

ACCOUNTING FOR INSECURITY

BY

Peter Armstrong

Abstract

This paper argues that modern systems of budgetary control are implicated in the exploitation and production of insecure forms of employment. The flexibility of direct labour is assumed at a very basic level in some of the core techniques of costing and budgetary control. Previous historical studies of the development of these forms of control, moreover, have shown that they were used to shift the costs of economic fluctuation from capital to labour as well as to encourage the efficient utilisation of human effort (Hopper and Armstrong, 1991).

In the light of these observations, it is to be expected that the use of budgetary targets which incorporate direct labour costs will 1) be more prevalent where the workers are least able to resist the various forms of 'flexibility' and 2) encourage recourse to redundancies where the performance of business units within a company falls below expectation. The paper then tests these hypotheses against data from a recent survey of industrial relations practice in large UK companies. The results show, firstly, that there is a strong and positive association between the proportions of females and part-timers within the workforce and the use of unit labour costs and the direct labour cost/sales ratio as performance targets. Secondly, the use of return-on-investment (R.O.I.) targets is associated with the declaration of redundancies in business units which have failed to perform satisfactorily.

For those to whom insecurity of employment constitutes a social problem rather than a managerial convenience to be celebrated as 'flexibility', these findings indicate that the accounting control systems typical of the modern company constitute part of the problem. The achievement of the long-standing trade union aim of security of income and employment will depend, in part, on changing these systems of control.

Keywords:

Budgetary control, labour costs, control ratios, return-on-investment, industrial relations, employment insecurity

Introduction: employment insecurity and systems of internal accountability.

Though the available survey data suffer from inconsistencies and methodological shortcomings, there can be little doubt that there were considerable increases in the incidence and density of management accounting controls in UK companies during the 1970s and 1980s (Armstrong, 1994). The pace of development can be illustrated through a single comparison. In the Britain of 1960 it was unusual to find a standard costing system in operation (Parker, 1969). By 1992, in contrast, about three quarters of UK manufacturing companies were using standard costs (Drury *et al*, 1993).

Over roughly the same period, there also occurred a growth in forms of employment celebrated as 'flexible' by managerial writers (e.g. Atkinson, 1984) and condemned as 'precarious' by those who saw the development as a social problem (e.g. Rogers, 1989).

Insofar as it is possible on the basis of official statistics, the recent phases of these two decades of growth in employment insecurity have been documented by DeGrip, Hoevenberg and Willems, (1997). Defining insecure employment as self-employment, plus part-time, plus temporary work, and taking the 1985 average incidence of employment insecurity in the European Union as 100, the UK index increased from 107 to 119 between 1985 and 1995.

Most of the UK's insecure employment, and most of the increase, took the form of part-time, rather than temporary work. Between 1983 and 1991, temporary employment as a proportion of the whole remained static at about 4.7%. A recent Trades Union Congress report, however, suggests that this figure grossly understates the true incidence of temporary work, since it excludes forms of employment, such as casual and home working, which tend to be invisible to official statistics. According to this report (TUC, 1998), temporary and home workers now make up more than 10% of the UK workforce. Such a figure implies either a massive increase since 1991, or a massive understatement of temporary employment in the first place.

The increase in part-time work, in contrast, *is* visible in the official figures. According to DeGrip, Hoevenberg and Willems, (1997), this increased from 18.1% to 22.3% of total employment between 1983 and 1991, the most affected sectors being services (50.4% in 1991), sales (34.2%) and clerical work (27.3%). Although a small proportion of part-time work can be accounted for by secure 'retention jobs', created as a means of attracting highly skilled employees who prefer to work part-time, most of it is involuntary. Part-time work of this kind is made up of short-time working introduced as a response to economic fluctuation or of 'secondary sector' jobs characterised by lack of social protection, absence of career progression, low pay and rudimentary benefits (Tilley 1991). For the majority of employees, therefore, part-time work is a forced choice, and one which implies insecurity, at least in the form of imposed variations in hours and often in the form of periods of unemployment.

Exposure to the insecurities of part-time work is markedly gendered. In 1991, 43.7% of all females were employed part-time, as against 22.3% of the workforce as a whole

(DeGrip, Hoevenberg and Willems, 1997). These figures imply a female rate of part-time employment about four times that of males¹.

That there might be a connection between the increasing prevalence of these insecure forms employment and the growth of management accounting control systems is a possibility so far overlooked by most accounting researchers.

In some ways, the omission is surprising. A concern with the connections between accounting control systems and the experience of employment, broadly conceived, is implicit within a number of otherwise disparate research traditions. From the mid 1960s onwards (Argyris, 1952), 'behavioural accounting' has explored the motivational consequences of accounting measures of performance (see Caplan, 1971 and Ferris, 1988 for summaries) and of the manner in which these measures are acted upon (e.g. Hopwood, 1973; Otley, 1978).

Although deriving from quite different philosophical, political and methodological traditions, the same preoccupation with the employment consequences of accounting controls underlies some of the strands of research within the critical accounting movement. This is most obviously the case with the Marxist/labour process tradition (e.g. Hopper and Armstrong, 1991) and the critical theoretic approach (e.g. Laughlin, 1991, Laughlin, Broadbent and Willig-Atherton, 1994).

The identification of systems of accountability with 'disciplinary regimes' (Foucault, 1977) however, also implies a particular view of the connection between accounting and the employment relationship (e.g. Loft, 1986; Hopwood, 1987), and this is also the case with some of the work inspired by Foucault's writings on 'governmentality' (e.g. Miller and O'Leary, 1987;). Even the currently influential 'Audit Society' project (Power, 1994, 1996) originated, in part, in a consideration of the reactions of managers and professionals to audit-based management, especially within the public services (e.g. Humphrey, Miller and Scapens, 1993; Ezzamel and Wilmott, 1993).

Given this broad, if sometimes tacit, concern with the relationships between accounting and the experience of employment, it is perhaps surprising that the engagement of accounting research with industrial relations, as the subject is

¹ As with all forms of human deprivation which exist for the benefit of the powerful, the growth of precarious employment appears to have created a market for 'scholarly' demonstrations that it does not exist. In this vein, Burgess (1997) has claimed that the general perception of increased employment insecurity is a myth. On the basis that average job tenure scarcely altered between 1975 and 1992 and nor did the proportion of jobs which were held for less than 5 years, he claims that 'reports of the death of jobs for life are greatly exaggerated'. Perceptions of employment insecurity are, he believes, the product of media hysteria and of fears for the non-renewal of fixed-term contracts which, in the event, often prove groundless.

As debunking this argument depends on shifting the definition of insecurity from one of foreboding to an after-the-event descriptive category. Most writers (e.g. Casey, 1988) would adhere to commonly accepted meanings and include fixed-term contracts within the category of insecure employment, whether or not these contracts are actually renewed.

More seriously, both the argument and the data, fail to distinguish between voluntary and involuntary terminations and to consider the effect of the involuntary on the voluntary. Imagine that all of the insecure workers in a locality experience the dismissal of some of their colleagues. Assuming that more secure employment is not available, it will make sense for them to hang onto their existing jobs, so far as they are able. Voluntary terminations, in other words, will fall as involuntary terminations rise. Depending on the relative magnitude of these effects, it is perfectly possible for a pronounced rise in involuntary terminations to be concealed within static overall figures for job tenure.

conventionally defined, has been largely limited to the question of providing accounting information to trade unionists. During the 1970s, a decade in which the reform rather than the eradication of collective bargaining was on the agenda, governments believed that trade union claims could be moderated by the provision of financial 'facts' on the state of the enterprise. Possibly animated by a desire to be useful, but possibly too because of the prospect of expanding the accountant's job territory, accounting academia responded with a number of studies aimed at informing the selection and presentation of the relevant information (Foley and Maunders 1977; Cooper and Essex, 1977; Craft, 1981; Purdy, 1981; Maunders and Foley, 1984; Ogden and Bougen, 1985; Owen and Lloyd 1985 and Amernic, 1985). Perhaps reflecting the trepidation of the non-specialist when confronted with the technicalities of accounting practice, rather fewer students of industrial relations ventured into this intellectual no-man's land (Dickens, 1980, Jenkins, 1982).

Beyond the issue of financial information for collective bargaining, the possible connections between accounting control systems and the management of industrial relations have remained little explored. Exceptions are the work of Wardell and Weisenfeld (1991) and Armstrong (1994), both of whom argued that the tendency of the UK to lag behind the US in the development of standard costing could partly be explained by the relative strength of UK shop-floor trade unionism. This apart, it was a sense that important issues were being neglected which animated the decision to include a questionnaire on management accounting controls in a 1992 survey of the management of the employment relationship in large UK companies (Marginson et al, 1993, Armstrong et al, 1996). This paper is based on data from that survey, and its particular aim is to explore the possible connections between one aspect of the employment relationship (insecurity) and the use of certain widely-used budgetary targets.

That such a connection existed in the past has been argued by Hopper and Armstrong (1991). Against Johnson and Kaplan's (1987) portrayal of the early development of management accounting as driven by a search for efficiencies, Hopper and Armstrong (1991) showed that the accounting controls in question were actually used to extract more effort whilst controlling the wage bill, and to throw the costs of economic fluctuations onto the workforce. The latter was the case, for example, with the R.O.I. targets introduced in General Motors during the 1920s and 1930s (Sloane, 1986; Armstrong, 1996). The practical utility of these targets depended crucially on the freedom of divisional managers to impose layoffs, speedups and short-time working in responses to fluctuations in product markets. For that reason, much of the company's industrial relations activity at that time was aimed at excluding trade unionism.

Though the present paper is concerned with the UK of the 1990s rather than the USA of the 1920s and 1930s, and though it is based on survey data rather than historical case studies, the underlying hypothesis is the same. It is that there exists a reciprocal relationship between the use of budgetary targets which incorporate labour costs and insecurity of employment. On the one hand the use of these targets will tend to coincide with the possibility of acting upon them, so that they will tend to be introduced where the workforce lacks employment security. On the other hand, these targets will tend to encourage the production of employment insecurity, as managers seek ways of meeting them in the face of economic fluctuation. In this aspect, they will encourage the recruitment of workers who have traditionally been regarded as a

supply of flexible labour and/or they will encourage the introduction of insecure forms of employment for workers who could previously have expected secure work². In this connection, much of the creativity of personnel practitioners profession over the last 15 years has gone into the creation of new forms of employment contract aimed at ensuring labour flexibility (Treu, 1992).

In order to forestall a possible objection, it is important to stress that it is not being argued that labour cost budgets, or any other form of management accounting control, are an autonomous *cause* of the increase in employment insecurity. As Marshall (1989) has pointed out, it is fluctuating product markets which are responsible for the background pressure against the creation of 'permanent' jobs. The likely involvement of budgetary targets is that they offer a systematic technology for responding to this pressure and for transmitting it to middle managers. Once installed, however, budgetary targets may have the effect of institutionalising management practices which depend on insecure forms of employment, and of discouraging a search for alternatives

The paper begins by arguing that the flexibility of direct labour is an assumption which lies right at the heart of some of the most basic procedures of cost and management accounting. On this basis it is hypothesised that the use of budgetary targets involving direct labour costs will 1) be more prevalent where workers are least able to resist the various forms of flexibility and 2) encourage recourse to these flexibilities, notably redundancy, where the performance of business units within a company falls below expectation. The paper then continues with a brief account of the survey data on which the test of these hypotheses is based, before moving onto the analysis itself.

Cost Accounting and the Assumption of Direct Labour Flexibility

One does not have to delve very far into the techniques of management accounting to discover that they imply quite a lot about the employment relationship in general, and about the security of employment in particular. In the first few lectures of a standard introductory course on cost accounting, students are taught to distinguish between fixed and variable costs. To a first approximation, fixed costs are those which can be assumed not to vary with the level of some core activity (e.g. volume of production) whilst variable costs are assumed to vary linearly with this activity (with caveats about approximation and the range of activity over which linearity may be assumed). Typically, direct labour and materials are given as instances of variable costs (e.g. Wilson and Chua, p. 120).

Considered purely as a calculative procedure, this treatment of direct labour costs is socially unexceptionable, and is indeed close to the Marxist conception of value as socially necessary labour time. The computation of direct labour costs, however, is not, and never has been, a purely calculative procedure. Historical studies such as those of Hopwood (1987) and Mckendrick (1970) in the UK and Dublin (1979) in the

² It is not easy to define what is meant by 'secure work'. One of the difficulties in discussing trends in temporary employment lies in the problem of distinguishing it from 'normal' forms of employment which are, themselves, far from permanent (Casey, 1988).

USA have made it clear that prime cost calculations were used as an instrument of monitoring and target-setting from the outset. In conditions of fluctuating production, the expectation that managers should be able to meet such targets assumed, at the very least, that the workers involved could be unproblematically and costlessly be transferred to and from other tasks. Often, it involved the stronger assumption that the wages paid, the hours worked or the numbers employed could be varied by managerial fiat. Once they had been incorporated into the calculative routines of basic cost accounting, these 19th century views of the employment relationship were carried forward into the present-day practices of budgetary control. Not surprisingly, perhaps, accounting students are not normally encouraged to dwell on the implications for industrial relations, nor to consider the extent to which direct labour costs really are - or really should be - avoidable. Insecurity of employment, in other words, is sedimented at a primitive level within cost accounting, both in its history and in the evolutionary recapitulation of that history through teaching.

A corollary is that insecurity of employment is also built into the mechanics of standard costing. In theory, the investigation of variances produced by standard costing systems is supposed to take the form of a constructive search for solutions. Within the literature of behavioural accounting, the punitive treatment of adverse variances is frowned on as demotivational, in that it encourages a negative behaviours focussed exclusively on the avoidance of failure (Hopwood, 1973). In practice the presumption of guilt may be rather more prevalent than is implied by this advocacy of positive thinking (Armstrong, 1989). To the extent that this is the case, the incentive for managers and supervisors is to remain invisible to the system of accountability by avoiding unfavourable variances. In the case of direct labour, this requires that both the hours worked and the wages paid need to be adjusted in line with changes in the level of activity (both, because the techniques of variance analysis reveal the quantity, as well as the cost, of labour). Much of the utility of standard costing therefore, as it relates to direct labour, depends on the power of managers and supervisors to vary the volume and cost of labour in line with changes in the level of activity. According to Drury et al (1993), about three quarters of large UK manufacturing companies now use this form of control, a figure which raises the question of how far it is implicated in the aggregate growth of employment insecurity.

The incidence of standard costing as such was not explored in the present survey, because the focus of concern was on headquarters control of business units rather than the immediate control of the labour process. Closely allied to standard costing, however, the targeting of labour cost ratios at the level of the entire business units, *was* investigated. So that specific questions could be asked in the interviews, the particular ratios chosen were unit labour costs (used in 47% of the companies) and the direct labour cost/sales ratio (used in 40%). Though commonly employed, these are not the only ratios which explicitly incorporate labour costs, and this needs to be born in mind when interpreting the results (see page 11).

If it is true that labour cost ratios of this type both presume employment insecurity and are used to take advantage of it, they should be more prevalent in companies with high proportions of those categories of employee associated with flexibility. As is well known, females and part-time workers tend to fall into this category (DeGrip, Hoevenberg and Willems, (1997). The intention, therefore, is to show that the targeting of unit labour cost and the direct labour cost/sales ratio is more prevalent in companies with high proportions of female and part-time employees.

Profitability Targets and Reactions to Under-Performance

Accounting students are also introduced, early in their courses, to measures of divisional performance, of which the prototype was Return-on-Investment (R.O.I.). Although typically applied to larger segments of an organisation than standard costs, these measures work in much the same way, except that it is (some measure of) profit in relation to (some measure of) the fixed investment base which is monitored, rather than the ratio of costs to activity. In this case, the connection between the index of performance and conditions of employment is rather more attenuated than in the case of standard costing. Changes in labour productivity and costs are visible through their influence on profit rather than directly. That the connection is still there, however, is made clear by Johnson and Kaplan's (1987) account of the pioneering use of Return-on-Investment (R.O.I.) in General Motors during the 1920s. In what amounted to an early form of target costing, divisional managers were required to adjust forecast production costs (including labour) so that an R.O.I. of 20% would be achieved with the projected volume of production, selling prices and investment base. Actual performance was then monitored against this target every ten days, so that changes in the level of factory-gate sales had to be compensated for by corresponding reductions in costs - including labour costs. Such a system depended on the freedom of divisional managers to hire, lay-off and fire with minimal hindrance. For that reason its development was accompanied by a virulent anti-union campaign (Hopper and Armstrong, 1989).

Our survey data indicate that R.O.I. targets are set for business units in about 40% of large UK companies (The figure obtained by Drury et al (1993) was 55%, but their survey covered manufacturing only). The connection with employment insecurity in this case is that, as will appear in the body of the paper, these targets are associated with the declaration of redundancies as a response to the under-performance of business units.

Background to the survey data

The data on which this paper is based were obtained in the course of the Second Company-Level Industrial Relations Survey (CLIRS2), the primary purpose of which was to provide a cross-sectional snapshot of company-level policy on the management of the employment relationship in large, multi-site British companies (see Marginson et al 1994 for fuller details). The interviews were carried out between February and June 1992 by I.F.F. Research Ltd, using questionnaires designed by the authors. Since the focus was on company-level policy, these interviews were conducted with senior managers at UK headquarters. For the first time in any large-scale industrial relations study, there were two interviews in each company. One was on budgetary controls and related aspects of organisational control. This was administered to a senior representative of the accounting/finance function. The data on the budgetary targets applied to business units are from this questionnaire. A second questionnaire on the management of the employment relationship was administered to a headquarters personnel manager. It is from this second questionnaire that the data on assessment of managers and bargaining with trade unions have been taken.

Sample and Methods

The survey was restricted to companies employing 1,000 or more people in the UK and having at least two sites. The population of such companies was 975 at the time of the survey. The original intention was to construct a quota sample 200 of these companies, stratified by size, sector and ownership (UK domestic, UK international and Overseas-owned). At the screening stage, a short questionnaire was administered by telephone in order to obtain the necessary information on ownership, sector and size, as well as background information on the relationship between business units and company headquarters. Complete information from these screening interviews was obtained from 812 companies (83% of the population) and it was from these 812 that interviews were sought.

Interviews only went ahead with the agreement of both the personnel and accounting respondents. Interviews with managers from the accounting/finance function proved comparatively difficult to obtain and the target population of 812 companies was exhausted before the quotas in the larger size ranges and amongst multinational companies had been fulfilled. The final response rate, defined as pairs of interviews obtained as a proportion of interviews plus refusals, was 28% (176 companies). This figure compares favourably with the response rate of 24% achieved in a recent postal survey of management accounting practice in UK manufacturing companies by Drury *et al* (1993).

Checks for non-respondent bias were made, using information obtained in the screening interviews. This established that, on key dimensions of internal control, the companies in which interviews took place differed little from the non-respondents. In addition, the sample closely matched the target population in its sectoral and industrial composition. The sole systematic difference between the sample and the parent population was the under-representation of the larger and overseas companies. In order to permit statements to be made about large UK companies as a whole on the basis of the sample, therefore, responses from the larger and overseas-owned companies have been weighted appropriately³. Statements about variations *within* the sample, of course, are based on unweighted data.

Budgetary Controls and Labour Flexibilities

The considerations discussed in the introduction lead to the hypothesis that the utility of targeting both labour cost control ratios and measures of the productivity of capital depend on the ability of managers to adjust the workforce in line with the volume of production. Figs 1 and 2 show that companies which report and target unit labour costs and the direct labour cost/sales ratio at business unit level employ markedly more part-time and female workers than those which do not. Part-time and female employment are highly correlated in the present-day UK (0.55 in our data), and the use of each of the labour cost budgets varies with both. Part-time employment, however, varies more particularly with unit labour cost budgets and female

³ The formula for the weight attached to data from each company is:

$$\text{Weight} = \frac{\% \text{ of population in size category} \times \% \text{ of population in ownership category}}{\% \text{ of sample in size category} \times \% \text{ of sample in ownership category}}$$

employment with the direct labour cost / sales ratio. Possibly this last tendency reflects the presence of large retailers in the sample. In these companies, cost/sales ratios are of particular relevance as performance indicators, and they also tend to employ high proportions of female labour. The relationships in question are shown in Figs 1 and 2.

Fig 1 Incidence of unit labour cost reports vs. percentage of part-time workers

Base: all companies. N= 176

	Business units report unit labour costs	
	No	Yes
Mean % of part-time workers	10	19
Std Dev	11	23
Observations	105	71

Business unit reports of unit labour costs are associated with high percentages of part-time workers
 $P < 0.001$ Two-tailed t-test assuming equal variances.

Fig 2. Incidence of direct labour cost/sales reports vs. percentage of female workers

Base: all companies. N= 176

	Business units report direct labour cost/sales	
	No	Yes
Mean percentage of female workers	32	42
Std Dev	16	22
Observations	113	63

Direct labour cost/sales reports associated with high percentages of female employees
 $P < 0.01$ Two-tailed t-test assuming equal variances

On average, companies which target and report unit labour costs at business unit level employ 10% more part-time workers than companies which do not. Similarly those which use the direct labour cost/ sales ratio employ 10% more females than those which do not.

Since the conventional general claim for budgetary controls is that they assist in the problems of monitoring, co-ordination and allocation in the large diversified company (Chandler and Daems, 1979), it remains possible that the relationships shown in Figs 1 and 2 are the product of some prior association between company taxonomy and the targeting of labour cost ratios. Accordingly the incidence of these was checked

against company size, the number of UK sites, three forms of diversity⁴, the forms of relationships between business units and the degree of devolution of decisions on business unit strategy. Of these variables, only diversity in the sense of the dispersal of activities across different industrial sectors was associated with a difference in the incidence of the labour cost ratios. Specifically, they were *less* prevalent in the more dispersed companies, a finding which makes intuitive sense in that the ratio of labour costs to sales or to units produced loses comparative meaning as operations become more dissimilar.

In order to test whether the association between these ratios and part-time or female employment is independent of this negative association with diversity, a logistic regression equation has been produced. The variable MULTISECT is defined as 0 for companies operating in a single sector and 1 for companies operating in two or more sectors. PT% and FEM% are simply the percentages of part-time workers and females employed. With these definitions, the coefficients of the independent variables in the equation for the odds that a company will target the labour cost ratios are:

Fig 3. Coefficients of independent variables in regression equations for unit labour cost and direct labour cost/sales targets at business unit level

Unit labour costs	Multisect	PT%
Exp (Bn) =	0.43**	1.036***
Direct labour costs/sales	Multisect	FEM%
Exp (Bn) =	0.44**	1.031***

(Note: * = p<10%; ** = p<5%; ***= p<1%)

These equations confirm that both sectoral diversity and the percentages of part-time and female workers are independent influences on the tendency of companies to target the labour cost ratios. The coefficients in the equations show that the incidence of these reports declines with diversification beyond a single sector, and increases with the proportions of part-time and female workers respectively. The factor 1.036 may not seem to indicate a very strong relationship until it is realised that this 3% increase in the odds of labour cost targets corresponds to a mere 1% increase in part-time employment. The incidence of these labour cost reports is very sensitive indeed to the proportions of 'flexible' workers.

Though the result is striking, two comments are in order.

The first is that the labour cost ratios chosen for investigation, although commonly used, are not the only possibilities. If others fail to show the same association with 'flexible' employment, it is conceivable that the association between this and the

⁴ These were diversity of business (indicated by the percentage of sales from the dominant business), the variety of products produced at different sites within the company and the spread of its activities across different two-digit S.I.C. sectors.

targeting of labour cost ratios overall might be weaker than that shown here, or even absent entirely. For this to be the case, there would have to be reasons for the associations which are *specific* to unit labour costs and the direct labour cost/sales ratio, i.e. reasons other than the fact that both ratios include labour costs. It is difficult to imagine what such reasons might be.

Secondly, as with all attempts to isolate an association by eliminating the influence of other variables, the theoretical possibility remains that it is 'really' due to some prior variable not included in the survey. The presumption at this stage, however, is that these labour cost ratios *are* involved in the imposition of numerical and/or temporal flexibility on the workforces of large UK companies. Part-time and female workers are less likely to be members of trade unions than full-time employees. They also have higher turnover rates, and accumulate fewer legal rights as a consequence. It is comparatively easy therefore to vary the working hours of these employees or to lay them off altogether in order to achieve target labour cost control ratios in the face of fluctuations in the volume of business⁵.

Whilst this much is established, a cross sectional association of the type reported here cannot, in its nature, establish the mechanics behind it. There is a question, for example, of how far labour cost control ratios are actually used to plan the recruitment and divestment of staff. The questions of intention and the direction of causality remain equally open. Have labour cost control ratios been installed as a rational means of exploiting the flexibilities of female and part-time staff, for example, or have such staff been recruited as a response to the imposition of such targets?

Whilst these are questions for the future, the point from which they start is that there exists an association between the targeting of labour cost control ratios and the employment of categories of worker who are least able to resist casualisation.

R.O.I. targets and the failing business unit.

As an indicator of the performance of business units, R.O.I. targets are supposed to inform decisions on investment and disinvestment. As a means of monitoring the performance of their managers, they are supposed to align the interests of these managers with those of the company (Johnson and Kaplan, 1987). If both are the case, one would expect to see some association between the use of R.O.I. targets and the action taken when business unit performance is below target.

The data on the treatment of the under-performing business unit were obtained from a series of open-ended questions asked of the headquarters-level representatives of the accounting/finance function. They were first asked if they could recall an occasion during the last five years when a business unit had significantly under-performed. In 162 of the 176 sample companies (92% weighted), they were able to do so. These respondents were then asked about the consequences for the business unit itself, its manager and the workforce.

From the point of view of those who manage and work in them, the manner in which large UK companies treat business units which fail to perform can fairly be described

⁵ There is some evidence that this actually occurs. The use of unit labour cost and direct labour/sales targets is associated with the declaration of redundancies in business units which fail to perform to target.

as punitive. Of the 162 companies which reported a case of under-performance, 141 codable replies were obtained on the consequences for the unit itself. Closure or sale was mentioned in 34 of these cases (24% weighted⁶). Since the disposal of a unit is a highly salient event, it may be assumed that the replies are a reasonably accurate reflection of the actual incidence of disposal and non-disposal. Accordingly, the 107 replies which made no mention of closure have been assumed to refer to cases in which the business units remained open. Of these, 90 gave codable replies on the consequences of under-performance for the workforce and the manager of the unit. 47 of these (52% weighted) mentioned redundancies amongst the workforce and 37 (41% weighted) that the manager had been dismissed, demoted, or 'disappeared'. In contrast to these figures, forms of assistance to the ailing business unit were mentioned in only a small minority of cases, even on interpretations of 'assistance' which included 'review of operations', 'new objectives' and 'work harder'.

The intention now is to enquire into the relationship between R.O.I. targets and the treatment of the failing business unit. Given the overwhelming prevalence of punitive responses, this boils down to an enquiry into the association between R.O.I. targets and the closure of failing units, redundancies amongst the workforce and the removal of their managers. Fig 4 compares the first two of these associations, there being no detectable relationship between R.O.I. targets and the removal of unit managers.

Fig 4

R.O.I. and the treatment of under-performing business units								
Cell values are numbers of companies								
R.O.I. monitored against target	Business unit remained open				Business unit closed	No reply on business unit	No under- performance	Grand Total
	Without redundancies	With redundancies	No reply on workforce	Total				
No	35	22	10	67	22	14	9	112
Yes	8	25	7	40	12	7	5	64
Totals	43	47	17	107	34	21	14	176
R. O. I. associated with redundancies p = 0.0007 chisquare test. 1 d.f.					No association between R.O.I. and closures			

Fig 4 shows that there is no detectable relationship between the use of R.O.I. targets and the disposal of under-performing business units. There is, however, a strong and significant association between R.O.I. targets and the treatment of units which remain open. Where R.O.I. is targeted, the measures taken in response to under-performance are much more likely to include the declaration of redundancies than where it is not. Thus far, the data are consistent with the hypothesis. It is now necessary, however, to ask whether there are other factors behind the association.

⁶ A system of weighting has been used so that proportions of the sample can be used to make statements about the proportions to be expected in the parent population of almost 1000 UK companies with 1000 or more employees and two or more sites in the UK. See p 9 for details of this weighting system.

Other possible influences on the declaration of redundancies in under-performing units

At this stage, it remains possible that R.O.I. in Fig 4 is a proxy for some other influence on the tendency to declare redundancies. Three possibilities suggest themselves; the ability of the workforce to resist, managerial reluctance, and the involvement of business unit managers themselves in the decision.

The first is primarily a matter of trade union organisation and the composition of the workforce. The second concerns the extent to which employees are regarded as an asset to be conserved, rather than a cost to be eliminated when performance falls short of expectations. The third is the question of the influence of business unit managers themselves on the response to under-performance. Given that company responses are largely limited to the closure of the unit, the removal of its manager and the declaration of redundancies (page 13), the hypothesis at this point is that business unit managers are likely to opt for redundancies.

Workforce resistance

The hypothesis here is that the tendency to declare redundancies in reaction to business unit under-performance will vary inversely with indicators of the capacity of the workforce to resist. The indices available from our dataset were trade union density (the percentage of eligible workers who were members of trade unions) and (negatively) the proportions of female and part-time workers. None of these variables were associated with the tendency to declare redundancies. They can therefore be eliminated as possible prior influences on the ROI/redundancies association.

‘Soft’ human resource management

The hypothesis concerning the management attitude towards the workforce is that redundancies will be less favoured as a response to under-performance in companies which practice ‘soft’ human resource management (HRM). The fundamental premise of this approach is that the workforce is to be treated as a valuable asset, to be nurtured and developed (Storey, 1992). If this means anything at all, it implies that employees will be regarded as a means of rectifying under-performance, rather than as an unnecessary cost which caused it in the first place.

Training policy and budgets

A first symptom of soft HRM is the involvement of company headquarters in the determination of training policy and budgets. Policy-setting at this level tends to protect a company’s commitment to staff development from the budgetary pressures experienced by middle managers.

Consistent with the hypothesis, both indicators of headquarters commitment to training (involvement in policy and in budgets) turn out to be negatively, and significantly, related to the declaration of redundancies in under-performing units. It is therefore necessary to check for the possible influence of these factors on the association between R.O.I. targets and redundancies.

In the multiple logistic regression equation for the declaration of redundancies (Fig 5, page 18), the variable TPOL indicates the degree to which decisions on training

policy are devolved. TPOL is 0 in companies in which training policy is an enterprise-level decision, 1 if the decision is taken at divisional or operating establishment level. The devolution of decisions on training budgets is represented by two variables. TBUD_[1] is 0 if the budgets are decided by UK headquarters, 1 if at some lower level. TBUD_[2] is 0 if the budgets are decided at headquarters or divisional level, 1 if at business unit level.

Employee communications

A second symptom of the ‘soft’ HRM approach is an investment in communications with the workforce. Here too the data were consistent with the hypothesis. The incidence of three forms of communication was higher in companies which did not declare redundancies in response to business unit under-performance. The forms of communication in question were surveys of employee opinion ($p < 0.05$), employee suggestion schemes ($p < 0.1$) and newsletters (not sig.). As with the indicators of management commitment to training, the potential (negative) influence of these features of ‘soft’ HRM needs to be excluded from the R.O.I./redundancies association.

In Fig 5, SURVEY is 0 where employee opinion surveys are not used, 1 where they are. The variables SUGGEST and NEWS are defined similarly

The devolution of decision-making

The survey data indicate that the response of large UK companies to the under-performance of business units is effectively limited to the alternatives of closure, the removal of their managers and the restoration of their viability through redundancies (see page 13). Where the choice amongst these alternatives is devolved to business unit managers, solutions which allow the continuation of units, to say nothing of the retention of the managers themselves, are likely to be preferred. The hypothesis, therefore, is that the declaration of redundancies in response to business unit under-performance will be associated with decision-making autonomy for business unit managers, especially on the declaration of redundancies itself, and related matters such as levels of employment.

Decision-making at business unit level: commercial and industrial relations issues

In order to test the foregoing hypothesis, aggregated indices of industrial relations and commercial autonomy were constructed from detailed questions on a range of issues. These indices (AUTIRX and AUTCOMX respectively) were continuous variables which ranged from 1 (no autonomy) to 4 (complete autonomy). The hypothesis was confirmed in that both were positively related to the declaration of redundancies in under-performing business units ($p < 0.05$ in both cases).

AUTIRX and AUTCOMX have been included unmodified in the regression equation of Fig. 5.

Decision-making at business unit level: the strategic process

There are other aspects of decision-making devolution which relate more tangentially, though still substantively, to the declaration of redundancies. Examples within the dataset were the devolution of decisions on business units strategies and on the payroll budgets within business units.

Following the work of Goold and Campbell (1987), the manner in which business unit strategies are decided can be conceived of as a continuum from highly centralised (strategic planners) through to highly decentralised (financial controllers). By hypothesis, the companies which declared redundancies in response to under-performance should tend to be financial controllers, and tend not to be strategic planners. This expectation was only partly borne out. As expected, strategic planners were the least likely to declare redundancies but it was strategic controllers (negotiated strategies), not financial controllers (devolved strategies) which were the most likely to do this ($p < 0.05$). Despite the fact that the hypothesis was not fully confirmed, it is still necessary to allow for the possible influence of this association on that between R.O.I targets and redundancies.

In Fig. 5, DEVSTRAT_[1] is defined as 0 for companies in which business unit strategies are imposed by headquarters and 1 for companies in which they are negotiated or left to business units managers. DEVSTRAT_[2] is defined as 0 for companies in which they are imposed or negotiated and as 1 for companies in which they are devolved to business units.

Decision-making at business unit level: first move in the budgetary process

Decisions to declare redundancies may be derivative rather than explicit, in the sense that they may flow from prior decisions on payroll budgets. Another aspect of business unit autonomy is the extent to which these decisions are devolved. In 79% of the companies, these budgets were proposed by the budget-holders, then negotiated with senior management. In 12%, however, they were proposed by senior management and negotiated with the holders. In 6 % of the companies payroll budgets were simply imposed from above, whilst in 2% they were decided by the budget-holders themselves.

These four categories can be collapsed into two by making a broad distinction between budgetary processes initiated by higher management and those initiated by the holders themselves. Earlier (page 15) it was hypothesised that where business unit managers influenced the decision on the action to be taken in cases of under-performance, they would tend to favour redundancies rather than closure, or their own removal. It is not unreasonable to suppose that the same will be true of redundancies decided through the not-very-heavily disguised medium of payroll budgets. Suppose further, that the first move on the determination of these budgets is also an indicator of subsequent influence, so that the initiation of the budgetary process by business unit managers is also an indication of their influence. If all this is granted, we arrive at the hypothesis that the declaration of redundancies in under-performing units is more likely in companies where business unit managers initiate the determination of payroll budgets⁷.

Although reached by a lengthy chain of supposition, this hypothesis is confirmed by the data ($p < 0.05$). As with the strategic process, the degree of influence of business unit managers on payroll budgets is a measure of the risk of redundancies faced by the workforce.

⁷ If the verification of this kind of hypotheses were an objective of the paper, it could reasonably be objected that the chain of supposition behind it is long and implausible. It is important to recall that the aim at this point is to find *possible* influences on the decision to declare redundancies, and that the objective is to eliminate them as contaminating influences on the R.O.I. / redundancies association.

In Fig. 5, BUDPROC is defined as 0 where budgets are initiated by higher management (whether subsequently negotiated or imposed) and as 1 where budgets are initiated by the holder (whether subsequently negotiated or decided unilaterally)

Isolating the R.O.I. targets - redundancies association

Having identified a number of variables, in addition to R.O.I. targets, which are associated with the declaration of redundancies in under performing units, it is now possible to assess the relative influence of each. Fig 5 shows the coefficients of the independent variables, as defined above, in the regression equation for the odds that a company declared redundancies in an under-performing unit which remained in operation. The variable BUROI is defined as 0 where R.O.I. is not targeted at business unit level, and 1 where it is. The database on which equation 5 is based is 89 companies, rather than the 90 in which under-performing units remained open, because data on all of the candidate independent variables were not available in the case of one company.

Disappointingly for the advocates of 'soft' HRM, perhaps, none of the variables representing this approach stand out as independent influences against the declaration of redundancies as a response to under-performance. Matters are not quite so clear-cut however. If the less significant of the 'communications' variables are progressively eliminated from the equation on the grounds of colinearity, the higher incidence of the remaining form of communications (suggestions schemes) in companies which avoid redundancies reaches the 10% significance level. Consistent with the premise of 'soft' HRM, companies which retain their employees when business units fail to perform, are also more likely to regard them as a useful source of ideas.

Having made this point, the coefficients and significance levels in Fig 5 indicate that the 'real' influences on the tendency to declare redundancies as a response to business unit under-performance are the devolution of strategic decision making and the targeting of R.O.I. at business unit level (which can also be seen as an aspect of devolution). In the case of decisions on business unit strategies, however, the tendency to declare redundancies is at its maximum, not in companies where such decisions are fully devolved (financial controllers), but in those where strategies are negotiated between business unit managers and the centre (strategic controllers). Bearing this in mind, it is still worthy of note that the costs of both forms of devolution tend to fall upon the workforce, when things turn out badly, rather than the manager to whom the decisions are devolved.

Fig 5 Coefficients of independent variables in logistic regression equation for odds of workforce redundancies in under-performing business units

Variable	Sig.	Exp[B]
H.R.M: TRAINING		
TPOL	.3259	.5823
TBUD	.6115	
TBUD _[1]	.3753	1.9625
TBUD _[2]	.5259	1.5894
H.R.M: COMMUNICATIONS		
SURVEY	.2770	.5201
SUGGEST	.1322	.4493
NEWS	.6543	.6986
DEVOLUTION OF DECISION-MAKING		
AUTCOMX	.5951	1.1935
AUTIRX	.3291	1.5577
DEVSTRAT	.0754	
DEVSTRAT _[1]	.1415	2.7178
DEVSTRAT _[2]	.1775	.3111
BUDPROC	.5114	1.6235
SYSTEM OF ACCOUNTABILITY		
BUROI	.0899	2.8938
Constant	.2461	0.24751

Before discussing the meaning of the R.O.I. / redundancies association, it is as well to enquire if these targets are also associated with part-time and female employment. Since redundancy is certainly a form of insecurity, it might be expected that part-time and female employment will be associated with a correlate of redundancy. In fact no such relationship is discernible. A possible explanation is that the two forms of insecurity occur on different scales of time and number. The employment of categories of worker who find it difficult to resist insecurity permits managers to make routine and relatively small adjustments to levels of employment as a means of meeting (usually) monthly targets. The failure or contraction of an entire business unit, on the other hand, is a relatively rare and catastrophic event, likely to engulf

‘secure’ and insecure employees alike. Thus targets associated with action on the failure of entire units need not also be associated with forms of insecurity which permit routine variations in employment levels. If it is true, this argument implies that R.O.I. is primarily an instrument of large-scale ‘one-off’ adjustments to employment levels, whereas labour cost ratios are used for routine fine-tuning, but this is a matter for future research.

In itself, of course, the establishment of a cross-sectional association between R.O.I. targets and the declaration of redundancies in response to business unit under-performance leaves open a number of questions of interpretation. The first is that of motive and causality. It is possible on the one hand that the logic of employment insecurity built into R.O.I. targets is well-understood by those who design management control systems, and that they are nothing more than a straightforward expression of a style of management within which the workforce is a dispensable resource. On the other hand, it is also possible, that these targets are installed for quite different reasons (in order to encourage ‘enterprise’, for example) and that the consequences for the workforce are an unintentional fall-out. Between these extremes, there may be a whole range of positions in which senior managers partially know, and partially do not want to know, the means by which targets are achieved. At issue here is not just the question of intentionality, but also the extent to which R.O.I. targets might be regarded as causative. To the extent that they are transparent as a medium of management intention, they are not. To the extent that they refract these intentions, they are.

Also open is the question of the mechanics connecting R.O.I. with the declaration of redundancies. Since the association was not anticipated at the design stage of the survey, supplementary questions were not asked. For this reason, there are no data on the extent to which R.O.I. reports were used to define unsatisfactory performance in the first place, nor on their possible role in calculating the number of redundancies needed to bring performance back on target. These, as well as the questions of motive and causality, are questions for future research. What *has* been established is that hypothesised connection between R.O.I. targets and employment insecurity actually exists.

Conclusions

The targeting and monitoring of labour cost ratios and the productivity of capital are two of the most basic techniques in management accounting. Their social consequences are therefore of concern, not just to management accountants, but also to the working people whose outputs they monitor and control. Even in the 176 companies covered by the survey reported here, for example, tens of thousands of people were affected.

The hypotheses put forward in this paper start from the axiom that the utility of management accounting information depends on the ability of managers to act upon it. When levels of activity vary, as will normally be the case, the achievement of any target which involves labour costs depends upon ‘flexible’ forms of employment. At a minimum, this implies that managers are able to deploy workers to alternative tasks. More usually it calls for the ability to vary the numbers employed, the hours worked, or the wages paid. On this basis, it was hypothesised that the targeting of labour cost

ratios and return-on-investment at the level of the business unit are both implicated in the production of employment insecurity.

The data from a cross-sectional survey of large UK companies are consistent with this picture. The use of labour cost/activity ratios is more prevalent in companies which employ high proportions of female and part-time workers, both of which (overlapping) categories tend to have high rates of turnover and lack the capacity to resist short-time, layoffs and redundancy. R.O.I. targets are more prevalent in companies which react to the under-performance of business units by declaring redundancies amongst the workforce. Both of these associations are genuine, in the sense that the accounting targets are not proxies for some other correlate of the employment of female or part-time workers, or of the declaration of redundancies as a response to business unit under-performance.

In themselves, of course, cross-section associations of the type reported here leave open the questions of their mechanics and meaning. Whilst they are consistent with those set out in the hypotheses, they do not prove them. They are best regarded, perhaps, as establishing that there is a case to answer. Management accountants, who may well be decent people for the most part, may not be comfortable with the thought that their professional practice is bound up with the creation of insecure employment. If this is the case, it is up to them to find innocent explanations for the associations reported here.

For future research, the findings raise questions of intentionality and the direction of causality. In the case of the labour cost control ratios, these questions are:

To what extent, if at all, are the signals sent out by these ratios explicitly linked to programmes of expansion and run-down of staff numbers?

Does the decision to control business units through these ratios pre-date or post-date the decision to recruit high proportions of female or part-time staff?

For ROI targets, the corresponding questions are:

To what extent are these targets involved in the actual diagnosis of business unit under-performance, and how far do they figure in the calculation of the scale of redundancies needed to put matters right?

To what extent do these targets actually encourage the treatment of labour as a disposable resource? Are they merely an instrument of these styles of management, or, having been installed as a means of devolving other aspects decision-making, do they pressure middle managers into treating labour in this fashion?

Whatever the answers to these questions, this paper has presented a *prima facie* case that there is a presumption of employment insecurity built into the use of budgetary targets which involve labour costs. In their implementation, moreover, such systems are likely to reproduce the very insecurity which they presume. On the demand side, middle managers who depend on employment insecurity for the achievement of their targets are likely to prioritise this form of 'flexibility' as an industrial relations objective. On the supply side, insecure employment is likely to recruit those for whom it presents comparatively few problems or those least able to find alternatives. Either way, insecurity is perpetuated.

Because such systems of accountability are entrenched within the overall control structures of many large UK companies, they now constitute a considerable institutional inertia against any attempt to ameliorate employment insecurity through political or trade union action. Whatever is achieved on these fronts, control ratios which involve labour costs will, if left unmodified, continue to pressure middle managers into imposing insecurity in its various forms. If it is important to debate the reform of management accounting from the standpoint of industrial competitiveness (Bromwich and Bhimani, 1989), it may be equally desirable to debate it as a contribution to the quality of working life.

References

- Amernic, J.H., The Role of Accounting in Collective Bargaining. Accounting, Organisations and Society (1985) Vol. 10, No.2. pp. 227-253.
- Argyris, C., *The Impact of Budgets on People* (New York. The Controllershship Foundation, 1952).
- Armstrong, P., Variance Reporting and the Delegation of Blame: a case study. Accounting, Auditing and Accountability Journal (1989) Vol. 2, No. 22, pp 29-46.
- Armstrong, P., Corporate Control in Large British Companies: the intersection of management accounting and industrial relations in post-war Britain. (Chapter 8 in Accounting as a Social and Institutional Practice. Eds. Hopwood, A. and Miller, P. Cambridge University Press, 1994) pp. 190-211.
- Armstrong, P., Marginson, P., Edwards, P. and Purcell, J. Budgetary Control And The Labour Force: Findings From A Survey Of Large British Companies. Management Accounting Research. (1996) Vol. 7, No 1, pp. 1-23.
- Armstrong, P., Management Accounting and the Casualisation of Labour. in Flecker, J and Hofbauer, J (eds.) Vernetzung und Vereinnahmung - Arbeit zwischen Internationalisierung und neuen Managementkonzepten, Sonderband der Osterreichischen Zeitschrift fur Soziologie 3, (Opladen/ Germany. Westdeutscher Verlag, 1996) pp. 257-272.
- Atkinson, J., Manpower Strategies for Flexible Organisations. Personnel Management, (August 1984) pp. 28-31.
- Bromwich, M. and Bhimani, A., *Management Accounting: Evolution not Revolution*. (London. CIMA, 1989).
- Burgess, S., *You're alright Jack*. Times Higher Education Supplement. (1997) 26th Dec p. 11.
- Caplan, E.H., *Management Accounting and Behavioural Science*. (Reading Massachusetts. Addison-Wesley, 1971).
- Casey, B., The Extent and Nature of Temporary Employment in Britain. *Cambridge Journal of Economics*. (1988) Vol. 12, No. 4, pp. 487-509.
- Chandler, A.D. and Daems, H., Administrative Co-ordination, Allocation and Monitoring: A Comparative Analysis of the Emergence of Accounting and Organisation in the U.S.A and Europe. Accounting, Organisations and Society. (1979) Vol. 4 No. 1 2 pp. 3-20.

- Cooper, D. and Essex, S., Accounting Information and Employee Decision-Making. *Accounting, Organisations and Society*. (1977) Vol. 2 No. 3. pp. 201-217
- Craft, J.A., Information Disclosure and the Role of the Accountant in Collective Bargaining. *Accounting, Organisations and Society*. (1981) Vol. 6 No. 1. pp. 97-107
- DeGrip, A., Hoevenberg, J. and Willems, E., Atypical employment in the European Union. *International Labour Review*, (1997), Vol. 136, No. 1, p.49-71.
- Dickens, L., What are companies disclosing for the 1980s? *Personnel Management*. (1980) Vol. 12 No. 4 pp. 28-30, 48.
- Drury C., Braund S., Osborne P. and Tayles M., *A Survey of Management Accounting Practices in UK Manufacturing Companies*. (A.C.C.A. Research Report No. 32, 1993).
- Dublin, T. *Women at Work: The Transformation of Work and Community in Lowell Massachusetts, 1826-1860*. (New York. Columbia University Press, 1979).
- Ezzamel, M. and Wilmott, H., Corporate Governance and Financial Accountability: Recent reforms in the UK Public Sector *Accounting, Auditing and Accountability Journal* (1993) Vol. 6, No.3. pp 109-132.
- Ferris, K., *Behavioural Accounting: a Critical Analysis*. (Columbus Ohio. Century VII Publishing Co., 1988)
- Foley, B.J. and Maunders, K.T., *Accounting Information Disclosure and Collective Bargaining*. (London. Macmillan, 1977).
- Foucault, M., *Discipline and Punish: the Birth of the Prison*. (London. Allen Lane, 1977).
- Goold, M. and Campbell, M., *Strategies and Styles: the Role of the Centre in Managing Diversified Corporations*. (Oxford, Blackwell, 1987).
- Hopper, T. and Armstrong, P., Cost Accounting, Controlling Labour and the Rise of Conglomerates. *Accounting, Organisations and Society* (1989) Vol. 16 Nos. 5/6 pp. 405-438.
- Hopwood, A., *An Accounting System and Managerial Behaviour*. (Farnborough. Saxon House, 1973).
- Hopwood, A., Accounting and the Pursuit of Efficiency. Ch 9. in Hopwood, A. and Tomkins, C. (eds.) *Issues in Public Sector Accounting*. (Deddington. Philip Allen, 1984).
- Hopwood, A., The Archaeology of Accounting Systems. *Accounting, Organisations and Society*. (1987) Vol. 12 No.3. pp. 207-234.
- Humphrey, C., Miller, P. and Scapens, R., Accountability and Accountable Management in the UK Public Sector *Accounting, Auditing and Accountability Journal*. (1993) Vol. 6, No.3. pp 7-29.
- Jenkins, D., Disclosure of Information, Stratification and Collective Agreements. *Industrial Relations Journal*. (1982) Vol. 13, No. 3. pp. 57-62.
- Johnson, H.T. and Kaplan, R.S., *Relevance Lost: the Rise and Fall of Management Accounting*. (Boston Massachusetts. Harvard University Press, 1987).

- Loft, A., Towards a Critical Understanding of Accounting: The Case of Cost Accounting in the UK, 1914-1925. *Accounting, Organisations and Society*. (1986) Vol. 11, No. 2. pp. 137-169.
- Marginson, P., Armstrong P., Edwards, P.K. and Purcell, J., *The Control of Industrial Relations in Large Companies*. (Warwick Paper in Industrial Relations No.45. 1993).
- Marshall, A., The Sequel of Unemployment: the changing role of part-time and temporary work in Western Europe. in Rogers, G. and Rogers, J. (eds.) *Precarious Jobs in Labour Market regulation: the Growth of A-typical Employment in Western Europe*. (Geneva: International Institute for Labour Studies/ Brussels: Free University of Brussels, 1989) pp. 17-48.
- Maunder, K.T. and Foley, B.J., Information Disclosure and the Role of the Accountant in Collective Bargaining - some Comments. *Accounting, Organisations and Society*. (1984) Vol. 9 No. 1. pp. 99-106.
- Mckendrick, N., Josiah Wedgwood and Cost Accounting in the Industrial Revolution. *Economic History Review. Second Series*. (1970) Vol. 33 pp. 45-67.
- Miller, P. and O'Leary, T., Accounting and the Construction of the Governable Person. *Accounting, Organisations and Society*. (1987) Vol. 12. No. 3. pp. 235-265.
- Ogden, S. and Bougen, P., A Radical Perspective on the Disclosure of Accounting Information to Trade Unions. *Accounting, Organisations and Society*. (1985) Vol. 10 No.2. pp. 211-244.
- Otley, D.T., Budget Use and Managerial Performance. *Journal of Accounting Research*. (1978) Vol. 16. No. 1. pp. 122-149.
- Owen, D.L. and Lloyd, A.J., The Use of Financial Information by Trade Union Negotiators in Plant Level Collective Bargaining. *Accounting, Organisations and Society*. (1985) Vol. 10 No. 3. pp. 329-350.
- Parker, R.H., *Management Accounting, an Historical Perspective*. (London. MacMillan, 1969). p. 11.
- Power, M., *The Audit Explosion*. (London. Demos, 1994).
- Power, M., Making Things Auditable. *Accounting, Organizations and Society*. (1996) Vol. 21. Nos. 2 and 3. pp 289-315.
- Purdy, D., The Provision of Financial Information to Employees: A Study of the Reporting Practices of Some Large Public Companies in the UK *Accounting, Organisations and Society*. (1981) Vol. 6 No. 4. pp. 327-338.
- Rogers, G., Precarious Work in Western Europe: the State of the Debate. in Rogers, G. and Rogers, J. (eds.) *Precarious Jobs in Labour Market regulation: the Growth of A-typical Employment in Western Europe*. (Geneva: International Institute for Labour Studies/ Brussels: Free University of Brussels, 1989) pp. 1-16.
- Schoer, K., Part-time Employment - Britain and West Germany, *Cambridge Journal of Economics*. (1987) Vol. 11, No. 1, pp. 83-94.
- Sloane, A.P., *My Years with General Motors*. (Harmondsworth. Penguin, (1986).
- Storey, J., *Developments in the Management of Human Resources*. (Oxford, Blackwell, (1992).

Tilley, C., Reasons for the continuing growth of part-time employment. *Monthly Labor Review*, (1991) Vol. 114 No. 3 pp. 10-18.

Treu, T. Labour Flexibility in Europe. *International Labor Review*. (1992) Vol. 131. Nos. 4-5. pp. 497-512.

TUC., *Job and Go! How UK temporary and home workers are suffering growing exploitation*. (London. TUC Organisation and Services Department, 1998)

Wardell, M. and Weisenfeld, L.W., Management Accounting and the Workplace in the United States and Great Britain. *Accounting, Organisations and Society*, (1991) Vol. 16, No. 7 pp. 655-670.

Wilson, R.M.S. and Chua, W.F., *Management Accounting: Method and Meaning* (London. Chapman and Hall, 1993).