

Profit Related Pay and the U.K. Small Firm Labour Market

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ABSTRACT. This paper critically examines the relevance of profit related pay (PRP) for the U.K. small firm sector. Since 1986, the U.K. government has actively encouraged PRP, which attracts generous tax breaks, because it believed that PRP would make pay more flexible downwards and would significantly improve employee identification, morale and productivity. An analysis of the theoretical arguments and the assumptions made regarding the nature of the U.K. small firm sector that underlay these claims suggests, however, that the likelihood of achieving either of these alleged benefits is small. An appraisal of the available empirical evidence on the practical implementation and operation of PRP schemes suggests that the tax relief simply encourages firms to introduce 'cosmetic' schemes that have no appreciable impact upon the behaviour of either firms or employees. Moreover, the experience of some firms that adopted PRP schemes indicates that, far from increasing morale and productivity, PRP often creates new tensions and conflict between owners and employees. These and other unintended consequences illustrate the inherent difficulties of government attempts to use the tax system to alter the behaviour of agents engaged in a wide variety of complex and very heterogeneous bargaining situations.

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1. Introduction

Governments, believing that it will help achieve some politically desirable economic objective, often attempt to influence the behaviour of their citizens by providing financial incentives via the tax system. This has been particularly true of the U.K. where, due to relative economic decline throughout much of the post-war period, there has been general agreement amongst politicians and economic analysts that there was an urgent need to improve labour productivity and the performance of U.K. firms. The main political parties have, of course, disagreed over the best means by which this can be achieved, and the extent to which the State, via its economic, social, monetary and fiscal programs, can, or should, influence the economic activities of its citizens.

The structural decline and massive labour shedding associated with many of the U.K.'s traditional, large-firm based, industries over the past 15 to 20 years has, however, produced a remarkable consensus with respect to the, as yet largely unrealised, economic potential of the small business sector. Successive U.K. Governments and opposition parties have focused upon the small business sector, viewing it as having a major role to play in any economic regeneration. Not surprisingly then, this largely unquestioned faith in the economic potential of small businesses has led to the implementation of many, tax based, policy initiatives designed to increase the size, competitiveness and productivity of the small business sector (Storey, 1994). However, despite the unrealistically optimistic nature of many of these public policies, which have cost many £billions in tax subsidies since their introduction, there has been relatively little research into evaluating their economic costs and benefits.

In this paper we examine the U.K. Government's profit-related-pay (PRP) initiative which

provides generous income tax breaks to employees in approved PRP schemes. Though not exclusively aimed at small firms, the PRP initiative was, nonetheless, deemed by the government to be particularly relevant to improving the labour productivity and employment practices of small enterprises.

As the name suggests, the main distinguishing characteristic of PRP schemes is that some or all of an employee's pay is directly linked to the profitability of their employing organisation. Since the publication of the 1986 Green paper¹ on the subject, PRP has been confidently promoted by the U.K. government as providing two main economic benefits: first, as a mechanism by which wage flexibility and employment stability over the trade cycle could be improved and, second, as a means of increasing the productivity of U.K. firms.

The Green Paper portrayed its PRP proposals as having a number of advantages over previous deferred income and share-based initiatives.² In

particular, previous share-based initiatives were largely irrelevant to small firms because of their lack of a publicly quoted share price and the general unwillingness of owner-managers to give up some portion of their equity to employees. The Green Paper argued that PRP was especially relevant to small firms and that, because PRP

... is part of pay and does not depend on the issue of shares, its effect may be stronger and more immediate ... Its potential scope is wider than that of employee share schemes, as it can be adopted by unincorporated businesses which have no shares to issue. (GP, p. 4)

Given PRP's 'clear' economic benefits, the Green Paper suggested that some form of tax relief for approved schemes would be justified to encourage take-up. Tax relief on half of the PRP component of pay up to £3000 was introduced in 1987. However, despite a large amount of official publicity and promotion of PRP, as can be seen from Table I, by the end of 1990 relatively few firms had introduced PRP schemes. The favourable tax

TABLE I
Quarterly figures for live PRP registrations

As at end of	No. of schemes	No. of employees	Average No. of employees per scheme
October 1987	145	26411	182
December 1987	430	71827	167
March 1988	616	89952	146
June 1988	729	103800	142
September 1988	784	107300	137
December 1988	830	122400	147
March 1989	869	122100	141
June 1989	902	129000	143
September 1989	947	135400	143
December 1989	1112	226500	204
March 1990	1175	232000	197
June 1990	1172	233200	199
September 1990	1179	229100	194
December 1990	1233	263400	214
March 1991	1277	350100	274
June 1991	1329	353900	266
September 1991	1423	370700	261
December 1991	2049	581000	284
March 1992	2597	718100	277
June 1992	3066	765800	250
September 1992	3268	780600	239
December 1992	4149	973600	235
March 1993	4615	1167400	253
June 1993	4904	1179700	241
September 1993	5405	1228200	227
December 1993	6443	1570100	244
March 1994	7039	1794100	255

concessions for PRP were substantially increased in the 1991 budget. Since 1991, for employees in Inland Revenue 'approved' schemes, up to £4000 (or 20% of total pay if lower) of PRP is eligible for full income tax relief. For top rate (i.e., 40%) income tax payers this represents a public subsidy of £1600 per annum. These very generous tax subsidies appear to have had some effect upon take-up and, as at March 1994, there were a total of 1.8 million workers in some 7039 approved schemes – slightly less than 70% of which involved less than 100 employees.

The remainder of the paper is structured as follows. In section 2 we examine the theoretical basis of the claim that PRP, by making pay more flexible, can have a significant stabilising impact upon employment levels over the business cycle. We examine the relevance of the theoretical rationale, which was in fact motivated by the experiences of large firms, and discuss whether pay inflexibility is really a serious or widespread problem for U.K. small firms. The likely consequences, in terms of the distribution and pattern of take-up, changes in employment practices and pay flexibility, of providing a tax subsidy are also discussed. This discussion indicates that, despite the generous tax 'windfall', increased pay flexibility and/or more stable employment are unlikely ever to materialise. The take-up of PRP by small firms and the proportion of the tax windfall that accrues to employees are, however, likely to reflect differences in the relative bargaining power of workers, the owner's objectives and the firm's competitive situation.

In section 3 we review the microeconomic, 'morale and productivity', rationale for PRP. We examine the theoretical reasoning underlying the expected behavioural impact of incentive pay schemes and find that several features of PRP, the weak effort-reward link, free-rider problems, its reliance upon an accounting performance metric and the shifting of business risk onto employees, considerably limit its incentive potential for all but a relatively small proportion of U.K. small firms. Indeed, the introduction of PRP may, for the majority of U.K. small firms, be just as likely to result in a deterioration in labour morale and/or productivity. In section 4 we examine the available empirical evidence on the operation of PRP in the U.K. This indicates that to date, very few

small firms have implemented PRP schemes and that, apart from the loss of revenue to the exchequer, the economic consequences of PRP appear to be minimal. The pattern of take-up and the design and operation of PRP schemes reflect the fact that, in practice, both employers and workers believe that PRP is of little relevance and do not perceive it as either a viable and/or a desirable means of fundamentally altering existing pay and employment practices. Hence, where PRP has been adopted, the main consequence has been to simply provide one or both parties with a windfall gain at the expense of other tax payers. Finally, in section 5 we summarise the main arguments of the paper and provide some concluding remarks.

2. PRP and labour market flexibility

2.1. *The theoretical basis*

The Green Paper claimed that a major economic benefit of PRP

lies in its contribution to increasing pay flexibility: and if pay is more flexible in the face of changing market conditions then employment will be more stable. (GP, p. 4)

The Green Paper cites the theoretical work of Weitzman (1984, 1985) and Meade (1986) in support of this claim. Indeed, the Green Paper owes a great intellectual debt to Weitzman since the identification of the macroeconomic problem that PRP is supposed to be the solution to and the justification for favourable tax breaks to encourage the adoption of PRP are essentially Weitzman's. The starting point of Weitzman's analysis is the downward inflexibility of wages due largely, he argues, to successive post-war governments committing themselves to maintaining high levels of economic activity and employment which, in turn, had resulted in giving 'excessive' power to 'privileged insiders' (Trade Union organised workers). Weitzman argued that wage flexibility could be achieved by introducing an economy-wide 'profit-sharing regime' in which a significant proportion of employee pay would be directly related to their enterprise's profitability. He also argued that since its macroeconomic benefits, higher and more stable employment levels, had many of the characteristics of a 'public good':

strong material incentives, such as favourable tax treatment of the profit-sharing component of a worker's pay will probably be needed to convince senior workers to acquiesce in a profit-sharing scheme with no restrictions on new hiring (Weitzman, 1985, p. 946).

According to the Green Paper, the U.K. economy also suffers from chronic wage rigidities:

It is widely recognised that pay-setting arrangements in the U.K. are often far too inflexible, and negotiations often appear to take place with little or no reference to their effect on the financial health of the enterprise concerned . . .

These 'rigidities' could be overcome by the introduction of an economy-wide PRP system because:

Relating an element of pay to the overall success of the firm provides an important cushion against changing circumstances. Employers should also be less cautious about taking on new employees. As profits rise, employees will benefit directly in the form of higher pay. If profits fall, then from the point of view of the company some of the adjustment in costs, which will have to be made if the company is to survive, will occur in the form of lower PRP – and therefore lower labour costs than would otherwise be the case . . . PRP would enable firms with falling profits to sustain employment at a higher level than otherwise, and to limit redundancies . . . durable PRP arrangements which provide for pay flexibility in both directions can help to smooth the transition between phases of the business cycle and to improve employment stability and growth. (GP, pp. 5–6)

The Green Paper's argument for a PRP tax subsidy also relies heavily upon assumptions of management 'inertia' and opposition from employees who:

. . . may be reluctant to accept the risk that pay would be lower than it would otherwise have been if profits fall – at least until they have experienced the advantages of PRP when profits rise . . . The case for offering a measure of tax relief for PRP, therefore would be to help increase awareness of it and to overcome inertia by highlighting and by enhancing its inherent advantages. Employees considering PRP arrangements for the first time would be able to set the benefit of tax relief against any downside risks for take-home pay. (GP, p. 8)³

Thus, for both Weitzman and the Green Paper, the central problem that PRP is meant to remedy is sub-optimal employment levels caused by wage inflexibilities. Further, because of its 'public good' characteristics, a tax subsidy is necessary in order to encourage 'reluctant' firms and workers to adopt PRP.

2.2. *Consequences of a PRP tax subsidy*

The macroeconomic justification for providing a generous tax subsidy to encourage the adoption of PRP is that it will have a significant and predictable impact upon the employment practices of a significant proportion of U.K. firms. Clearly, for the few firms which already had a successful PRP scheme in operation prior to the introduction of the tax break, the behavioural consequences of the additional tax subsidy are likely to be minimal. In these cases the tax subsidy is simply a 'windfall' gain at the expense of other taxpayers. Clearly, in order for PRP to have a significant macroeconomic impact, it is the behaviour of the vast majority of 'reluctant' firms that the tax subsidy has to alter. Unfortunately, whilst it may be relatively easy to encourage firms to adopt PRP schemes that qualify them for the tax subsidy, particularly if the complexity of the qualifying rules and other set-up costs are low, it is less than obvious that this will lead to any significant changes in the employment practices of the firms involved.

If the qualifying tax rules are to be relatively simple in order to encourage take-up, there is little to prevent firms from creating purely 'cosmetic' schemes, often via the conversion of existing bonus schemes, simply in order to qualify for the tax benefits. With PRP, the scope for creating cosmetic schemes, i.e., schemes that have no appreciable impact on employment practices or employee attitudes, is inevitably great. This is because an inescapable feature of PRP schemes, is that the performance metric (reported profits) is inherently ambiguous. Severe information asymmetries between owner-managers, employees and the tax authorities creates significant additional monitoring costs for the latter two groups because the profits generating process, the financial reporting methods used, the design of the PRP scheme and the choice of monitor (the auditor) are all decisions made at the level of the firm. This renders it very difficult for the tax authorities, whose employees are probably less expert and subject to less high powered financial incentives than the private sector accountants engaged by the firm, to design and monitor a workable set of rules which effectively exclude the types of cosmetic scheme which do not induce the desired behav-

itorial changes. Indeed, since the doubling of PRP tax relief in 1991, the Inland Revenue has on several occasions tightened-up the qualifying rules to exclude various practices which had come to light which allowed firms to guarantee their employees a risk-and-tax-free PRP payment (see IDS, 1994). The fact that none of these attempts to exclude cosmetic schemes has been successful should not be surprising given the combination of serious information asymmetries, the ambiguities of the performance measure and ease by which competent tax accountants are able to devise ways around any new rules drafted by the tax authorities.

Of course, depending upon the relative bargaining power and economic circumstances, a cosmetic scheme could allocate the tax windfall to one or both of the parties. As we shall show in section 4, the survey and case study evidence (IDS, 1990, 1992, 1994; Luther, 1992) and the published statements of professional designers of PRP schemes (Friedman, 1992; Jones, 1993), all suggest that for firms experiencing skilled labour shortages most of the tax windfall is passed on to employees whilst during a downturn most or all is appropriated by the employer to reduce the firm's labour costs whilst still maintaining the level and certainty of employees take-home pay. As one professional accountant, whose firm specialises in the implementation and audit of PRP schemes, has recently written (Jones, 1993, p. 51):

Tax advisers have developed a number of techniques to ensure that PRP is not related to profits, but is, instead, a fixed amount. This type of scheme removes the risk that volatile profits will cause unpredictability. By using one of these techniques significant savings [in the firm's wage bill] are achievable – at minimal risk.

PRP tax relief may, however, also have other significant (unintended) dysfunctional consequences. For example, if cosmetic schemes that allocate most of the windfall to employees predominate during an economic upturn, then PRP can be expected to increase inflationary pressures since it raises the real (take-home) wages of some groups of workers. Even for non-cosmetic PRP schemes, the main consequence of tax relief is to increase the variability of workers take-home pay simply because maximum tax benefits occur when both profits and pay are highest and least when profits and pay decline. This additional tax gearing

effect upon employee take-home pay, particularly during a downturn when profits may have collapsed because of factors outside either party's control, is likely to be very demotivating for workers – a point made forcefully by the Institute of Personnel Managers (IPM) in its submission on the Green Paper proposals. The tax subsidy is also highly regressive because it necessarily targets the largest public subsidy towards the highest paid workers – i.e., the minority of U.K. private sector employees in safe, well-paid jobs with relatively high bargaining power vis-à-vis their employers. Indeed, though such 'privileged insiders' are the main target of the wage inflexibility rationale for PRP, it is precisely because they possess considerable bargaining power that they will be able to resist the introduction of anything other than a purely cosmetic scheme.

2.3. *Relevance to the U.K. small firm sector*

The claim that PRP (and the necessity of a tax subsidy to encourage its widespread adoption) will significantly alter employment practices and lead to more stable employment over the business cycle, is clearly derived from analyses of the experiences of large enterprises with a strong Trade Union organised workforce. The analysis of the problems facing many large firms since the 1970's is similar to that of 'Post-Fordist' writers, such as Piore and Sabel (1984), who argued that the economic basis of large firms organised along 'Fordist' lines was the existence of stable mass markets which allowed firms to invest in highly specific mass-production technologies that required large numbers of semi-skilled operatives. Given the stability of both markets and technologies, the employment practices of such enterprises were characterised by strong Trade Union representation coupled with well-established 'internal labour markets' (Wachter and Wright, 1990) where pay, promotion, and hiring and firing arrangements were highly formalised and largely based upon 'seniority' criteria.

Due to changes in the international economy and the development of new technologies and more fragmented markets since the 1970's, however, firms have had to adopt more flexible and specialised forms of production in order to respond quickly to changes in market demand.

Whilst Piore and Sabel argue that this requires firms organised along Fordist lines to undergo significant restructuring, both Weitzman and the U.K. Government suggest that the required flexibility can be achieved via the introduction of PRP.

This theoretical case for encouraging PRP via tax subsidies is, whatever its relevance to large Fordist organisations, of limited applicability to the U.K. small firm sector. The U.K. small firm sector and its workforce are, of course, very heterogeneous. Small enterprises vary enormously, including in terms of the degree of bargaining power workers have vis-à-vis their employers. 'Privileged', Trade Union organised, workers, however, if they do exist, represent only a small minority of the total U.K. small firm labour force. Numerically far more typical, is the part-time or casual worker, often female and/or young, relatively unskilled, non-unionised and working for an economically vulnerable service sector enterprise for wages and employment conditions which compare unfavourably with those pertaining in large enterprises (see Stanworth and Gray, 1991 for a review). International comparisons, particularly with its European Union (EU) partners, indicate that the legal protection afforded to U.K. employees in terms of health and safety, employment rights, hours of work and minimum wage legislation is generally not great and that U.K. small firms are often exempt from having to comply with even these minimal legal safeguards (Storey, 1994). Thus, rather than being entrenched 'privileged insiders', most U.K. small firm employees can be expected to lack the bargaining power which could enable them to obtain economic rents for their labour services significantly greater than the prevailing market rate. This suggests that wage inflexibilities are unlikely to be a significant problem, nor one that the introduction of a PRP scheme is likely to 'cure'. Moreover, much of the employment instability associated with small firms is caused by factors other than inflexible wages, such as changes in the demand and/or supply conditions of the firms' products.

The theoretical assumptions regarding the relative bargaining power of employees ('privileged insiders') and the central problem of wage inflexibility are, therefore, likely to be of limited applicability to much of the U.K. small firm

sector. Existing payment mechanisms, such as piece rates, productivity and individual profit-based bonuses, over-time payments and short-time working, as well as a straight wage cut, often provide firms with the means of making employee pay sufficiently flexible and, indeed, such methods have been used extensively by (large as well as small) U.K. firms over many years (Duncan, 1988).

The theoretical macroeconomic rationale for PRP assumes that firms will be more willing to take on additional workers and by doing so profits will necessarily increase. These assumptions seem less than plausible for many small firms since profits and growth prospects are frequently limited even during periods of macroeconomic expansion. Dependence upon local markets (particularly in the case of service sector operations), uncertainty and the limited ambitions, financial resources and organisational abilities of many owner-managers all frequently combine to limit small firm profits and employment growth (see Keasey and Watson, 1993, for a discussion). In addition, there are frequently high fixed costs associated with the employment of additional workers – particularly when firm specific skills render new workers imperfect substitutes for existing employees.

Even when opportunities for additional profits arise, it is therefore often more cost-effective for the owner-manager to increase the hours of work and earnings of existing workers rather than to take on new workers and incur all the associated administrative and other hiring and training costs. Similarly, if profits fall, then it makes no sense for the firm to have more workers than is necessary to do the work available (even at a lower wage). Thus, because of a combination of limited owner-manager ambitions and the widespread use of existing mechanisms for creating pay and employment flexibility, it should come as no surprise that empirically, employment changes in small firms are not highly responsive to changes in profitability (see Watson, 1990). Moreover, in the absence of a totally compliant workforce, the imposition of a PRP scheme which significantly reduced and/or made pay more risky would seem to imply that any existing workplace conflicts between management and workers (existing 'insiders') will necessarily be exacerbated. Such increased workplace tensions, however, appear to

directly contradict the behavioural assumptions upon which the, empirically more plausible and limited, micro-level 'morale and productivity' arguments for PRP are based.

3. Employee identification and productivity rationales for PRP

The Green Paper claimed that PRP would produce microeconomic benefits via its effect upon the behaviour of employees. It was claimed that PRP would engender a closer identification of employees with their employing firm and that this would be beneficial for industrial relations and productivity.⁴ According to the Green Paper, PRP would make employees

. . . more concerned with the health and long-term prospects of the business in which they work. They will be readier to co-operate in changing working practices, or perhaps in the introduction of new technology, if they can see that such changes are essential for the future, and if they know they will directly share the benefits of success. . . . The most important consequence of such increased identification is likely to be an improvement in efficiency and productivity, leading to enhanced competitiveness and better business performance. This, in turn, for the economy as a whole, means higher output and living standards over time. (GP, p. 3-4)

Though no theoretical arguments or empirical evidence were cited to support these assertions, there is nevertheless a large body of academic literature concerned with the behavioural and firm performance consequences of financial incentives and alternative payment schemes (see Milgrom and Roberts, 1992, for a review of the area). The two areas of this literature that are of most relevance for our purposes are, firstly, the theoretical studies concerned with the problems of economic contracting and the relative incentive properties of group-based PRP schemes vis-à-vis individual incentive mechanisms in the presence of asymmetric information, high monitoring costs and inseparable team inputs; and, secondly, the growing body of empirical studies that have examined the firm-level performance effects of various forms of profit-sharing (see the contributions in Blinder, 1990, for a review of the evidence). Unfortunately, most of the recent econometric studies are of limited relevance since they have been estimated using large publicly listed enterprises and, unlike PRP, have examined

only deferred profit-sharing pension plans (e.g., Kruse, 1992 for large U.S. firms) or share-based schemes which differ fundamentally from the PRP initiative (e.g., Bhargava, 1994, for large U.K. companies). The remainder of this section examines the theoretical issues and empirical findings relating to PRP's presumed positive effects upon (a) workers' identification with their employing organisation and, (b) their productivity.

3.1. Employee identification and PRP

Given assumptions of uncertainty, asymmetric information and high monitoring costs, the standard agency theory model, predicts that because it exposes the worker to greater income risk, profit sharing can be expected to enhance worker productivity, but that an 'optimal' incentive contract requires the balancing of these conflicting effort and risk exposure concerns (see Hart and Holmstrom, 1987). PRP schemes undoubtedly make workers, who normally already have a highly undiversified human capital and income portfolio, residual claimants in their employing organisation. However, unlike other residual claimants (shareholders), workers in a PRP scheme do not have an ownership stake in the enterprise and no automatic right to be involved in decision making. Hence, though PRP increases workers exposure to firm-specific risk, it does not, in itself, imply any greater control (or 'voice') over the processes upon which their economic well-being rests.

Wilson and Peel (1990) found that, with their sample of 52 U.K. engineering firms, those with (share-based) profit-sharing and other share ownership schemes had significantly lower quit and absenteeism rates. This, along with the finding that several variables relating to employee participation were also negatively related to quit rates, indicated that such 'voice' mechanisms could be effective to some degree at reducing voluntary and temporary labour turnover. What this suggests is that, unless PRP is accompanied by a greater involvement in managerial decision-making (as is the case with worker co-operatives and other labour-managed firms) or results in workers receiving a bonus over-and-above existing pay levels (i.e., in Mitchell *et al.*'s, 1990, words the PRP element is simply 'gravy'), risk averse

workers are likely to perceive that they are being made to bear additional and uncompensated risk. Clearly, the introduction of a PRP scheme which simply increased workers exposure to risk is unlikely to be a suitable mechanism for creating a greater identity of interests between employees and owners.

There are several other difficulties associated with PRP that raise serious doubts as to its efficacy as a mechanism for improving employee identification even in the smallest of firms. For instance, even if we assume for the present that enterprise profits could be unambiguously and costlessly observed, it is far from clear that profit is a suitable performance metric for either motivating employees or determining their rewards. This is because employee inputs are only one of several factors that generate profits. Other factors over which employees have no control, such as supply and demand conditions and the owner's strategic and managerial choices, largely determine enterprise profits. Profits are a somewhat 'noisy' signal in respect of an employee's contribution and, therefore, workers will often find themselves being penalised (and rewarded) on the basis of a metric that signals very little about their own individual or collective effort and skill inputs. Hence, it is probably essential that genuine employee participation in decision making (voice) in addition to PRP is required in order to significantly improve employee morale and identification.

Indeed, in the absence of such employee voice mechanisms, or the type of long-term employment relationships based upon trust and firm-specific human capital investments characteristic of labour-managed and/or many of the large Japanese firms, the introduction of PRP into many U.K. small firms may actually increase workplace tensions. This is because it provides opportunistic owner-managers with both scope and incentives to manipulate:

- (i) the number of 'eligible' employees at the PRP payout date and
- (ii) the process by which profits are defined and calculated in the PRP formula.

The number and classes of employees eligible for a share in the PRP pool will be contained in the scheme rules and normally only employees actually in post on the payout date (usually,

because of the audit requirement, several months after the accounting year end) will be entitled to a share. Hence, PRP allows employers to effectively 'bond' workers by holding back for more than one year a significant portion of their total pay. Though this has been seen as a benefit in reducing turnover in respect of skilled labour, it may also actually result in increasing turnover amongst short-term and/or unskilled, non-core, labour. This is because it also gives employers an incentive to sack some workers prior to the payment date. As reported profits, and therefore the PRP pool, are largely under the control of the employer, the PRP share which would have gone to the sacked workers could either be shared out amongst the remaining core workers or be wholly appropriated by the employer.

As regards the issue of profit measurement, it is interesting to note that Weitzman, whilst being aware of 'some practical problems with profit-sharing due to the fact that, in the real world, 'profits' is a somewhat elastic concept' does 'not see insurmountable difficulties arising here' (1985, p. 944). Given that the microeconomic rationale relies heavily upon improving industrial relations, however, there is little reason to be sanguine regarding these 'practical difficulties'. For instance, the superior private information of owner-managers regarding current and anticipated cash flows, financial accounting policies and, particularly in multidivisional firms, the often less-than-transparent transfer pricing and cost allocation procedures adopted, severely compromises the credibility of the profit measurement process. This asymmetric information and lack of transparency can be expected to provide a whole new raft of potential conflicts with workers (see Duncan, 1988). Indeed, it would appear that in order to result in greater employee commitment and trust in management, the introduction of a PRP scheme will require the disclosure of much more information to employees regarding not merely the methods by which profits are calculated but also the managerial operating and strategic decisions that generate business profits. Greater information disclosure to employees is, therefore, a double-edged sword and it seems just as likely to lead to increased conflicts and:

to challenges rather than endorsement of management decisions and contests about managerial prerogatives in

areas hitherto regarded as beyond the scope of employee concern. (Ogden, 1993)

Even in the very smallest of firms where the range and complexity of these financial transactions will typically be somewhat less, the enormous element of discretion that owner-managers have in pursuing their own preferences in respect of profits and leisure tradeoffs, presents a major difficulty. Moreover, the desire of many owner-managers to keep their own remuneration levels private from employees and the generally low quality of the financial information disclosed in small firm accounts are also important factors that are unlikely to be conducive to the fostering of trust in PRP. Disclosure of the financial information necessary for calculating the PRP component may also give rise to fears amongst some small business owners that this will provide employees with sufficient information and motivation to question management decisions and/or even enable them to set up their own competing business.

3.2. PRP and productivity

Despite the above, it may still be plausible to suggest that labour productivity will increase due to the financial incentive effects of PRP. The productivity argument relies on workers being induced to work harder and/or being more willing to invest in acquiring additional firm-specific skills which increase productivity because of the perception of a direct link between their own (or work-group) efforts and financial rewards. This is clearest in comparison with workers on a fixed wage, who will also often require close monitoring since they will have little direct interest in either the quality or intensity of work. Even if it is accepted that workers may work harder in response to greater financial incentives, it is far from obvious that PRP schemes:

- (i) provide much of a direct link between individual effort and financial rewards, or that,
- (ii) alternative performance-related pay schemes, such as piece-rates and productivity bonuses based upon physical output measures, are unable to provide a much more direct link for many of the tasks small firm employees are engaged in.

Indeed, because PRP results in financial rewards

being based upon overall firm profits, the effort-reward link can be expected to become increasingly ambiguous and subject to 'free-rider' problems as the number of workers involved increases. FitzRoy and Kraft (1986), however, suggest that even in large organisations, free-riding and shirking may be largely prevented by peer group pressure and horizontal monitoring. In a similar vein, Weitzman and Kruse (1990) are more optimistic regarding the free-rider issue and suggest that this dismal $1/n$ calculus can be effectively overcome in a repeated game setting, i.e., in the context of a long-term employment relationship. Unfortunately, as was indicated earlier, for many small firm employees, expectations of long-term employment relationships are scarcely credible. Given the prevalence of short-tenure expectations, the effectiveness of PRP (relative to individual incentive mechanisms) as a motivating device is, therefore, likely to be inversely related to the size of the firm. As Estrin and Shlomowitz (1988) suggest, group incentive schemes such as PRP only:

... make sense when individualised incentive schemes are impossible to design because workers' marginal products cannot be individually identified, or if the benefits are offset by losses due to rivalry in the workplace. . . . To the extent that production is a team effort, with strong externalities from mutually supporting efforts, group incentive schemes such as profit-sharing and worker peer groups will be viable and effective. (p. 50).

In their review of the econometric studies of U.S., U.K., European and Japanese firms on the productivity effects of profit-sharing, employee share schemes and other gain-sharing schemes, Weitzman and Kruse (1990) concluded that, although the evidence was less than compelling, a positive relationship between such schemes and productivity existed. However, many of the samples of firms where the productivity effects appeared to be high, consisted of worker co-operatives and/or firms in which employees participated in managerial decision making to a significant extent.

These findings are remarkably consistent with Cable and Wilson's (1989) study of the productivity effects of share-based profit sharing schemes in the U.K. engineering sector, where positive productivity effects were contingent upon the existence of employee 'voice' mechanisms within

the firm. However, it is unclear from both the Weitzman and Kruse (1990) and Cable and Wilson (1989) analyses whether these apparent productivity gains were economically significant. In particular, they did not address the issue of whether the increased productivity was typically high enough to pay for the profit sharing where this consisted of a bonus (gravy) over and above existing pay levels. Blinder (1990), summarising the evidence on the productivity effects of the various profit-related payment schemes, stated that:

It appears that changing the way workers are treated may boost productivity more than changing the way they are paid, although profit sharing or employee stock ownership combined with worker participation may be the best system of all (p. 13).

4. Empirical evidence on the implementation and operation of PRP in the U.K.

The government case for PRP contained in the Green Paper, did not cite any empirical research

to substantiate its various claims. This is because no such evidence existed at that time (see Blanchflower and Oswald, 1988 and Hanson and Watson, 1990). Even today, some seven years after its introduction, there is still relatively little in the way of published research on the detailed implementation and operation of PRP schemes in the U.K. Apart from the regular statistics on the number and growth of PRP schemes published by the Inland Revenue (see Tables I to III), we have to rely upon published reports on PRP produced by Incomes Data Services (IDS, 1990, 1992, 1994), the case studies of early adopters of PRP reported by Luther (1992) and statements from professional accountants (Friedman, 1992, Jones, 1993) who design and audit PRP schemes. All these sources have their limitations, however.

The Luther case studies were undertaken during the late 1980's before the economic downturn in the U.K. really began to bite. Moreover, the case studies could only include firms which actually agreed to take part in the study and, as Luther points out, these were firms that felt exceptionally

TABLE II
Employment size distribution as at March 1994

No. of employees per scheme	No. of schemes	Cumulative percentage	Number of employees	Cumulative percentage
1-10	1444	20.5	8000	0.4
11-50	2446	55.3	66000	4.1
51-100	1033	69.9	76000	8.4
101-500	1568	92.2	344000	27.5
500+	548	100.0	1300000	100.0
Total	7039		1794000	

TABLE III
Live PRP schemes by industrial sector as at March 1994

Sector	No. of schemes	%	No. of employees	%	Average
Agriculture, forestry and fishing	98	1.4	6000	0.3	61
Manufacturing and energy	2374	33.7	628000	35.9	265
Construction	274	3.9	41000	2.3	150
Distribution, retail, hotels and catering	798	11.3	290000	16.2	363
Transport and communications	297	4.2	98000	5.5	330
Banking, finance and other business services	911	12.9	290000	16.2	318
Other services	2287	32.5	441000	24.6	193
Total	7039	100.0	1794000	100.0	255

Source: Inland revenue July 1994.

confident of their labour relations record. Hence, both the favourable economic climate and the good industrial relations of these firms will tend to understate the difficulties associated with operating a PRP scheme. Nevertheless, as we shall show below, even these firms experienced some severe difficulties. In a similar manner, the evidence of professional accountants who obtain a significant proportion of their fee income from designing PRP schemes can also be expected to understate the likely practical difficulties with implementing PRP schemes.

As can be seen from Table I, PRP got off to a slow start in the U.K. with only 1233 live schemes involving slightly over a quarter of a million employees by the end of 1990. It was only after the 1991 budget, which greatly increased the tax benefits and reduced the tax rules associated with approved PRP schemes, that the number of schemes and employees began to show significant growth. As Table I shows, as at the end of March 1994, almost 1.8 million workers in 7039 schemes were in receipt of PRP. The following additional (non-published) information was obtained from the Inland Revenue regarding these 7039 schemes:

- (i) The average pay of employees (including a PRP component averaging £667) in these schemes was £13,400 in 1994 which, at a marginal tax rate of 25%, represents an average tax subsidy per employee of £167 per annum. The total cost to the exchequer in the 1993–94 tax year of this PRP subsidy was approximately £300 m.
- (ii) The majority of PRP schemes (55%) are intended to last for only one year – though schemes intended to last longer than one year are often withdrawn and replaced early. Some 74% of schemes pay out more frequently than annually (i.e., monthly, quarterly, etc.) and 70% of schemes utilise Method A, which simply calculates the PRP pool as a fixed percentage of profits. Given that the profit period used for PRP purposes does not need to be the current year, it is clear that many firms experience little difficulty in introducing PRP schemes which are able to effectively remove any uncertainty or variability in the PRP component of pay.
- (iii) Though the average number of employees in

PRP schemes in March 1994 was 255, as can be seen from Table II, almost 70% of schemes covered less than 100 workers and 55% of schemes covered less than 50 workers. Though not all of these small schemes can be unambiguously classified as small independent businesses, the vast majority do represent legally distinct business entities with workforces of less than 50 employees. This is because, in order to be approved by the Inland Revenue, there is an 80% minimum participation rule for all eligible employees and a separate audit requirement for each scheme. If the business unit covered by the scheme is not already audited (i.e., is not, or is only part of, an incorporated business), then additional costs will have to be incurred by the employer.

Nevertheless, it is also clear from Table II that the overwhelming majority of employees in PRP schemes are employed by large firms since only 8.4% of employees are in schemes with less than 100 participants and that 72.5% of employees are in schemes containing more than 500 participants. Hence, despite the very generous tax advantages associated with PRP and the government's claim that PRP is particularly relevant to small firms, out of a total U.K. small firm population of approximately 3 million enterprises, less than 4000 enterprises (0.1%) appear to consider its introduction worthwhile. The case study findings reviewed below indicate a number of reasons why this should be so.

In any PRP scheme there are at least two allocation decisions: how the employee's share of the profit pool is to be determined and how the pool itself is to be calculated. In the case studies reported in Luther (1992) and the IDS reports (1992, 1994) of U.K. companies adopting PRP the profit pool was in every case distributed in proportion to the individual salaries of employees. This, of course, is unlikely to reward differences in the marginal contributions of individual team members – unless it is to be argued that salaries already reflected marginal effort. Indeed, many of the employees interviewed by Luther expressed the view that there should be equal shares since the performance being rewarded was group performance.

In the companies studied 'the stark lack of connection between productivity and profits meant that in some cases PRP as a group incentive had to be abandoned' (Luther, 1992). This meant that means had to be devised which linked individual employee input to profit. But it was found that, in practice, 'the size of the PRP was even less influenced by employee input than had been anticipated' (Luther, p. 108).

One key problem identified by both owners and employees concerns resistance to the distribution of losses from trading. Employers were acutely aware that profits were too volatile to provide a sound basis for determining employee pay levels. They were therefore reluctant to give publicity to the scheme and in the end reticent to implement it where companies lost money (Luther, 1992, pp. 108–109). In other words, employees were unwilling to bear business risk on their basic pay whilst employers appeared not to view it as being in their interests to impose such losses should they emerge. Luther concluded that 'many of the businesses with PRP will continue to prefer laying off workers when profits fall rather than cutting the remuneration of existing employees' (Luther, p. 119). Such behaviour clearly undermines the main macroeconomic rationale for PRP.

The case study findings indicate a fundamental symmetry in employer-employee perceptions regarding basic pay. Further, at least in the expansionist economic period up to 1990 when Luther's research was undertaken, employers did not appear to be much concerned to gain greater pay flexibility. Along with their employees, they appeared to take the view that basic pay is determined by external labour market factors and as such is not flexible downwards. In short, both managers and employees regarded PRP as a specific and limited means to take advantage of the available tax benefits and to rationalise existing systems of bonuses, and not a vehicle for reducing labour costs or significantly altering their existing employment practices.

Is it possible, however, that PRP brings other non pecuniary benefits to organisations? Luther argues that the value of any scheme rests in the concessions it represents more than in any payment it yields. As performance evaluation is team based, PRP could be viewed as a signal to employees that their employers regard them as a

valuable part of a team and, by explicitly rewarding teamwork and organisational competence, both communication with and employee involvement would increase. However, from the case study evidence, PRP did not appear to improve communication or increase employee involvement in any appreciable manner. Moreover the interviews with employees reported a consistent emphasis on the pecuniary rather than symbolic effects of PRP. Employee's main fear was that PRP would hold down increases in basic pay and they consistently defended the principle that the PRP element should not be taken into account in determining basic pay levels (Luther, 1992, p. 112). In other words while they agreed to let the taxpayer subsidise marginal variations in their annual bonuses, they were unwilling to allow the employer to significantly restructure their pay. Finally, the research indicated that where PRP begins to substantially increase overall pay, employees push to have the PRP bonuses consolidated into a fixed wage.

The only benefit of PRP identified by the employees was that they perceived (somewhat naively) that it provided unequivocal and concrete information on how the organisation was doing, again emphasising the main concerns of employees to be job and income security. In summary, Luther came to the conclusion that PRP was only really feasible for a small minority of firms, in particular, small private firms where:

- profit growth is assured from year to year;
- there are few enough employees for everyone to believe that they really can influence profits;
- it is not possible, or necessary, for owner-managers to be secretive about the financial results and
- employees earn enough for them to be prepared to place 5% or more of their earnings at risk' (p. 37).

The IDS report (1990) also came to very similar conclusions on this matter. As we noted earlier, this type of firm with relatively stable profits and high-earning, long-tenure, employees, is highly untypical of the U.K. small firm sector.

5. Concluding comments

The U.K. Government appears to have been very confident in promoting PRP. One is led to believe, for example, that PRP would 'clearly' be in the best interests of industry and 'most emphatically' of the unemployed; benefits would 'undoubtedly' accrue. Yet by their official rationale the U.K. Government's case for PRP appears tenuous, and the empirical evidence scarcely buttresses the case. Employers have been slow to adopt PRP, though there has undoubtedly been increased interest in PRP since the doubling of tax relief in 1991 and the onset in 1990 of the U.K. recession. It seems, however, that the overwhelming majority of these PRP schemes are simply cosmetic schemes designed solely to take advantage of the tax subsidy to maintain existing employees' take-home pay whilst also, in some cases, actually reducing the firm's total wage bill in the face of falling profits due to the recession (Friedman, 1992; Jones, 1993; IDS, 1994). Welcome as this may be to the individual firms and employees concerned, the subsidy increases the tax burden of the remainder of the population without producing any obvious corresponding economic benefits. Moreover, the empirical evidence on the very weak relationship between employment change and profits in small firms (Watson, 1990) suggests that such subsidies will be treated largely as a windfall gain by owner-managers and are unlikely to significantly influence firm's employment practices.

Clearly, insofar as only firms with a core of relatively well-organised 'privileged insiders' actually introduce such schemes, this will contribute little towards maintaining employment stability amongst the large majority of low paid workers that make-up the U.K. small firm sector workforce. Indeed, the position of such non-core workers is likely to be weakened by PRP schemes which either exclude them altogether or which create incentives for employers to terminate their contracts prior to the PRP payment date. As Duncan (1988) has noted, the government's dogmatic advocacy of PRP is:

likely to reinforce the perception already prevalent within the labour movement that Government policy toward the macroeconomy entails double standards in requiring income cuts from disadvantaged groups but increased income for the better off (p. 198).

PRP is also a scheme which brings the notion of profit, and its operationalisation at the micro-level, under greater scrutiny from employees. As such, in the absence of long-term employment relationships and internal structures which provide employees with effective 'voice', it is an additional source of potential employer-employee conflict which undermines both the microeconomic justification for PRP and, insofar as this encourages employers to introduce less contentious and purely cosmetic schemes, also the macroeconomic case for PRP.⁵ As Ogden (1992) has pointed out, one reason for PRP's lack of success is employers' deep seated concerns over information disclosure to employees and the possibility that this might stimulate employees to demand greater influence upon managerial decision making.

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Notes

¹ References to Green Paper (GP) are references to 'Profit Related Pay: A Consultative Document, presented to Parliament by the Chancellor of the Exchequer, the Secretary of State for Employment and the Secretary of State for Trade and Industry by command of Her Majesty, July 1986', Command 9835.

² Such as the employee share ownership schemes introduced in the Finance Acts of 1978 and 1980, the Save As You Earn all-employee share option schemes introduced in the Finance Act 1980 and the introduction of a discretionary share option scheme in 1984 (GP, p. 4).

³ The quotation indicates that the Green Paper is critical of U.K. management practices ('inertia'). A number of employers' organisations (primarily the CBI, IoD and the EEF), professional management associations (the BIM and the IPM) and the TUC responded to the Green paper proposals on PRP. What is particularly interesting about the responses of these highly diverse interest groups was the uniformly negative views expressed regarding the PRP proposals (see the analyses by Duncan, 1988 and Ogden, 1992). The criticisms of PRP included, *inter alia*, the increased scope for conflicts over pay and management decision-making, its lack of practical relevance for many industries, its likely demotivational effects upon employees due to its inability to reward

individual effort, the costs of implementing and operating the scheme and its inability (due to the periodic nature of profit measurement and audit) to produce quick responses to changing market conditions. Equally interesting is the fact that the government completely ignored these criticisms and introduced PRP in the following year.

⁴ Here the government's case for PRP diverges from that of Weitzman since he views the microeconomic arguments as being highly questionable ('soft boiled'). Interestingly, since the introduction of PRP, the government has come to rely solely on the microeconomic 'morale and productivity' justification in its press releases and other official statements on PRP.

⁵ The professional accountants that design PRP schemes are certainly aware of employers' concerns on this matter – as the following quotation from Jones (1993), in an article devoted to the advantages of cosmetic PRP schemes for professional accountancy firms, makes clear:

I am frequently asked: 'Do employees have a right to see the employment unit's results or the scheme rules?' The answer is no – all the employees are entitled to know is that part of their pay is PRP and that it is tax free. This comes as quite a relief to accountancy firms, which are reluctant to disclose their partnership accounts. (p. 51)

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