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JAMES MEADE'S LABOUR-CAPITAL
DISCRMINATING PARTNERSHIPS

by

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1. Introduction

The traditional cooperative enterprise - whether in Yugoslavia or France, Italy or Britain - presents three main distinctive features:

- i) self-management: members have exclusive participation in decision-making, on equal terms (i.e. one man-one vote), directly or through representative organs, on all medium and long term issues such as labour organisation, employment (i.e. size of membership), income distribution, investment levels and finance; only day-to-day management is left to executives who simply implement these decisions. A circular structure of authority (from members upwards to representative organs and managers and downwards again on members as employees) replaces the hierarchical structure of the capitalist enterprise. Thus members have the decision-making powers of entrepreneurs.
- ii) income-sharing: members participate in the distribution of net income (defined here as net value added less capital rentals and interest on loans), also on equal terms except for the quantity and quality of labour services contributed by members, and their relative contribution (if any) to enterprise capital. Thus members draw an entrepreneurial income, i.e. a residual income after contractual fixed obligations have been met. Together, self-management and income-sharing give members the complete and exclusive role of entrepreneurs.
- iii) social capital: there are usually restrictions on the distribution of capital to members, at least for internally financed capital accumulation (which in Yugoslavia is discussed under the name of members' "past

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labour", including investment in other enterprises; see Uvalic 1987). These are often accompanied by restrictions on the payment of interest on members' capital contributions when they exist. These restrictions originate in the historical roots of cooperatives as mutual societies providing a service to members on more competitive terms than otherwise available: hence the implication that profit should not exceed the interest rate so that if, after members' capital contributions have obtained an interest, there is any internal capital accumulation it should be for the general benefit of future members or for the whole society. The restrictions are also rooted in the works of early 19th century utopians, such as Robert Owen, Charles Fourier. Comte Henri de Saint-Simon and especially Philippe J.-B. Buchez, a catholic Saint-Simonian who regarded a cooperative more like a monastic order than as an enterprise.2 In Yugoslavia these restrictions are reinforced by the obligation of the enterprise to maintain the capital initially conferred by the state at the time of changeover to the new system: initially state capital was subject to a rental-like tax, first eroded by inflation then abolished outright, however compensated since 1975 by an obligation to maintain also the real value of subsequent increments in net capital of the enterprise. In capitalist countries the social connotations of cooperative enterprises lead also to restrictions on their activity (often limited to services to members) or the acceptability of the profit motive (excluded for instance by the Italian Constitution, art. 45). These restrictions are usually compensated by lower tax rates than for traditional enterprises; this in turn discourages the development of more capitalist-like cooperatives even when they are allowed by legislation - a development usually opposed both by representatives of capitalist firms for fear of competition and by radicals committed to the social solidarity ideals of early 19th century utopians.

There are differences, of course, between different regimes, on issues such as: whether and on what scale non-

member workers can be hired at a fixed wage; statutory limitations on the distribution of net income (more liberal in Ireland and Holland, for instance, than in other countries); extent of members' participation in the capital of cooperative enterprises (which is greatest in Mondragon cooperatives - see Thomas and Logan, 1982; Wiener and Oakshott, 1986 - and zero in Yugoslavia). However these general features, in one form or another, are typical and amount to what could be called a form of micro-socialism, not in a derogatory sense but simply to emphasize the presence at the microeconomic level of the standard socialist premises - democratic planning, egalitarianism, social ownership of the means of production - in an environment which otherwise could be indifferently capitalist, market socialist or centrally planned.

Cooperative enterprises, beside the non-conflictual implementation of widely shared social-democratic and almost philantropic values, are expected to provide self-help in the fight against unemployment, enhance downward flexibility of incomes and therefore facilitate adjustment to exceenous shocks, harness entrepreneurship, sharpen competition. improve labour relations, raise work satisfaction and productivity.3 The early and excessive claims of cooperative enthusiasts such as Charles Gide were sharply rebuked by Maffeo Pantaleoni (1898: encouraged by Vilfredo Pareto, see Morley-Fletcher, 1986, pp. LVI-LVII), who saw no difference between cooperative and conventional enterprises - a view which is now restricted to the comparison of longrun equilibria.4 Modern economic analysis, on the contrary while not denying the possibility of non-quantifiable major or minor gains from participation in income and decisionmaking, has been quick to identify a considerable number of at least potential drawbacks, consisting in various forms of inefficiency and instability in the short and medium run. Most propositions about the drawbacks of cooperatives are drawn from theoretical analysis, rather than direct

Charles Fourier intended to limit the profit share in value added to one third; Henri de Saint-Simon wished to abolish profit altogether and opposed inheritance: Robert Owen's enterprise also limited profits; for an extensive survey and references see Landauer, 1956, Vol. I, Ch.1, pp. 21-71. Philippe Buchez (1831) envisaged a workers' cooperative reinvesting twenty per cent of net income, the resulting accumulation belonging not to members but to the cooperative, considered as "... indissoluble, not because individuals would not be able to detach themselves from it, but because this association would be made eternal through the continuous admission of new members. Thus this capital would not belong to anybody, and would not be subject to inheritance laws"; this is precisely the dominant cooperative regime today; see the extensive introduction to Morley-Fletcher (1986).

^{3.} An additional advantage is suggested by Jacques Dreze (1985), who expects cooperative enterprises also to provide their members - by choosing an output-mix of contingent goods different from that of a capitalist firm - with insurance against otherwise uninsurable (or only more expensively insurable) risks. As an example we may think of cooperative farmers choosing, like sharecroppers do, a greater diversification of output than dictated by maximisation of average profits over the years, in order to reduce the downside risk of food scarcity otherwise resulting from greater specialisation, moreover in cash crops subject to price fluctuations. However it is hard to think of other relevant examples, especially outside agriculture, that might make this an important and distinctive factor of cooperative enterprise behaviour.

^{4.} See Morley Fletcher, 1986.

observation; indeed the cooperative enterprise is very much like the bumble-bee - in theory it should not be able to fly - but then bumble-bees are not the most successful examples of flying machines; there is a lot of room for improvement in their design, as there is in that of cooperatives.

This paper reviews the drawbacks of traditional cooperatives, labelled after Benjamin Ward and Jaroslav Vanek for their pioneering work (section 2); illustrates James Meade's analysis of the alleged ultimate source of most of these drawbacks, namely the egalitarian foundations of cooperatives (section 3), and his proposals for an Inegalitarian Cooperative (section 4) and a Labour-Capital Discriminating Partnership (section 5) expected to eliminate the economic disadvantages of cooperatives. I will then criticise - apart from the unlikely rejection, by current and prospective cooperative members, of the long established principle of "same pay for the same work" - the suggested mode of operation of Meade's institutions and their suitability for realising their purposes (section 6) and propose an alternative solution to the same problems (section 7).

$2\,.$ The alleged drawbacks of Ward-Vanek cooperative enterprises.

In the last thirty years a vast literature (reviewed by Hill-McGrath-Reyes 1981, Pettman 1978 and Bartlett-Uvalic 1986) has discussed seven main alleged economic drawbacks of cooperative enterprises. These are:

- i) the unsuitability of cooperative enterprises outside labour-intensive sectors. This is due to workermembers' lack of substantial own capital (otherwise they would not have to work) to invest or to be used as collateral against loans or rental contracts (for instance, see Meade, 1972)
- ii) the unsuitability of cooperative enterprises for risky ventures, for instance in sectors subject to sudden large fluctuations, in view of their inability being tied to one or at most a couple of enterprises to diversify risk (for instance, see Meade, 1972). These two factors reinforce each other: lack of capital makes cooperative workers particularly vulnerable to risk and therefore risk-averse; this vulnerability makes potential lenders all the more unwilling to lend and keeps cooperatives out of capital-intensive sectors. These first two propositions correspond to uncontroversial direct observations: nobody expects oil tankers or steel mills to be operated by cooperatives.
- iii) in competitive conditions, restrictive unemployment policies on the part of any cooperative enterprise paying out incomes per member higher than the supply price of labour outside the cooperative. This is due to presumed maximisation of net distributable income per

member: thus employment will always be equal to or lower than that provided in the same conditions by a capitalist enterprise, since a cooperative enterprise can pay no less then that supply price or members would leave, but it can pay more, in which case it would operate at the (lower) level of employment that the capitalist firm would offer at an equivalent wage. This proposition is one of the set pieces of self-management literature ever since Benjamin Ward (1958) first drew the implications of cooperatives' self-centered behaviour. Implicitly this analysis rests on labour market clearing: if wage-earners are "rationed" in their ability to sell their labour at the going wage, cooperative enterprises might provide greater employment than their capitalist counterpart because of the greater downward flexibility of their members' incomes and their ability to operate in conditions where a capitalist enterprise would fail (See Meade, 1982). This qualification is demonstrated by employees threatened by plant closure often offering to keep the plant open by taking it over collectively; but if cooperative enterprises were only an instrument for enforcing labour income discipline in a recession they still could not claim general viability.5 The incentive to behave as predicted by Ward must be there. even if it is resisted or weakened or even overcompensated by other considerations.

- iv) in the case of monopoly, more restrictive monopolistic behaviour than in the case of capitalist firms. due to maximisation of monopoly profit per man instead of total profit. In fact, in the neighbourhood of maximum profit a small output fall would have no effect on profit but would reduce perceptibly labour inputs, thereby raising profit per man. This tendency makes cooperatives most unsuitable to operate public utilities. More generally cooperatives, while unable to exercise inflationary pressure through wage claims, would naturally exercise inflationary pressure directly on prices. so that they would have to be restrained by competition more than their capitalist counterpart (see Meade, 1982). Jaroslav Vanek thought this condition would be fulfilled given the smaller size expected of cooperatives, but there is no evidence of cooperatives being significantly smaller than other firms in their sector of operation: indeed the contrary is true in Yugoslavia. where firms on average are larger than their counterparts in capitalist countries (see for instance Sacks 1983).
- v) inefficient allocation of labour in the short run, which rather overshadows the possibility of obtaining the same long term competitive equilibrium mutatis mutandis as any market economy. This Paretian inefficiency is due to perverse response to changes in product price, technology and capital rental. In fact, for a cooperative in membership equilibrium:

<u>Total Revenue - Fixed charges</u> = Marginal Revenue Product Membership of Labour

If the left hand side (average earnings) was lower than the right hand side it would pay to expand membership, while in the opposite case an increase in earnings would result from a smaller membership. Now, starting from this equilibrium position a product price rise, or an equivalent Hicksneutral rise in labour productivity (i.e. at the same rate regardless of the capital/labour ratio) or a decrease in capital rental all raise average net income per man relatively to its marginal product, because the fixed charge is not indexed to the price of the product. This provides an incentive to raise further average earnings per member through a reduction of membership size if at all possible, instead of encouraging greater employment and output in the short run. in response to the improved relative conditions of the sector in question; the opposite happens for product price falls and capital rental rise: either way, short-term adjustment leads to Paretian inefficiency. This is another set piece of Ward-Vanek analysis, illustrating the necessary implications of income-per-man maximisation in the oneproduct one-input-other-than-labour case: Pareto-inefficient adjustment may but does not necessarily happen in the manyproducts and/or many-inputs case (Vanek, 1970) but, even if then membership changes are in the right direction, they will be smaller than employment changes in an equivalent capitalist enterprise.

Instability may ensue from this perverse adjustment process if the resulting downward sloping supply curve is less steep than the demand curve, demand increases raising prices and inducing a fall instead of a rise in supply (in which case the reverse would happen for demand falls). In any case any move towards a new equilibrium has to take place through the withdrawal or the birth of new enterprises, instead of through adjustments within existing enterprises.

The macroeconomic implication of this drawback is the ineffective and inflationary nature of aggregate demand management in an economy dominated by cooperative enterprises, and its greater price fluctuations as a result of given fluctuations in monetary expenditure, though this is partly compensated by a greater resilience of full employment if it were to be reached; while a minority cooperative sector behaving anti-cyclically will function as automatic stabiliser. Another implication of short-run maximisation of income per man, neglected in the literature (except for Bartlett 1987, at least partly), is the failure of domestic currency devaluation as a policy instrument for improving the trade balance, and its inflationary impact, due to supply rigidities with respect to prices in the short run.

vi) the inefficient use of capital in the medium run, due to bias in project selection, i.e. the possible rejection of investment projects having a positive present

value (at the supply price of labour) if they lower average earnings, and the possible acceptance of negative present value projects if they raise average earnings (Vanek, 1970). Positive value projects may be rejected if pre-investment income per member is greater than the supply price of labour, and the positive present value is obtained only for lower earning levels though no lower than the supply price of labour; this happens when an employment-expanding project involves a membership increase proportionally greater than the associated increase in the present value of expected total earnings. Conversely a negative present value project will be attractive to a cooperative if it involves a membership decrease proportionally greater than the decrease it causes in the present value of expected total earnings. The difference with respect to capitalist firms can be summarised thus (PV=present value of the project; L=membership; g=associated growth in the present value of expected total earnings):

PV at the supply price of L	> O	> 0	< O	< 0
employment growth	⇒g.	≺g	>g	√g
capitalist enterprise	YES	YES	NO	NO
cooperative enterprise	NO	YES	NO	YES

This involves a bias against the generation of new employment through investment in existing firms, contrary to what is expected of the growth of the cooperative sector. The most attractive investment for a cooperative enterprise is financial, because it does not generate any employment at all; hence the built-in tendency, or at least temptation, for a cooperative to degenerate into a financial holding. Indeed, in the absence of other constraints, this degeneration process if unimpeded would lead eventually to a one-man financial holding: as income from financial assets replaces income from production further opportunities are created of raising net income per member through a reduction of membership parallel to the disinvestment in production activities.

vii) even in the absence of such distortions in the selection of investment projects, a bias against the reinvestment of net income can be expected, since a cooperative member is entitled to the current benefits of a project only for the duration of his membership and does not participate in subsequent benefits or in the residual capital value of the investment (including its possible appreciation due to success greater than expected, or simply to inflation) at the time of his departure for whatever reason.

Comparing the reinvestment of a unit of net income within the enterprise at an internal rate of return r or its distribution to members who can consume it or place it in saving deposits at a lending rate i, the cooperative member of expected tenure T. unless swayed by other considerations will be in equilibrium when

r = (i + the percentage annuity obtainable from investing today the present value of a unit in T years); but then

$(i + such an annuity) \rightarrow i$, therefore $r \rightarrow i$.

If i is also the cost of credit finance to the cooperative, reinvestment will fall short of the optimum level corrisponding to its opportunity cost to members. Hence the occurrance of underinvestment out of self-finance to an extent governed by the age structure of members, undue preference for borrowed funds and the particular importance of financial intermediaries to avoid the possibility of underinvestment in the whole economy (see for instance Pejovic 1976 and Furobotn 1985).

These contentions can be weakened, but seldom eliminated, by introducing further qualifications. restrictive bias in membership recruitment may be offset by solidarity with the unemployed, pressure from local authorities or political interference. Perverse response to output price, technical progress and capital rental is constrained by the tenure of members and (as mentioned above) reduced by substitutability in both output mix and choice of inputs, though rigidities would still result. The birth of new cooperative enterprises competing structural profits away from existing ones, and labour redeployment through mergers (Nuti, 1986a) will reduce the short term inefficiency of the cooperative sector: anti-reinvestment bias will induce greater inter-firm mobility of funds, though the possibility of capital goods in turn being produced by cooperatives amplifies short term instability (Meade, 1982). Growth-mindedness will induce cooperative managers, like their capitalist counterparts, to push for reinvestment: concern for enterprise safety and employment prospects may induce members to support reinvestment in spite of shorter term benefits from paid out income. The possibility of borrowing on cheaper terms if there is own collateral and self-finance will induce at least some reinvestment: loans to firms are usually more expensive than the interest on households' saving deposits, narrowing or even reversing the gap between interest on individual savings and rate of return requested by members on selffinanced enterprise investment; but then the increase in the value of assets if investment is successful is not fully (if at all) distributable and cannot be included in the rate of return.

While there is little or no empirical evidence of many of the alleged drawbacks occurring in practice, there can be no doubt that their danger, at least as a tendency admittedly partly or fully compensated or even possibly overcompensated for, has been well substantiated and cannot simply be dismissed (see for instance Horvat, 1986) appealing to the lack of sufficient incriminating evidence. One way of eliminating these drawbacks is Weitzman's proposal of income-sharing without self-management or job-

security (and implicitly without the social restrictions on the distribution of capital and profits; Weitzman, 1983, 1984, 1985a and b, 1986). Weitzman's claims and overclaims have been discussed elsewhere (see Nuti 1986b, 1987a, b and c) and will not be considered here. The other is Meade's proposals for introducing inequality among members in both decision-making and income-sharing.

3. James Meade's diagnosis

Meade (1972, section III) is intrigued by what causes the restrictive employment policy, monopolistic bias and perverse responses of cooperative enterprises. He suggests three main causes:

- i) the fact that in the cooperative the variable factor hires fixed factors, instead of the other way round as in the capitalist firm: this puts the burden of adjustment to change on medium-term capital accumulation instead of short-term changes in labour employment; a cooperative of machines, as it were, could not adjust machine membership as easily and quickly as workers' membership can be changed, and would adjust the hiring of workers to work with them immediately, without perverse responses in the short run.
- ii) the fact that the cooperative maximand is not an absolute magnitude (profits, or their present value) but a ratio calculated per unit of input. A capitalist firm maximising the rate of profit per unit of capital employed. or an imaginary cooperative of machines maximising profit per machine would be as monopolistically restrictive as the workers' cooperative. However, the capitalist firm does not maximise the profit rate: it can be said to do so for a given capital, when it coincides with total profits maximization; but the capitalist firm does not (certainly should not) choose its investment so as to maximise its overall profit rate. Nor does the joint-stock company maximise profits per machine, as a hypothetical cooperative of machines; it maximises profits per share.6 In order to maximise profits per share not only labour is hired when its marginal revenue product exceeds the wage, but machines are bought or hired as long as they contribute a positive profit even if this lowers the average return per machine or the average profit rate on investment in machines. The jointstock company is inegualitarian - Meade argues - because "while all shareholders are treated equally, not all shareholders "own," as it were, the same number of machines per £100 suscribed in money capital" (1072, p. 420). This

^{6.} The essential significance of this difference apparently struck James Meade while he was lying sleeplessly in bed one evening in India, just in time to correct the next morning an assertion to the contrary he had made the previous day at a seminar at the Delhi School of Economics; see Meade 1972, p. 418, footnote.

observation leads Meade to the ultimate cause of the peculiar expected behaviour of cooperatives, i.e.:

iii) income equality among cooperative workers, with newcomers being given a share equal to that of older members, as opposed to the inequality of profits per machine in the joint stock company when a decision is taken to hire or buy a new machine. Also, in the joint-stock company there is inequality between the profit share earned per unit of financial investment by older shareholders with respect to the terms offered to new shareholders brought in to finance investment in machines which earn a lower rate of profit than machines already installed. Ultimately, Meade argues, what saves the joint stock company from the kind of problems arising in a cooperative enterprise is inequality between machines, and the parallel inequality between profit shares per unit of investment enjoyed by different shareholders according to the success of the venture at the time of their joining.

This diagnosis leads to a natural cure: the introduction of a similar inequality in the cooperative enterprise. Two kinds of new institutions are thus generated: the Inegalitarian Cooperative (Meade, 1972) and, more generally, the Labour-Capital Discriminating Partnership (Meade, 1982 Ch.IX and Appendix E, 1986a, 1986b).

4. The Inegalitarian Cooperative

James Meade proposes a labour partnership differing from the traditional cooperative in the inequality of members depending on the conditions prevailing at the time of their joining the cooperative. Founders presumably stipulate equal shares, but new members are hired at an income equal not to current average earnings per member but to the value of labour marginal revenue product, i.e. new members are given a number of "shares" such as to guarantee that level of current income, and are exposed to its fluctuations per share for the rest of their membership.

The object of the cooperative now becomes the maximisation of income per share. At the cost of income inequality between members, and the inequality of voting power involved in unequal shares, most of the drawbacks of cooperatives are eliminated. Namely, drawbacks i) ii) and vii), i.e. unsuitability for capital-intensive and risky ventures and reinvestment aversion, remain, while

iii) Restrictive employment policies end; any worker whose supply price is no higher than the marginal revenue product of labour will be offered employment; the system produces the kind of labour income flexibility that to mainstream economic literature is a precondition of full (or fuller) employment;

- iv) The over-monopolistic bias of cooperatives ends, again because total earnings of existing members are maximised, not earnings per man seeing that new men do not get more than their contribution to additional monopoly profits;
- v) When a rise in product price lifts average earnings more than labour marginal revenue product, the partnership will recruit new members instead of seeking to reduce its size at an income lower than that of existing members but higher than offered before the price rise; hence no perverse or rigid response ensues. The same will happen with technological change, or rental change. There will be none of the macroeconomic implications of perverse responses; nor any need to rely exclusively on the birth of new firms to move towards equilibrium.
- vi) There will be no labour-saving bias in the selection of investment projects, since lower than average earnings can be offered not just for the current period but for the rest of new members' working life within the unequal partnership (though Meade has never shown awareness of this kind of problem arising, asserting instead the equal attraction of credit-financed investment even in the traditional cooperative enterprise).7

Meade advocates provisions for workers leaving the partnership: they may be bribed to leave voluntarily with the benefit of all parties, if their marginal revenue product becomes lower than their average earnings (as would result from a product price increase); they may also. however, have to compensate those who remain, if their departure leads to a fall in average earnings per member and jeopardizes the cooperative's ability to repay loans or pay fixed charges. This penalty on departure goes both against the notion of limited liability, presumably not ruled out by cooperative membership, and against the basic freedom of labour mobility that since the advent of capitalism workers have always enjoyed. There seems to be no need for members to take on more personal responsibility for their cooperative's loans than is the case for joint-stock holders and, in any case, this can be stipulated at the time loans are taken. Unless members at the time of joining have specifically taken on personal responsibility for the cooperative's liabilities the cooperative, if one member's departure makes the cooperative insolvent and he cannot be replaced, simply will have to go into liquidation.

^{7.} See for instance Meade 1982 p.217: "The purchase of a new machine by a cooperative should be to the advantages of all the members if the discounted cash flow from the machine (using the rate of interest at which it could borrow funds) were greater than the cost of the machine". As we have seen above (section 2 point iv) a positive present value at the supply price of labour is neither necessary nor sufficient for cooperative investment.

The further removal of the remaining drawbacks can be obtained by what Meade calls the Labour-Capital Discriminating Partnership (already outlined in the 1972 article and developed in subsequent work), which generalises the system to members contributing capital, including the recognition of capital contributions of member-workers in the form of self-financed investment (Meade 1982 Appendix E and 1986a, later abandoned in Meade 1986b).

5. The Labour-Capital Discriminating Partnership

A process of instant transition from traditional capitalist firms to Labour-Capital Discriminating Partnerships is described thus (Meade 1986b, section 7). Each factor is offered, instead of the income which it would get under current arrangements, a number of shares such that the same income level is obtained under the guise of dividends out of the firm's net income. Two types of share certificates are envisaged, namely capital shares to those who would have received profit, rent, interest (i.e. a kind of "debt for equity swap"), and labour shares distributed to employees, pro-rata so as to exhaust all of the enterprise revenue (after-tax net value added). All shares carry an entitlement to the same kind and amount of dividend. There would be no immediate effect on income, but subsequently all - including former recipients of contractual income - would participate in the success or failure of the enterprises. However capital shares would be like ordinary shares, freely tradable on the stock exchange or elsewhere, while labour share certificates would be tied to the individual employee and surrendered and cancelled at retirement or voluntary departure. Labour shares would be retained by redundant workers until they find suitable alternative occupation as long as they remained available for work, a provision guaranteeing income if not employment. The scheme therefore differs radically from ESOPs, or Employee Share Ownership Plans, where typically part of employee earnings are paid into a trust fund used to buy the company's shares and to hold them either to pay cash benefits to all employees thereafter or to distribute them to employees after a period of time or on retirement (see Meade 1986a, p. 116-7).

The employment of new workers or additional capital would be covered by additional issues of the appropriate share certificates, which would only be agreed upon by current shareholders if it added something to dividends per share. The problem would still arise of the riskiness of labour share certificates, but risk-averse workers could reduce this by settling for part of their income to be contractually fixed, as for other current inputs.

The usual reinvestment aversion would be avoided by issuing either free debentures (Meade, 1982) or free capital shares corresponding to self-financed investment, pro-rata to all labour and capital shareholders (Meade 1986a, or at least to capital shareholders while labour shareholders get

their share of profits in cash, as in Meade 1986b). Debentures would also have to be issued to members in lieu of dividends for the part of income consisting of capital gains, if these were included (as in theory they should be) in the definition of income; but then capital losses would also have to be taken into account and offset against dividends. A competitive periodic revaluation of capital (such as that proposed by Nuti, 1988a, for a socialist economy lacking developed financial markets, especially secondary markets) would be helpful in trying to calculate profits correctly by adding the change in net capital assets to distributable income; though Meade at most regards real capital gains as part of distributable profits (1986b), this indexation of capital shares giving them a questionable extra protection not enjoyed by labour shares.

In the Discriminating Partnership capitalists could contribute risk capital in the amounts required by the capital intensity of output, seeing that they would have a voice in the management of assets; they would also lend more readily than to ordinary cooperatives. All the residual problems of traditional cooperatives left open by the Inegalitarian Cooperative would be disposed of and none of the other problems would reappear.

There would be a few minor new problems. Meade envisages the possibility that, in case of losses, labour-shareholders may have to pay a net amount before they can leave, if the burden of losses on retiring workers exceeds what they are owed by the enterprise on other grounds; apart from the objections raised above for the Inegalitarian Cooperative, we can observe that if this case occurs the net assets of the partnership must be negative and, therefore, it must go into liquidation rather than rely on retiring workers to pay off their share of net liabilities.

Workers might deliberately work badly to make themselves redundant. or genuinely redundant workers may claim that they cannot find a comparable occupation: provisions stipulating continued availability to refill the same post should take care of this. There would be a remaining conflict at the time of switchover to the new system, to freeze the shares at a given level, but this would "involve a once-for-all conflict" (1986b, p. 48). Another conflict may arise over enterprise liquidation being variously attractive to capital and labour shareholders: compensation to workers may have to be paid, unless they have been given capital shares for their past participation in self-financed investment. Investment in social amenities may remain controversial, but their provision would probably raise productivity and the conflict is probably neither sharp nor large. Promotions of deserving workers through higher fixed payments or new share issues also may be a bone of contention, but Meade expects consensus to arise from the overall benefits obtainable from such promotions. The intermittence, variability and unpredictability of workers dividends could be dealt with by frequent fixed payments subject to yearly adjustments (as in Yugoslav weekly or monthly advance or akontacja), through some kind of dividend equalisation fund.

Meade is untypically sanguine about systemic gains from the new institution: "If ... there was a substantial shift from fixed wage to partnership shares, the advantages of the new organisation could be very substantial. Many basic conflicts of interest between labour and capital in reaching decisions about employment and investment would be resolved. Decisions to expand employment so long as there were available unemployed workers would not be impeded by the need to negotiate a reduction of pay for existing workers" (1986b, p.42). Some residual conflict over self-financed accumulation might remain, over indexed capital shares or the possible payment of dividends to workers in the form of securities, 8 but the progress would be undeniable.

The purpose of the scheme is not that of "... promoting a property-owning democracy" but to make "workers become risk-bearers together with the entrepreneur capitalists" if they wish (1986b, pp. 54-55); in order to induce them to accept risk, tenure is attached to labour employment. "Any reduction in demand for the product of the industry would be met not, as in a Capitalist Wage Economy, by a reduction in employment and growth of unemployment but by a reduction in prices and in the dividends payable to all workers and capitalists" (ibidem, pp. 42-43). This is Weitzman's ideal of flexible incomes and stable employment, without his overclaims and without taking away from workers their voice in enterprise management or job security. Like Weitzman, Meade invokes externalities to justify initial government subsidisation of the proposed institution: the necessity of its introduction on a large scale to stabilise employment and reduce individual risk. the need to encourage firms which have a large share of intermediate inputs in the value of output; and the diffusion of the burden of adjustment through income flexibility over a large number of firms (ibidem, pp. 56-57). If the promises of this institutional engineering could be fulfilled. the scheme would certainly be worthy of public support, especially as part of the package including also a socially guaranteed minimum income financed out of state capital, put forward by James Meade in his project for the "Partnership Economy" (1988).

$\,$ 6. Viability and effectiveness of the proposed institutions

There is a simple - though no less insurmountable for that - criticism to Meade's construct, namely that workers are unlikely to reject the long established principle of "same pay for the same work". $\underline{9}$ While Meade himself readily

formulates and accepts this criticism, when new institutions are proposed their clash with established customs and ways of thinking cannot be regarded as a final objection if these institutions can offer tangible net improvements in other ways. Such improvements may be partly offset by the adverse effects, on productivity and labour peace, of a system perceived to provide "unequal pay for equal work", whereas the separation of labour pay and dividends makes inequality of income more acceptable if it derives from the number of shares held and associated claim to profits. However this objection is simply a way of putting a price tag onto those old ways and customs, and asking whether they are worth preserving at that price. Hence it is a subjective ground for criticism. not a final argument against the proposed innovation. Effective criticism requires arguments against either the suggested mode of operation of the proposed institutional innovations, or their suitability for their purposes.

Meade's fundamental propositions about the inequality of joint-stock holders and the machines/workers analogy neglect that the real difference between cooperative workers and either machines or joint-stock holders is the time horizon encompassed by contracts.

Machines are bought or hired on prefixed terms over a long period of time - a difference in practice close to that between fixed and variable factors but not identical to that distinction, for variable factors other than labour can be acquired on a long term (future or forward) contract, while labour cannot. The capital contribution of initial stockholders is forever (or until liquidation) incorporated in their shares; initial shareholders can recover some of their capital, or even more than they have put in. by selling their share if they find a buyer who takes their place on the same terms; if there is no buyer shareholders have to keep their shares or can just throw them away. Workers are seldom offered long-term contracts and never have to fulfill them; they cannot be incorporated in shares in the same way as capital because this would imply an obligation - for them and their successors forever or until liquidation - to work as well as a right to a dividend, and they could only get out by paying a substitute to take their place. Yet in order to construct cooperatives really equivalent to a mirror-image of joint-stock companies. workers would have to enter a contract of precisely that kind, while capital was provided only on short term loans at a spot interest and fixed capital on short term leases, both

^{9.} This is the issue, rather than inequality as such. In fact here with respect to the traditional cooperative system there is greater inequality within the enterprise,

but potential inequality between cooperative enterprises is probably reduced by greater mobility of labour across enterprises; in any case it does not necessarily follow that that there will be more inequality, however measured, in the Discriminating Partnerships economy, where there may be more sources of inequality but not necessarily more unequal distribution of income.

funds and fixed assets remaining liquid and free to leave at any time though possibly with the option to stay at prefixed conditions.

The implausibility of this costruct should highlight the true and inescapable difference between the position of capital and labour whether in joint-stock companies or in Once the feudal-like discriminating partnerships. compulsion to supply serf-labour is removed from it, however, we could have workers supplying their own labour without the risk of having to work against their wish (like privileged shareholders not risking their capital), able to transfer their job - i.e. their membership and the associated obligation to work - at a price to others. This institutional set up has been investigated by Schlicht and Weiszacker (1977) precisely in this context, i.e. in a search for viable risk-financing provisions in labourmanaged enterprises. Jobs in this set-up are bought by workers from other workers or from expanding firms; "These tradable job rights are the precise analogue of tradeable shares in a capitalist environment" (Schlicht and Weiszacker 1977, p. 60). This system may be unpalatable or at any rate unrealistic as a possible arrangement for industrial labour in large scale production, but is not all that absurd: it is. after all, the system prevailing in professional partnerships, and even in conventional cooperatives sometimes there is a de facto, if not de jure, ability to nominate a successor or to transfer one's job to a relative.

Schlicht and Weiszacker presume that "Holders of these job rights will make decisions in accordance with the long run interest of the firm, because they want to maximise the present market value of their tradable job rights" (1977. p.60). This is not so; here the two authors make precisely the kind of mistake carefully avoided by James Meade: maximisation of return per job, i.e. per physical unit of input, is not the same as profit (or present value) maximisation (see above, section 3). The value of a job right must be equal to the present value of expected job differentials over time, with respect to the supply price of labour at the same times; this is maximised by maximising net income per man, which takes us back to the Ward-Vanek problems, except for the anti-reinvestment (investigated in section 2.vii) which here disappears due to members' time horizon becoming virtually infinite.

Beside throwing light on the ultimate differences between cooperatives and traditional enterprises the short run nature of workers' necessary association with enterprises of whatever kind has three destructive implications for Meade's Labour-Capital Discriminating Partnerships. As workers can freely leave, the continued existence of these Partnerships requires that workermembers' income should continuously match their outside opportunities.

Meade only looks at the short period, immediately before and after a new member is hired; he neglects what

happens in a sequence of such moves, apart from the necessity to revise periodically the share of old members in order to promote - if it is in the interest of all - those who deserve it. But when a partnership made up of individuals each with a possibly different number of shares giving claim to current enterprise income continuously negotiates with newcomers presumably each member will also reconsider his own position and how his number of shares compares with that which would give him his opportunity earnings outside the partnership. Also, these earnings will be varying over time and with the position of newcomers: while newcomers will take into account not just their current income deriving from the shares attributed to them but also the implications of such remuneration scheme for their future earnings. In practice newcomers benefit proportionally to their number of shares - from improvements in labour average productivity relatively to the initial position: but no newcomer can be offered better terms than any of the existing members (who otherwise could leave and turn themselves into new members). Thus anybody hired in the boom at a lower share than the others will have to be given more shares in the recession, therefore shortening the distance from the other members. No existing member can be given less than his opportunity earnings or he will leave the partnership. It follows that

- i) at any time the size of a member's share is always directly related to the length of his membership; the Meadean system would not be all that different from a wage economy with employment security and substantial seniority bonuses, with some profit-sharing and some co-determination.
- ii) current members, knowing that the number of shares of newly hired members is not really fixed but can vary only upwards, will be naturally reluctant to hire new members even if their marginal revenue product is higher than their dividend on the initial number of shares issued to hire them. Thus there would continue to be a restrictive bias of the same kind as that of the Ward-Vanek cooperative.
- iii) Because of continuous renegotiations with newcomers, there would be permanent conflict instead of the abolition of conflict. The system amounts to marginalproduct spot-pricing of labour services at the margin, i.e. exclusively for newcomers (and members considered for promotion), while average product affects inframarginal pricing of the labour of existing members, except for possible successful renegotiations on the part of the less favoured among existing members. But the very possibility of renegotiating one's share at any time, or at least when promotions or new members are considered, would lead to a permanent state of strife. Strikes, for instance, would no more be prevented by the involved loss of income than they are in a conventional wage economy by the loss of the strikers' wage. Would strikers instantaneously lose their job? If not, there is no built-in constraint to a Meadean Partnership's ability to water its capital, i.e. to dilute the amount of capital underlying each share through the

issue of any number of additional shares under the recurring threat of this group or another within the firm - it being in the interest of all that the threat of temporary withdrawal by a particular group of workers should be removed by the granting of new shares up to the amount of potential loss they can inflict. A conventional joint-stock company has a monetary budget constraint, and at some point has to resist concessions to groups of workers under the demonstrable threat of insolvency and bankrupcy; the Meadean Partnership is not constrained by the number of shares it can issue, and permanent share-inflationary conflicts are bound to afflict and disrupt the Meadean economy. strikers were made to lose their membership and job, this would be a rather drastic and possibly counterproductive way of ending conflict; in any case the possibility of working to rule or witholding effort creates a sufficient threat for conflict to occasionally or frequently reappear, unbounded by budget constraints.

7. An alternative solution

On these counts, the Labour-Capital Discriminating Yet James Meade's Partnership is bound to disappoint. analysis provides two valuable contributions: first, the disregard of the microsocialist commitment of the more traditional cooperative enterprises - though he takes inequality too far, to include "unequal income for equal work"; second, the idea of issuing bonds or capital shares also to workers in recognition of their contribution to self-finance (which here we understand in the broadest sense of any contribution to the increase in value of the partnership capital assets, whether due to reinvestment, inflation or improvement of profit prospects). If one retains this kind of share and bonds issue, adding a modified distribution of capital and labour shares, and furthermore a suitably modified version of tradable job rights, an alternative solution can be constructed with all the advantages and none of the drawbacks of the Discriminating Partnership.

Micro-socialism within the traditional cooperative enterprise takes the form of internal equality of income, equality of access to capital and to its fruits, democratic planning, self-management; but what is the point if the outside environment - whether in Yugoslavia or in capitalist economies - is one where there is wage labour, inequality of incomes (especially the inter-cooperative gross inequality caused by the very principles of cooperative income sharing) 10, inequality of capital ownership and access to

capital, unearned as well as earned income, and lack of participation not least on the part of unemployed or emigrated workers? Let us take, from Meade's Discriminating Partnership, the idea of inequality of individual shares and incomes, retaining however equality for type of individual income. Thus let the number of labour shares corresponding to one job be the same for all workers, except for differences due to the type of labour (according to a job valuation system as highly developed as in Yugoslavia) and for a different mixture of fixed and participatory elements in workers' incomes. Thus workers could choose, at the time of joining, how many hours of their working week should be paid at the going (spot) wage rate and how many hours should be paid through profit-sharing: they would be given a number of shares equal to the same fraction of the shares corresponding to a totally participatory job. Wage workers could be hired and would have no shares. In recognition of 5 wage-workers' exposure to entrepreneurial risks - even in the absence of profit-sharing in their income - through the non-diversified commitment of all of their labour services to a single enterprise, both member-workers and non-member workers might be given an equal vote on every question except the reinvestment of income, on which members would have an exclusive voice.

Let us then retain Meade's provision for the issue of bonds and shares to all shareholders, including workers prorata of the number of labour shares held, in recognition of self-financed investment and capital gains (conversely, shareholders would be exposed to capital losses, though presumably only to the extent of their participatory income).

Now, let job rights (and attached work obligations) be transferable to outsiders, who could buy them from existing workers or from the enterprise. If hiring a new man, issuing to him the same number of labour shares owned by those already employed, lowered net income per head of the employed, that job can be sold at a positive price, and those already employed would lose nothing since they would get additional capital shares (like all other shareholders, perhaps not instantaneously but once a sufficient number of small adjustments like this have taken place so as to make an additional share issue worthwhile) to compensate exactly

market self-management than during the planned period. There have been debates on whether this dispersion is due to the lottery of unequal access to capital per man in different enterprises and sectors (as maintained by the so-called "capital school", see Estrin and Bartlett, 1982), or to the failure to adjust membership to external shocks in the short period (the "labour school"). These debates have been inconclusive but the cause of dispersion is immaterial: the very fact of income inequality across enterprises undermines inexorably the case for equality within the enterprise.

^{10.} That labour income differentials are blatantly large across Yugoslav cooperatives, in different sectors and regions as well as in the same sector and region, is well documented (see Estrin 1979, Rivera-Batiz 1980, Staellerts 1984). An international comparison by Estrin (1981) shows that income dispersion in Yugoslavia was higher than in other countries and it was higher during the period of

the drop in dividends per labour share following employment expansion.

However, there is implicit inequality in a system in which people have to pay for jobs, and different amounts at that; also, it may be difficult for everybody involved to agree on the correct valuation of job rights. But suppose each enterprise is given an obligation to hire more people as long as its jobs are demanded at a positive price. This should ensure, at the same time, that anybody who can make a net positive contribution to the enterprise profits is hired and that all existing shareholders benefit from that positive net contribution through their participation in the enterprise capital value increase. Thus job rights are tradeable only to have an automatic check on the enterprise employment policy, but should never be so valuable as to generate active trade. Of course the enterprise can avoid being forced to hire more labour by creaming off current profits to current shareholders (including labour shareholders) by issuing them additional capital shares. while lowering the dividend per share to the point that makes its jobs worthless to transfer. Thus the scheme proposed here has nothing to do with Hertzka's (1891) "free access" of workers to the enterprise of their choice, since additional workers can join the enterprise only at an income lower than the previous average income per worker (i.e. in accordance with Meade's discrimination principle, but without violating at any given time the principle of equal pay for equal work).

This alternative scheme corresponds to wage labour plus workers' participation in a fixed share of profits, paid out as capital shares. In addition, however, workers also get dividends on their capital shares, of which each worker holds a different amount according to seniority, thrift and enterprise performance. This differs from ESOPs because these shares are paid out at fairly frequent intervals and are immediately available to workers, who can declare their own dividends by selling them if they need cash, instead of having to wait until departure or retirement, or having to surrender their capital rights and only enjoy dividends for the duration of their employment with that particular enterprise. It should be noticed that the issue of capital shares (or bonds) to absorb all profits (broadly defined as any income net of contractual payments - including fixed wage components - including as income also any change in the value of enterprise assets) may be difficult to measure but any measurement error will affect uniquely distribution of net assets between shareholders according to the time of the assessment, but not the viability of the enterprise vis-avis third parties, nor the distribution between workers qua workers and capitalists.

The result of this exercise in consistency is that if we want labour to share fully or to a prefixed degree in enterprise risk, this can be done without violating "equal pay for equal work" in a strict sense, since here all

workers get the same fixed wage per unit of time for the portion of their pay consisting of a wage, and the same dividend for labour share for the portion of their pay consisting of participatory income. At the same time, this system allows for different labour income due to different combinations of fixed and participatory elements, predetermined in individual contracts; it also allows for different income per worker (i.e. including income on his capital shares and bonds distributed to him as labour shareholder plus or minus his subsequent investment or disinvestment), reflecting fairly and fully the past history of the enterprise, the full contribution that the his "past labour" has made to capital formation in the enterprise for the precise duration of the worker's association with that enterprise, and his own thrift.

In a Yugoslav-type system the proposed combination of job tradeability (only to ensure a zero price) and shares/bonds issues against capital increases, revolutionary as it might seem, would not be as much a departure from the Yugoslav system as the Meadean Discriminating Partnership. In the absence of a secondary market where capital shares might be traded, issues to workers would have to consist of bonds - as an adjustable recognition of "past labour". There would be no shareholders, but somehow one would have to take into account the "original" or "primitive" accumulation of the Yugoslav enterprise, i.e. the initial contribution by the state at the time of changeover to the new system or at the time of foundation of the cooperative Suppose enterprise capital could always be overbid out of its hands by other enterprises unless actual rentals (of capital goods received from the state) or imputed rentals (on own capital) are raised to the highest level offered by outside bidders, (a' la Liska, 1963; see also Barsony, 1982); with higher imputed rentals added to distributable income, all income being distributed either in cash or in bonds. This arrangement would suit all: the state, whose initial contribution would be continuously revalued and recognised; workers collectives, who could still retain the profit of any above-marginal effort or ability they might apply to the capital goods in their use. as well as benefitting from a higher market valuation of their own assets if they are forced to surrender them; individual workers who would benefit from any reinvestment or revaluation of their "past labour", with equality in labour incomes tempered by inequality of capital incomes however justified by the acquisition of bonds under uniform rules. Anybody leaving the enterprise would be clutching bonds corresponding to that part of enterprise capital financed by his efforts or revalued by the rentals market $\ensuremath{\mathscr{C}}$ during his association with the enterprise since he joined, and would not lose by leaving anything behind. None of the drawbacks lamented would remain.

If capital shares were issued in a Yugoslav-like system there may be methods of valuing enterprise assets and therefore the capital value underlying a share even in the absence of a developed capital market. At first, capital

shares may be made tradable among members of the cooperative; it may be stipulated at foundation that any member can offer his shares for sale to the other members according to the following rules. If the shares are not taken up at that price, he is entitled to buy up to the same amount of shares from the other shareholders at that price; viceversa, he can offer to buy shares up to the amount he already owns at a given price, but if his offer is not taken up the other shareholders if he wishes must buy off him at that price, pro-rata up to the amount initially demanded, his own shares. This provision generates a kind of forced liquidity of capital-shares. Alternatively, a competitive rental or price determination under the scheme outlined in the previous paragraph may provide the foundation of a periodic valuation.

Thus the Alternative Cooperative proposed here - with minor modifications for Yugoslav-type systemic constraints is simply an association of members conferring labour services and/or capital, without limitations as to the nature and purpose of its activity, ability to hire the labour of non-members on a co-determination but not necessarily profit-sharing basis, the recognition of capital contributions by members at the time of foundation and/or through reinvestment of profits (including any appreciation of enterprise assets), the ability to distribute profits proportionally to capital and - according to a conversion rate fixed at foundation - labour membership, the liquidation of the cooperative and distribution of capital among its members. Worker-members' shares are made as permanent (thereby protecting tenure) and transferable as those of capital-members, but with a built-in safeguard in order to avoid restrictive employment policies and to make the position of each worker as close as possible to that of a wage-earner in the direct return to his labour. while enriching him through the issue of bonds or shares to reflect the success of his enterprise for the duration of his employment.

None of the lamented inefficiencies discussed above (section 2) for the traditional Ward-Vanek cooperative would derive from the proposed arrangements: capital membership could be offered on terms sufficient to attract funds to capital-intensive as well as labour intensive activities: wage labour and the free issue of job rights should get rid of temptations to restrict employment, behave overmonopolistically, respond perversely to change; the same investment projects would pass a viability test as in the capitalist firm, reinvestment of income would not be penalised. At the same time, worker-members would have not only tenure but transferrable rights to the fruits - if they are there - of successful entrepreneurship; workers' participation in decision making would be as wide as compatible with these provisions, vastly greater than in the conventional firm, as well as enhanced by the prospect of a permanent connection and the possibility of continuing to participate even after the cessation of the work relationship.

After removing the social constraints which, in the present day cooperative everywhere, affect usually membership, use and recoverability of capital, a case could still be made for the maintenance of the favourable fiscal treatment presently enjoyed by cooperatives with respect to capitalist enterprises, for three reasons:

- i) greater risk: for dividends to worker-members and to wage-earners, the indivisibility of risk for labour as opposed to the possibility of risk-spreading for capital; for dividends to capital-members the greater risk associated to the reduced voice that capital has in cooperatives compared to joint-stock companies.
- ii) for dividends to worker-members, a favourable fiscal treatment is justified by their representing "earned" labour income which is or should be treated less harshly than "unearned" income because it involves a loss of leisure not required by "unearned" income; for dividends to capital-members a residual commitment to solidarity beyond the limits of current membership would have to be maintained, devoting a statutory part of enterprise profits and/or capital at liquidation to social purposes (such as an Investment Fund for setting up new cooperative enterprises, see Nuti, 1988b).
- iii) finally, there is a Proudhonian argument in favour of encouraging associated producers working for each other instead of working for a master, especially if wage-labour is on a small scale and has the option of eventually gaining full membership, and if the cooperative has extensive links with other cooperatives. Without going back to Proudhon, the "mutual help" commitment of the early days of the cooperative movement could be regarded as satisfied by the persistent adoption of less conflictual strategies than can be found in capitalist firms and by the less conflictual environment that would be generated as a result.

REFERENCES

BARSONY J. (1982), Tibor Liska's concept of socialist entrepreneurship, Acta Oeconomica, Vol. 28, n. 13-14, pp. 424-455.

BARTLETT W. (1987), "Foreign trade and stabilisation policy in a self-managed economy - Yugoslavia in the 1980s", Papers in Political Economy n. 87/03, January, University of Bath

BARTLETT W. and UVALIC M. (1986), "Labour managed firms, employee participation and profit-sharing - theoretical perspectives and European experience", EUI Working Paper n. 86/236 and Management Bibliographies and Reviews. Vol. 12. n.4. 1986.

BUCHEZ P.J.-B. (1831), "Moyen d'ameliorer la condition des salaries des villes" (A way of improving the condition of urban wage-earners), Journal des Sciences Morales et Politiques, 17 December; Italian translation in Salsano, 1979.

DREZE J.H. (1985), "Labour management and general equilibrium", in Jones and Svejnar (Eds.), 1985, pp. 3-20.

ESTRIN S. (1979), "An explanation of earnings variation in the Yugoslav self-managed economy, Economic Analysis and Workers' management, vol. 13, pp. 175-199.

ESTRIN S. (1981), "Income dispersion in a self-managed economy", Economica, vol. 48, pp. 181-94.

ESTRIN S. and BARTLETT W. (1982), "The effects of enterprise self-management in Yugoslavia: an empirical survey", in D. Jones and J. Svejnar (Eds.), 1982

FUROBOTN E.G. (1985), "Codetermination, productivity gains, and the economics of the firm", Oxford Economic Papers, Vol. 37, pp.22-39.

HERTZKA T. (1891), Freeland: a social anticipation,

HILL P.M., MCGRATH M. and REYES E. (1981), Cooperative bibliography - an annotated guide to works in English on cooperatives and cooperation, University Centre for cooperatives, University of Wisconsin, Madison.

HORVAT B. (1986), "The theory of the worker-managed firm rivisited", Journal of Comparative Economics, Vol. 10, pp.9-25.

JONES D. and SVEJNAR J. (1982), Participatory and self-managed firms, Lexington Books, Lexington.

JONES D.C. and SVEJNAR J. (Eds.) (1985), Advances in the Economic Analysis of Participatory and Labour Managed Firms, Vol. 1, JAI Press, Greenwich and London.

JONES D.C. and SVEJNAR J. (Eds.) (1987), Advances in the Economic Analysis of Participatory and Labour Managed Firms, Vol. 3, JAI Press, Greenwich and London.

KEYNES J.M. (1979), Collected Writings, Vol. XXIX, Macmillan, London.

LANDAUER Carl (in collaboration with Elizabeth Kridl Valkenier and Hilde Stein Landauer) (1959), European Socialism, University of California Press, Berkeley; reprinted by Greenwood Press, 1976.

LISKA T. (1963) "Kritika es Konceptio. Tezisek a gazdasagi mechanizmus reformjahoz" (Critique and

construction. Theses for a reform of the economic mechanism), Kozgazdasagi Szemle. n. 9.

MEADE J.E. (1972), "The theory of labour managed firms and of profit sharing", Economic Journal, Vol. 82, pp. 402-28.

MEADE J.E. (1982), Stagflation - Volume 1: Wage-fixing, Allen & Unwin, London.

MEADE J.E. (1986a), Alternative forms of business organization and of workers' remuneration, Allen & Unwin, London.

MEADE J.E. (1986b), Different forms of share economy, Public Policy Centre, London.

MEADE J.E. (1988), "The partnership economy", paper for a Conference on Co-entrepreneurship held by the LICM (League of Italian Cooperatives), Rome, 14-15 March 1988.

MORLEY-FLETCHER E. (Ed.)(1986), Cooperare e competere (Cooperation and competition), Feltrinelli, Milano.

NUTI D.M. (1986a), "Merger conditions and the measurement of disequilibrium in labour-managed economies", Annals of Public and Co-operative Economy, n.1, March, pp. 47-53.

NUTI D.M. (1986b), "Partecipazione e pieno impiego: una controreplica a Weitzman" (Profit-sharing and full employment: rejoinder to Weitzman), Politica ed Economia, no. 4, April 1986.

NUTI D.M. (1987a), "The share economy: plausibility and viability of Weitzman's model", in Stefan Hedlund (Ed.), Incentives and economic systems, Croom Helm, London and Sidney, pp. 267-290.

NUTI D.M. (1987b), "Co-determination, profit-sharing and full employment", in Jones and Svejnar (eds.), 1987.

NUTI D.M. (1987c), "Profit-sharing and employment: claims and overclaims", Industrial Relations, Vol. 26, n. 1, Berkeley, Winter 1987, pp. 18-29.

NUTI D.M. (1988a), "Competitive valuation and efficiency of capital investment in the socialist economy", European Economic Review, 32, pp. 2-6.

NUTI D.M. (1988b), "Progetto per un Fondo Mutualistico per la promozione e lo sviluppo di imprese cooperative" (Project for a Mutual Fund for the promotion and development of cooperative enterprises), paper for a Conference on Coentrepreneurship held by the LICM (League of Italian Cooperatives). Rome, 14-15 March 1988.

PANTALEONI M. (1898), "Esame critico dei principi teorici della cooperazione" (A critical examination of the theoretical principles of cooperation), Giornale degli Economisti, XVI, May-April-May.

PEJOVICH S. (1976), "The labor-managed firm and bank credit", in J. Thornton (1976).

PETTMAN B.O. (1978), Industrial democracy: a selected bibliography, MCB publications, Bibliography n. 11 from the Institute of Business, Bradford - West Yorkshire.

RIVERA-BATIZ F.L. (1980) "The capital market in Yugoslavia: a theoretical and empirical note", Quarterly Journal of Economics, Vol. 44, pp. 179-184.

SACKS S.R. (1983), Self-management and efficiency: large corporations in Yugoslavia, George Allen and Unwin, London.

SALSANO A. (Ed.), (1979), Antologia del pensiero socialista, Laterza, Bari

SCHLICHT E. and WEISZACKER C.C. v. (1977), "Risk financing in labour-managed economies: the commitment problem", Zeitschrift fur die gesamte Staadtswissenschaft, Special issue on Profit-sharing - a Symposium edited by H. Sauermann and R. Richter, pp. 53-66

STELLAERTS R. (1984), "The interindustry wage structure of a labour-managed economy: the Yugoslav case 1976-1981", Economic Analysis and Workers' Management, n. 2, p. 109-123.

THOMAS H. and LOGAN C. (1982), Mondragon: An economic analysis, Allen & Unwin, London.

THORNTON J. (1976), The economic analysis of the Soviet-type system, Cambridge University Press, Cambridge.

UVALIC M. (1987), "Shareholding in Yugoslav theory and practice", paper presented at a EUI-World Bank Conference on "Monetary and financial reform in socialist economies", Florence, October; forthcoming as EUI Working Paper.

VANEK Jaroslav (1970), **The General Theory of Labor-managed Market** Economies, Cornell University Press, Ithaca,

N.Y.

WARD B.M. (1958), "The firm in Illyria: market syndicalism", American Economic Review, Vol. 48, n.4, September, pp. 566-589.

WEITZMAN M.L. (1983), "Some macroeconomic implications of alternative compensation systems", **Economic Journal**, Vol. XCIII, n.4, pp.763-783

WEITZMAN M.L., (1984), The share economy, Harvard

University Press, Cambridge.

WEITZMAN M.L. (1985a), "Profit sharing as macroeconomic policy", American Economic Review, Papers and Proceedings, Vol. 75, n.2, May, pp.41-45

WEITZMAN M.L. (1985b), "The simple macroeconomics of profit sharing", American Economic Review, Vol. 75, n.5, December, pp. 937-953

WEITZMAN M.L. (1986), "L'economia della partecipazione, replica a Nuti" (The share economy: reply to Nuti), Politica ed Economia, n. 4, aprile.

WIENER H. with OAKESHOTT R. (1986), Worker-owners: Mondragon rivisited, Anglo-German Foundation, London.