduced and the power of financial institutions and government offices increased. All that is required is that the same interest

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<sup>3</sup> Cf. Various theoretical writings and practical proposals by Professor Jaroslav Vanek, I also held a similar view in my first book on the theory of self-governing economy.

rate be charged on investments financed out of internal funds. However, these interest charges may well remain in the investment funds of the firm.

The types of rents described so far are well known and there is an enormous literature about them. One type of rent however, has not been discussed in the literature. I call it *technological rent*.<sup>4)</sup> It ought to be pointed out that what is meant is not the technological rent of one particular innovational activity. That rent is well known. Our term stands for the fact that in any period of time objective innovational opportunities differ widely from one industry to the other. In the last two decades productivity was increasing slowly in the textile industry and rapidly in electronics. There is nothing that textile workers can do to reverse this trend. Thus, if productivity increases were taken as a criterion for distribution according to work — as, the Yugoslav Trade Unions have advocated — personal income of textile workers would increase slowly, that of electronics workers rapidly and in neither case would the distribution of income be related to the actual work performed. In order to distribute income according to work, technological rent must be taxed away. Technically this is not difficult to achieve. Since the basic conditions generating differences in productivity increase change only very slowly, the past trends can be extrapolated into the future for the next couple of years. On that basis and with corrections for relative price changes, we can assess the tax. In fact, the basic principle is the same as that of the tax on cadastral revenue.

The reason why technological rent has not been discussed in earlier theoretical literature is to be found in the unrealistic neoclassical assumptions of perfect mobility of factors and instantaneous adjustments. Under such assumptions, technological rent cannot logically appear: As soon as the relative profitability of an industry increases, labour and capital will move into it depressing the prices of its output. At the same time, the supply of other industries will be reduced. Thus, in the innovating industry profitability will decrease, in the other industries it will increase and technological rent will disappear. In the real world however labour and capital do not move fast enough, prices are rather sticky downwards and increased investment speeds up technological progress which leads to even larger differences in productivity increase. As a result, technological rent stays for many years.

After all enumerated rents have been eliminated, there may still be some non-labour income left. A monopoly or monopsony position of a firm — whatever the reason — is likely to generate an additional, monopoly rent. Monopoly rents tend to be highly volatile and, unlike the other types of rents, cannot be objectively determined. Monopoly rent may be both positive and negative (e.g., windfall losses). The only instrument for the absorption of a monopoly rent is a general purpose progressive taxation. This is a very crude instrument since in some

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<sup>4)</sup> Cf. B. Horvat, »Raspodjela prema radu među kolektivima«, *Naša stvarnost*, 1/1962, 52—66.

firms it will not eliminate the entire monopoly rent, while in others it may affect labour income. Yet, these distortions are likely to be quantitatively insignificant and that for the following reasons.

1) Because of strong decentralization forces and because of substantially greater openness of business activities, labour managed firms are less monopolistically inclined than their capitalist counterparts.

2) As will be shown later, the monopoly power of an industry can be controlled. Thus industry-wise, monopoly rent will be eliminated. It is true that only individual firms escape objective control. But it is also true that individual firms are not likely to remain permanent monopolists. Windfall gains and losses tend to hit the firms in a stochastic fashion. Thus, there will be an averaging tendency over a somewhat longer period of time. If every firm is a bit of a monopolist at some particular time, during the relevant period, no firm sticks out.

3) Social planning increases the stability of the market and consequently reduces windfall gains and losses.

4) Since capital is socially owned, there is no need to tax *undistributed* profits. Thus an efficient working collective may avoid penal progressive taxation by refraining to distribute the surpluses in wages and investing it instead.

A lucky collective will react similarly, putting, perhaps, the undistributed surplus in the reserve fund which will help them to cover possible windfall losses sometime in the future. In this way the workers themselves will carry out an evaluation — at least partly — of the monopoly rent.

5) Monopoly, or residual, rent is closely related to risk bearing and the latter is socially limited in socialism. Although windfall gains cannot be precisely measured, the order of magnitude is roughly known, and there are strong informal social forces restricting an excessive increase in personal incomes. Very low incomes cannot be tolerated, either. A firm suffering heavy losses will either be liquidated and its workers re-employed elsewhere or else it will be helped out. In the meantime, incomes cannot fall below a guaranteed minimum. But the working collective has to pay the price for the failure to manage society's capital efficiently. The price consists in a temporary suspension of self-management. In a textbook world of perfect certainty a monopoly rent cannot appear. In a real world it does appear all the time, but in a reasonably organized self-governing economy it does not matter very much.

One last point remains to be made. The elimination of the rent does not necessarily imply that the rent income must be siphoned out from the firm. All it implies is that it cannot be distributed as personal income. It may in fact be desirable to save leave interest, technological rent and mining rent in the firm to stimulate technological progress or meet heavy investment requirements.

### (b) Determination of Labour Income

The problem will be solved in two steps. We must first determine labour income for the entire working collective and then personal income for every member of the collective.

To solve the first task, the economy will be divided into technoeconomically homogeneous industries each comprising a score of plants — or more. The number of plants must not be too small because then statistical regularities cease to be operative. If it happens that there is just one or only a couple of plants in a particular industry, no general solution of the income distribution problem is possible and all that can be done is to negotiate each case individually through the machinery of the Chamber of Trade or the Trade Unions.

Within each industry, individual firms will operate at very different levels of efficiency. Variability in efficiency will be reflected in variability of labour incomes. Under normal conditions there is nothing to complain about because differences in efficiency are caused by differences in entrepreneurship and our distributional principle requires that entrepreneurial work be rewarded.

However, the overall labour incomes of different industries must not vary. It is practically impossible that all working collectives in the electronics industry are more industrious or efficient than all the working collectives in the textile industry. For statistical reasons the average labour income, weighted by formal skills, must be approximately the same for all industries. Possible differences ought to be absorbed by appropriate policy instruments which eliminate rents through various types of taxes or affect the input and output prices through regulatory devices in investment and foreign trade. It is of some importance to realize that a socialist market cannot be a *laissez-faire* market. It must be very strictly regulated. But this regulation is not arbitrary and cannot be left to the whims of the government of the day. The regulation ought to establish equal business conditions throughout the economy following a clearly defined and constitutionally guaranteed principle. Thus, the government becomes an integral part of a socialist market or, perhaps more correctly formulated, the market appears as a device of conscious social planning. Each firm remains completely autonomous — which, of course, is a crucial precondition for self-management. Labour-managed economy comes closer to the textbook competitive model than capitalist economy can ever do. And yet the working collectives remain within the accepted socialist framework all the time. Clearly, social planning transcends price planning. There are a number of other components of social planning which make it possible to convert the market into a planning device. But for the purpose at hand we need not elaborate on this important question.

Once income is distributed among the collectives, it remains to distribute it within the collectives. First of all a part of income is set aside for investment purposes and for various collective funds.

Self-management bodies decide on that. The remainder, i.e. the bulk of income, is distributed among individual workers. Which criteria are to be used?

Two aspects of work can be distinguished: work generates products and incurs costs.<sup>5)</sup> More productive work is more valuable. Also, more difficult, responsible, dangerous, unpleasant, unhealthy and more complicated work, requiring long training and learning efforts — is more valuable. Just how much valuable it is depends on the valuations of the supplier of work and his fellow workers. They are, of course, influenced by general supply and demand conditions, by tradition and by valuations of the larger community. But the actual decisions about the wage differentials are made by the sovereign working collective. They are the result of a process of deliberations, negotiations and mutual persuasion. It is an iterative and, under normal conditions, a converging process. As a rule, at the start the individuals consider their jobs more important or difficult and their work more valuable than do their colleagues. In the end, some agreement is reached and is recorded in the Statute of the firm.

The reasons for the convergence of the process are rather simple. Every member of the collective has a stake in the just distribution of income. And just is what people consider to be just. A worker — more usually a class of workers — who consider that their jobs have been undervalued, will work below their capacity and that will reduce the total income of the collective. If their feeling of injustice is very strong, it pays their colleagues to increase their wage rates. In the neoclassical tradition one might say that it pays to increase the wage rate until the marginal dinar of additional wages just generates the marginal dinar of additional income. In practice this requirement seems to be automatically satisfied. The productive behavior of a worker seems to be discontinuous: he distinguishes only two regions of wage determination, the unacceptable and the acceptable one. A point in the latter region may not be fully satisfactory, but that does not influence the productive behavior. Thus in the unacceptable region — wage-rate too low — the disruptive effects of dissatisfaction are always higher than the increases in wage rates necessary to reach the acceptable region. Perhaps the following rule can be formulated: keep increasing the wages until the acceptable region is reached. And this is what seems to be happening. Workers find the established wage differentials acceptable but consider their jobs slightly more valuable.

An equilibrium wage-rate may be reached from the other side too, by extending the acceptable region downwards. This is the result of the social persuasion process. It is a well known empirical finding of social psychology that individual valuations are forcefully moulded by social valuations. Just is what the group considers to be just. As a result, the lower limit of the acceptable region will tend to be

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<sup>5)</sup> Market valuations fuse the two aspects into one single productivity aspect. It is the product that is sold and bought. If wage cost increase, product price will increase, demand will decrease and, in the absence of perverse slopes of demand and supply curves, a new equilibrium will be struck at a higher marginal productivity of labour.

rather uniformly established and the quoted neoclassical requirement satisfied for all workers and not only for the marginal one.

One general effect of social valuations is worth noticing. This is egalitarianism. Income differentials in a labour managed firm are substantially smaller than in a capitalist or an etatist firm.<sup>6)</sup> The differentials are being constantly reduced with the economic development of the country. Various types of manual work are evaluated higher than before. The so called manual, as well as monotonous, tedious and unpleasant work are considered to incur additional costs and consequently are evaluated higher. Changed social relations generate changes in values. A rapid equalization of educational opportunities gives an additional impetus towards egalitarianism.

It is always possible that the structure of wage differentials, as established by the collective, will remain unacceptable to some members. They are then free to leave, and often do so.

Although the working collectives are autonomous, they are not isolated. Since capital is socially owned, every vacancy must be publicly announced and the best applicants must be accepted. The free movement of labour brings about uniformity in wage differentials. This has important allocational consequences.

So far, we have been discussing the case where the supply and demand of particular kinds of labour are just about equal. If they are not, there is a disequilibrium and rent is bound to appear. Technological progress creates new jobs with special skills which for the time being are in short supply. For instance, in the initial phase of computerization of a country, programming specialists are likely to be scarce. Thus the firms will compete for programmers and their wages will rise above the level considered appropriate for a job with similar characteristics. When the necessary number of programmers is trained their wages keep going down until they reach the lower limit of the acceptable region. In the meantime programmers will enjoy a personal monopoly rent.

Opposite is the case of an oversupply of a particular kind of labour. The redundant workers will have to be retrained, or reallocated to similar less valuable jobs. In a poorly organized economy, they may even become unemployed. While the adjustment process lasts, the redundant workers earn negative rent.

Personal rent may also be permanent. Extraordinary gifted scientists, managers, artists and sportsmen are very rare. If they were to be rewarded according to their productivity, their incomes would be intolerably high. At the same time, the just acceptable income — which would induce them to work with full capacity — is relatively moderate. In a textbook case, gross income will be set as high as market could bear, and the difference between the market income and the just acceptable income will be taxed away as a personal monopoly rent. In this way, net income will be equalized with just accep-

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<sup>6)</sup> Income span between an unskilled worker and the general manager in a firm employing 5000 workers is about 1:5 at the \$ 1000 per capita level of development of the country.



table income. In practice an Einstein will get a rather moderate gross income because there is no way to measure the value of his productive contribution; nor does it matter. What matters, both socially and personally, is to make it possible for a scientist to develop fully all his talents. In the entertainment business gross income will be higher — because movie firms and football clubs compete in a different way — but not as high as the market can bear because the public opinion will impose certain upper limits which are socially tolerable. On the other hand, the tax on personal rent will not be 100 percent but only sharply progressive, approaching 100 percent in the upper limits.

Again, there is an opposite case. The productivity of physically and mentally handicapped will be too low to provide them with the means for decent life. A subsidy, *i.e.* a negative income tax, will be used to fill the gap.

### (c) On the Allocational Efficiency and the Optimum Distribution of Income

In the normal case, with demand and supply of labour just about equal and personal monopoly rents absent, the specifically socialist market solves the problem of income distribution according to work performed. That implies certain allocational consequences. When a working collective engages in determining the structure of wage differentials, the workers have some notion of differential productivity of different types of work. But nobody knows how to measure the productive contribution of an accountant, or a secretary, or a foreman. Nor is that measure the only ingredient of a just wage. Once wages have been determined, they become costs to be added up in building the value of the firm's output. This value may be just in tune with the market demand, or deviate from it. If it is below the market valuations, the firm will earn extra profits and expand its operations. If it is above the market prices, the firm will have to reduce its costs or change the production program.

How much does all this satisfy the conditions for efficient allocation of resources?

The only reasonably elaborated theory about efficient allocation of resources, available at the moment, is the neoclassical theory. According to the tenets of this theory, labour will be allocated efficiently if in every use its marginal value product is equal to the wage rate which is uniform throughout the economy. It is thought that marginal equality makes sure that there is no other allocation of labour which could increase output. If marginal products differed, a reallocation of labour from firms with lower marginal products to those with higher marginal products would increase the value of total output. Thus the absence of a more productive alternative is the definition of the efficient allocation. It is clear that in our system it is theoretically easy to satisfy this requirement. One has just to

follow the attitude of neoclassical economists and assume that throughout the economy wages are equal and only the profit component of personal income varies. However, in practice, last year profits are part of this year wages. Consequently, the postulated marginal equality will not be satisfied. The wage may deviate from the value of the marginal product and often we do not know what the latter is. Both wages and marginal products are different in different firms. In order to evaluate this discrepancy between theoretical standards and the actual performance, let us briefly inquire into the validity of the theory itself.

One immediately notices an inherent contradiction in the corpus of neoclassical theory. In one of its branches entrepreneurship may be proclaimed to be a factor of production, in another branch it may be treated very differently from all other factors (land, labour, capital). The rate of remuneration is equal to the value of the marginal product for all factors, except for entrepreneurship which somehow gets the residual. This is then forgotten and the allocation is proclaimed efficient. But it is clear that a particular distribution of entrepreneurship at any time is fortuitous and that a different distribution could perhaps increase social product.

Next, the marginal equality requirement applied to another factor, capital, involves circular reasoning. Since the quantity of capital has no existence independent of the profit it yields, the proposition that the marginal value product of capital is (or should be) equal to its rate of interest (or profit) — is devoid of any measuring. Now, if two factors do not get priced according to their marginal productivity, there is no theoretical ground to assume that the »correct« pricing of the third factor, labour, would generate higher output than pricing based on some other principles. Besides, the postulated marginal equality formula requires a very special production function in order to be possible. Only a linear homogeneous production function makes the sum of remunerations of factors equal to the product. Since there is no reason why all production functions ought to be linearly homogeneous, marginal equalities will lead to surpluses or losses and the actual wages — and other factor returns — have to be established by bargaining. This is what happens and is also the reason for the existence of unions. Finally, marginal equalities are — or can only be — expressed in value terms, and values depend on the distribution of income. Since neoclassical theory has nothing to say about the optimal distribution of income, the efficiency considerations in the Pareto spirit do not take us very far. Thus the neoclassical theory breaks down without repair and we have to find another standard for the evaluation of the efficiency of the socialist system. The obvious thing to do is to compare it with the capitalist system.

Take entrepreneurship. In a socialist economy, entrepreneurship — though of a different type — is also unequally distributed. But here the institutional framework makes possible that the society extends entrepreneurial help to the less efficient firms. Consequently, social capital is more efficiently used through a partial redistribution of entrepreneurship, which is impossible under capitalism. A smaller

degree of monopoly leads to additional improvements. The problem of wages is slightly more complicated.

In a textbook neoclassical economy all wages are equal — due to efficient competition — and also equal to the marginal value or marginal revenue products — since entrepreneurs maximize profits — which implies that marginal products are equalized throughout the economy.\*) Empirical research reveals that this assumption is an illusion. Wages differ substantially not only from firm to firm but also from industry to industry. And it is obvious that a manager of a very profitable firm will pay his workers more in order to avoid labour troubles. In our theory of socialist firm we start from the observation that marginal products and wages differ from firm to firm (but *not from industry to industry*, at least not wages). In an abstract world that implies inefficiency because by moving a worker from a firm with low marginal productivity to the one with high marginal productivity, i.e. from an inefficient to an efficient firm, total product would increase. In the actual world of non-malleable capital, the problem is posed somewhat differently. In equilibrium, — it may be assumed — all workers are employed and all firms are operating at minimum average cost, but average cost differs from firm to firm. Moving a worker from a low to a high efficiency firm would only slightly increase »net output« of the latter but would have disruptive effects on the output of the former. As a result, total output would decrease. The same observation may also be formulated as follows. When the plant is operated below capacity, marginal product is approximately equal to average product and to the wage. At capacity level, marginal product is sharply reduced. Consequently, in order to achieve an optimum every otherwise viable firm must fully utilize the available capacity.

The foregoing discussion indicates that there is no neat solution of the efficient allocation problem as soon as we leave the abstract textbook world. At the level of the firm — and from the point of view of the firm — neoclassical recommendations are more applicable. As a convenient approximation it may perhaps be taken that a socialist firm equalizes marginal cost and marginal product for each resource, including labour. The aspiration wages, determined at the beginning of the year, will serve as accounting wages for that purpose.7) Production function limitations are mitigated by treating profits as a residual. Then in every firm wages and marginal product will be equal but both will differ between firms. In this respect socialist firms resemble capitalist firms. In terms of allocation of entrepreneurship and smaller degree of monopoly socialist economy is more efficient than the capitalist one. Since the workers are not only la-

\*) Barry Bluestone reports that in the American economy the wages of qualified workers differ as much as 110 percent. He also finds »that the American labour market is considerably inefficient in terms of matching what we have called endogenous productions (potential output of an individual given his endogenous productivity characteristics) to marginal products or wages. Much of the labour force appears to be paid at rates not consonant with their measured human capital« (»The Determinants of Personal Earnings in the U.S.«, mimeo. p. 54).

7) Cf. B. Horvat, »Prilog zasnivanju teorije jugoslavenskog poduzeća«, *Ekonomika analiza*, 1967, 7—28.

bourers but also entrepreneurs, the socialist and capitalist firms are basically different. When a worker moves from one firm to another, the production functions of the two firms do not necessarily remain unchanged because of the entrepreneurial capacity that the worker carries with him. Entrepreneurship implies innovation and innovation means changes in production functions. Since such changes cannot be known with certainty, we simply cannot say that moving a worker from a firm with low wages to a firm with high wages would increase total product. At the national level, we may treat both labour and entrepreneurship as factors with residual effects and apply marginal equalities to nonlabour factors only. The policy rule will then read as follows. The cost of capital is exogenously determined by the Planning Authority setting the appropriate interest rate. Firms employ resources (labor included) so as to equalize marginal cost and marginal revenue. In case of labour, marginal cost is determined by the aspiration wage which serves as an accounting wage for the relevant period. Assuming diminishing returns to entrepreneurship, the society ought to allocate entrepreneurship so as to reduce efficiency differences among firms.

Larger society must also intervene in the distribution process when it comes the two opposite tails of the distribution of ability. This will be done by introducing positive and negative taxes. Now the principle of distribution according to work tends to be interpreted not in terms of productive contributions but in terms of work efforts. Talents and handicaps are fortuitous, not related to individual work efforts, and ought to be largely disregarded.

Let us now explore the conditions under which the distribution of income may be considered optimal: Optimal distribution of income requires (a) efficient production (output must be produced before it is distributed) and (b) just distribution. The former presupposes inducement to work at full capacity. Since such an inducement is socially determined, it is never discussed in the neoclassical literature but is simply assumed to exist. The second component has been proclaimed as intractable of scientific treatment because it involves interpersonal utility comparisons which seem impossible. And, indeed, a laissez-faire market (or a governmental decree) cannot achieve an optimal distribution of income; consequently, optimal income distribution is inherently impossible in a capitalist and etatist setting.<sup>8)</sup>

In socialist economics the inducement component is discussed right from the beginning. Since the worker is (a) is working for himself and not for a boss and (b) himself participates in the determination of the wage rate, there are incentives to work at full capacity. The distribution component requires an additional comment. Assume that, *ceteris paribus*, marginal utility of income is diminishing (a generally accepted assumption) and that the consumers are in some fundamental sense similar. Then any change making the distribution of income more egalitarian and not affecting productivity adversely

<sup>8)</sup> Whenever a capitalist system cannot achieve a target or solve a problem, neoclassical theory claims that it is inherently impossible.

will increase the welfare of the society. In the limit, income will be distributed equally. But long before the limit is reached, productivity will be affected. Those who feel that they do not get a just reward will reduce their productive effort and total output (income) will shrink. Formally, we may face the following problem: the transfer of an additional unit of income from more productive to less productive members of society, will increase social welfare; at the same time, because of dissatisfaction, total output will decrease and, consequently, income and welfare will be reduced. How do we find the point where the welfare gain due to redistribution is exactly equal to the welfare loss due to reduced output — which is the point of maximum welfare and which, consequently, determines the optimum of the income distribution?

From the point of view of a benevolent despot — traditionally tacitly assumed by welfare economists when discussing possible improvement in income distribution — there is no answer to the question posed without engaging in interpersonal welfare comparisons which leads to an impasse. Fortunately, however, in the institutional setting of a socialist economy the benevolent despot problem is irrelevant. Here, wage differentials are determined — and, consequently, income is distributed — by a process involving the most direct interpersonal welfare comparisons. Once the members of a working collective have agreed on a just income distribution, there is no other distribution which could increase their welfare. Arriving at a just distribution implies a complete evaluation of the welfare of every member of the group. If it were thought possible to increase the welfare of the group, the group would have proceeded to do it and that would then be the optimal distribution. It is impossible, in a normal human group, to consider that injustice contributes to welfare.

The solution of the optimum distribution problem proves possible because the actors themselves engage in interpersonal welfare comparisons and make the relevant decisions. Neither the capitalist market nor the statist bureaucracy can do that.

#### (d) Distribution According to Needs

Equal opportunity for a producer implies equal opportunity in developing one's innate talents. Differential access to educational or health establishments would render equality among producers a fake. Consequently, health services and education ought to be exempted from the exchange relationships and distributed differently from the purchasing power of individuals. In general, anything that substantially influences the development of individual capabilities must be exempt from the exchange criterion and subject to the needs criterion. Let me elaborate on that.

The entire social product may be divided into two parts: market (or commercial or profit motivated) product and non-market product. The latter can further be subdivided into the part with welfare content (e.g. education) and the part that plays the role of social

overheads (e. g. judiciary). The market output of goods and services can be — and ought to be, because this is the most efficient solution available — organized on the basis of exchange which implies distribution according to work. The non-market output calls for a different organizational principle. In fact, these are tauto-logical statements until we identify the market and non-market parts of social product. Of the latter, it is only the part with welfare content that interests us here. In its consumption aspect I shall call it *collective consumption*, reserving the term *public consumption* for the non-welfare part.

If a class stratification is to be avoided, distribution must be organized on the basis of work contributions; for this reason, the socialists insist on the distribution according to work. If private productive property exists, part of the social income will flow to property owners qua owners and that will provide the basis for the emergence of a class of capitalists. If the state monopolizes productive property, then of the social income will flow to the state officials, the distribution will correspond to the structure of social hierarchy and this will provide the material basis for the emergence of a class of bureaucrats. For socialism to be established, all nonlabour income must be eliminated. However, even this will not quite do. If prosperous families can buy better education and health for their children, all members of the society will not be equal at the start — while equity is the essence of socialism. Thus again, personal income will not depend exclusively on personal efforts but also on extraneous factors such as the wealth or the wisdom of the parents.<sup>9)</sup> For this reason, even strict distribution according to work is not sufficient for a socialist society; it must be supplemented by distribution according to needs whenever this has an important bearing on the development of the talents and personal faculties of individual members of the society. Whether you have a big or a small car does not really matter because both will bring you to wherever you want to go. If you have only primary education and have had no chance to attend a university, or if you had suffered from malnutrition in your childhood — you will be fundamentally handicapped in your life. Let us note, in passing, that the requirement that every individual be given equal opportunity, is not only social justice — the socialist principle of equity — it is a principle that coincides with the maximization of economic efficiency since the available store of social talent will be maximally exploited.

The following activities contribute to the building of personal capabilities:

- (1) Education
- (2) Medical Care
- (3) Social Welfare
- (4) Culture
- (5) Physical Culture
- (6) Environmental Conservation and Creation

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<sup>9)</sup> It may also depend on genetic or environmental accidents and therefore the labour income of the disabled and mentally retarded people must be complemented by a social subsidy which may also be conceived as a global social insurance payment.

These six personality building activities ought to be organized on a nonmarket basis. This implies that both the supply and the demand side should be organized in a way different from that in the market activities. Here we are concerned only with the demand side. As for the supply part, I should like only to draw attention to the distinction between provision and production: collective provision of a good does not imply production by a public body. Let me also make a terminological suggestion. *Collective good* refers to non-market output with welfare content. Its essential characteristic is that it contributes to the development of individual faculties. There are at least six broad categories of collective goods. *Public good* refers to non-market output without a welfare content and representing social overhead cost (judiciary, police, army, public administration.<sup>10</sup>)

Classical economists did not have much to say about demand. They talked of the *use value* which was subjectively determined and there was little, they thought, one could say about subjective valuations. Neoclassical economists demonstrated that even the use value can be analyzed. In fact, they turned it — under the name of utility — into the centre of their interest. The individual consumers and their preferences would determine the aggregate demand, the individual firms and their costs — the aggregate supply and a perfectly competitive market would lead to a Pareto optimum equilibrium. We now know that this drastic simplification was very far from what was actually happening. Let us again stick to the demand side. Even in the market sector, demand has more than one dimension: apart from an individual consumer, there is the society which encourages or prevents (e.g. drugs) certain consumption and there are experts who produce norms of accepted quality (e.g. for medicines, testing consumer goods or working out national standards). In the non-market sector this tridimensional demand space — containing the consumer, the expert and the society — is absolutely essential. The preferences of the individual consumer are occasionally even completely disregarded (e.g. in the case of vaccination) or reduced to yes/no answers (as when the doctor suggests operation). The society decides on the size of the market. Experts perform some sort of rationing, replacing the role of prices.

Like everything else in economics, the need has a social dimension. While individual consumer demand depends on the consumer preferences restricted by his budget, collective demand depends on the needs restricted by the resources available to the society. (In both cases demand is modified by changes in relative prices). We may imagine a social preference map in which individual consumer demand can be compared to collective demand and also various components of collective demand can be compared to each other. Applying the conventional criterion of equalizing the utility per unit of expenditure, the

<sup>10</sup> Thus, e.g., the protective services of the police represent an intermediate, not a final good. Total social product does not consist of GNP *plus* police services. The output of a shoe factory consists of a certain number of pairs of shoes, *not* of the latter *plus*, e.g., the services of night watchman. Preserving law and order is a *precondition* for the system to be able to produce final goods and services, not an addition to final output. Cf. B. Horvat, »The Conceptual Background of Social Product«, *Income and Wealth*, Series IX, Bower and Bower, London, 1961, pp. 339—52 and »An Integrated System of Social Accounts for an Economy of the Yugoslav Type«, *Review of Income and Wealth*, 1968, pp. 19—36.

society divides the available consumption goods and services between individual and collective consumption. This is done by means of a political process about which we know very little and expect to be educated by political scientists (who, however, prefer to leave us waiting). We know even less about what should be done to improve the efficiency of the process. Finally, the distribution of resources to various activities within the components is mostly done by experts.

Although the collective needs in a poor and in a wealthy society, may in some sense be equal, the revealed or backed by resources, i.e. the collective consumption will differ and in general will be an increasing function of the level of development. In the early stages of development of compulsory consumption (vaccination, primary education) is likely to be great. Later, collective consumption will extend to goods and services provided free of charge (or at subsidized prices) by the society while the individuals will continue to exercise free choice (university education, museums and arts galleries, theatres and sports grounds). The provision of collective goods is often likely to follow a certain priority schedule, rather than marginalist calculation. Thus (except for relatively short transition periods) social programs are not likely to be oriented towards eradication of one half of malaria and three quarters of smallpox cases or to the maintenance of eighty percent literacy and one percent university education, but rather to the complete elimination of infective diseases and towards attainment of complete literacy regardless of the fact that other medical and educational needs have not yet been satiated.<sup>11)</sup> Thus, these seem to be certain socially determined standards and it is not deemed acceptable to tolerate consumption at lower levels.

We reach the conclusion that every society will decide — through some sort of efficient or inefficient political process — on the share of collective consumption in social product. The poorer the society, the lower, *ceteris paribus*, the share. But no matter how high it may be, collectively financed goods and services will not satiate potential demand. Thus collective consumption will be supplemented by individually financed consumption of personality forming goods and services. To the extent that this happens, the equity principle of socialism will be violated. Except in textbooks, one cannot prevent this encroachment of private use of collective services (high officials or wealthy people will have access to better hospitals and will receive better treatment; family influences cannot be eliminated; corruption and nepotism will emerge, etc.). And even if one could prevent by force all individual purchases of collective goods, that would clash with the socialist principle of free development of every individual. The welfare of the society cannot be increased by reducing the choices (which have no adverse externality effects) of its members. It follows that the best solution is to provide certain limited market also for non-market goods. The limits of this market will be determined by

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<sup>11)</sup> We observe a similar phenomenon in individual consumption. In the strict logic of the marginal utility calculus, and assuming divisibility, satiation could occur only for all wants simultaneously, or for none of them. However, already at modest incomes, consumption of various goods is brought to the satiation level (sugar, salt, water, etc.).



the existing social ethic and are likely to be narrower in a socialist society as compared to other contemporary societies. This inconsistent but unavoidable market is likely to shrink as society gets richer and moves closer to socialism. Thus it appears that it is difficult to build socialism in a poor society.

Once the volume of collective consumption has been decided upon, goods and services are distributed among individuals according to needs. What the needs are is determined either (a) by the individuals themselves (mostly in the spheres of culture, physical culture and environment enjoyment; partly in education, medical care and social welfare) or (b) by experts — in the cases of compulsory consumption and when the consumers are not competent to decide (children, insane people, patients) or (c) by both — when the proposal or an expert has to be accepted by the individual (surgical operations). The determination of the needs is always carried out in a given social framework.

In conclusion, the principle of distribution according to work performed must be complemented by the principle of distribution according to needs. In terms of goods this implies that pure consumption goods will be distributed on an exchange basis as market goods. The ability developing goods will be distributed on a non-market basis. As regards productive contributions, the work principle will fully apply only to producers within a certain ability range, socially considered as normal. Outside that range positive and negative corrections will be made. It was mentioned in section (b) that these corrections may be interpreted as complementing the criterion of »work contribution« by »work effort«. In the context of the present section it may be interpreted as complementing the work criterion by the *need* criterion. This interpretation is particularly appropriate when applied to disabled persons.

Consumer equality implies that personal efforts determine variations in income. This is a normal case and can be applied to a great majority of producers whose abilities are considered to fall in the normal range. Those with subnormal abilities — due to physical or mental causes — must first be brought to the consumer starting level before the work principle can be applied. In the extreme case of lunatics or 100 percent invalids, the entire personal income consists of negative income tax and the work principle is completely replaced by the needs principle. One may remark that all societies somehow care for their disabled. But in class societies that is charity; in socialism it is income and is consistent with the fundamental premises of the system. For, socialism is not based on individual egoism. Neither is it based on altruism or idealism which are defined in relation to egoism and so do not transcend the bourgeois world. Socialism is simply based on social responsibility inherent in unalienated human relations.

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## OSNOVI TEORIJE RASPODJELE U SAMOUPRAVNOM SOCIJALIZMU

Branko HORVAT

## S a ž e t a k

Socijalizam implicira jednake mogućnosti za razvitak svakog člana društva. Kao konzekvenca, u tržišnom dijelu privrede primjenjuje se princip raspodjele prema rezultatima rada. Taj princip znači da svatko dobiva od društva onoliko koliko je društvu doprinio svojim radom. U netržišnom dijelu privrede primjenjuje se princip raspodjele prema potrebama. Razlog za primjenu ovog drugog principa sastoji se u tome, što se jednake mogućnosti razvitka mogu ostvariti samo onda ako svi članovi društva imaju jednak pristup obrazovnim, zdravstvenim i kulturnim ustanovama. Obrazovanje, zdravlje i kultura predstavljaju neophodne uvjete za razvitak proizvodne ličnosti. Ukoliko bi oni zavisili o zarađenom dohotku i tako bili neravnomjerno raspoređeni, članovi društva kao proizvođači našli bi se u neravnomjerno pravnom položaju. Njihov dohodak i funkcije u društvu ne bi bili rezultat samo njihovog rada, već i slučajnih okolnosti (npr. rezultat imućnosti roditelja) koje su im omogućile veći ili manji razvoj njihovih urođenih sposobnosti.

Proizvodni rezultat zavisi od dvije grupe faktora: jedni su vezani za rad, a drugi nisu. Ako želimo nagraditi rad, onda moramo tačno specificirati i jednu i drugu grupu faktora. Radna komponenta se sastoji od dva faktora: (a) individualnog rada i (b) kolektivnog rada. Oni se mogu nazvati i (a) neposrednim radom i (b) poduzetništvom. Prvi zahtijeva individualno nagrađivanje, a potonji kolektivno. Poduzetništvo je determinirano međusobnim odnosima, organizacijom rada i stvaralaštvom radnog kolektiva. Radni dohodak sastoji se, na taj način, od ovih elemenata. Plaća za neposredni rad plus raspodjeljena dobit predstavlja lični dohodak. Lični dohodak plus neraspodjeljena dobit predstavlja dohodak od rada. Praktična procedura za određivanje dohotka rada jest ustanovljenje ukupnog dohotka i odbijanje dohotka koji nije stečen radom.

Neradni dohodak sastoji se od raznih vrste rente. To su: zemljišna, gradska i rudnička renta, kamata, tehnološka i monopolska renta. Sve te rente, izuzev posljednje, mogu se relativno precizno utvrditi. Ukoliko se žele izbjeći administrativne intervencije, monopolska renta može se zahvatiti jedino progresivnim oporezivanjem.

Provjera ispravnosti određivanja neradnog dohotka je jednostavna i zasniva se na statističkim zakonitostima. Uzmimo da je privreda podijeljena na relativno homogene grupacije od kojih svaka obuhvaća 30 ili više pogona. Tada se iz statističkih razloga može pretpostaviti da će — ma koliko pojedini radni kolektivi odskakali u pozitivnom ili negativnom smislu uz adekvatne konzekvence u visini dohotka — prosječni radni rezultati za svaku grupaciju u cjelini biti podjednaki. To znači da grupacijski prosjeci ličnih dohodaka za odgovarajuće kvalifikacije moraju biti podjednaki. Ukoliko se lični do-

*hoci znatnije razlikuju, onda to znači da postoji prelivanje dohotka među grupacijama, pa postoji kolektivna eksploatacija jednih radnih kolektiva od strane drugih. Tada organi ekonomske politike interveniraju odgovarajućim instrumentima u svrhu ujednačavanja uvjeta privređivanja i adekvatnim apsorbiranjem raznih renti, od kojih se sastoji neradni dohodak, uspostavljaju preduslove za raspodjelu prema radu.*

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