CAUSES OF EMPLOYMENT REDUCTIONS AFTER CORPORATE TAKEOVERS

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1. Introduction

Mergers and acquisitions (M&A) are controversial because of their perceived adverse effects on employment. These transactions are often followed by restructuring, divestments, and plant shutdowns, leading to lay-offs and reductions in employment (Conyon *et al.* 2001; 2002a; Lehto and Böckerman 2008). They can have catastrophic consequences for workers, especially when large-scale reductions occur in localities where alternative employment opportunities are limited. An alternative perspective, however, is that takeovers improve the long-term health of businesses by disciplining incompetent or lazy managers and shaking-out inefficient working methods. In this way they lay the foundations for long-term employment growth.

Why do some transactions result in substantial declines in employment, and is it possible to predict these outcomes? One possibility is that corporate governance and ownership play an important role (Gospel and Pendleton 2003; Armour *et al.* 2003). This paper specifically examines the influence of managerial ownership, drawing on corporate governance theory that suggests managerial ownership has alignment and entrenchment effects. It also considers three other sets of explanations for post-transaction employment change that have received more coverage in the literature: the performance of firms prior to M & A, the potential for synergies and economies of scale and scope, and characteristics of the transaction.

The paper is based on a study of 235 takeovers amongst British listed companies taking place between 1990 and 2000, supplemented by data drawn from a control sample of 470 non-merging firms, matched by industry, size and pre-takeover performance (Barber and Lyon 1996; Loughran and Ritter 1997). The paper examines the factors associated with employment growth and decline within one year of the transaction and with lay-off announcements.

The results show that employment reductions are by no means universal. By the end of the first year after the transaction, there is a net reduction in employment in 54 per cent of cases. Lay-offs are announced in 43 per cent of cases but in 12 per cent of these the effects are counter-balanced by employment growth. The median employment reduction in companies making *net* reductions in employment is 14 per cent and the median employment growth in companies increasing workforce levels post-merger is 16 per cent.

The results indicate that executive share ownership, and to a lesser extent executive options, are significant influences on post-transaction employment change. Overall, higher levels of executive ownership are associated with lower probabilities of lay-offs and employment reductions. Indeed there is a positive relationship between executive ownership and employment growth. However, polynomial regression and split-sample analysis indicates this relationship is curvilinear with the relationship between managerial ownership and employment change being negative at lower levels of ownership but becoming positive once ownership exceeds 4.3 per cent. Our results suggest that selection effects are important. The association between executive

ownership and employment growth can be attributed to the tendency for these executives to mount takeovers of better performing firms. Equally, some incentivized executives mount takeovers of firms with poor performance, and these tend to lead to employment reductions. In the absence of data on managerial motivations we cannot fully ascertain the reasons for this course of action.

Meanwhile executive share options have opposing effects to share ownership, consistent with the notions that options encourage riskier behaviour and provide incentives but not control rights. The other factors that are consistently associated with employment reductions are certain characteristics of the M&A transaction. Relatively large acquisitions (where the target firm is large relative to the acquirer), cash-financed transactions, and reliance on debt are all associated with a higher probability of lay-offs and employment reductions. In contrast to earlier findings in the literature, synergy, hostility, and takeover premiums are on the whole not significantly related to lay-offs and employment change.

In the next section we review the literature on the various potential influences on post-acquisition employment change, prior to mounting the empirical analysis. Four sets of factors are considered: prior performance, the potential for synergy, characteristics of the transaction, and ownership and governance. The empirical analysis is concerned with evaluating the relative influence of these factors on lay-offs and employment change. We outline the data sources and variables, and then present the results of multivariate analysis. In the final section we consider the implications of the findings.

2. Background: theory and evidence

There is an extensive literature on the employment effects of takeovers in the USA and the UK, possibly reflecting the large relative size of the listed company sector in these countries and an accompanying high level of M&A involving large firms (Rossi and Volpin 2004). The extant evidence suggests that employment reductions often follow M&A (Deakin and Slinger 1997; Lehto and Böckerman 2008). Explanations for post-takeover employee layoffs and employment reductions differ substantially between studies and there is little consensus in the literature. In this section we briefly consider the main explanations advanced so far and the evidence for them. To this we add a consideration of the possible role of corporate governance and ownership factors. This provides the context and rationale for the empirical work reported later in the paper.

Poor performance prior to takeovers

The orthodox view of the market for corporate control suggests that acquirers target under-performing firms to create shareholder value by re-allocating resources to more efficient users (Manne 1965). The market for corporate control disciplines target firm managers, who may have been pursuing private preferences such as a ‘quiet life’ (Fama 1980; Morck *et al.* 1989). Enhancement of labour efficiency may be a key part of this restructuring, thereby leading to workforce reductions.

The implication of this is that the inferior performance of M&A targets explains post-transaction changes in employment (Hillier *et al.* 2007; Coucke *et al.* 2007). Both productivity and

profitability are relevant factors. O'Shaughnessy and Flanagan (1998) report that post-merger employee layoffs occur in target companies whose productivity (measured as target sales per employee) is below that of the acquirer whilst Krishnan *et al*. (2007) find that the prior performance (two year average industry-adjusted return on sales) of the acquired firm predicts workforce reductions. The relative wages paid by the target firm may also influence post-takeover employment. Where wages are relatively high, the acquiring firm may seek to reduce labour costs: indeed, a motive for the takeover may be to restructure employment costs. Because wage levels are often difficult to adjust in the short-term ('wage stickiness'), reductions in employment may be the preferred method for reducing labour costs.

Synergy

Takeovers may promote synergy, arising from economies of scale and scope, and this may result in workforce reductions. The potential for integrating two businesses is greater in related than unrelated acquisitions because of the greater scope for elimination of duplicative activities. This elimination seems likely to lead to employment reductions. The evidence is supportive of this supposition: O'Shaughnessy and Flanagan (1998) found that the probability of layoff announcements is higher in related acquisitions, and Krishnan *et al*. (2007) show that relatedness predicts workforce reductions. Related acquisitions are more likely to reduce labour demand (Conyon *et al.* 2002a, 2002b; Gugler and Yurtoglu 2004). However, a counter view is that the merger of unrelated firms may also lead to employment reductions either because the new firm shuts down or divests operations which do not fit with the core business or because of difficulties in synchronizing practices and cultures between the two firms, as has been widely observed of many mergers in the organizational behaviour literature (Weber and Camerer 2003; Chatterjee *et al.* 1992).

The relative sizes of target and acquirer may have an impact on workforce growth and decline. Acquired firms are generally smaller than their industry average whereas the converse is true for acquiring firms (as measured by employment) (Conyon *et al.* 2001, 2002a; McGuckin and Nguyen 2001). The evidence suggests that smaller acquirers make proportionately larger reductions in their labour demand (Conyon *et al.* 2002a; McGuckin *et al.* 1998; Conyon *et al.* 2001). When the size differential between acquirer and target is relatively small, the capacity for the acquirer to 'digest' the target firm may be limited. There is also likely to be less capacity to absorb jobs displaced by rationalisation of the target (and acquirer) firm.

The Nature of M & A transactions

i) Hostile takeovers and managerial discipline

The potential gains from replacing inefficient management are said to motivate hostile takeovers (Morck *et al.* 1990). Hostile takeovers discipline those managers who have opted for a 'quiet life' by allowing employment levels to rise above efficient levels. Removal of these managers through takeovers can facilitate workforce adjustments in under-performing firms. Furthermore, hostile takeovers may be more likely to facilitate wealth transfers -- from employees to shareholders -- because they tend to be associated with higher share premiums and abnormal returns for target company shareholders (Sudarsanam and Mahate 2006; Goergen and Renneboog 2004). Predators usually raise their bids to buy-off opposition (Franks and Mayer

1996). Employment reductions may be the consequence of higher premiums (Shleifer and Summers 1988; Pagano and Volpin 2005).

The evidence shows that hostile takeovers lead to a reduction in employment. Reduced employment emanates particularly from large divestments post-takeover (Conyon *et al.* 2001; Denis 1994), whilst other restructuring activity to increase efficiency generates further reductions in labour demand. Conyon *et al.* (2002a) show that hostile takeovers reduce labour demand by 17 per cent compared to 9 per cent after friendly mergers. Similarly, Gugler and Yurtoglu (2004) report that tender offers which were hostile in nature produce significantly different labour demand effects compared to other mergers.

ii) Takeover premiums and managerial hubris

Acquirers typically pay a premium of between 20-30 per cent for target companies (Danbolt 2004; Franks and Harris 1989)[i]. The magnitude of premia may arise from a variety of factors: one example is managerial *over-confidence* as managers systematically over-estimate their capabilities and/or expected synergies from M&A (Roll 1986; Malmendier and Tate 2005; Hayward and Hambrick 1997). It has been argued that high premia require "performance improvements that are virtually impossible to realize, even by the best executives in the best of industry conditions" (Sirower 1997: 88). Workforce reductions may be necessary to pay for premiums incurred in M&A activity (Krishnan and Park 2002; Krishnan *et al.* 2007). Indeed, the latter study reports that high premiums are the main factor leading to post-merger workforce reductions. This particular finding, however is not universally recognised. For example, Beckmann and Forbes (2004) find that workforce reductions explain only a very small fraction of earlier bid premia.

iii) Payment methods

Takeovers are typically paid for by cash or shares, or some combination of the two. In the UK approximately 80 per cent of acquisitions by listed companies are paid for in cash, declining to around 60 per cent if the targets are also listed. Corporate governance factors loom large in the choice of payment method, with large shareholders tending to discourage the use of share-based payments (Faccio and Masulis 2005). Cash transactions often require an increase in leverage. Whether cash reserves or debt are used, cash transactions will have a direct and immediate effect on cashflow and liquidity. The corollary of this could be a need to reduce labour costs via employment reductions. A further influence of cash on post-takeover employment could arise from the known tendency for cash-based transactions to be associated with poor performance subsequently: cash-rich firms are more likely to undertake diversifying acquisitions which adversely impact on firm performance (Harford 1999).

The use of debt to finance M&A is also likely to have an impact on employment because of the constraints debt places on managerial actions (Jensen 1986). Debt servicing and repayment restricts free cashflow, and can force managers to seek efficiencies. In general, firms with higher debt tend to reduce employment more than those with lower debt (Hanka 1998). However, the evidence relating specifically to takeovers is mixed. O'Shaughnessy and Flanagan (1998) find no evidence that debt-financed takeovers are more likely to announce lay-offs but Krishnan *et al.*

(2007) found that debt (measured by the debt-equity ratio) significantly predicts workforce reductions.

Ownership and governance

A cornerstone of the corporate governance literature is that managerial ownership will align managerial and shareholder interests. Ownership is typically dispersed in the modern, stock-market listed corporation in liberal market economies such as the UK, and managers typically have a negligible or even non-existent share in the ownership of the firm. The principal-agent perspective, dominant in discussions of corporate governance, portrays a governance problem between corporate owners and managers. The utility function of managers will differ from those of shareholders: managers will pursue 'private' interests (such as high salaries, status, and a 'quiet life') rather than those of shareholders, unless steps are taken to control or align managerial behaviour (Marris 1964). These managerial objectives can be favourable to labour because desire for a 'quiet life' may result in a 'softly-softly' approach to labour relations.

The agency perspective would suggest that the probability of employment reductions post-takeover rises with managerial ownership because managers aligned with shareholders shift the costs of takeovers onto other stakeholders such as labour (Pagano and Volpin 2005). However, these effects may be more complex. Recent literature on managerial ownership draws attention to the opposing effects of alignment and entrenchment (Morck *et al.* 1989) as well as aligning managers' interests with those of shareholders, ownership also provides control rights that can insulate them from shareholders. At low levels of managerial ownership alignment effects tend to be most important but as the proportion of ownership and control increases, managers become entrenched and able to pursue 'private' interests such as pursuit of a 'quiet life'. The empirical implication is that the effect of managerial ownership on employment change could be non-linear. The effects may be rather different for share options as these provide return rights but not control rights, suggesting that alignment effects will generally predominate over entrenchment.

Selection effects may be important. Managers who are more aligned with shareholders because of share ownership may make better quality takeovers with better growth and employment prospects. But equally, a counter argument is that managers with substantial ownership may be able to mount 'empire-building' takeovers which go sour, thereby leading to employment reductions and lay-offs.

Besides ownership, other means of aligning managerial interests with those of shareholders include representation of shareholder interests on the board of directors. A greater proportion of 'independent' or non-executive directors may mean that the board is more likely to pursue shareholder interests, though the extant evidence is inconclusive (Denis and McConnell 2003; Bebchuk and Weisbach 2010). On this basis, it might be anticipated that a higher proportion of non-executives is associated with a higher probability of post-transaction lay-offs. However, a weakness of this measure is that non-executives are often *de facto* selected by the chief executive, and their relationship with executive managers is one of dependency rather than independence (Denis and McConnell 2003). In any case it is not clear that the relative number of non-executives *per* se affects their power resources (Hermalin and Weisbach 2003). Krishnan *et*

al. (2007) found that board composition was an insignificant predictor of post-takeover workforce reductions.

The size of ownership stakes held by external shareholders may also impact upon post-takeover employment change. The norm in countries with market or outsider systems of corporate governance, such as Britain, is for shareholdings in large listed companies to be widely dispersed. Consequently, most institutional shareholders do not play an active role in governance (Gillan and Starks 2007; Bebchuk and Weisbach 2010). However, larger shareholders have a greater incentive and capacity to intervene in management. The presence of external shareholder blocs may therefore mean that employment reductions post-takeover are more likely. However, when shareholdings are above a certain size, shareholders may become 'insiders': they may seek returns that are longer term and be less concerned with short-term financial returns. It is also possible that they can influence management to pursue high-quality takeovers. Thus, shareholder size may have both positive and negative effects on employment post-takeover.

In the remainder of the paper we assess the role of the factors identified above in determining lay-offs and changes in employment using probit, OLS and polynomial methods. Using a sample of UK takeovers, we examine both lay-off announcements and actual employment change shortly after the transaction. The benefit of examining short-term employment change is that it focuses on changes which may reasonably be attributed to the takeover as opposed to other factors. In particular it limits the role of post-transaction economic performance which is likely to have a longer term impact on employment in the merged company. Although not reported in detail here, our data indicate that the bulk of negative employment changes occur in the first year after takeover. We conduct the following analyses: first, probit estimations of the probability of lay-offs and any employment reductions after the first year; second, OLS analysis of the relationship between the various explanatory factors and employment change, both positive and negative. Tests are conducted for the potential non-linear effects of governance, to take account of entrenchment and alignment effects. To highlight the potentially asymmetric effects on employment growth and decline, the sample is split into workforce growth and reduction sub-samples in parts of the analysis. Finally, we conduct a further series of regressions to identify potential selection effects.

3. Research methods

Sample

Data on UK public takeovers during 1990-2000 were obtained from *Acquisitions Monthly.* These data include the names of merging firms, takeover announcement dates, takeover completion dates, premiums, takeover mode and payment mode. Operational and financial data, including the number of workers, average wages, operating performance, and share price performance were retrieved from *Datastream* and company accounts. Seven years of data (three years before and three years after the takeover completion year) were collected for each case. Data on the board composition and share ownership of acquiring companies was collected from the *Hambro Company Guide* and the *Price Waterhouse Corporate Register* and refers to the ownership at the end of the last accounting year immediately prior to the takeover event.

Table 1 shows the population of the total number of transactions, their total values, domestic/foreign and hostile/friendly distributions, by year.

TABLE 1 ABOUT HERE

From this population we select a sample of domestic takeovers, excluding takeovers with the following characteristics: (1) takeovers by foreign companies; (2) acquisitions of less than 50 per cent of target shares; (3) takeovers by private or newly established companies, including management buy-outs and acquisitions by private equity or venture capital firms; (4) takeovers involving property management, financial (banks, investment trusts etc) and utility companies[ii]; (5) takeovers undertaken by serial or multiple acquirers. Only one acquisition per acquirer within any three consecutive years has been included in the sample. Consequently, any employment growth observed in the sample can be attributed to organic growth rather than further acquisitions. The exclusion described above reduces the number of takeovers included in the sample to 235, approximately 30 per cent of UK takeovers involving public companies.

In addition, a control sample of 470 non-merging firms was selected. There is a matched firm for each acquired and acquiring firm, selected according to industry, size (within a 25-200 per cent range) and pre-takeover performance criteria (the closest operating performance at the end of the year prior takeovers) (Loughran and Ritter 1997; Barber and Lyon 1996). An important criterion for selection was that the matched firm was not involved in major acquisition activity two years before and three years after the sample takeover year. The matched firm data is used to control for sectoral employment change.

Variable definitions

i. Dependent variables

First, using *Datastream* data we create an *Employment change* variable by combining the workforce of acquired and acquiring firm prior to takeover (ie the figures reported in the annual reports immediately prior to the takeover event) and then subtracting employment in the combined firm one year after the transaction. Using pre-takeover employment as the denominator, we generate the percentage employment change (positive or negative). On the basis of this employment change variable we further create an *Employment change dummy* which takes 1 if employment is reduced, 0 otherwise.

Second, using employee layoff data obtained from the press we create an *Employee layoffs* dummy. This takes 1 if the acquirer laid-off at least 1 per cent of the combined workforce of the acquired and acquiring firms within a two year period after takeovers, and 0 otherwise[iii]. Data was collected from the national press and downloaded via the *Nexis*® database, following the methodology adopted in prior research (Hillier *et al.* 2007; Krishnan *et al.* 2007; Nixon *et al.* 2004; O'Shaughnessy and Flanagan 1998). We found media reports of employee layoffs in 101 (43 per cent) out of 235 sampled acquisitions[iv]. Most of these lay-offs were announced immediately after the transaction, and nearly all were announced within one year[v]. Data on announced employee layoffs do not include workforce reductions arising from divestments or other sell-offs unconnected to the transaction.

ii. Independent variables

As a measure of pre-takeover operating performance of acquired and acquiring firms we use Return on Assets (ROA), defined as Earnings before Interest, Taxes and Depreciation divided by book value of Total Assets at the beginning of the year. In order to control for industry-wide performance changes, we adjust this measure for each firm using their industry median performance. Analysis of the data indicates this variable is not normally distributed, but negative values arising due from the adjustment process preclude application of data transformation techniques, such as logarithmic transformation. Therefore, to compensate and control for the effect of unusual values, we use adjusted median ROA for three years pre-takeover. This approach creates *Target ROA* and *Acquirer ROA.*

We use sales per employee as a measure of labour productivity in the acquired and acquiring firms. We compute each acquired and acquiring firm's labour productivity in the year prior to takeover completion and then scale them with their industry median labour productivity in the same period. As this relative labour productivity performance measure is positively skewed, we take its natural logarithmic transformation. This creates *Target Labour Productivity* and *Acquirer Labour Productivity.*

To measure pre-takeover average wage we divide each firm's total staff costs by their average number of employees in the year prior to takeover completion. Then we scale each firm's average wage with their median industry wage in the same period. As this scaled average wage is positively skewed we take its natural logarithmic transformation. Using this approach we create *Target Average Wage* and *Acquirer Average Wage.*

Integration and synergy variables are *Related acquisitions* and *Relative employment size.* The former is a dummy set to 1 when both acquired and acquirer firms are in the same *Datastream* Level 4 (Industrial Classification Benchmark (ICB) Sector), as in Cosh *et al.* (2006). *Relative employment size* is the ratio of employment in the acquired firm to the acquiring firm in the year immediately prior to takeover. The median relative employment ratio shows that the median acquirer is about three times larger than the median acquired firm.

Transaction-related variables comprise the following. *Hostile acquisitions* are those classified as hostile by *Acquisitions Monthly*[vi] on the basis of whether an initial bid was rejected by the target firm management (Franks and Mayer 1996), and is coded 0,1. 52 transactions (22 per cent of the sample) are classified as hostile in this way.

The acquisition *Premium* is defined as the percentage difference between the purchase price and the market price of the acquired firm's shares 30 days before the takeover, divided by the latter (Hayward and Hambrick 1997; Sirower 1997). The one month premium is used to control for the effect of rumours about takeovers on the target firm share price and to determine the true size of the premium paid to target firm shareholders. In this sample, acquirers paid on average a premium of 38.57 per cent for their targets, which is similar to the premium reported in other UK studies (Sudarsanam and Sorwar 2010).

Cash-paid acquisition refers to 100 per cent cash-paid deals. The remaining mixed or share-based deals are classified as non-cash-funded acquisitions and coded 0. In the sample 29 per cent of deals were cash-paid acquisitions.

Leverage is defined as the ratio of total debt to total assets at the end of the takeover completion year.

Governance variables include ownership and board composition. Ownership data include executive directors' ownership and non-executive directors' ownership, as well as total ownership of large external shareholders. *Executive share ownership* refers to the percentage of ordinary shares owned by executive directors and their immediate family members whilst *Non-executive ownership* refers to shareholdings by non-executive directors and their families. *Executive share options is* the number of shares awarded under executive share option schemes, as a percentage of the acquirer's total number of shares in issue. Mean (median) executive share ownership is 5.18 per cent (0.82 per cent) and non-executive mean (median) ownership is 1.32 per cent (0.09 per cent). The mean combined board ownership is 6.51 per cent (1.28 per cent). These ownership levels are similar to those reported in earlier UK research (Cosh *et al.* 2006; Mura 2007; Sudarsanam *et al.* 1996).

External large combined ownership is the sum of bloc holdings in excess of 3 per cent. On average, 25.5 per cent shares are held by these shareholders (median = 23.17 per cent). The *External largest single owner* has on average 10.53 per cent ownership (median = 8.85 per cent). The *Proportion of non-executive directors* is the number of non-executive directors on the board divided by total board size. The proportion is 0.44, similar to that reported in Cosh *et al.* (2006) and Yawson (2006).

Change in control firm employment takes account of economy-wide effects on employment and is obtained by selecting a control firm for each acquired and acquiring firm matched based on industry, size, and performance criteria. Average employment for the matched firms is then obtained by combining the employees of the matched acquired firm and acquiring firm. Employment change is calculated for the same period as the dependent variable in each case.

Appendix 1 provides further information on variable construction whilst Appendix 2 includes a correlation matrix. Descriptive statistics are provided in Table 2. As well as providing information for the full sample, this table reports statistics for two sub-samples according to post-takeover changes in the number of workers: 'the workforce reduction' sub-sample ('WFR' hereafter), where post-merger combined employment levels decline relative to the pre- takeover employment level, and 'the workforce growth' sub-sample ('WFG' hereafter), where post-merger employment levels grow relative to the pre-merger employment level over a one year period after the takeover completion year.

TABLE 2 ABOUT HERE

As Table 2 shows, by the end of the first year after the transaction there is a net reduction in employment in 54 per cent of cases (127/235). The median employment reduction in companies making net reductions in employment is 14.39 per cent whilst the corresponding increase for

employment growth companies is 16.03 per cent. Lay-offs are announced in 43 per cent of cases (101/235) but in 12 per cent (12/101) of these the effects are counter-balanced by employment growth.

4. Findings

Determinants of post-merger workforce reductions

The general approach is to identify the determinants of employment changes. In the first instance, we consider the factors associated with lay-off announcements and employment reductions in the first year after takeover using a set of probit regressions. The value of this is that it clearly identifies the factors associated with lay-off announcements or employment reductions. Subsequently, we focus on quantitative employment change, recognising that employment can grow as well as decline post-takeover.

Table 3 reports the coefficients and marginal effects (for each variable when others are held at their mean) arising from the probits.

TABLE 3 ABOUT HERE

Models 1-3 show the determinants of lay-off announcements. Model 1 reports the baseline regression including *Executive Share Ownership* and *Executive Options*. Model 2 includes *Non-executive ownership*, whilst Model 3 substitutes *External large combined* ownership for *External Largest Single Owner*. Models 4-6 repeat models 1-3 but change the dependent variable to a dummy based on actual employment reductions (*Employment change dummy).*

The performance (ROA) of acquired and acquiring firms is negatively related to the probability of lay-offs in Models 1 and 2 (in Model 3 *Target ROA* is not significant at 10 per cent). In Models 4-6 *Target ROA* but not *Acquirer ROA* is significant at 10 per cent. The marginal effects of these profitability measures are sizeable. The employment effect of poor profitability performance in the target firm is similar to that observed in other studies (Krishnan *et al.* 2007) and is intuitively plausible. The takeover of poorer performing firms seems likely to lead to post-takeover restructuring. The finding that poor *Acquirer ROA* is associated with lay-off announcements suggests that the management of acquiring firms may mount takeovers to deal with profitability issues in their own firm as well as the target (Denis 1994; McGuckin and Nguyen 2001). Labour productivity in either the target or the acquirer is not a factor associated with higher probability of lay-offs or employment reductions, except in Model 2.

Contrary to previous findings (Conyon *et al.* 2002a; Krishnan *et al.* 2007; O'Shaughnessy and Flanagan 1998), related acquisitions do not have a higher probability of lay-offs. Indeed, Models 4-6 indicate that related acquisitions are significantly less likely to exhibit employment reductions post-takeover. This is consistent with the view that related acquisitions tend to be undertaken to add capacity rather than to instigate industry restructuring. *Relative employment size* is significant at $p<0.1$ level in all models, indicating that a smaller difference in size between acquirer and target affects the probability of lay-offs and employment reductions.

Among the transaction-related variables, all models in Table 3 shows that there are no significant differences in the probability of lay-offs or employment reductions arising from hostile versus friendly acquisitions. However, when acquisitions are cash-financed, the probability of workforce reductions is higher in all models. There may be two reasons for this. First, cash paid acquisitions may require higher returns to replenish cash reserves, and these are achieved via workforce reductions. Alternatively, managers who have access to abundant cash resources may become overconfident and may make lower quality acquisitions (Malmendier and Tate 2005, 2008), which subsequently lead to lay-offs.

Similarly, the results show that higher levels of leverage have significant effects on the probabilities of lay-offs and employment reductions, presumably because debt repayment and servicing requirements necessitate cost savings (O'Shaughnessy and Flanagan 1998). The marginal effects of leverage are substantial.

Each set of models in Table 3 report different specifications of ownership and governance. These models clearly show that executive share ownership is negatively related to the probabilities of lay-offs and workforce reductions. At first sight these results are surprising. They contrast with Pagano and Volpin's (2005) model, which suggest that new managers with larger equity stakes are more likely to cut staff costs.

Two explanations for these results can be advanced: one, executive share ownership encourages managers to undertake better quality acquisitions that are less likely to require subsequent restructuring; two, at higher levels of ownership top managers become insulated from shareholders, enabling them to pursue either 'empire-building' or other growth strategies. By contrast, in two models (4 and 5) share options are associated with a significantly higher probability of employment reductions. This is consistent with the view that share options align managerial rewards to shareholder objectives but do not provide managers with control rights that might lead to entrenchment. However, the coefficients on *Executive share options* are negative though insignificant in the lay-off announcement probits. A possible explanation for this might be that lay-off announcements are expected to reduce the share price, thereby affecting the value of the options. Thus, managers with options prefer to reduce employment 'by stealth'.

Turning to the role of other shareholders, the results show generally negative relationships with lay-offs and employment reductions. *External largest single owner* has insignificant effects on the probability of lay-off announcements but is negatively related to actual employment reductions at $p< 0.01$. The alternative variable for external ownership - *External largest combined ownership* (i.e. the sum of large shareholdings) - has significant negative effects (at $p <0.05$) on lay-off announcements though the magnitude of the effect is very small. The consistently negative signs on these coefficients suggests that shareholders with greater control rights are able to encourage takeovers that do not subsequently require employment reductions. Models 1 -3 show a higher proportion of outside directors are associated with a lower probability of employee layoffs. The magnitude of this effect is substantial. Although this contrasts with earlier research (Perry and Shivdasani 2005; Yawson 2006), these results might be explained by the potential for relatively powerful outside directors to prevent managers from making poor quality acquisitions. Since these results are not mirrored by those for actual workforce

reductions (where the coefficients are positive), another explanation is that greater power for non-executives leads to quieter employment changes so as to avoid adverse market movements.

Employment change: further analysis

The analysis so far provides an indication of the factors associated with the probabilities of lay-offs and workforce reductions. But it does not deal with the possibility that employment may grow in some firms after takeovers. In this section, OLS models are used to investigate the quantitative effects more precisely. Several models are analysed. We examine the factors associated with workforce change overall (including growth as well as decline), and of workforce change in two sub-samples: those transactions leading to workforce reduction and those leading to workforce growth. The sample is split in this way because the effects of the independent variables may be asymmetric. We also investigate the possibility that the effect of managerial ownership may be non-linear by including polynomial models (with quadratic terms for *Executive share ownership* and *Executive share options*).

TABLE 4 ABOUT HERE

Models 1-6 in Table 4 report results for the whole sample at the end of the first year after takeover when the dependent variable can include both positive and negative employment change. These results are similar to those reported in Table 3 though the signs are reversed because of the change in the dependent variable. The sample size is slightly smaller due to the exclusion of outliers (those with employment changes greater than 2.5 SD from the mean). All models show that the profitability performance of the acquirer and the acquired firm in the year prior to takeover has a positive relationship with employment change (i.e. good performance is associated with employment growth post-merger). However, labour productivity in the acquirer is significantly associated with negative employment change, suggesting that those companies with better productivity impose their productivity practices on targets post-acquisition. Pre-takeover relative wage levels in the target company exhibit a significant negative relationship with employment changes post-takeover i.e. higher wages in the target tend to be associated with employment reductions or smaller employment growth.

Turning to economies of scale and scope, these results are similar to the earlier probits in that related acquisitions are not more likely to lead to employment change but the relative size of the target continues to have a significant negative effect (at $p<0.01$). The magnitude of this latter effect is sizeable.

The characteristics of the transaction also have similar effects to before. The use of cash payments is negatively associated with employment change. Hostility and the size of premiums are insignificant throughout in contrast to previous literature. Leverage, however, is significant throughout. This is intuitively plausible: higher debt is associated with smaller employment growth or even workforce reductions.

Turning to governance and ownership, executive share ownership has a highly significant and sizeable positive relationship with employment change. In fact this is the second largest coefficient in models 1, 3, and 4 (after *Relative employment size).* Ownership by non-executives

is insignificant throughout, as might be expected given the tendency for most UK non-executives to have small holdings in the firms in which they hold their appointments. The proportion of non-executive directors might be expected to have larger effects given the important governance role expected of non-executive directors in the UK system. However, the coefficients are insignificant in most models, the exception being those where *Executive share ownership* is not present. The coefficients on the two variables for large shareholdings are insignificant throughout.

Model 2 differs in that *Executive share options* is entered in place of *Executive share ownership*. The primary finding to note is that share options have the opposite effect to ownership. This is as predicted and consistent with earlier work on managerial ownership and labour policies (Cronqvist *et al*. 2009). Whilst ownership gives return and control rights, leading to the possibility of entrenchment, options align managerial rewards to company performance in the future without granting control rights in the present (during the vesting and holding period). Thus, executives are incentivized to enhance the firm's market value, but the absence of control rights during the vesting period limits the potential for managers to become entrenched. A further relevant feature of options is that the absence of downside risk tends to encourage riskier patterns of managerial behaviour (Sanders 2001)**.** When both share ownership and share option variables are inserted, as in Model 3, the effects of each are broadly unchanged, indicating that the two function independently of each other.

The positive effects of executive share ownership on employment change may conceal more complex relationships given that the governance literature has suggested that ownership may have both alignment and entrenchment (i.e. opposing) effects. It is possible that the effects of managerial ownership on employment are non-linear, with the relationship changing between differing levels of ownership. To investigate this possibility, Model 5 reports results for a model where a quadratic term for executive ownership is included, and Model 6 repeats the exercise for executive share options. First differencing the combination of a negative sign on the original variable, a positive and significant sign on the squared variable indicates that the regression line is convex. Figure 1 shows the post-estimation polynomial regression line where all other variables are held at their mean. It indicates that the relationship between executive ownership and employment change is slightly negative until ownership is 4.32 per cent. At this inflection point the relationship changes with executive ownership starting to have positive effects. The relationship increases in strength as executive ownership increases further. Model 6 repeats the procedure for share options. Here the combination of signs indicates that as the awarded share options increases, managers tend undertake more employee layoffs. This occurs until executive option holdings reach about 9.5 per cent, after which point options are associated with a diminishing negative effect on employment. Figure 2 displays this in graphical form.

FIGURES 1 AND 2 ABOUT HERE.

The results reported in the non-linear models suggest that the determinants of employment change are asymmetric between growth and decline. To consider this further, Models 7 and 8 in Table 4 report results when the sample is split into two sub-samples: workforce reduction (WFR) and workforce growth (WFG). In Model 7 (WFR) the employment effect is always negative: to facilitate interpretation the signs on the reported coefficients are reversed. Thus a positive

coefficient means a positive relationship with employment reductions. The most notable result in Model 7 is that the relative size of acquirer and target is positively associated (at $p< 0.05$) with employment reductions, and the size of the coefficient is substantial. Where companies acquire firms that are relatively large, employment reductions follow. The only other significant coefficient in the model is that for the profitability of the acquirer, indicating that employment reductions are smaller when profitability is higher. None of the ownership and governance variables are significant in this model though the sign on the *Executive share ownership* coefficient is consistent with the findings from the non-linear models.

In Model 8 (WFG sub-sample) positive signs indicate positive relationships with employment growth. Here the results indicate that takeovers of firms with higher profitability tend to be associated with subsequent employment growth. Against this, higher wages in the target and higher productivity in the acquirer tend to be associated with a lower propensity for employment growth. Executive ownership has a substantial positive relationship with employment growth (at $p < 0.01$). This might indicate a selection effect: managers with return and control rights are incentivized to undertake takeovers of better performing firms, leading to future employment growth. The significant positive coefficient on *Target ROA* is certainly consistent with this. An alternative explanation is that managers with control rights are 'soft' on labour, allowing employment to grow post take-over (so as to have a quiet life or to empire-build). The negative sign on *Acquirer labour productivity* is consistent with this – bad habits from the pre-takeover period are carried over into the merged firm. However, our data is such that we cannot decisively favour one or the other explanation. In any case, they are not entirely mutually exclusive. However, in the final section we conduct some further tests to shed further light on the circumstances in which employment is reduced or grown, and the role of ownership and governance in these.

The role of ownership and governance: selection effects?

A potential explanation for the pattern of results is that incentivised managers choose to mount takeovers of better performing firms with better growth prospects. To explore this we test for the effect of executive ownership on variables which have been shown to have a substantial impact on employment change. Two sets of tests are mounted to evaluate the role of executive ownership, with target ROA and acquirer ROA as the dependent variables. Table 5 reports results.

TABLE 5 ABOUT HERE

Models 1-3 in Table 5 report results concerning the 'determinants' of the performance of the target companies. The rationale for these models is that executive ownership affects the selection of takeover companies which in turn impacts on employment change in the post-takeover entities. The models provide clear support for a selection perspective. Although the relationship between executive ownership and the profitability (Return on assets) for the sample as a whole is not significant, there is a negative association between executive ownership and profitability in cases where there is post takeover employment reduction (though model fit is weak) and a positive one where there is employment growth. The rationale for the latter is easily expressed. Managers with a stake in outcomes and in charge of good performing acquirers

recognise and take over good performing companies, and this subsequently leads to growth in employment.

Explaining the negative relationship between executive ownership and ROA where employment is reduced is somewhat more difficult, especially as we cannot observe management motives directly. It might be that some managers with ownership stakes take over poor performers with a view to restructuring, leading to employment contraction. The negative relationship between *External large combined ownership* and ROA in the WFR sub-sample suggests alignment between executives and investors in these cases. Another explanation is that some incentivized managers over-reach themselves, possibly because of hubris, by taking over poor performers. Ownership incentives, aligned with investors' interests, result in them taking employment-reducing action after the takeover to correct the mistake.

When acquirers' ROA is used as a dependent variable (Models 4-6) *Executive share ownership* is insignificant. However, the models show that *Executive share options* show is significantly associated with acquirer's ROA in the full sample. The sub-sample results indicate that this association is mainly due to the effect of executive share options on workforce reductions in the WFR sub-sample. It is possible that where options are held in acquiring companies that are relatively poor performers, incentivized managers implement takeovers to secure greater returns. The subsequent employment reductions may be located partially or entirely in the plants of the acquirer especially if more profitable units are acquired in the target. Unfortunately we cannot test this possibility with our data. A further caveat is that model fit in the WFR model is rather weak.

Overall, these findings suggest that at least *some* of the relationship between executive ownership and employment change can be attributed to selection effects. This modifies somewhat the interpretation of the apparent 'entrenchment' effect: the association between executive ownership and employment growth does not appear to be due to 'entrenched' managers using their protection from shareholders to be 'soft on labour'. Instead, these managers are mounting better quality takeovers, possibly because their personal financial returns are dependent on such a strategy. Equally, there is some evidence that in cases where employment is reduced, incentivized managers take-over firms that have less good performance. Unfortunately, our data source does not permit us to observe the managerial motives behind these actions.

5. Conclusions

This paper has examined the determinants of employment change in the immediate aftermath of M&A using a sample of 235 UK mergers. Contrary to widely-held views, these transactions do not always lead to employment reductions. In fact, in 46 per cent of cases, employment grew in the first year post-transaction compared with the combined employment of target and acquirer at the time when the transaction occurred. We focused on this first year post-merger because our data indicated that the bulk of employment change occurred in the period shortly after the acquisition. Where employment was reduced, the median change was 14 per cent. Where it increased the change was around 16 per cent. These findings appear to negate claims that takeovers are nearly always bad for labour.

However, it should be borne in mind that our sample selection criteria may exclude those takeovers which are more likely to reduce employment (eg. those made by foreign firms). For this reason we do not claim that our sample is fully representative of all takeovers of listed companies in the UK.

The main part of this paper tested various propositions concerning post-takeover employment change. Again, contrary to previous literature we have found that hostility and synergy are not associated with employment reductions (or growth); nor is the size of share premium, which is again contrary to the view that takeovers transfer wealth from labour to shareholders. There is evidence that prior performance of target firms has an influence on subsequent employment change, and these effects are quite strong. When the data is scrutinised more closely the effects of various factors are asymmetric between cases of employment reduction and growth. The use of cash (rather than shares) to finance the takeover, and the size of the target relative to the acquirer, are also associated with reductions in employment post-takeover. High leverage is also associated with reductions in some specifications. Our interpretation of the effects of cash is that it has immediate effects on cashflow, and this needs to be recouped through reducing employment costs. It may also proxy for over-confident managers. Relative size may indicate problems of digestion and cultural mis-match between the merging firms but may also reflect differing objectives involving takeovers of relatively small and large firms. In the case of the former, the takeover may be designed to add capacity whereas takeovers of larger firms may be aimed at substantial industry restructuring. Unfortunately, our use of accounting and market data means that we cannot investigate these possibilities further.

When we turn to those firms that benefit from post-acquisition employment growth, two factors that appear to be important are the profitability, and relative level of wages, in the target firm immediately prior to the takeover. Better performing targets are associated with employment growth post-takeover. Merged firms that have higher employment growth tend to have relatively lower wages in the target prior to takeover.

Our most novel findings arise from our study of the relationship between executive ownership and governance. At first sight the level of ownership by top executives is positively associated with employment growth, and negatively predicts the probability of some employment reductions or lay-offs post-transaction. Closer scrutiny indicates that the relationship is non-linear. As managerial ownership rises from zero there is a slight tendency for employment reductions to grow. Once managerial ownership exceeds about 4.3 per cent the relationship reverses, with growing ownership associated with increases in employment. Although this finding is novel in relation to the labour effects of takeovers, it mirrors findings in the managerial ownership and performance literature. This literature suggests that ownership can both align managerial interests with those of shareholders and entrench them against shareholders, and that the balance of these opposing forces changes as ownership increases.

Whether or not the employment effects of managerial ownership above this point should be viewed as entrenchment is questionable. Of course, employment growth in firms where managers own a substantial shareholding could be seen as evidence of ‘empire building’ by managers insulated from shareholder pressures. However, our evidence indicates that managers

who have substantial claims on earnings and control tend to make better quality acquisitions, with possibly better prospects for future growth. There is some evidence to suggest that employment is reduced where executives with ownership rights takeover firms with poor performance. Whether ownership incentives drive them to mount these acquisitions with a view to initiating substantial restructuring or whether they impel them to correct takeover 'mistakes' that have originated from over-confidence or bad luck is impossible to say. Unfortunately, our data sources preclude more sustained evaluation of the managerial motives for employment growth and reduction post-takeover.

Although our interpretations are limited by our data sources, the important role of managerial ownership emphasizes that there are three main actors in takeovers and their aftermath: management, labour, and shareholders. Much of the takeover literature tends to focus on 'dyads' of managers and shareholders, or shareholders and employees. In particular, the labour-focused literature on wages and employment changes tends to refer primarily to shareholders, largely in terms of whether there is a value transfer between the two groups (Shleifer and Summers 1988; Beckman and Forbes 2004). But it is clear from our findings that management is important too, and that characteristics of executives have an important impact on outcomes. Ideally future research will be able to expand the range of managerial characteristics under consideration, even though it may be difficult to fully incorporate managerial views and objectives in large-scale quantitative studies.

Table 1. UK public takeovers 1990 – 2000

Year	Total number of UK public takeovers		Takeovers by UK public companies		Takeovers by foreign companies		Hostile takeovers of UK public companies	
	Number	Transaction value (£m)	Number	Transaction value (£m)	Number	Transaction value (£m)	Number	in %
1990	125	14,636	72	6,330	53	8,306	14	11.20
1991	89	8,018	60	6,216	29	1,802	13	14.61
1992	60	12,946	43	7,915	17	5,031	7	11.67
1993	58	3,711	42	2,694	16	1,017	5	8.62
1994	64	5,158	40	3,392	24	1,766	8	12.50
1995	87	41,996	58	29,955	29	12,041	10	11.49
1996	87	25,422	59	16,938	28	8,484	11	12.64
1997	123	34,502	69	18,909	54	15,593	4	3.25
1998	162	44,065	104	22,175	58	21,890	10	6.17
1999	197	74,317	156	27,722	41	46,595	10	5.08
2000	113	85,724	74	55,021	39	30,703	8	7.08
Total	**1165**	**350,495**	**777**	**197,267**	**388**	**153,228**	**100**	**8.58**

Source: *Acquisitions Monthly*, 1990 – 2000.
Notes: The transaction values are in 2003 pounds sterling, adjusted by the Composite Price Index (O'Donoghue *et al.*, 2004).

Table 3 Descriptive statistics

	Full sample			WFR sub-sample			WFG sub-sample		
	Mean	**Med**	**SD**	**Mean**	**Med**	**SD**	**Mean**	**Med**	**SD**
Panel A: Pre-takeover Labour data									
Target employment (number of employees)	3313	770	9067	4485	1096	11068	1586	623	4295
Acquirer employment (number of employees)	13088	2975	27036	16427	3285	32413	8167	2903	15000
Target matched firm employment[a]	2088	706	4729						
Acquirer matched firm employment	9214	2661	16740						
Target average wage (£000)	23.33	21.58	12.08	22.39	21.23	9.80	24.71	21.81	14.76
Acquirer average wage (£000)	23.04	22.11	9.77	22.77	21.68	10.53	23.44	22.96	8.57
Target matched firm average wage (£000)	25.30	22.80	13.85						
Acquirer matched firm average wage	23.12	22.60	9.64						
Panel B: Employment change									
Number of observations	235			127			108		
Number of mergers that announce lay-offs	101			89			12		
Employment change (%)	2.93	-2.05	36.33	-19.53	-14.39	16.54	29.34	16.03	35.51
Matched firm employment change (%)	1.89	1.41	24.95						
Employee lay-off announcements[b] (%)	-7.54	-5.58	6.30	-5.40	-2.84	6.38	-0.75	0.00	2.79
Panel C: Pre-takeover performance data									
Target ROA (unadjusted, %)	0.17	0.15	0.13	0.16	0.15	0.09	0.19	0.15	0.19
Acquirer ROA (unadjusted, %)	0.20	0.18	0.22	0.20	0.18	0.27	0.21	0.19	0.15
Target labour productivity (unadjusted, £000)	149	98	175	135	90	125	168	104	255
Acquirer labour productivity (unadjusted, £000)	130	96	115	126	94	125	138	103	104
Target Q (ratio)	9.87	2.48	32.99	5.45	2.34	18.20	15.07	2.66	44.03
Acquirer Q (ratio)	11.65	3.72	30.94	7.84	3.47	15.94	16.11	4.34	41.89
Panel D: Synergy									
Related acquisitions (number)	132			66			66		
Relative employment size (ratio)	0.81	0.35	1.78	1.05	0.44	2.27	0.52	0.21	0.83
Panel E: Transaction data									
Hostile acquisitions (number)	52			34			18		
Cash-paid acquisitions (number)	68			43			25		
Leverage (ratio)	0.45	0.46	0.18	0.48	0.50	0.19	0.42	0.42	0.17
Premium (%)	38.57	37.00	34.53	35.77	35.00	34.05	41.50	38.00	35.07
Panel F: Ownership and governance									
Executive share ownership (%)	5.18	0.82	10.25	3.13	0.47	5.62	7.59	1.48	13.49
Executive share options (%)	0.72	0.32	1.46	0.88	0.41	1.89	0.53	0.37	0.63
Non-executive share ownership (%)	1.32	0.09	3.83	1.09	0.07	2.74	1.61	0.11	4.80
Total Board share ownership (%)	6.51	1.28	11.24	4.23	0.97	6.57	9.19	3.24	14.55
Total Board share options (%)	0.74	0.42	1.48	0.91	0.45	1.91	0.56	0.37	0.65
External largest single ownership (%)	10.53	8.85	8.99	9.77	8.81	8.63	11.43	10.30	9.06
External large combined ownership (%)	25.50	23.17	19.34	25.48	23.09	20.27	25.36	23.03	18.26
Proportion of non-exec. directors (ratio)	0.44	0.44	0.14	0.44	0.43	0.14	0.44	0.44	0.14

Notes: [a] -number of the target matched firms is 235 and acquirer matched firms is 235. [b] - average layoff data for only those acquirers that make employee layoffs, i.e. only for the sub-sample of 101 acquirers.

Table 3 Determinants of merger-related employee layoffs and employment reductions

Dependent variables:	**Employee lay-off announcements**						**Employement change dummy**					
	Model 1		**Model 2**		**Model 3**		**Model 4**		**Model 5**		**Model 6**	
Independent variables	Coefficients	Marginal effects	Coefficients	Marginal effects	Coefficients	Marginal effects	Coefficients	Marginal effects	Coefficients	Marginal effects	Coefficients	Marginal effects
Target ROA	- 1.190*	- 0.357*	- 1.215*	- 0.364*	- 1.315*	- 0.390*	- 1.623**	- 0.437**	- 1.550**	- 0.415**	- 1.431**	- 0.394**
Acquirer ROA	- 1.749**	- 0.524**	- 1.733**	- 0.519**	- 1.652**	- 0.490**	- 1.178	- 0.317	- 1.252	- 0.335	- 0.926	- 0.255
Target labour productivity	0.276	0.083	0.277	0.083	0.290	0.086	0.013	0.003	0.012	0.003	- 0.017	- 0.005
Acquirer labour productivity	- 0.121	- 0.036	- 0.118	- 0.035	- 0.140	- 0.042	0.031	0.008	0.017	0.004	0.010	0.003
Target average wage	0.327	0.098	0.327	0.098	0.328	0.097	0.614*	0.165*	0.620*	0.166*	0.557	0.153
Acquirer average wage	- 0.125	- 0.037	- 0.129	- 0.039	- 0.168	- 0.050	- 0.643*	- 0.173*	- 0.636*	- 0.171*	- 0.543	- 0.149
Related acquisitions	- 0.195	- 0.057	- 0.197	- 0.057	- 0.150	- 0.044	- 0.326*	- 0.081*	- 0.327*	- 0.080*	- 0.245	- 0.063
Relative employment size	0.344***	0.103***	0.345***	0.103***	0.373***	0.111***	0.329***	0.089***	0.326***	0.087***	0.301***	0.083***
Hostile acquisitions	0.289	0.088	0.287	0.088	0.234	0.071	0.248	0.07	0.263	0.075	0.228	0.066
Premium	- 0.045	- 0.014	- 0.048	- 0.014	- 0.046	- 0.014	- 0.232	- 0.062	- 0.219	- 0.059	- 0.220	- 0.061
Cash paid acquisitions	0.572**	0.176**	0.575**	0.177**	0.566**	0.172**	0.746***	0.225***	0.742***	0.223***	0.727***	0.227***
Leverage	1.332**	0.399**	1.331**	0.399**	1.351**	0.401**	1.046*	0.282*	1.056*	0.283*	1.055**	0.290**
Executive share ownership	- 0.074***	- 0.022***	- 0.075***	- 0.022***	- 0.075***	- 0.022***	- 0.040***	- 0.011***	- 0.039***	- 0.010***	- 0.039***	- 0.011***
Executive share options	- 0.063	- 0.019	- 0.066	- 0.020	- 0.055	- 0.016	0.159*	0.043*	0.175*	0.047*	0.156	0.043
Non-executive share ownership			0.005	0.001					- 0.027	- 0.007		
External largest single ownership	- 0.015	- 0.005	- 0.016	- 0.005			- 0.037***	- 0.010***	- 0.036***	- 0.010***		
External large combined ownership					- 0.012**	- 0.004**					- 0.007	- 0.002
Proportion of non-exec. directors	- 1.563**	- 0.468**	- 1.592**	- 0.477**	- 1.518**	- 0.451**	0.274	0.074	0.425	0.114	0.002	0.000
Constant	0.765		0.780		0.905*		0.499		0.425		0.305	
Log-likelihood	- 125.81		- 125.79		- 124.07		- 129.16		- 128.63		- 133.65	
Restricted log-likelihood	- 160.57		- 160.57		- 160.57		- 162.12		- 162.12		- 162.12	
Chi-squared	55.84***		55.90***		58.24***		64.65***		67.53***		51.03***	
Pseudo-R-squared	0.22		0.22		0.23		0.20		0.21		0.18	
Number of observations	235		235		235		235		235		235	

Notes: The estimation method is probit regression. Press-based employee layoffs dummy variable takes 1 if media search reveals that the acquirer laid-off at least 1per cent of the combined workforce of acquired and acquiring firms and takes 0 otherwise. Datastream-based employment change dummy variable takes 1 if employment change after one year is negative and 0 otherwise. Significance levels: *p<0.1, **p<0.05; ***p<0.01. Appendix 1 provides the definitions of the variables.

Table 4 The effects of executive ownership on employment changes

Dependent variable:	**Employment change**									
	Full sample	Full sample	Full sample	Full sample	Full sample	Full sample	WFR	WFG	WFR	WFG
Independent variables	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**	**Model 7**	**Model 8**	**Model 9**	**Model 10**
Target ROA	0.224**	0.235**	0.228**	0.216**	0.223**	0.233**	- 0.091	0.318*	- 0.094	0.317*
Acquirer ROA	0.224***	0.221***	0.215***	0.211***	0.227***	0.215**	- 0.203**	0.174	- 0.196**	0.178
Target labour productivity	0.105	0.057	0.12	0.121	0.085	0.054	- 0.181	0.195	- 0.183	0.196
Acquirer labour productivity	- 0.162*	- 0.091	- 0.183**	- 0.180*	- 0.134	- 0.095	0.167	- 0.187*	0.172	- 0.186*
Target average wage	- 0.222**	- 0.139	- 0.223**	- 0.214**	- 0.204**	- 0.138	0.219	- 0.303*	0.215	- 0.308**
Acquirer average wage	0.199**	0.08	0.204**	0.191**	0.144*	0.083	- 0.094	0.147	- 0.095	0.143
Related acquisitions	0.055	0.078	0.057	0.048	0.055	0.084	0.054	- 0.078	0.052	- 0.079
Relative employment size	- 0.339***	- 0.271***	- 0.316***	- 0.304***	- 0.327***	- 0.256***	0.369***	0.033	0.357**	0.030
Hostile acquisitions	- 0.033	0.002	0.027	0.025	- 0.036	0.010	0.119	0.050	0.109	0.054
Premium	0.036	0.035	0.036	0.033	0.015	0.041	- 0.018	- 0.113	- 0.019	- 0.116
Cash paid acquisitions	- 0.247***	- 0.263***	- 0.248***	- 0.256***	- 0.247***	- 0.268***	0.184	- 0.109	0.184	- 0.105
Leverage	- 0.130**	- 0.177***	- 0.126**	- 0.130**	- 0.143**	- 0.183***	0.08	- 0.168	0.073	- 0.166
Executive share ownership	0.300***		0.293***	0.283***	- 0.077		0.144*	0.285***	0.140	0.290***
Executive share options		- 0.123**	- 0.116**	- 0.104*		- 0.304**			0.071	0.027
Non-executive ownership	- 0.020	0.026	0.004	0.013	- 0.010	0.028	0.107	- 0.114	0.076	- 0.117
External largest single ownership	0.079	0.097	0.092		0.084	0.092	- 0.077	0.039	- 0.087	0.039
External large combined ownership				- 0.007						
Squared executive share ownership					0.404**					
Squared executive share options						0.193*				
Proportion of non-exec. directors	0.001	- 0.113**	- 0.030	- 0.019	- 0.032	- 0.133**	0.071	0.114	0.091	0.123
Change in control firm employment	0.093	0.091	0.098	0.096	0.086	0.089	0.183*	0.14	0.173	0.139
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
F-statistic	3.20***	3.20***	3.50***	3.48***	3.88***	6.88***	3.17***	1.83**	3.07***	1.76**
Adjusted R squared	0.34	0.28	0.34	0.34	0.36	0.29	0.15	0.27	0.14	0.26
Number of observations	226	227	226	226	226	227	126	104	126	104

Notes: Dependent variables are Datastream-based employment change in the full sample one year after takeovers, employment reduction in the WFR sub-sample and employment growth in the WFG sub-sample. The estimation method is OLS, using heteroscedasticity-robust standard errors. Significance levels: *p<0.1, **p<0.05; ***p<0.01.

Table 5 The role of executive ownership in target selection

Dependent variables:	**Target ROA**			**Acquirer ROA**		
	Full sample	WFR	WFG	Full sample	WFR	WFG
Independent variables	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Acquirer ROA	0.227**	0.100	0.335***			
Target ROA				0.327***	0.129	0.361***
Related acquisitions	- 0.011	- 0.020	- 0.040	- 0.021	0.092	- 0.166*
Relative employment size	0.072	0.192	- 0.007	- 0.130	- 0.170	- 0.021
Hostile acquisitions	- 0.180***	- 0.071	- 0.238***	0.012	0.115	- 0.093
Premium	0.073	0.095	0.056	- 0.060	- 0.075	- 0.110
Cash paid acquisitions	0.044	0.071	0.082	- 0.169***	- 0.122	- 0.233**
Leverage	0.09	- 0.126	0.307**	- 0.130*	- 0.103	- 0.235**
Executive share ownership	0.030	- 0.154**	0.191*	- 0.034	0.015	- 0.098
Executive share options	0.082	0.037	0.017	- 0.166***	- 0.254***	- 0.150
Non-executive share ownership	0.008	0.151*	0.053	- 0.089*	- 0.013	- 0.139*
External large combined ownership	- 0.139**	- 0.236***	- 0.099	0.035	0.094	- 0.040
Proportion of non-exec. directors	0.071	- 0.004	- 0.041	- 0.020	- 0.114	0.049
F-statistic	1.66*	1.86**	4.05***	6.78***	3.58***	5.31***
R squared	0.05	0.02	0.17	0.14	0.02	0.24
Number of observations	227	125	103	228	124	105

Notes: The estimation method is OLS, using heteroscedasticity-robust standard errors. Significance levels: *p<0.1, **p<0.05; ***p<0.01.

Figure 1 The relationship between executive ownership and employment change

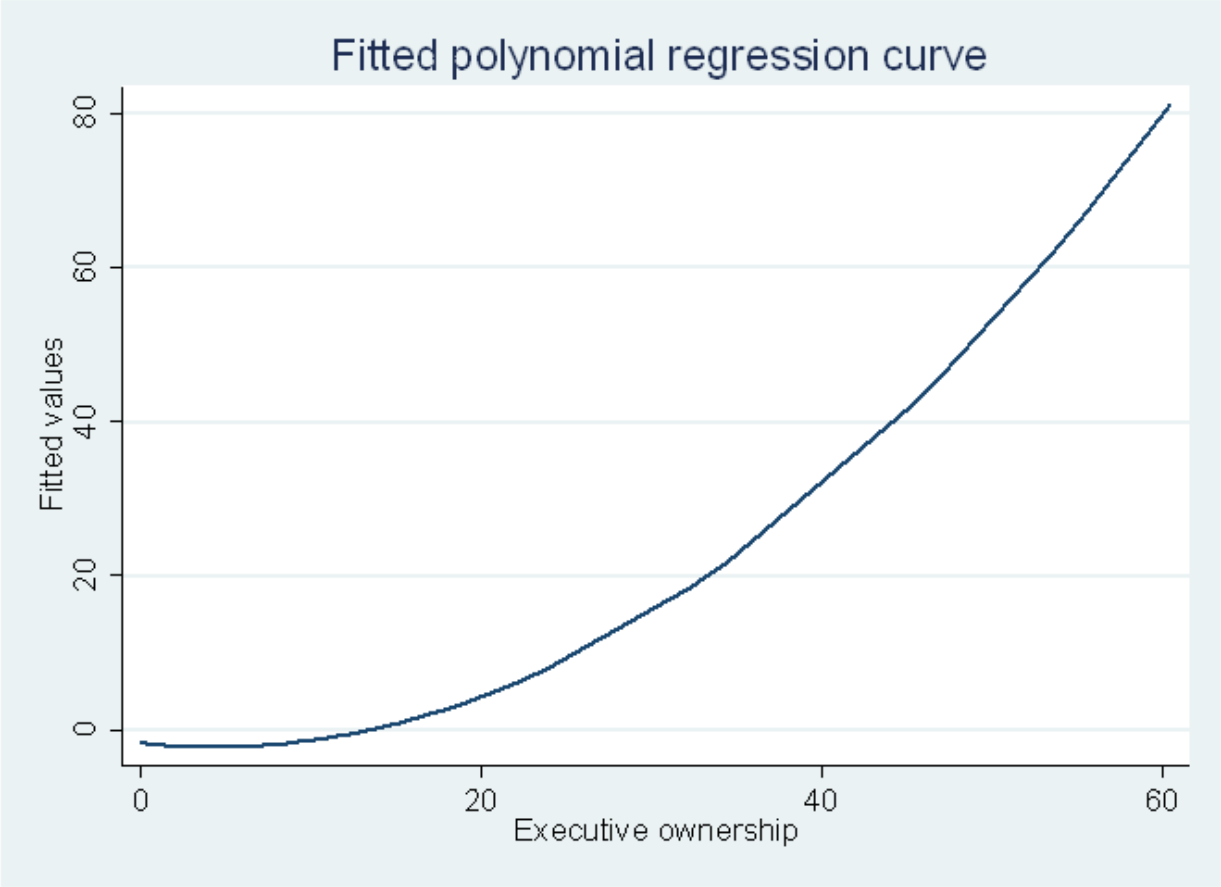
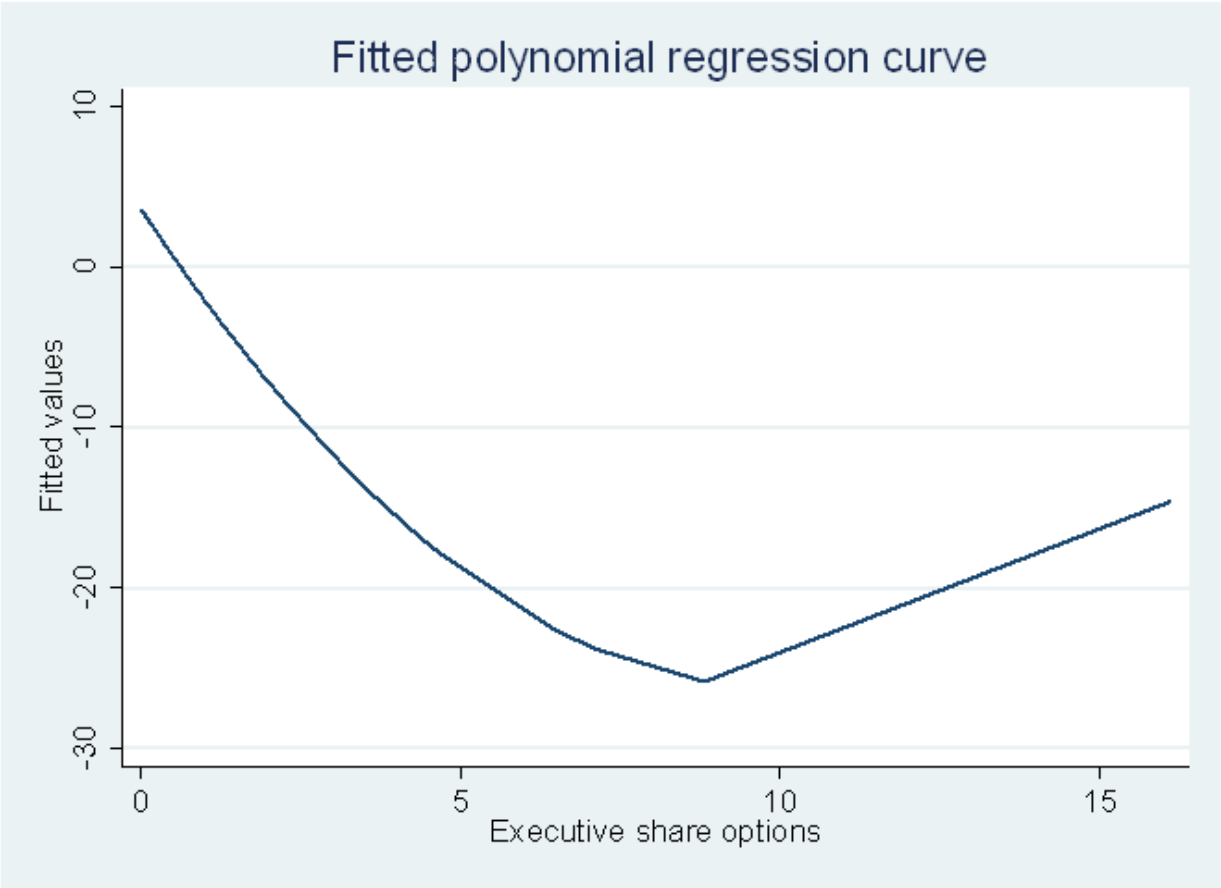


Figure 2 The relationship between executive options and employment change



Appendix 1

Definitions of the variables

Variable	Definition	Source	Type
Employment change	Employment change is measured as percentage employment change relative to the combined number of employees of acquired and acquiring firms in the year immediately before takeovers. Acquired and acquiring firms' employment is measured with the number of employees, which represents the annual average number of both full and part time employees of the company, reported in Company Annual Reports.	Datastream and Company Annual Reports	%
Employment change dummy	Takes 1 if *Employment change* is negative, 0 otherwise.	As above	0,1
Employee layoffs announcements	Takes 1 if the acquirer laid off at least 1 per cent of the combined workforce of acquired and acquiring firms within one year of the takeover (as reported in the press), 0 otherwise.	Nexis®	0,1
Target ROA, Acquirer ROA	Target (Acquirer) Return on Assets (ROA) is computed as Earnings Before Interest, Taxes and Depreciation (EBITDA) for a year divided by the book value of Total Assets at the beginning of the year. We use industry adjusted median ROA for three pre-takeover years for both acquired and acquiring firms to control for the effect of unusual data.	Computed based on Datastream data	%
Target labour productivity, Acquirer labour productivity	Target (Acquirer) labour productivity is measured as sales per employee, computed using data from the year immediately before takeovers and then scale them with their industry median labour productivity in the same period. As this relative labour productivity performance measure is positively skewed, we use its natural logarithmic transformation.	As above	Continuous
Target average wage Acquirer average wage	Target (Acquirer) average wage is computed by dividing total annual staff costs (including all employee benefits) by average annual number of employees and then scaling them with their median industry wage in the same period. As this scaled average wage is positively skewed we use its natural logarithmic transformation.	As above	Continuous
Related acquisitions	Related acquisitions are those acquisitions in which both acquired and acquiring firms are in the same industry, defined on the basis of Datastream Level 4 (Industrial Classification Benchmark (ICB) Sector) industry classification.	Datastream	0,1
Relative employment size	Relative employment size is measured as the ratio of acquired firm employment to acquiring firm employment during the year immediately prior to acquisition completion. As this ratio is positively skewed we use its natural logarithmic transformation.	Datastream	%
Hostile acquisitions	Hostile acquisitions are those acquisitions in which an initial offer is rejected by target firm management.	Acquisitions Monthly	0,1
Premium	Premium is the difference between the purchase price and the target firm share price 30 days before takeover announcement date, divided by the target firm share price 30 days before takeover announcement date.	Acquisitions Monthly	%
Cash-paid acquisitions	Cash-paid acquisitions are those acquisitions in which offers were 100 per cent cash payment for target firm shares.	Acquisitions Monthly	0,1
Leverage	Leverage is the ratio of total debt to total assets at the end of the takeover completion year.	Datastream	%
Executive share ownership	Executive share ownership indicates the total number of shares owned by the acquirer's executive directors divided by the acquirer's total number of shares in issue at the end of accounting year immediately prior to takeover.	Hambro Company Guide, Price Waterhouse Corporate Register, Company Annual Reports	%
Executive share options	Executive share options indicates the total number of shares awarded under executive share option schemes divided by the acquirer's total number of shares in issue at the end of accounting year immediately prior to takeover.	Hambro Company Guide, Price Waterhouse Corporate Register, Company	%

		Annual Reports	
Non-executive ownership	Non-executive ownership indicates the total number of shares owned by the acquirer's non-executive directors divided by the acquirer's total number of shares in issue at the end of accounting year immediately prior to takeover.	As above	%
Board ownership	Board ownership indicates the total number of shares owned by all Board members, including CEO, executive and non-executive directors of the acquiring firm divided by the acquiring firm's total number of shares at the end accounting year immediately prior to takeover.	As above	%
External largest single ownership	External largest single ownership variable is measured as the percentage of ownership of the largest institutional or non-institutional non-board shareholder with ownership larger than 3 per cent of ordinary shares.	As above	%
External large combined ownership	External shareholders variable is measured as the percentage of ownership of all large institutional and non-institutional non-board shareholdings with ownership larger than 3 per cent of ordinary shares.	As above	%
Proportion of non-executive directors	The proportion of non-executive directors is defined as the ratio of non-executive directors to the total board size.	As above	%
Change in control firm employment	Change in control firm employment is measured as the average change in employment of the two matched firms from t-1 to t + 1.	Datastream	%

Appendix 2

Correlation matrix

	Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	Employment change	1																				
2	Press-based layoff announcements	-0.4141*	1																			
3	Target ROA	0.2774*	-0.1067	1																		
4	Acquirer ROA	0.2541*	-0.1538*	0.1900*	1																	
5	Target labour productivity	0.0044	0.0304	-0.0047	-0.0363	1																
6	Acquirer labour productivity	0.0084	-0.0014	0.079	0.0462	0.3757*	1															
7	Target average wage	-0.1153	0.0203	0.0057	0.0764	0.5742*	0.1303*	1														
8	Acquirer average wage	0.0362	0.0244	0.0249	0.0712	0.2120*	0.6041*	0.3337*	1													
9	Related acquisitions	0.0464	-0.0647	0.0561	0.0477	-0.0114	0.1066	-0.0815	-0.0321	1												
10	Relative employment size	-0.092	0.1816*	0.0505	-0.1521*	-0.2668*	0.067	-0.2204*	0.0986	-0.0594	1											
11	Hostile acquisitions	-0.1506*	0.1377*	-0.1488*	-0.1272	-0.0494	-0.0533	-0.0963	-0.0514	-0.025	0.0974	1										
12	Premium	0.0357	-0.0248	0.0126	-0.0434	-0.0365	0.0045	-0.0715	-0.0009	0.1182	-0.0861	0.2185*	1									
13	Cash paid acquisitions	-0.0923	0.0905	-0.061	-0.0677	0.0358	0.0696	0.0246	0.0978	0.0341	-0.4118*	0.0215	0.0232	1								
14	Leverage	-0.1764*	0.2163*	0.0443	-0.0715	0.0209	0.007	-0.0745	-0.0981	0.1649*	0.0502	0.069	-0.0582	-0.0264	1							
15	Executive share ownership	0.3012*	-0.2499*	-0.0018	-0.1481*	0.0587	0.0384	0.0003	0.0465	-0.0035	0.1406*	-0.0095	0.0192	-0.0992	-0.1724*	1						
16	Executive share options	-0.1202	0.0219	0.0135	-0.1391*	-0.0037	-0.1427*	0.0139	-0.0571	-0.0681	0.1809*	0.0768	-0.0319	-0.1287*	0.0547	0.0329	1					
17	Non-executive share ownership	0.0233	-0.0433	0.0914	-0.1125	-0.0148	-0.1165	0.0291	-0.0688	0.0274	0.0543	0.0768	0.0484	-0.0541	0.0124	0.0826	0.2277*	1				
18	External largest single owner	-0.0146	-0.027	-0.1093	-0.1216	0.0216	-0.0586	0.0286	-0.0961	-0.106	0.1526*	0.0703	-0.0227	-0.1119	-0.001	-0.0678	0.1135	0.1366*	1			
19	External large combined ownership	-0.0587	-0.0799	-0.0759	-0.0427	-0.0567	-0.0895	-0.0358	-0.1182	0.0074	0.2341*	-0.0057	-0.0407	-0.1645*	0.0395	-0.0801	0.1388*	0.1312*	0.7640*	1		
20	Proportion of non-exec. directors	0.016	-0.0456	0.0078	0.0129	-0.0158	-0.0057	0.0399	0.0278	0.1	0.0406	0.064	0.0143	0.0028	0.0015	-0.1857*	-0.2470*	0.1028	0.1637*	0.1229	1	
21	Change in control firm employment	0.1326*	-0.0618	0.0903	0.1880*	0.0567	0.1676*	-0.0372	0.0592	-0.0991	0.0646	-0.1656*	-0.1688*	-0.1508*	-0.0312	-0.03	-0.0119	-0.0567	-0.019	0.0068	0.0373	1

Notes: * indicates significance at p<0.05 or better level. Appendix 1 provides the definitions of the variables.

References

Armour, J., Deakin, S., and Konzelmann, S. (2003) Shareholder primacy and the trajectory of UK corporate governance. *British Journal of Industrial Relations*, 41: 531-556.

Barber, B. and Lyon, J. (1996). Detecting abnormal operating performance: The empirical powerand specification of test statistics. *Journal of Financial Economics,* 41: 359-399.

Bebchuk, L. A. and Weisbach, M. S. (2010) The state of corporate governance research. *Review of Financial Studies*, 23: 939-961.

Beckmann, T. and Forbes, W. (2004). An examination of takeovers, job loss and the wage decline within UK industry. *European Financial Management*, 10: 141-165.

Bertrand, M. and Mullainathan, S. (2003). Enjoying the quiet life? Corporate governance and managerial preferences. *Journal of Political Economy*, 111: 1043-1075.

Blair, M. 1995. *Ownership and control: rethinking corporate governance for the twenty-first century,* Washington, DC, Brookings Institution Press.

Bos, S., Pendleton, A. and Toms, S. (2011). Governance thresholds, managerial ownership and corporate performance: Evidence from the UK. *The York Management School Working paper No. 58*.

Brookman, J., Chang, S., and Rennie, C. (2007). CEO cash and stock-based compensation changes, layoff decisions, and shareholder value. *Financial Review* 42: 99-119.

Chatterjee, S., Lubatkin, M., Schweiger, D. and Weber, Y. (1992). Cultural differences and shareholder value in related mergers: Linking equity and human capital. *Strategic Management Journal*, 13: 319-334.

Conyon, M., Girma, S., Thompson, S. and Wright, P. (2001). Do hostile mergers destroy jobs? *Journal of Economic Behavior and Organization*, 45: 427-440.

Conyon, M., Girma, S., Thompson, S. and Wright, P. (2002a). The impact of mergers and acquisitions on company employment in the United Kingdom. *European Economic Review*, 46: 31-49.

Conyon, M., Girma, S., Thompson, S. and Wright, P. (2002b). The productivity and wage effects of foreign acquisition in the United Kingdom. *Journal of Industrial Economics*, 50: 85-102.

Conyon, M., Girma, S., Thompson, S. and Wright, P. (2004). Do wages rise or fall following merger? *Oxford Bulletin of Economics and Statistics*, 66: 847-862.

Cosh, A., Guest, P. and Hughes, A. (2006). Board share-ownership and takeover performance. *Journal of Business Finance and Accounting*, 33: 459-510.

Coucke, K., Pennings, E. and Sleuwaegen, L. (2007). Employee layoff under different modes of restructuring: exit, downsizing or relocation. *Industrial and Corporate Change,* 16: 161-182.

Cronqvist, H., Heyman, F., Nilsson, M., Svaleryd, H. and Vlachos, J. (2009). Do entrenched managers pay their workers more? *Journal of Finance,* 64: 309-339.

Danbolt, J. (2004). Target company cross border effects in acquisitions into the UK. *European Financial Management,* 10: 83-108.

Datta, D., Guthrie, J., Basuil, D. and Pandey, A. (2010). Causes and effects of employee downsizing: a review and synthesis. *Journal of Management,* 36: 281-348.

Davies, J., Hillier, D. and McColgan, P. (2005). Ownership structure, managerial behavior and corporate value. *Journal of Corporate Finance,* 11: 645-660.

Deakin, S. and Slinger, G. (1997). Hostile takeovers, corporate law, and the theory of the firm. *Journal of Law and Society*, 24: 124-151.

Denis, D. (1994). Evidence on the effects of hostile and friendly tender offers on employment. *Managerial and Decision Economics,* 15: 341-357.

Denis, D. and McConnell, J. (2003). International corporate governance. *Journal of Financial and Quantitative Analysis,* 38: 1-36.

Faccio, M. and Masulis, R.(2005). The choice of payment method in European mergers and acquisitions. *The Journal of Finance,* 60: 1345-1388.

Fama, E. (1980). Agency problems and the theory of the firm. *The Journal of Political Economy,* 88: 288-307.

Florackis, C., Kostakis, A. and Ozkan, A. (2009). Managerial ownership and performance. *Journal of Business Research,* 62: 1350-1357.

Franks, J. and Mayer, C. (1996). Hostile takeovers and the correction of managerial failure. *Journal of Financial Economics,* 40: 163-181.

Franks, J. and Harris, R. (1989). Shareholder wealth effects of corporate takeovers: the UK experience 1955–1985. *Journal of Financial Economics,* 23: 225-249.

Gillan, S. and Starks, L. (2007). The Evolution of Shareholder Activism in the United States. *Journal of Applied Corporate Finance* 19: 55–73.

Goergen, M. and Renneboog, L.(2004). Shareholder wealth effects of European domestic and cross-border takeover bids. *European Financial Management,* 10: 9-45.

Gospel, H. and Pendleton, A. (2003). Finance, corporate governance, and the management of labour: a conceptual and comparative analysis. *British Journal of Industrial* Relations, 41: 557-582.

Gugler, K. and Yurtoglu, B. (2004). The effects of mergers on company employment in the USA and Europe. *International Journal of Industrial Organization,* 22: 481-502.

Hallock, K. (1998) Layoffs, top executive pay, and firm performance. *American Economic Review* 84: 711-723

Hanka, G. (1998). Debt and the terms of employment *Journal of Financial Economics*, 48: 245-282.

Harford, J. (1999). Corporate cash reserves and acquisitions. *The Journal of Finance,* 54: 1969-1997.

Hayward, M. and Hambrick, D. (1997). Explaining the premiums paid for large acquisitions: evidence of CEO hubris. *Administrative Science Quarterly,* 42: 103-127.

Haynes, M., Thompson, S. and Wright, M., (2000). The determinants of corporate divestment in the UK. *International Journal of Industrial Organization*, 18: 1201-1222.

Hermalin, B. and Weisbach, M. (2003). Boards of directors as an endogenously determined institution: A survey of the economic literature. *Economic Policy Review,* 9: 7-26.

Hillier, D., Marshall, A., McColgan, P. and Werema, S. (2007). Employee Layoffs, Shareholder Wealth and Firm Performance: Evidence from the UK. *Journal of Business Finance and Accounting,* 34: 467-494.

Jensen, M. (1986). Agency cost of free cash flow, corporate finance, and takeovers. *American Economic Review,* 76: 323-329

Krishnan, H., Hitt, M. and Park, D. (2007). Acquisition premiums, subsequent workforce reductions and post-acquisition performance. *Journal of Management Studies,* 44: 709-732.

Krishnan, H. and Park, D. (2002). The impact of work force reduction on subsequent performance in major mergers and acquisitions: an exploratory study. *Journal of Business Research,* 55: 285-292.

Lehto, E. and Böckerman, P. (2008). Analysing the employment effects of mergers and acquisitions. *Journal of Economic Behavior and Organization,* 68: 112-124.

Loughran, T. and Ritter, J. (1997). The operating performance of firms conducting seasoned equity offerings. *The Journal of Finance,* 52: 1823-1850.

Malmendier, U. and Tate, G. (2005). CEO overconfidence and corporate investment. *The Journal of Finance,* 60: 2661-2700.

Malmendier, U. and Tate, G. (2008). Who makes acquisitions? CEO overconfidence and the market's reaction. *Journal of Financial Economics,* 89: 20-43.

Manne, H. (1965). Mergers and the market for corporate control. *The Journal of Political Economy,* 73: 110-120.

Marris, R. 1964. *The economic theory of managerial capitalism*, New York, The Free Press.

McGuckin, R.and Nguyen, S. (2001). The impact of ownership changes: a view from labor markets. *International Journal of Industrial Organization,* 19: 739-762.

McGuckin, R. H., Nguyen, S. V. and Reznek, A. P. 1998. On the impact of ownership change on labor: Evidence from food manufacturing plant data. In J. Haltiwanger, M.Manser, and H.Topel (eds.) *Labor Statistics Measurement.* Chicago: University of Chicago Press.

Morck, R., Shleifer, A. and Vishny, R. (1988). Management ownership and market valuation:: An empirical analysis. *Journal of Financial Economics,* 20: 293-315.

Morck, R., Shleifer, A. and Vishny, R. (1989). Alternative mechanisms for corporate control. *American Economic Review,* 79: 842-852.

Morck, R., Shleifer, A. and Vishny, R. (1990). Do managerial objectives drive bad acquisitions? *Journal of Finance,* 45: 31-48.

Mura, R. (2007). Firm performance: do non-executive directors have minds of their own? Evidence from UK panel data. *Financial Management,* 36: 81-112.

Nixon, R., Hitt, M., Lee, H. and Jeong, E. (2004). Market reactions to announcements of corporate downsizing actions and implementation strategies. *Strategic Management Journal,* 25: 1121-1129.

O'Shaughnessy, K. and Flanagan, D. (1998). Determinants of layoff announcements following M & As: an empirical investigation. *Strategic Management Journal,* 19: 989-999.

O'Donoghue, J., Goulding, L. and Allen, G. (2004). Composite price index, 1750-2003. *Economic Trends,* 604: 38-46.

Pagano, M. and Volpin, P. (2005). Managers, workers, and corporate control. *The Journal of Finance,* 60: 841-868.

Perry, T. and Shivdasani, A. (2005). Do boards affect performance? Evidence from corporate restructuring. *The Journal of Business,* 78: 1403-1432.

Roll, R. (1986). The hubris hypothesis of corporate takeovers. *Journal of Business,* 59: 197-216.

Rossi, S. and Volpin, P. (2004). Cross-country determinants of mergers and acquisitions. *Journal of Financial Economics,* 74: 277-304.

fRumelt, R.(1974). *Strategy, structure, and economic performance,* Cambridge, MA: Harvard Business School Press.

Sanders, W. (2001) Behavioral responses of CEOs to stock ownership and stock option pay. *Academy of Management Journal*, 44: 477-492.

Shinn, E. (1999). Returns to acquiring firms: the role of managerial ownership, managerial wealth, and outside owners. *Journal of Economics and Finance*, 23: 78-89.

Shleifer, A. and Summers, L. (1988). Breach of trust in hostile takeovers. In A.Auerbach (ed.) *Corporate Takeovers: Causes and Consequences.* Chicago: University of Chicago Press.

Short, H. and Keasey, K. (1999). Managerial ownership and the performance of firms: evidence from the UK. *Journal of Corporate Finance*, 5: 79-101.

Sirower, M. (1997). *The Synergy Trap: How Companies Lose the Acquisition Game*. New York, Free Press.

Sudarsanam, P. and Mahate, A. (2006). Are friendly acquisitions too bad for shareholders and managers? Long-term value creation and top management turnover in hostile and friendly acquirers. *British Journal of Management*, 17: S7-S30.

Sudarsanam, S., Holl, P. and Salami, A. (1996). Shareholder wealth gains in mergers: effects of synergy and ownership structure. *Journal of Business Finance and Accounting*, 23: 673-698.

Sudarsanam, S. and Sorwar, G. (2010). Determinants of Takeover Premiums in Cash Offers: An Option Pricing Approach. *Journal of Business Finance and Accounting*, 37: 687-714.

Weber, R. and Camerer, C. (2003). Cultural conflict and merger failure: An experimental approach. *Management Science*, 49: 400-415.

Weir, C., Laing, D. and McKnight, P. (2002). Internal and external governance mechanisms: their impact on the performance of large UK public companies. *Journal of Business Finance and Accounting*, 29: 579-611.

Yawson, A. (2006). Evaluating the characteristics of corporate boards associated with layoffdecisions. *Corporate Governance: An International Review*, 14: 75-84.

Notes:

[i] In the UK Sudarsanam and Sorwar (2010) report that acquirers pay on average a 19% premium in cash transactions, whereas in other acquisitions premia are even higher.

[ii] Takeovers of these companies were excluded from the sample because they have different asset characteristics and different requirements for financial statements. Furthermore, as these companies are in a highly regulated industry and subject to more regulatory oversight, their takeover processes are subject to different takeover regulations.

[iii] We collect data on employee layoffs searching the press for a two year period after the takeover completion month. We search for a two year period to provide comparability with the employment change variable obtained from *Datastream*. The reason is that if the takeover transaction is undertaken at the beginning of a financial year,

then *Datastream*-based employment change after one year measures the change within almost a two year period (the takeover completion year plus a full financial year after the takeover). In addition to this, most layoff announcements were made immediately after the takeovers and almost in all cases within a one year period.

[iv] In these acquisitions on average 7.5% (median =5.6%) of the combined workforce was laid off. The correlation coefficient between press-reported employee layoffs and *Datastream*-reported workforce reduction in the WFR sub-sample is 0.34, which is significant at $p<0.05$. *Datastream*-reported workforce reduction also include changes due to unrecorded divestments, other unrecorded acquisitions and unannounced layoffs

[v] Other sources used include the *Times and Sunday Times, Guardian, Daily Mail, Independent, Lloyd's List, Observer, Evening Standard* and other regional newspapers.

[vi] Thus, hostile takeovers include all deals described as 'contested' and 'later agreed', by the *Acquisitions Monthly* journal. This classification has also been checked using the *Financial Times* and *Times.*