PART III

ISSUES OF LABOUR ORGANIZATION

8

The Viability of Worker Ownership: an Economic Perspective on the Political Structure of the Firm

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1. Introduction

Both scholars and reformers have long been fascinated by worker ownership of enterprise. Nevertheless, existing analyses fail to explain adequately the observed distribution of worker ownership across industries – a phenomenon that Williamson has described as 'the producer cooperative dilemma' (1986: 165–8). I have suggested elsewhere that an important reason for this is that previous analyses have largely neglected a critical consideration: the cost of collective decision making, or what we might term the internal politics of the firm (Hansmann, 1988).[1] I wish to expand on that theme here, and to explore its implications for the full range of alternative means through which transactions between labour and other participants in the firm can be structured, including collective bargaining, employee stock ownership plans, and codetermination.

The issue is of interest not simply in the context of worker ownership, but more generally as well. All firms in which ownership is shared among a numerous group of individuals – including publicly held business corporations as well as most forms of co-operative and mutual enterprise – involve not just hierarchical control mechanisms but political mechanisms as well. And, while the efficiency of hierarchies has long been the subject of study within the theory of the firm, from Coase (1937) through to Simon (1947) and Williamson (1975), the internal politics of the firm has been much neglected.

An important general implication of this enquiry is that political mechanisms work well within firms only in relatively simple settings. In more complex environments, it appears that markets, perhaps supplemented by various forms of complex contracting, offer more efficient representation of the interests of the parties involved.

2. The existing pattern of worker ownership

If market forces tend to select for efficient organizational forms, then, in free-enterprise economies, we should expect to find worker-owned firms in those industries in which they have efficiency advantages over investor-owned firms, and to find investor-owned firms elsewhere. Thus, by observing the existing pattern of worker ownership across industries, we should be able to test theories about the relative efficiency of investor-owned and worker-owned firms.

Taking the American economy as an example, we find that worker-owned firms are rare in the industrial sector. If we exclude firms that have adopted employee stock ownership plans in recent years – a subject to which we shall return later – there have been only a few industries in which worker-owned industrial firms have proven themselves viable over the long run. The most conspicuous example today is the plywood industry, in which more than a dozen worker co-operatives have maintained substantial market share for a number of decades (Berman, 1967; Greenberg, 1984).

In the service sector, on the other hand, worker-owned firms are common. In particular, they are the dominant mode of organization among firms of service professionals: law and accounting firms are almost universally owned by the professionals who work for them, and firms of investment bankers, doctors, engineers and management consultants are frequently organized this way as well. Moreover, although this is less common, such firms also appear occasionally where the workers involved are not professionals. In particular, taxi-cab companies are often worker-owned, and there have long been a number of worker-owned refuse collection companies on the West Coast of the US (Russell, 1985b).[2]

To some extent, of course, this particular distribution of worker-owned firms is a response to peculiar features of the American economy and American law.[3] In general respects, however, it appears typical of the pattern of worker ownership in other developed market economies as well.[4]

In order to understand the reasons for this pattern, it helps to view it in light of the potential costs and benefits that worker ownership might bring.

3. The benefits of worker ownership

As compared with the standard business corporation, in which investors own the firm and workers are hired through market contracting, worker ownership offers several potentially important efficiencies.

A. Worker monitoring

Because of the difficulty of monitoring individual workers, a degree of moral hazard necessarily infects market contracting for all but the simplest types of labour. Making the workers the owners may succeed in internalizing some of these costs, and hence improve productivity. Strong empirical evidence on this point is lacking (see Jones and Svejnar, 1982), although there is anecdotal evidence – for example, from the plywood industry – that worker ownership indeed has this effect (for example Greenberg, 1984).

Following this logic, it has sometimes been argued – most prominently by Alchian and Demsetz (1972) – that worker ownership can be understood largely as a response to moral hazard in labour contracting, and thus that worker ownership tends to arise in those situations in which workers are unusually hard to monitor. As it is, however, the existing pattern of worker ownership seems to be just the reverse of what one would expect if this were the case. In the service professions, for example, where worker ownership is the norm, the productivity of individual workers can be, and generally is, monitored quite closely (McChesney, 1982), while in most enterprises in which individuals work in large teams, so that their individual productivity is very difficult to determine, investor ownership predominates.

B. Worker lock-in

Workers often must make firm-specific investments in job skills and in personal living arrangements in the community where their firm is located. This locks them into the firm to a degree, and opens up the possibility that their employer will act opportunistically toward them in setting wages or other terms of employment. Worker ownership reduces the incentive for such opportunism, just as other forms of vertical integration do in other industrial settings (Williamson, 1985). This might lead one to expect worker ownership to arise where the problem of lock-in is most severe. Yet this consideration, too, fails to explain the existing pattern of worker ownership, since the types of worker found in worker-owned firms – taxi-cab drivers, refuse collectors,

the semi-skilled labourers in the plywood co-operatives and, arguably, service professionals as well – are relatively mobile as workers go.[5]

C. Strategic behaviour in contracting

With investor ownership, management often has information about the firm's prospects that labour lacks, and this creates the incentive and the opportunity for strategic behaviour in bargaining over terms of employment. Strategic behaviour of this sort – for example, strikes and lock-outs – may increase significantly the transaction costs of reaching agreement. Again, worker ownership has the potential to reduce or eliminate the problem by eliminating the conflict of interest and the asymmetry of information between management and labour. Yet this consideration, too, fails to explain the existing pattern of worker ownership, since the potential asymmetry of information between management and workers seems unusually low, relatively speaking, in the types of firm in which worker ownership is common – such as small service firms in which the workers in question are professionals.

D. Agency costs of delegation to management

Finally, the problem of the separation of ownership and control – that is, the agency cost of policing management (Jensen and Meckling, 1976) – is potentially much less acute in worker-owned firms than it is in investor-owned firms. In contrast to investors – who are often widely dispersed, have no sources of information about the firm beyond publications, and hold the firm's securities as only one of a number of investments – workers have both the opportunity and incentive to acquire information about the effectiveness of management, or to appoint and hold accountable representatives who will do this for them, and then to act collectively to hold management accountable to their will. Nor is it necessary to forgo entirely the benefits of the market for corporate control when a firm is worker-owned: the workers can retain the right to sell the firm to outside investors at any point they wish, and in fact such transactions are relatively common (for example, among plywood co-operatives and investment banking firms).

But while this consideration may contribute to the success of worker-owned firms, it also fails to explain the existing distribution of worker ownership, since worker-owned firms tend to be sufficiently small so that, if investor-owned, they would most likely be closely held firms and thus not unusually subject to agency costs of this type.

E. Summary
In short, there is a variety of important respects in which one might expect worker-owned firms in general to face lower costs than investor-owned firms. The magnitudes of these potential efficiency gains across different industries do not, however, correlate well with the observed pattern of worker ownership; in general, they seem most important in large-scale, hierarchical firms and considerably less significant in the type of small-scale service enterprise where worker ownership is in fact most common. To explain the existing pattern of worker ownership we must, therefore, turn to the relative liabilities of worker ownership.

4. Costs of worker ownership

Worker ownership can, of course, often be a costlier governance structure than investor ownership. If this were not so, then the considerations just surveyed would presumably lead to the complete dominance of worker-owned over investor-owned firms in all industries.

A. Liquidity and risk-bearing
Most obvious among the costs of worker ownership are the problems associated with raising capital. Owing to the incentives for opportunism that arise when a firm borrows the capital needed to finance firm-specific assets (Klein et al., 1978), worker-owned firms must either pay a high cost to borrow such capital, or else require the workers to contribute some or all of that capital themselves and incur the attendant high costs of illiquidity and poorly diversified risk.

Clearly this consideration helps in explaining the existing distribution of worker ownership, which seldom appears in firms, such as those in the industrial sector, that require large amounts of firm-specific capital per worker.[6] Two further observations are important here, however. First, worker-owned firms are evidently viable even in relatively capital-intensive industries so long as the capital is not firm-specific and thus can be financed in large part by debt secured by a lien on the firm's assets. Risk bearing itself does not appear to be a major obstacle to worker ownership; evidently workers are prepared to bear a substantial amount of risk. Family farms are a familiar example. Investment banking firms organized as partnerships are another. And yet a third example, and one that we shall return to, is the recently proposed corporate take-over of United Air Lines under which its 6500 pilots

have offered to purchase a controlling interest in the firm. Although it is not yet clear whether this plan will come to fruition, it appears sufficiently viable to have been taken seriously by all parties.[7] An important consideration here, presumably, is the fact that while airlines are relatively capital intensive, most of their assets – primarily planes – are not firm-specific.

Yet, while low amounts of firm-specific capital may be a necessary condition for worker ownership to be viable, it is not sufficient. There are many industries in the service sector that involve low amounts of firm-specific capital but in which worker ownership has never taken hold, such as hotel and restaurant services, the construction trades, and retailing.

B. Collective decision making
A second potential disadvantage of worker ownership vis-a-vis investor ownership is that which is our principal interest here: the costs of using some form of collective choice mechanism to aggregate the preferences of the owners of the firm. Jensen and Meckling have referred to this as 'the control problem' (1979: 488–9), though neither they nor subsequent authors have explored the issue in any detail.

We noted earlier that, as contrasted with investors, workers are often well situated to engage in effective oversight of management. They are on the spot, they have a proportionally large personal stake in the fortunes of the firm, and they are easily organized and assembled. Yet the political processes by which their preferences are aggregated and transformed to action can evidently engender substantial costs. In an investor-owned firm, the owners generally have highly homogeneous preferences; all essentially wish to maximize the net present value of the firm's future earnings.[8] Consequently, there is relatively little room for disagreement over the policies to be pursued by the firm. Workers within a given firm, in contrast, may have highly divergent interests in various aspects of firm policy.

There are various potential sources of conflict among the workers within a firm. To begin with, there can of course be disagreement over relative wages among different workers. Further, workers may also have different stakes in any pattern of investments chosen by the firm such as which plants to keep open, which processes to automate, or where to make further investments in safety. The extent to which workers' investments diverge in these respects is likely to be greater as the division of labour within the firm increases; where all workers do essentially the same job, they

will be similarly affected by most decisions. But there may also be conflicts of interest among workers that have other sources besides differences in job assignments. For instance, if the amount of equity capital invested in the firm differs among workers – as will dramatically be the case, for example, if the firm's pension fund is the principal vehicle through which the workers invest in the firm – this may become a source of conflict: workers with disproportionately large amounts of capital invested (for example, older workers) will wish to have a larger amount of the firm's earnings attributed to capital (and hence distributed, for example, as earnings on amounts invested in the pension fund), and a smaller amount attributed to labour (and hence paid out as wages), than will other workers.

To be sure, none of these potential sources of conflict would probably be very troublesome in practice if there were obvious objective criteria to serve as focal points for making the decisions in question – for example, if wages or return on capital could simply be set on the basis of marginal productivity. But such objective criteria are usually absent or unmeasurable, and thus in each case there is generally considerable latitude for judgement and discretion, and hence room for active disagreement.

Existing theory in both political science and economics does not pinpoint well the sources of the costs of collective decision making. We know from public choice theory that the possibility of a voting cycle among alternatives increases as preferences among the electorate become more heterogeneous (Plott, 1976); that, even if individuals vote non-strategically, seriously inefficient decisions can result when the median voter's preferences are not those of the mean (Shepsle and Weingast, 1984); and that, while committee structures can inhibit cycling and facilitate the vote trading necessary to mitigate the median voter problem, committees themselves can be the source of seriously inefficient decisions (Weingast and Marshall, 1988). But the costs of political mechanisms may go well beyond these. For example, information biases may be a problem too: the high salience of wages and working conditions to workers may make them myopic in their role as owners. And the process costs of collective choice mechanisms can themselves be high: even if workers seek in all cases to exercise their collective control rights as owners efficiently and without opportunism, they may need to invest considerable time and effort in knowledge about the firm and about other workers' preferences, and in the meetings and other activities necessary to reach and implement effective collective decisions.

These costs of collective decision making appear to be extremely important in determining where worker ownership succeeds and how it is organized, and in fact appear to go far toward explaining the large residual in the existing pattern of worker ownership that is left unexplained by the other considerations reviewed above. The following section discusses some of the evidence.[9]

5. Evidence of the costs of collective decision making

A. Which firms succeed?

Striking evidence of the high costs of collective decision making comes from the fact that worker ownership is extremely rare in firms in which there is any substantial degree of heterogeneity in the work force. Most typically, the workers who share ownership within worker-owned firms all do extremely similar work and are of essentially equivalent status within the firm. This is evident in the professional service firms, where worker ownership seems best established. The partners in a law firm, for example, are all lawyers of roughly equal skill and productivity who work more or less independently of each other; rarely does one partner have substantial supervisory authority over another. And the same pattern is found in other industries in which worker ownership is common. Taxi-cab drivers and refuse collectors obviously also fit this mould, as do the pilots of United Air Lines. And the workers in the plywood co-operatives, who are only semi-skilled and unspecialized, commonly rotate through the various jobs in the mill; the only person in the firm with specialized skills, the manager, is in nearly all firms not a member of the co-operative but rather hired as a salaried worker (Berman, 1967; Greenberg, 1984).

The reason for this pattern, evidently, is that such circumstances provide the minimum opportunity for conflicts of interest among the worker–owners. Presumably greater diversity of interest among the workers involved severely compromises the viability of worker ownership.[10]

B. Structures to avoid the costs

Another indication that collective governance can be costly for worker-owned firms lies in the strong tendency of such firms to adopt rules and practices that tend to promote homogeneity of interest among the worker–owners where this might not otherwise exist.

For example, the plywood co-operatives nearly all adhere rigidly

to a scheme under which all members of the firm receive the same rate of pay (Berman, 1967: 151–6). Even more striking, many of America's largest and most prosperous law firms have long followed a practice of sharing the partnership's earnings equally among all partners of a given age, regardless of individual productivity. Gilson and Mnookin (1985) seek to explain this practice as a mechanism for risk sharing. Yet, while this may be among the functions the practice serves, it seems implausible that risk sharing is the principal motivation for it. It is difficult to believe that lawyers who have already succeeded so well as to have been selected for partnership in one of the nation's most prosperous law firms, in which expected earnings per partner may well exceed half a million dollars per year, are so risk averse that, for that reason alone, they will abandon all financial incentives toward productivity just to assure that their own income will always be equal to the mean of others their age. Rather, it seems likely that these equal sharing schemes are adopted in important part to reduce conflicts in collective decision making by simply removing from the agenda, crudely but effectively, the potentially troublesome question of how the pie is to be divided.[11]

Law firms that do not adopt equal sharing rules commonly employ formulas under which a partner's share is determined according to specified indicia of productivity, such as hours billed or number and value of new clients brought to the firm. Such formulas – as opposed to less formal approaches under which a manager or committee has discretion to set relative shares as it thinks appropriate – are evidently an alternative effort to establish more or less objective, and hence uncontroversial, criteria for dividing the pie where equal sharing is too difficult to justify.[12] Even so, there is considerable dissension within firms about the structure of these formulas, and the resulting disagreements are an important source of instability among law partnerships.

Indeed, worker ownership seems to thrive only where, if equal sharing is not practicable, individual worker productivities are sufficiently easy to measure so that some relatively objective, and hence uncontroversial, method of pay based on that measure can be employed. Thus we find worker co-operatives among taxi drivers and refuse collection crews, where members of the co-operative bill clients individually and can simply be compensated with a fraction of those billings.

Worker-owned firms also commonly strive hard to assure that not only pay, but also work, is equalized among the members of the firm. The worker–owners in the plywood factories, as already noted, commonly rotate through the different jobs over time, so that there is little long-run specialization of work among them. Law firms strongly resist admitting to the partnership any lawyer who is not of roughly the same competence and productivity as the other partners; less qualified partners, if valuable to the firm, are kept on as permanent salaried associates rather than as partners who simply receive a smaller share of earnings. Similarly, law firms strongly resist letting some partners work fewer hours than average in exchange for a smaller share. The recent rapid increase in the number of women lawyers, for example, has created considerable pressure for part-time work arrangements to permit time for child-rearing. Many law firms now willingly accept such arrangements for young salaried associates, but refuse to permit women to be partners on a part-time basis.[13] This refusal is sometimes explained on the grounds that clients demand that attorneys be available full time, or that attorneys must practise full time to keep up their skills (Sorenson, 1983). But these explanations seem a bit forced. Rather, it appears likely that such inequalities among members of the firm are also resisted in considerable part because they tend to destabilize the co-operative governance structure.[14] A simple rule under which everyone does essentially the same amount and kind of work is by far the easiest to agree upon and to enforce, and these advantages are evidently often sufficient to outweigh the costs such rules engender in the form of inflexibility, poor incentives, and lack of diversification among the work force.[15]

To be sure, it is possible that such tendencies toward equality are adopted at least in part for other reasons. For example, workers who share ownership of a firm may be more inclined than they would otherwise be to consider themselves as a collective reference group for purposes of judging their individual welfare, and this could in turn create an incentive to flatten out the wage structure (Frank, 1984) and to determine levels of effort collectively in order to avoid an inefficient rat race (Frank, 1985). We cannot clearly conclude, therefore, that a high degree of heterogeneity in the work force will necessarily raise the transaction costs of decision making to an unmanageable level. We can, however, conclude that, whatever the reason may be, a highly homogeneous work force seems important to the viability of worker ownership.

C. *Representative versus participatory democracy*

In a large and complex firm, worker control must presumably be exercised through a representative rather than a highly participatory form of democracy (see Putterman, 1984; Russell,

1985a; Williamson, 1985). This is in fact the approach taken in the most prominent example of successful industrial worker co-operatives in a free enterprise economy, namely the well established group of roughly eighty affiliated worker co-operatives at Mondragon, Spain, which have a total of approximately 20,000 worker–members. In those firms, worker participation in control is largely confined to electing nine members to a supervisory board for terms of four years; the supervisory board, in turn, is responsible for appointing the firm's managers, who are appointed for a minimum of four years and cannot be removed except for cause (Thomas and Logan, 1982; Bradley and Gelb, 1983). This parallels the control structure employed in most publicly held investor-owned corporations, in which – aside from the right to vote directly on major corporate changes such as merger or liquidation – shareholder control is exercised only indirectly, through the election at large of a small number of directors at intervals of a year or more.

One might think that such a system of representative worker democracy would avoid or mitigate many of the costs that might be engendered by more direct or participatory systems of democracy when the work force is heterogeneous. And indeed the Mondragon experience demonstrates that worker co-operatives with such a governance structure can operate successfully in industrial enterprise.[16] Yet Mondragon remains a unique case, and it is unclear how easily it can be replicated. In general, successful worker ownership remains largely confined to small firms in which a highly participatory form of democracy is feasible. And even in the few worker-owned firms that are large, such as the major accounting firms with thousands of partners, there is generally a high degree of homogeneity among the worker–owners.

This pattern suggests that simply employing a representative form of democracy does not suffice to make the costs of collective decision making acceptable for worker-owned firms with a heterogeneous work force. Why might this be? Three possible reasons come to mind. First, representative democracy may be affected by some of the same inefficiencies, whether of biased decisions or high process costs, that affect more direct forms of democracy in the context of a heterogeneous work force. For example, there may be a tendency for election of directors to become highly politicized. Or, second, representative forms of democracy may attenuate the worker's participation in control to the point where worker ownership loses some of its important potential advantages over investor ownership, such as closer supervision of management or reduction in opportunistic behaviour on the part of the firm toward its workers. Or, as yet a third (and rather speculative) possibility, when electing directors in a large firm workers may tend to have in mind principally their interests as investors in the firm rather than their interests as workers. If so, they would tend to elect much the same type of directors that would be elected if the firm were investor owned. And, in that case, ownership might as well be assigned to investors, since management will not be much different and the firm would gain improved access to capital.

D. *Evidence from other types of co-operatives*

The conclusion that heterogeneity of participants is inimical to the governance of worker-owned firms is reinforced by the experience with other types of co-operative. Both producer and consumer co-operatives are in fact common in the American economy in industries ranging from hardware wholesaling to dairy product marketing to electric utilities. In virtually all situations in which they have prospered, however, they are characterized by extreme homogeneity among the members. In the few situations in which this is not the case – such as among the larger mutual insurance companies – the firms are typically operated as purely managerial entities, with the members exercising no meaningful voice whatever in the control of the firm (Hansmann, 1988).

6. Other mechanisms for worker participation

So far we have been considering just two polar forms for organizing the firm: full investor ownership or full worker ownership. As we have seen, both forms are subject to inefficiencies. Indeed, Aoki (1980; 1984a) has argued plausibly that, since suboptimization is likely to result if either investors or workers alone have control over decision making concerning variables that cannot be explicitly governed by contract between them, greater efficiency is likely to be achieved if some mechanism for shared decision making between workers and investors can be arranged.

The preceding discussion suggests that there are likely to be serious problems in any effort to share control of the firm between two groups with such heterogeneous interests as investors and workers. With this in mind, it is instructive to survey the forms of worker participation that have most commonly been implemented or proposed.

A. Codetermination

The most direct approach to sharing decision making between investors and workers is to establish joint control formally by having workers and investors participate equally in electing representatives to the firm's board of directors. German-style codetermination has essentially this objective. From all that has already been said, however, one would expect that any true sharing of formal control, through the firm's internal political process, between two such heterogeneous groups as workers and investors might be highly inefficient. And indeed this seems consistent with the German experience: codetermination in itself does not in general seem to have brought true worker participation in control of the corporation at the board level, which effectively remains in the hands of investors. Rather, as Aoki has noted (1984a: 167), the real value of codetermination apparently lies in the access it gives workers to accurate information about the firm that would otherwise be confined to management. This information can then be used by the workers when bargaining with management in contexts other than decision making at the board level – as when the firm's management bargains with individual workers, with the works councils, and with the unions – where shared information presumably reduces the incentive for, and hence the costs of, strategic bargaining behaviour. But if this is so, then there may not be much difference in practice between German-style codetermination and a system, such as that which has been in effect in Sweden since 1976, in which workers are simply entitled to one or two representatives on the board of directors.

B. Unions

In collective bargaining conducted through labour unions, workers have their own separate political process that is not involved in selecting the firm's management but rather selects representatives to bargain with the firm's management.

It might at first seem that unions have most of the costs and few of the benefits of worker ownership. On the one hand, because unions do not involve full worker ownership, they do not entirely remove the possibility that the management of the firm will behave opportunistically toward the workers (or vice versa). Yet on the other hand, they potentially have all the costs of collective decision making among workers.

There is probably some truth to this view, and this may help explain the declining importance in the United States today of the model of collective bargaining that was adopted in American law

in the 1930s. Whatever the overall efficiency of that model of worker representation, however, we can see many ways in which it has been adjusted in apparent recognition of the problems of collective representation that are our focus here.

To begin with, white-collar workers, and particularly workers with managerial or supervisory responsibilities, are generally not unionized; it is usually only the workers who comprise the lowest, most horizontal stratum among the firm's employees who belong to a union. Further, where the jobs held by the unionized workers are particularly diverse, the workers are frequently split up into separate bargaining units. As a consequence, there is in fact a fair degree of homogeneity of interest among the workers represented by any given union.

Further, unions typically bargain with management over only a relatively narrow range of issues immediately touching on the employees' interests, such as wages, hours and job classifications. Other issues, such as the firm's investment policies or even its policy on layoffs, are seldom bargained over even though, as Aoki suggests, it might be more efficient if workers were to be more actively involved in deciding such issues. Indeed, the unions themselves seem to wish to avoid broader involvement of this sort, and to keep the scope of bargaining narrowly confined. There may be a variety of reasons for this. But, whether it is cause or consequence, by adopting this strategy the union avoids some possibilities of costly internal conflict; expanding the scope of bargaining might bring substantial transaction costs that would outweigh the concomitant benefits.

Finally, it is conventional wisdom that unions are seldom democratic (Lipset et al., 1956). This is commonly deplored in both the social science and policy literature, much as the general absence of genuine shareholder democracy in publicly held business corporations was deplored twenty years ago. But it may be that greater democracy would bring much higher governance costs without much offsetting improvement in the accuracy with which the members' preferences are represented. Michels' (1949 [1911]) iron law of oligarchy may in fact be an economic law, at least where unions are concerned.

Similar considerations may help explain why it is that bargaining between a union and a firm is so often conducted in large part by representatives from the union's national office, rather than just by local union officials: it helps defuse even further the problem of local internal politics.[17]

C. Employee stock ownership plans

Beginning about fifteen years ago, large numbers of American business corporations began to adopt so-called employee stock ownership plans (ESOPs) under which most or all of the firm's employees receive a portion of their annual compensation in the form of stock in the firm. In essence these plans are structured as deferred compensation plans, in which the employer deposits stock in a trust fund that holds the stock for the benefit of the participating employees. By 1986, 4700 companies had adopted such plans. Twenty-five percent of these plans owned more than 25% of the stock in their firms, and something less than 2% owned all of the stock (US GAO, 1986: 18, 39). One author estimates, perhaps generously, that today approximately 1000 to 1500 companies with a total of one million workers are 51% to 100% employee-owned through ESOPs (Blasi, 1988: 4).

The widespread adoption of these plans is not an unbiased indicator of their efficiency. Although the ESOP concept has been actively promoted since the 1950s, it did not become popular until ESOPs were granted substantial federal tax subsidies beginning in 1974 – tax subsidies that have since been broadened and deepened – and until it was discovered that creation of an ESOP could be a useful defensive tactic for management in an attempted corporate take-over.[18] It is entirely possible that, without these special advantages, ESOPs would remain rare. The numerous studies that have sought to measure directly the effect of ESOPs on worker productivity and firm profitability, though not conclusive, have to date failed to present clear evidence of improvements once tax subsidies have been controlled for.[19] Thus the only inference we can draw about the efficiency of ESOPs from their current popularity is that the magnitude of any inherent *in*efficiencies associated with them probably do not exceed, in general, the size of the tax subsidies given them.

For present purposes, however, the most interesting fact about ESOPs is that, whatever the motivation for adopting them, they generally provide for participation only in earnings, and not in control. Only rarely are they structured to give the workers a voice in the governance of the firm. To begin with, about half the stock held by ESOPs is non-voting stock (US GAO, 1986: 39). Further, the tax law provides that the power to vote an ESOP's stock need not be passed through to the workers in a privately held corporation, but rather can be voted by the plan's trustee.[20] And the trustee, in turn, can be appointed by the firm's management without consultation with the workers who are the plan's beneficiaries. In publicly held corporations in contrast, voting power must be passed through to the workers on all ESOP stock actually allocated to the workers – which is to say, not purchased through borrowing, as in the popular 'leveraged' ESOP.[21] These provisions are evidently important in understanding the pattern of ESOPs that has evolved. If we exclude so-called tax credit ESOPs – that is, ESOPs created under a special (and now repealed) provision effectively providing for a 100% tax subsidy to the plan – roughly 90% of all ESOPs are in privately held firms. Moreover, there are very few publicly traded firms in which an ESOP has more than 20% of the firm's stock, and perhaps none in which the plan has a majority of the stock (Blasi, 1988: 90–3, 103).[22] Firms in which a majority of the stock is held by an ESOP are virtually all privately held. And, although the law permits (but does not require) that votes on ESOP stock be passed through to employees in privately held firms, it appears that this is rarely done. A common pattern in privately held firms in which an ESOP holds a majority of the stock is for a small group of managers to own the rest, with which they control the firm through their power to appoint the ESOP's trustee (who is often, in fact, a manager). Thus, in neither publicly nor privately held firms is it the case that ESOPs permit much worker participation in the control of the firm. Indeed, an extensive 1986 survey found no firms with ESOPs in which employee representatives constituted a majority of the board of directors (US GAO, 1986: 40).

What is particularly interesting here is that voting rights are not passed through to workers even in firms in which the ESOP owns 100% of the firm's stock. Rather, voting rights are held by the ESOP's trustee, who in turn is appointed by a self-perpetuating board.[23] In effect, these firms are operated as nonprofits, in which directors with control but no claim on residual earnings are charged with managing the firm as fiduciaries for the benefit of the workers. Evidently those who have structured these firms have concluded[24] that any reduction in agency costs that might result from making management directly accountable to the firm's beneficial owners would be outweighed by the costs – perhaps in the form of inefficient decisions or high process costs – that would be engendered by the political process required for such accountability.[25]

Widespread experimentation with ESOPs is still too new to permit strong conclusions about worker ownership to be drawn from them. But we can at least say that they provide little affirmative evidence that direct worker participation in the control of

enterprise through ownership can be made both effective and efficient with a heterogeneous work force, and considerable circumstantial evidence that such participation may be quite costly.

D. Management buyouts

Recent years have brought rapidly increasing numbers of management buyouts of firms whose stock had previously been publicly traded. In these transactions, the firm is converted to private ownership through the repurchase of all of its stock by a group led by the firm's management. The resulting firms might appear to be instances of a reductive form of worker ownership in which the worker–owners are confined to the firm's managers. As it is, however, these firms do not provide much evidence concerning the viability of worker ownership. Typically only a very small number of managers participates in ownership of these firms. Further, the managers' share in ownership is often modest. In one sample of fifty management buyouts, for example, the officers of the median firm already owned 11.5% of the firm's equity before the transaction, and increased this only to 16.7% afterwards (Smith, 1988); other investors continued to hold the great bulk of the firm's stock. And finally, although experience with management buyouts has been too brief for a clear pattern to emerge, the conventional wisdom is that a substantial number of the firms involved return to public ownership around five years after the transaction takes place, casting some doubt on the proposition that management participation in ownership is a major source of efficiency.

E. The Meidner Plan

A very different approach to worker participation in the control of enterprise was offered by the original Swedish Meidner Plan, under which a controlling interest in large firms would eventually come to be held in a mutual fund controlled by the labour federation. The plan provided that workers in individual firms would be given the right to vote the shares initially accumulated by the fund up to a total of 20% of the firm's total stock; shares accumulated by the fund beyond that would be voted by a labour board covering the entire industrial sector in which the firm operated (Meidner, 1978). By thus providing for only a limited degree of worker control at the level of the firm, the plan might have avoided some of the internal political costs associated with simple worker ownership, while it still promised to reduce to some extent any incentive for the management of the firm to behave opportunistically with respect to labour. On the other hand, control of firms by labour-

dominated boards at a sectoral level may have engendered some inefficiencies of its own. In any event, any effort to use such a device to affect corporate control seems to have been abandoned in 1984 when, instead of the original Meidner Plan, a much more modest scheme was enacted that created five regional wage earners' funds, none of which is permitted to own more than 8% of the stock of any single firm (Flanagan, 1987).

In summary, the experience with each of the alternative structures for worker participation described here seems consistent with the conclusion that direct involvement of a heterogeneous work force in control of the firm is not promising as a route to efficiency.

7. Conclusion

The classical model of the business corporation, under which formal control of the firm is confined to the firm's equity investors while management in turn deals with workers through simple individual market contracts, leaves room for considerable inefficiency in terms of agency costs between owners and managers, and in terms of opportunistic behaviour between managers and workers. Worker participation in control might be thought to offer substantial efficiency improvements in both respects. And indeed it arguably does in those circumstances where the workers involved are as homogeneous as most economic models of the firm assume they are. But the evidence suggests that direct worker involvement in control through ownership of the firm, whether this ownership is complete or partial, is quite costly where workers' interests are heterogeneous. Consequently, other types of alternative governance structures, such as collective bargaining, works councils, or quality circles, may be more promising mechanisms for improving on the efficiency of the classical model.

In short, although there remains much that we do not know about the internal politics of the firm, it seems reasonable to predict that investors and workers, and even subgroups among the workers, will generally remain separate polities within the firm, and will deal with each other principally through, as it were, a complex nexus of treaties.

Notes

I am grateful to the participants in the conference on 'The Firm as a Nexus of Treaties' for helpful comments on an earlier draft.

1. An exception is Jensen and Meckling (1979), who refer to the issue as 'the control problem'. They suggest briefly the importance of homogeneity of interest among owners, discussed in this chapter, but offer little analysis.
2. For a survey of worker co-operatives throughout American history, see Jones (1984).
3. It is not obvious that organizational law or, until recently, tax law has had an important influence on the distribution of worker-owned versus investor-owned firms in the United States. In the few instances in which there is an explicit legal preference for one of these firms over the other, it generally runs in favour of worker ownership. For example, law firms in every state must be owned by the lawyers who practise in them; investor-owned law firms are prohibited (Hansmann, 1981). And see Section 6C below on employee stock ownership plans.
4. for example, worker co-operatives in Sweden are particularly prominent in taxi-cabs (100% of all services) and truck transport (50% of all services) (Commission 1979: 16–17).
5. This is not to deny that service professionals, and particularly those not sufficiently prominent to achieve substantial individual reputations outside their firms, may experience a substantial degree of lock-in (see Gilson and Mnookin, 1988).
6. It is sometimes argued that labour co-operatives are plagued by a 'horizon problem', under which such firms have too little incentive to invest in projects that will pay off only over long periods of time; the sources of the problem, it is said, is the workers' lack of transferable residual claims (Furubotn, 1976; Jensen and Meckling, 1979). As it is, however, most worker-owned firms with any significant amount of invested capital give their workers residual claims that are transferable. For example, shares in the plywood co-operatives can be freely sold to new workers by departing ones, subject only to a right of first refusal by the firm (Berman, 1967: 148). And even if this were not the case, and workers could never withdraw capital from the firm, the workers as a group might be expected to have a long time horizon since the median worker's expected length of tenure with the firm may often be as long as fifteen or twenty years, or even longer if pension payoff periods are included.
7. 'United's Pilots are Inching Closer to a Coup', *Business Week*, 31 August, 1987: 32.
8. There is, to be sure, room for disagreement among investors concerning risk and practices, such as dividend payout, that affect taxes. But even these differences can to some extent be eliminated if investors sort themselves across firms.
9. The high costs of collective decision making in the face of heterogeneous interests are apparent elsewhere as well. See, for example, Libecap and Wiggins (1984).
10. This inference gains support from the recent well documented conversion of the investment banking house of Lehman Brothers from a partnership into a firm owned by outside investors. Although the need for more capital is evidently important in explaining this conversion, as well as the many others that have taken place in the investment banking industry in recent years, the precipitating event was a breakdown in internal governance attributable, it appears, to the growth of

specialized divisions within the firm and the resulting feuds among them concerning the division of the pie and the direction the firm should take (Auletta, 1986).
11. This inference is reinforced by the tendency of lawyers to gather in firms in which they share the same speciality and have similar clients – as in firms of patent lawyers, labour lawyers, and so on. If lawyers were so highly risk averse, one would expect to see a much stronger tendency toward firms that are highly diversified in terms of both specialities and clients.
12. Gilson and Mnookin (1985) observe that all productivity formulas are necessarily imperfect, and thus create incentives for suboptimization by the lawyer at the expense of the firm as a whole. And this, they suggest, adds to the attractiveness of equal sharing rules. This is surely true so far as it goes, but it gives emphasis to the question – not explicitly addressed by Gilson and Mnookin – of why it is that firms do not adopt the third alternative mentioned here of permitting earnings to be adjusted to each partner's productivity, but in a discretionary fashion that does not involve a precise formula that can be gamed.
13. This is true, moreover, of some of the firms that hold themselves out as being among the most progressive in their flexibility in permitting associates to work part time. See, for example, the testimony of Antonia Grumbach of New York's Patterson, Belknap, Webb & Tyler before the American Bar Association Commission on Women in the Profession, 6–7 February 1988.
14. In this vein, it is interesting to note that Aoki (1984b: 26–9) has suggested that a 'preference for a relatively homogeneous labor force' (p. 28) on the part of both management and the union may be among the most important reasons why leading Japanese firms such as Toyota have chosen a low level of vertical integration with their suppliers.
15. Members of university faculties, which are worker-governed enterprises of a sort, are familiar with similar phenomena. There is, for example, a strong tendency to equalize teaching loads within a given faculty, as to both number and nature of courses, regardless of the relative productivities of different individuals as teachers and scholars. Individuals, such as clinical faculty at professional schools, who must for curricular reasons be assigned a different mix of teaching responsibilities, may be given tenure but are generally denied voting rights (see Hazard, 1985).
16. In light of the observations above about the tendency of worker-owned firms to adopt equal sharing rules, it is interesting to note that, although the Mondragon co-operatives have not done this, they have until recently deliberately kept the spread between the highest and lowest wages in the firm compressed to a three-to-one ratio – even though this has caused some difficulty in retaining skilled managers. This ratio has recently been increased to 4.5 to one, with consequences that are not yet clear.
17. These observations help inform a prediction about the proposed pilot takeover of United Air Lines described earlier. In an effort to broaden their base, the pilots' union approached the company's machinists' union to explore the possibility that they might join the pilots in the latter's bid for ownership. But if reigning patterns of worker ownership are a guide, such a sharing of control between two such distinct classes of workers would be likely to prove unworkable. It seems more probable that the pilots and the machinists would find it in their collective interest to have ownership confined to the pilots, and for the machinists' union then to deal with the pilot–owners through collective bargaining, and thus exercise influence on the firm not through the political process associated with ownership but rather by

means of the treaties, as it were, that such bargaining yields.

18. For a review of the tax and corporate finance advantages of ESOPs prior to the Tax Reform Act of 1986, see Doernberg and Macey (1986). With the exception of the tax credit ESOPs, which were already slated for extinction after 1986, the 1986 Act reaffirmed and extended somewhat the pre-existing tax subsidies to ESOPs (primarily in the form of partial exclusion from tax of interest income from loans to ESOPs), and added some new subsidies (including, prominently, a 50% exclusion from estate tax for gains on stock sold to an ESOP).

19. For a review of the literature, see Blasi (1988, Ch. 8 and Appendix D).

20. More precisely, this is the case for election of directors and other routine matters subject to vote. The tax code requires that, even in closely held corporations, the votes be passed through to workers on major corporate restructurings such as merger or liquidation (Internal Revenue Code Section 409(e)(3)). Even these voting rights, it should be noted, can be evaded by management through such measures as elimination or conversion of the plan itself.

21. Internal Revenue Code Section 4975(e)(7).

22. Furthermore, ESOPs in publicly held companies are commonly so-called leveraged ESOPs, in which a substantial fraction of the stock held by the plan has been purchased with funds borrowed by the plan. And in such ESOPs the tax law permits the trustee rather than the workers to vote that portion of the stock that has been financed with debt, thus diluting the workers' voice.

23. This has been the case, for example, in the much-publicized Weirton Steel Company since it was purchased on behalf of its workers through an ESOP in 1982. In 1988–9, full voting rights – that is, the right to elect the board of directors – are scheduled to be passed through to Weirton's workers. At that time, however, there is reason to believe that the firm may revert to public ownership in order to accomplish necessary capital financing (Blasi, 1988: 211–15; Lynd, 1985).

24. There is, of course, the alternative explanation that the structure of these firms has been chosen by its managers, who have simply arranged to perpetuate their control.

25. This is not to say that it is inefficient to make the workers the nominal owners of such firms. It is often worthwhile to give nominal ownership of a firm to a class of individuals who transact with it even when those individuals cannot effectively exercise control. In particular, this is the case where ordinary contractual devices are insufficient in themselves to protect the individuals in question from highly costly opportunistic behaviour on the part of the firm – for example, where there is severe asymmetry of information between the firm and the individuals in question, or where the individual must make substantial transaction-specific investments for which the firm cannot easily supply hostages. In such circumstances, making the individuals in question the beneficial owners of the firm, even if they are protected only by fiduciary obligations and not by direct control, may be less costly than leaving them to rely on contracting alone and assigning ownership to someone else (Hansmann, 1988).

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9

Intellectual Skill and the Role of Employees as Constituent Members of Large Firms in Contemporary Japan

Kazuo Koike

1. Introduction

This chapter examines the roles of the employee and, accordingly, of the labour union, in large contemporary Japanese firms, and tries to clarify how employees become constituent members of the firm. The major feature of this analysis is an emphasis on the nature of skill. Since workers' skill can be considered as a type of 'software' technology, and since technology, unlike cultural traits, is transferable, the following explanation is largely contrary to the prevailing opinion that Japanese culture makes the employee a constituent member of the firm.

The greatest reason why this chapter highlights workers' skill is that it is a key factor in explaining the behaviour of contemporary Japanese firms. This explanation offers more than the transaction theory does; the firm is a nexus of long-term relationships in which efficient skill can be developed. The next section analyses the content of workers' skill, ways in which it produces high efficiency, and how long it takes to achieve this.

Section 3 examines the incentive system that induces workers to acquire this skill. This analysis affords a counter-argument to the conventional one that Japanese workers are group-oriented. Instead, individual assessment of skill development as well as of remuneration is the core of the incentive system of the shop floor in contemporary large Japanese firms. Because of the long-term character of skill formation workers share risk with shareholders. Workers pursue internal careers in order to advance firm-specific intellectual skill, and hence the decline of the firm causes great damage to its employees, in the form of delays in promotion or, at worst, redundancy; often robbing workers of the opportunity to utilize their acquired skills fully. Section 4 discusses such risk sharing by employees, which makes them constituent members of the firm.

Since workers' interest is at stake in the business situation of the