The effect of mergers and acquisitions on employees: wealth transfer, gain-sharing, or pain-sharing?

Journal:	*British Journal of Management*
Manuscript ID	BJM-18-041.R4
Manuscript Type:	Original Article
Keywords:	mergers and acquisitions, shareholders, labour, wealth-sharing
Primary Special Interest Group (SIG):	Corporate Governance
Secondary Special Interest Group (SIG):	Human Resource Management

The Effect of Mergers and Acquisitions on Employees: Wealth Transfer, Gain-Sharing or Pain-Sharing?

Abstract

This paper considers whether gains made by shareholders from corporate takeovers are achieved at the expense of employees, as proposed by the 'wealth transfer' perspective. It analyses the contribution of employee lay-offs, along with employment and wage changes, to the takeover premium and abnormal share price movements. The analysis draws on a unique dataset of British takeovers, combining documentary, share price and accounting data. The results show that lay-offs planned at the takeover have either no effect or adverse effects on shareholder returns. Wages growth is positively, not inversely, related to shareholder returns from the second year after the takeover, whilst positive employment changes have a similar effect in the following year. Closer scrutiny indicates that labour and shareholders share gains when the firm does well, but share pain when it does not. There is evidence, therefore, that labour and shareholder interests can be complementary, rather than antagonistic, after takeovers.

Key words: mergers and acquisitions, shareholders, labour, wealth sharing

Introduction

A long-standing claim in some quarters is that mergers and acquisitions (M&A) benefit shareholders at the expense of workers. The 'breach of trust' or 'wealth transfer' perspective, advanced by Shleifer and Summers (1988), proposes that corporate ownership transactions enable shareholders to renege on implicit contracts between managers and employees, thereby facilitating transfer of wealth from employees to shareholders. Its theoretical under-pinning is the view in transaction cost economics that employment contracts are inevitably incomplete, and that mutual understandings are required between the contracting parties to secure efficient outcomes. Takeovers threaten these understandings and enable shareholders to capture wealth from employees. Agency theory also highlights the role of takeovers in enabling shareholders to reduce agency costs by enhancing monitoring of company managers (Maksimovic *et al*., 2011).

The context to the 'breach of trust' perspective was large-scale hostile takeover activity (the leveraged buy-out boom) during which corporate 'raiders' aimed to deliver substantial returns to shareholders by dismembering, restructuring and downsizing acquired firms. Although this wave of takeovers has passed, it continues to be widely believed, especially amongst trade unions and left-wing politicians, that shareholders benefit at labour's expense during and after corporate takeovers. Employee lay-offs in the immediate aftermath of public takeovers, as in Kraft's controversial takeover of Cadbury in 2012, do little to allay this belief (Mayer, 2013). In this instance, Kraft closed a factory with the loss of 400 jobs despite a pre-takeover undertaking not to do so. Further jobs were shed in other locations shortly after the takeover.

Research on the impact of M&A events on employees is long-standing (Cartwright and Cooper, 1990; Khan *et al*., 2017; Brueller *et al*., 2018), with evidence of reductions in labour

demand and employment after such transactions (Conyon *et al*., 2002; Amess *et al*., 2014; Dessaint *et al*., 2017). What is less clear is whether the losses suffered by labour benefit shareholders, such that a 'wealth transfer' can be said to have occurred, especially as the overwhelming evidence is that shareholders of acquiring firms do not benefit from takeovers (Datta *et al.*, 1992; King *et al.*, 2004). There is of course substantial evidence, often derived from in-depth case studies, that takeovers can have harmful, indeed terminal, effects for companies, because breach of implicit contracts weakens employee trust (Buono and Bowditch, 1989; Haspeslagh and Jemison, 1991) and dissipates valuable human capital (Zollo and Meier, 2008; Cording *et al*., 2014). It is less clear, however, whether adverse impacts on labour, such as lay-offs and employment reductions, are systematically related to shareholder gains or losses. One study so far has directly evaluated the 'wealth transfer' perspective, finding no relationship between job cuts and bid-premia, and that labour and shareholders experience 'equal misery' after takeovers (Beckmann and Forbes, 2004). This study drew on a small sample and utilised data from some time ago (late 1980s/early 1990s).

Our paper presents new evidence on this issue by empirically analysing whether planned lay-offs, actual lay-offs, employment and wage changes post-merger are associated with shareholders' returns, either in the short-term, as measured by the acquisition premium and Cumulative Abnormal Returns (CAR), or the longer term, as measured by Buy-and-Hold Abnormal Returns (BHAR). Since takeovers can destroy shareholder value, we consider whether the relationships with labour changes vary according to whether shareholder gains are positive or negative. The data source is a unique dataset of takeovers across a range of industries in the British listed sector occurring over a twenty-one year period, in which documentary, stock market and accounting data for five financial years (one year before and three years after the takeover completion year) are matched with non-merging control firms.

The results are not supportive of the 'wealth transfer' perspective. Takeover-related lay-off announcements are not significantly associated with the takeover premium and CAR secured by target shareholders. In contrast, such lay-off announcements have a negative, rather than positive, relationship with acquirer shareholders' short-run gains. Post-takeover lay-offs also have insignificant relationships with BHAR. Employment and wage changes are either not related, or positively (not inversely) related with BHAR. Segmentation of the sample according to whether BHAR are positive or negative finds that, for the most part, labour and shareholders are 'pain-sharing' rather than 'gain-sharing'. Employment reductions are associated with negative BHAR, but wages growth is associated with positive BHAR.

Our results, therefore, question the 'wealth transfer' perspective on takeovers. More generally, they provide a critique of those perspectives that view 'shareholder value' as being achieved at labour's expense (Lazonick and O'Sullivan, 2000). Instead, our findings suggest that labour and shareholders' interests can be complementary rather than antagonistic after takeovers. They are consistent with theoretical perspectives emphasising the importance of human capital resources for organisational performance, such as the resource-based view of the firm (Barney, 1991). A particular contribution of the paper is that it shows that the complementarity of interests functions when the firm is doing well or badly, but that there is an asymmetry of wages and employment in this respect. Employment reductions are associated with shareholders receiving negative abnormal returns, whilst wages growth is found when there are positive returns. This finding is consistent with long-standing views on 'wage stickiness' (i.e. that employment rather than wages tends to adjust downwards in response to adverse economic circumstances) (Blinder and Choi, 1990), whilst insiders tend to capture the benefits when times are good (Lindbeck and Snower, 1989).

The paper proceeds by reviewing the relevant literature and developing hypotheses. The data source and key variables are then outlined before results are presented.

Takeovers and labour: background

Shleifer and Summers (1988) advanced the 'breach of trust' perspective to explain what happens after takeovers. Contrary to the view that takeovers create wealth, they argued that gains for shareholders are substantially derived from wealth transfers from labour and other stakeholders. Drawing on transaction cost theory (Williamson, 1985, 1988), the basis of their argument is that contracts between firms and employees are partly implicit or incomplete because of the costs of writing and enforcing complete contracts. Workers and managers share informal understandings such as workers having long-term employment, perhaps even 'jobs for life'. Trust is essential if workers and managers are to abide by these implicit contracts (Cording *et al*., 2014) and if workers are to invest in relationship-specific human capital.

Those mounting takeovers are not usually bound by these implicit contracts and may opportunistically break them to capture some of the rents hitherto secured by labour. Replacement of incumbent managers in target companies removes one party to the implicit contracts (Bhagat *et al*., 1990; Conyon *et al*., 2001), with a series of studies finding extensive replacement of target executives after takeovers (Walsh, 1988; Cannella and Hambrick, 1993; Graebner, 2004; Cording *et al.,* 2014). The key implication is that gains to shareholders come from wealth concessions by other stakeholders (Deakin *et al*., 2003).

The 'wealth transfer' perspective also draws on principal-agent theories of the firm, corporate governance and managerial action (Jensen and Meckling, 1976). Labour and shareholder interests are viewed as competing, with both parties seeking to capture rents.

Shareholders bear the agency costs of management-worker deals that provide rents for labour, especially if managers exploit their relationships with labour to benefit from a 'quiet life' themselves (Pendleton *et al.*, 2017). Takeovers enable new shareholders or managers to reduce agency costs by extensive restructuring (Maksimovic *et al*., 2011), including replacement of incumbent management and employee lay-offs. Equally, takeovers may arise from principal-agent problems in the acquiring firms. Managers may engage in takeovers for self-serving reasons, such as 'empire-building' (Jensen, 1986) or hubris (Roll, 1986). Since these takeovers rarely benefit shareholders (Moeller *et al*., 2005), the argument is that labour will suffer from ill-judged transactions. Labour pays for others' mistakes.

Alternative theoretical perspectives suggest that shareholders suffer after takeovers because labour suffers. The resource-based view of the firm (Barney, 1991) implies that takeovers can damage unique capabilities derived from human and social capital because valuable employees leave the firm due to uncertainty over integration and future prospects (Coff, 1997, 2002; Somaya *et al.,* 2008; Younge *et al*., 2015). The firm may lose valuable tacit knowledge (Dixon, 2000; Zollo and Singh, 2004). If acquirers do not re-establish trust after transactions, takeovers may result in lower employee satisfaction (Birkinshaw *et al*., 2000), lower employee commitment (Schweizer and Patzelt, 2012), higher employee turnover (Mayer and Kenney, 2004) and poorer organizational integration (Cording *et al*., 2014), all of which can have a negative impact on organisational performance. Another perspective suggests that shareholders come out worse than labour. It is argued that, during the uncertainty of the integration process, workers and managers are able to exploit their superior information as insiders to protect their access to rents, with shareholders bearing the costs of this (Meyer, 2008).

Given these opposing perspectives, what is the evidence on the consequences of takeovers for labour and shareholders? Focusing on labour first, there is a sizeable volume of evidence that labour does badly after takeovers, suggesting that implicit contracts are broken by new owners. Studies in the UK, US, and Europe show that employment typically declines by 10-20% after takeovers (Lichtenberg and Siegel, 1990; Lehto and Bockerman, 2008; Amess *et al.,* 2014; Dessaint *et al*., 2017; Geurts and Biesebroeck, 2017). Firms involved in M&A often adopt tougher labour management policies (Goergen *et al.*, 2013) and such transactions often reduce their demand for labour (Conyon *et al.*, 2001, 2002, 2004; Gugler and Yurtoglu, 2004). These changes are typically attributed to restructuring to eliminate duplication and surplus capacity (Maksimovic *et al.,* 2011). Employment decline may also arise from higher staff turnover (Cannella and Hambrick, 1993; Cording *et al.*, 2008, Cording *et al.*, 2014). But the evidence is not all negative for labour: a recent British study finds growth in employment after takeovers in around half of cases (Kuvandikov *et al.*, 2014). There is also some evidence of wage increases following acquisitions (Beckmann and Forbes, 2004; Conyon *et al.*, 2004; Siegel and Simmons, 2010; Amess *et al.*, 2014).

One group of shareholders clearly benefits from takeovers – the shareholders of the acquired firm. They typically receive a takeover premium of 35-40% (Franks and Mayer, 1996; Hayward and Hambrick, 1997; Sirower, 1997; Laamanen, 2007), after a run-up in share price prior to the takeover announcement (Martynova and Renneboog, 2011). Given the subsequent performance of post-takeover firms, the shareholders of acquiring firms often over-pay target shareholders (Sirower, 1997). Does labour bear the costs of this? There is some evidence that it might. Bhagat *et al.,* (1990) report that cost savings from lay-offs cover around 10-20% of the takeover premium, whilst Krishnan *et al*., (2007) argue that managers in acquiring firms make lay-offs to recover the costs of high takeover premia. We therefore propose the following hypothesis:

H1. There is a positive relationship between merger-related employee lay-off announcements and shareholders' short-run gains at takeover announcements.

On the whole, shareholders of post-takeover firms tend not to benefit much from takeovers. The performance effects of takeovers are typically minimal or negative, whether the metric is the accounting or financial performance of the post-acquisition entity (Cartwright and Schoenberg, 2006). Higson and Elliott (1998) found that acquirers secured zero abnormal returns in the three years after takeovers. Subsequently, Sudarsanam and Mahate (2006), Cosh *et al*., (2006) and Dargenidou *et al*., (2016) reported that, on average, abnormal returns are negative during the three years after takeovers. Looking wider than the UK, meta-analyses of takeover outcomes find that both financial and stock market returns are typically zero or mildly negative (Datta *et al*., 1992; King *et al.,* 2004*)*. The failure of many takeovers is typically attributed to the costs of integration, especially those arising from differences in organizational cultures and management styles between the merging entities along with loss of human and social capital (Datta and Grant, 1990; Datta, 1991; Chatterjee *et al*., 1992; Pablo, 1994; Teerikangas and Very, 2006; Stahl and Voigt, 2008; Bauer and Matzlier, 2014).

The relationship between long-run shareholder abnormal returns and labour may vary according to whether these returns are positive or negative. Where abnormal returns are negative, the 'wealth transfer' perspective predicts that labour bears the costs. By contrast, where shareholders achieve positive returns, the 'wealth transfer' perspective argues that this is likely to be achieved at labour's expense in the form of cuts to employment or wages/wages growth. Other evidence suggests that employment cuts are more likely than wages reductions because of 'wage stickiness' (Blinder and Choi, 1990) and contractual difficulties in reducing wages. Furthermore, wage growth may occur as a concession for reducing employment

('concession bargaining'). Nevertheless, drawing on the 'wealth transfer' view, we test the relationship between shareholders' long-run abnormal returns and labour changes with the following hypothesis:

> *H2:* There is a positive relationship between post-merger workforce reductions and/or wages cuts and shareholders' long-run gains during the post-takeover period.

Research methods

Sample

To test these hypotheses, we analyse whether losses for labour (lay-offs, employment reductions and wage changes) are associated with returns to shareholders' using data on domestic takeovers within the UK listed sector 1990-2010. During the period there were 1088 full takeovers (where acquirers secured more than 50% of target company equity) of UK listed companies by other companies listed on the London Stock Exchange. As is common in the literature (Martynova and Renneboog, 2011; Dargenidou *et al*., 2016), we exclude takeovers involving property, financial (banks, investment trusts, exchange-traded funds, etc.), and utility companies, because these firms have different asset characteristics, reporting requirements, or regulatory regimes to other listed companies (387 cases). This leaves us with 701 transactions. Of these, we selected 376 (54% of the total), after removing 325 cases where acquirers conducted multiple acquisitions within three years of the observed takeover. This selection procedure means that observed employment and wages changes are not contaminated by the effects of other transactions. Our final sample is similar to other recent studies of UK takeovers (Dargenidou *et al*., 2016; Mira *et al*., 2018).

Transaction data were collected from *Thomson Reuters*. These data included M&A announcement dates, completion dates, premiums, deal mode, payment type and competing bidders. Market and accounting data for one financial year before and three financial years after the takeover year (i.e. up to 2014) were retrieved from *DataStream* and *PI Filing Expert.* Documentary material on lay-offs, takeover motives and post-takeover divestments were obtained from the *Financial Times*. Similar market and accounting data were also collected for control companies used in the generation of some of the variables (see below).

Variables

Shareholders' gains from takeovers are typically viewed as the difference between the share price or share returns and what they may have been had the takeover not occurred or what was achieved by otherwise similar firms at the same time. *Premium* captures the gains at takeover for target company shareholders, computed as the percentage difference between the purchase price and the market price of the target firm shares 30 days before the first announcement of the takeover, divided by the latter price (Hayward and Hambrick, 1997). This widely-used measure does not take account of movements in the market, and hence does not fully isolate the effects of the takeover. A better measure is Cumulative Abnormal Returns (CAR). This provides a measure of actual returns relative to what may have been expected in the absence of the takeover event. We compute *Acquirer (Target) CAR* over a three-day event window (one day either side of the takeover announcement date), using the market model (Brown and Warner, 1985). We estimate the market model parameters using daily share price returns from trading between day –300 and day –42 before the takeover announcement and using the contemporaneous *DataStream* Total Returns Index as the market portfolio. This period is judged to be both sufficiently lengthy and distant from the takeover to provide parameters that are unlikely to be contaminated by takeover speculation and follows similar practice in the

literature (e.g. Goergen and Renneboog, 2004; Schoenberg, 2006; Bethel *et al*., 2009; Papadakis and Thanos, 2010; Martynova and Renneboog, 2011).

A longer-run measure of shareholder gains from the takeover event is *BHAR*. This isolates the stock price effect of the takeover by comparing the stock price return of the acquirer against an otherwise similar control firm at selected time points after the event. Actual returns can thereby be compared against expected returns in the absence of the takeover. To calculate *BHAR,* control firms are selected based on industry, size, profitability and non-involvement in takeovers for three years either side of the takeover (Barber and Lyon, 1996; Cosh *et al*., 2006). *BHAR* are calculated for 12, 24 and 36 months after the M&A completion.

The key independent variables — employee lay-offs, employment change and wages change — measure what happens to labour after the takeover. Lay-off announcements may impact stock price movements because they signal that acquirers will take a robust approach to labour management in the interests of shareholders (Cascio *et al*., 1997) or that there will be challenging times ahead (Cascio, 2002; Datta *et al*., 2010). Two lay-off variables are derived from searches of the national press around and after the M&A announcement date (O'Shaughnessy and Flanagan, 1998; Krishnan *et al.*, 2007). *Planned lay-offs* is a dummy variable recording whether acquirers announce plans to lay-off workers after the takeover (22% of takeovers). This might have a positive or negative influence on the takeover *Premium* and *CAR* for the reasons mentioned above. The second (*Lay-offs*) records whether employee lay-offs occurred (44% of cases) up to the end of the first full financial year and may be predicted to impact *BHAR*.

Employee lay-offs are not necessarily inconsistent with more positive developments for labour since new hires may counteract lay-offs. We therefore use a measure of employment change post-takeover by subtracting combined employment of acquirer and target firms pre-

takeover from the employment of the acquirer firm during the first (third) post-takeover year and then dividing this difference by the average of pre- and post-takeover employment (Davis *et al.,* 2014). This creates *EmpchangeYr1* (*EmpchangeYr3*) in the first (third) year post-takeover and we analyse whether these have any association with post-takeover stock returns (*BHAR).* It is also important to record changes in wages, since firms may either seek to reduce wages after the takeover (as in the 'breach of trust' model) or labour may be able to capture rents, possibly in compensation for lay-offs or other employment changes. *WagechangeYr1* (*WagechangeYr3*) is created using the same method as employment change after computing average wages by dividing annual total staff costs (converted into 2013 values using the Consumer Price Index) by annual average employment.

There are likely to be various other influences on the magnitude of M&A-related share price returns. These include shareholder power (Bethel and Liebeskind, 1993), features of the takeover transaction, the objectives and types of takeovers (Walsh, 1988; Walter and Barney, 1990) and the financial (accounting) performance of the merging firms (Cording *et al*., 2010). It is important, therefore, to control for these, and this lies behind our selection of control variables.

Shareholder power may influence the capacity of shareholders to secure high premia, CAR and BHAR. Where shareholders hold larger equity stakes, their incentives to monitor are greater (Bethel and Liebeskind, 1993). The combined block-holdings (all those of 3% equity or more) for institutional and individual shareholders are used to control for shareholder power (Cumming *et al.,* 2018)[i]. *Target (Acquirer) institutional ownership* and *Target (Acquirer) individual ownership* at the end of the last pre-takeover fiscal year are controls in the premia and CAR estimations. Post-takeover *Institutional ownership* and *Individual ownership* at the end of the financial year in which the transaction is completed are used in the BHAR

regressions. On average, institutional investors hold 25 (29)% of the acquirer (target), whilst individual investors hold 8 (15)% respectively just before the takeover. Institutional investors continue to have a similar level of ownership post-transaction but individual ownership declines.

Contingent features of the transaction may impact on shareholder returns. *Hostile* takeovers are those where an initial bid was rejected by the target firm management (Denis, 1994; Franks and Mayer, 1996). Mode of payment can be important: cash transactions usually have a positive effect on shareholder returns (Datta *et al*, 1992; King *et al*, 2004), possibly because of tax benefits (Wansley *et al*., 1983) or a lower dilutive effect on shareholders, though there may be an adverse selection effect (cash-rich firms may make bad acquisitions due to higher agency costs, as in Harford (1999)). *All-cash payment* is a dummy variable for cash deals. As the number of competing bidders is likely to increase the premium, we control for this with a dummy *Competing bidders* (Hayward and Hambrick, 1997).

Since shareholder returns are known to vary by size of acquirer (Moeller *et al*., 2005), we control for *Target (Acquirer) size* based on market capitalisation. We also control for *Relative employment size* (the ratio of acquired firm employment to that of the acquiring firm in the year prior to the takeover) as this may affect the capacity of the acquirer to successfully digest the target (Cosh *et al*., 2006). Divestments can proxy for acquisition performance (Meschi and Metais, 2015; Schoenberg, 2006) and, therefore, we control for this with *Divestment* dummy.

Takeover objectives are likely to affect post-takeover outcomes (Walsh, 1988; Walter and Barney, 1990) and also likely to have implications for labour (Haspeslagh and Jemison, 1991). Based on newspaper data, and using an inter-rater method, takeovers were classified into four types of transaction based on the primary objective: *Horizontal growth* (47%),

Efficiency (25%), *Vertical integration* (16%) and *Diversification* (12%). Two of the researchers separately classified M&A deals into these four categories of motives, analysing the news articles collected from *Financial Times*. Where there were disagreements, we discussed these cases with a third researcher to agree on the final classification. If the acquirer cited business growth that could be achieved via acquisition of similar companies with similar products, the acquisition was coded as *Horizontal growth*. If efficiency-based synergy arising from integrating operations and eliminating duplication was the primary objective, the acquisition was coded as *Efficiency*. If the primary motive was to incorporate a supplier or customer, the acquisition was coded as *Vertical integration*. M&A transactions enabling acquirers to enter new product markets are classified as *Diversification* deals. This is used as the reference category to create three dummy variables for these objectives.

Various measures to control for accounting performance are included, since these will likely impact shareholder returns (Goergen and Renneboog, 2004; Martynova and Renneboog, 2011). Drawing on Jensen's view on the role of free cash flow in shareholder-manager agency relationships (Jensen, 1986), we record free cash flows using target and acquirer firms' *Operating Cash Flow-to-Total Assets (OCF/TA)*. We also control for *Return on Assets* (ROA) and *Labour Productivity*, both of which are normalised using their industry medians. As high debt levels may constrain post-takeover financial performance (Hitt *et al.*, 1998), as well as limiting managerial autonomy (Jensen, 1986), we control for *Leverage*, defined as the ratio of total debt to total assets. We also control for *Target run-up*, using target firms' pre-takeover 40 days CAR, as in Martynova and Renneboog (2011), since target firms often experience share price increases in the run-up to the takeover due to information leakage and insider trading (Harford, 1999).

Table 1 provides summary statistics for the control variables (more detailed statistics can be found for the dependent variables and key independent variables in Table 2). A summary of variable definitions can be found Appendix 1, whilst a correlation table is in Appendix 2.

Table 1. Descriptive statistics

Variable names	Mean	S.D.
Target average number of employees	2,960	8,130
Acquirer average number of employees	12,221	25,639
Target average wage (£000)	34.16	19.05
Acquirer average wage (£000)	36.59	30.22
Target institutional ownership	28.86	20.06
Target individual ownership	14.55	19.33
Acquirer institutional ownership	25.07	18.00
Acquirer individual ownership	7.63	13.20
Institutional ownership	25.07	16.40
Individual ownership	6.39	11.59
Hostile	0.18	0.38
All-cash payment	0.30	0.46
Relative employment size	1.67	10.93
Competing bidders	0.09	0.28
Horizontal growth motive	0.47	0.50
Efficiency motive	0.25	0.43
Vertical integration motive	0.16	0.37
Diversification motive	0.12	0.32
Target size (market value in £mln)	202	591
Target OCF/TA	0.12	0.41
Target ROA	0.10	0.21
Target labour productivity (£000)	138.81	223.48
Target leverage	0.20	0.19
Target run-up	0.09	0.28
Acquirer size (market value in £mln)	1,746	7,992
Acquirer OCF/TA	0.13	0.28
Acquirer ROA	0.16	0.18
Acquirer labour productivity (£000)	180.26	404.95
Acquirer leverage	0.19	0.16
Divestment	0.24	0.43

Notes: see Appendix 1 for variable definitions.

Analytical strategy

To determine whether shareholder gains (losses) at and after takeovers are associated with changes to employment and wages, we run a series of regression models based on the following:

$$Premium = a + b_1 Planned\ Lay\text{-}offs + b_2 Target\ wage + b_3 Acquirer\ wage + b_4 Controls + e.$$

$$CAR = a + b_1 Planned\ Lay\text{-}offs + b_2 Target\ wage + b_3 Acquirer\ wage + b_4 Controls + e.$$

$$BHAR = a + b_1 Lay\text{-}offs + b_2 Empchange + b_3 Wagechange + b_4 Controls + e.$$

The premium and CAR models implicitly assume efficient markets in that labour changes are assumed to be priced-in to share prices more or less immediately. The BHAR models also incorporate lags in key independent variables to enable a causal dimension consistent with the proposition that wealth is transferred from labour to capital: the 24 months and 36 months BHAR models incorporate labour changes in Year 1. We use Ordinary Least Squares (OLS) in all regressions and assume that residuals follow a normal distribution. The use of robust standard errors, however, provides a conservative approach. Those observations with large residuals (>2.75 S.D.) are excluded to prevent extreme cases obscuring the main pattern of results. This leads to a very slight reduction in sample size. There is also sample attrition each year due to de-listing of some acquiring firms.

Results

Prior to presenting the regression results, we present summary information of the effects of takeovers on shareholders and employees in Table 2. This provides important context for what comes later.

Shareholders' gains from takeovers

As expected, Table 2 shows that there is a substantial premium accruing to the shareholders of takeover targets (Hayward and Hambrick, 1997; Sirower, 1997). On average, this is 36% (**Panel A),** and the difference between the premiums of no planned lay-offs and planned lay-offs sub-samples is not significant. Target company shareholders earn significantly higher (19%) CAR in the three days around the takeover announcement, and this is similar for the two sub-samples. Acquirer shareholders make a small loss in both sub-samples (c.f. Goergen and Renneboog, 2004; Bethel *et al*., 2009).

Looking to the longer term (**Panel B**), on average, shareholders receive negative BHAR in each post-takeover year. This is consistent with previous evidence on shareholder returns (Sudarsanam and Mahate, 2006; Cording *et al*., 2010). But there is variation in returns: whilst most firms achieve negative returns, a substantial minority (45%) secure positive abnormal returns. Our results also show that the differences between the BHAR of the no lay-offs and lay-offs sub-samples are not significantly different at $p < 0.05$.

Changes in employment and wages

Panel A shows that employee lay-offs are planned at the time of the takeover in 82 (22%) cases, whilst **Panel B** shows that 167 (44%) takeovers have lay-offs by the end of the first full financial year. **Panel C** shows actual employment changes at various points after the takeover. It includes both 'raw' and adjusted (relative to control firms) average employment change after the takeover[ii]. In the full sample, mean unadjusted employment change is slightly negative (but positive, though not significantly so, when compared with control firms). In the no lay-offs sub-sample employment growth is 8% (12%) in the first (third) post-takeover year, while in the lay-offs sub-sample employment decline is 12% (20%) in the first (third) post-takeover year. Adjusted employment changes show similar results, with the differences between the two

groups of firms significant at $p < 0.01$. However, employees benefit from growth in wages after the takeover (**Panel D)**. Adjusting for control firms, wage growth is smaller (negative in Year 3), but wage increases in the two sub-samples are not significantly different.

Table 2. Shareholder gains, employment and wage changes

Dependent and key independent variables	Full sample	No Planned Lay-offs sub-sample	Planned Lay-offs sub-sample	Difference between the sub-samples
	Mean	Mean	Mean	
Panel A: Premium and CAR				
Number of M&A deals	376	294	82	
Acquisition premium (%)	35.99	35.32	38.39	-3.07
Target CAR (%)	19.03***	19.12***	17.83***	1.29
Acquirer CAR (%)	-1.06***	-1.03***	-1.20*	0.17
	Full sample	**No Lay-offs sub-sample**	**Lay-offs sub-sample**	**Difference between the sub-samples**
	Mean	Mean	Mean	
Panel B: BHAR				
Number of M&A deals	376	209	167	
12 months BHAR (%)	-6.08*	-5.88*	-6.32*	0.44
24 months BHAR (%)	-14.78***	-10.82**	-19.74***	8.92
36 months BHAR (%)	-16.88**	-16.52**	-17.34**	0.82
Panel C: Post-takeover employment changes				
Employment change in Year 1 (%, unadjusted)	-0.74	8.31***	-12.05***	20.35***
Employment change in Year 3 (%, unadjusted)	-2.26	11.81***	-19.55***	31.36***
Employment change in Year 1 (%, adjusted)	0.17	6.52*	-7.79***	14.31***
Employment change in Year 3 (%, adjusted)	1.27	8.80*	-7.97*	16.77**
Panel D: Post-takeover wages changes				
Wages change in Year 1 (%, unadjusted)	6.28***	5.48***	7.28***	-1.80
Wages change in Year 3 (%, unadjusted)	10.24***	8.31***	12.60***	-4.29
Wages change in Year 1 (%, adjusted)	0.63	-0.32	1.83	-2.15
Wages change in Year 3 (%, adjusted)	-1.57	-2.88	0.04	-2.91

Notes: Significance levels: *p < 0.05; **p < 0.01; ***p < 0.001. The statistical significance of the mean values is tested against zero using the single sample t-test. The equality of means of the same variable between two sub-samples is tested using the two-sample t-test with equal variances.

Overall, the primary beneficiaries of takeovers are the shareholders of the target firm. On average, the shareholders of the merged firm suffer, whilst labour also suffers from small net employment reductions. However, remaining employees benefit from wage increases. So far then, there is little evidence to suggest that shareholders benefit at labour's expense.

Do shareholders benefit at labour's expense at the takeover?

The results in **Table 3** focus on shareholder returns at the time of the takeover, and are used to test Hypothesis 1. The regressions show the relationships between the takeover premium, target and acquirer CAR, and a range of possible influences, including planned lay-off announcements[iii]. Besides the labour variables, the regressions control for the characteristics and the objectives of the transaction, size and performance of target and acquirer firms. For Hypothesis 1 to be proven, there needs to be a positive association significant at $p < 0.05$ between lay-offs and shareholder returns. Model 1 has the *Premium* as the dependent variable, Models 2 and 3 have *Target CAR*, and Model 4 has *Acquirer CAR*. Model 2 replicates Model 1 in terms of independent variables, whilst Models 3 and 4 add the *Premium,* on the basis that the premium will contribute to shareholder returns.

Significant influences on the *Premium* (Model 1) are hostility and individual equity stakes. Among other control variables, *Relative employment size, Target run-up* and various features of the target and acquirer, such as size and leverage, are also associated with the *Premium*. It is a similar picture for *Target CAR* (Model 2), though *Hostile* becomes insignificant and *Acquirer OCF/TA* become significant. Takeovers aimed at expanding markets, but not enhancing efficiency, (relative to diversification) have a significant, positive relationship with *Target CAR*. Model 3 replicates Model 2 but with the inclusion of the *Premium*. This latter variable unsurprisingly has a strong positive relationship with *Target CAR* and leads to a substantial improvement in model fit. Model 4 has a weaker fit than the others, but it is worth noting that *Acquirer wage*, *All-cash payment*, *Relative employment size, Target leverage, Target run-up* and *Acquirer labour productivity* show significant relationships with *Acquirer CAR* at $p < 0.05$ or better.

Table 3. Planned lay-offs and shareholder returns at takeover announcements

	Premium	**Target CAR**	**Target CAR**	**Acquirer CAR**
	Model 1	Model 2	Model 3	Model 4
Planned lay-offs	0.058	-0.105	-0.076	-0.147*
Target wage	0.011	-0.019	-0.021	-0.016
Acquirer wage	-0.039	0.034	0.043	-0.129**
Premium			0.575***	-0.034
Hostile	0.109*	-0.017	-0.081	0.033
Target institutional ownership	-0.002	-0.017	-0.014	
Target individual ownership	0.154*	0.003	-0.031	
Acquirer institutional ownership				0.030
Aquirer individual ownership				0.035
All-cash payment	-0.057	-0.008	0.035	0.143**
Relative employment size	0.202**	0.192*	0.094	-0.176*
Competing bidders	0.076	0.061	0.018	-0.043
Horizontal growth	-0.007	0.209**	0.183*	-0.08
Efficiency	-0.068	0.166	0.178*	0.042
Vertical integration	-0.042	0.065	0.061	-0.076
Target size (market value)	-0.332**	-0.415***	-0.229*	0.151
Target OCF/TA	-0.052	-0.009	0.011	0.014
Target ROA	0.025	0.021	0.043	-0.057
Target labour productivity	0.055	0.082	0.061	0.051
Target leverage	-0.142**	-0.193***	-0.112**	0.110*
Target run-up	0.348***	-0.141*	-0.306***	0.123*
Acquirer size (market value)	0.439***	0.565***	0.301**	-0.071
Acquirer OCF/TA	-0.008	0.110**	0.071*	0.059
Acquirer ROA	0.009	0.008	-0.008	-0.062
Acquirer labour productivity	0.014	-0.01	-0.001	0.162***
Acquirer leverage	0.04	0.117*	0.08	-0.035
Industry dummies	Y	Y	Y	Y
Year dummies	Y	Y	Y	Y
F-statistic	3.299***	2.553***	5.596***	2.488***
Adjusted R2	0.258	0.148	0.398	0.100
Number of observations	372	370	370	370

Notes: OLS, using heteroscedasticity-robust standard errors. Standardized beta coefficients are reported. Significance levels: *p < 0.05; **p < 0.01; ***p < 0.001.

Turning to the key variables of interest, Model 1 shows that *Planned lay-offs* are not significantly associated with the takeover premium. Models 2 and 3 similarly indicate a lack of relationship between *Planned lay-offs* and *Target CAR*, whilst Model 4 shows that *Planned lay-offs* are negatively associated with *Acquirer CAR*. Instead, target shareholders benefit from

takeovers based on expanding activities (*Horizontal growth*), low leverage, and a small size relative to the acquirer (presumably making the takeover more readily digestible). In other words, target shareholders benefit from good future prospects for the merged company rather than value extraction from labour. These findings therefore contradict the 'breach of trust' hypothesis, and Hypothesis 1 is not proven. As such, they are consistent with the earlier findings of Beckmann and Forbes (2004). The significant negative relationship between *Planned lay-offs* and *Acquirer CAR*, with a lay-off announcement reducing returns by a 0.15 standard deviation point, suggests that some takeovers have challenging prospects[iv], and indicates that the stock market views jobs cuts as a bad sign rather than a source of additional returns to shareholders. This is consistent with the idea that labour and shareholders experience 'pain-sharing' or 'equal misery' post-takeover (Beckmann and Forbes, 2004).

In summary, these findings contradict the 'wealth transfer' perspective and we find that Hypothesis 1 (which focuses on shareholder gains at the time of the takeover) is not supported. There is no evidence of wealth transfer from labour to shareholders.

The effect of changes in employment and wages on long-term shareholder returns (BHAR)

Hypothesis 2 proposes that long-term shareholder returns post-takeover will be associated with adverse changes for labour. Relevant regression results are reported in **Table 4**. All models analyse the impact of post-takeover actual *Lay-offs* on BHAR. Model 1 analyses the impact of changes in employment and wages in the first year post-takeover, whilst Models 2 and 3 report the lagged effects of these on Year 2 and 3 BHAR. Model 4 reports the effect of labour changes in Year 3. For Hypothesis 2 to be supported, there needs to be significant positive coefficients on the lay-offs variable and/or significant negative coefficients on the employment and wage change variables.

Model fit in Models 1 and 2 is weak but Models 3 and 4 have stronger R^2. Amongst the control variables, the strongest influences on shareholder returns are *ROA*, *Labour Productivity* and the size of the new company (c.f. Cosh *et al.*, 2006). *Premium* is not significantly associated with *BHAR*, although the sign of this variable is negative. Model 2 shows that hostile takeovers generate significantly higher shareholder returns in Year 2 (c.f. Sudarsanam and Mahate, 2006), though these effects dissipate in the following year. The presence of institutional blockholders is associated with higher BHAR in Years 1 and 2.

Table 4. Labour changes and post-takeover shareholder gains

	12m BHAR	**24m BHAR**	**36m BHAR**	**36m BHAR**
	Model 1	Model 2	Model 3	Model 4
Lay-offs	-0.084	-0.004	0.027	0.027
EmpchangeYr1	0.003	-0.011	0.012	
WagechangeYr1	0.077	0.114*	0.134*	
EmpchangeYr3				0.198**
WagechangeYr3				0.157**
Premium	-0.038	-0.082	-0.09	-0.099
Hostile	0.104	0.139*	0.082	0.072
Institutional ownership	0.123*	0.142*	0.094	0.086
Individual ownership	-0.097	0.014	0.002	-0.015
All-cash payment	0.065	0.073	0.069	0.069
Relative employment size	-0.042	-0.028	0.094	0.116
Horizontal growth	0.063	-0.089	-0.009	-0.013
Efficiency	0.132	-0.098	-0.033	-0.012
Vertical integration	0.086	-0.067	0.058	0.043
Size (market value) in Year 0	0.039	0.159*	0.166*	0.156*
ROA	0.171**	0.125*	0.232***	0.180**
Labour productivity	0.034	0.116*	0.131*	0.123*
Leverage in Year 0	0.019	0.042	-0.03	-0.025
Divestments	-0.09	-0.141*	-0.093	-0.048
Industry dummies	Y	Y	Y	Y
Year dummies	Y	Y	Y	Y
F-statistic	2.005***	2.355***	2.710***	2.680***
Adjusted R2	0.074	0.12	0.201	0.226
Number of observations	370	342	316	316

Notes : OLS, using heteroscedasticity-robust standard errors. Standardized beta coefficients are reported. Significance levels: *p < 0.05; **p < 0.01; ***p < 0.001.

Two Year 1 labour measures — *Lay-offs* and *EmpchangeYr1* — are insignificant in all models. Contrary to Hypothesis 2 and predictions from the 'wealth transfer' perspective, Models 2 and 3 indicate that wage growth just after the takeover *(WagechangeYr1)* has a positive lagged impact on *BHAR* in Years 2 and 3. A one standard deviation higher growth in *WagechangeYr1* generates 0.13 standard deviation higher BHAR in Year 3. This finding is more consistent with human capital, resource-based, and efficiency wages perspectives than 'wealth transfer'. It implies that if labour does well, shareholders will subsequently benefit.

Model 4 shows that *EmpchangeYr3* and *WagechangeYr3* are positively associated with shareholder returns at the end of that year. A one standard deviation increase in *EmpchangeYr3* is associated with a 0.20 standard deviation higher BHAR in Year 3, while a one standard deviation increase in *WagechangeYr3* means 0.16 standard deviation higher BHAR. The model fits for Year 3 results are substantially greater than those for earlier years, in part because of the sizeable coefficients on the labour variables. When shareholders do well, employees benefit, and equally, when they do badly, labour does so also (given that there are both positive and negative values of BHAR). In place of 'wealth transfer', the results are more consistent with either 'pain-sharing' or 'gain-sharing'. Hypothesis 2, therefore, is not supported. Given the nature of these findings, and the variation in shareholder returns in the sample, we now examine in more detail how the results may vary according to whether shareholder returns are positive or negative.

Sub-sample analysis: pain-sharing or gain-sharing?

The positive relationships between labour and shareholder returns in Table 4 could be due to 'pain-sharing' and/or 'gain-sharing' given that the dependent variables and employment/wages changes have both negative and positive values. To investigate this, we segment the sample according to whether shareholders earn positive or negative abnormal returns and re-run the

previous regressions for each of these. Negative BHAR are converted to absolute numbers to ease interpretation and comparability with the results for positive BHAR. Results are reported in **Table 5.**

Amongst firms with positive BHAR in the first year, absence of lay-offs is associated with more positive BHAR at the end of the first year (Model 1), and the effect is sizeable. At the same time, employment and wages changes do not have a significant relationship with BHAR, indicating that 'pain-sharing', 'gain-sharing' or 'wealth transfer' have not taken place. The same can be said for the second year after the takeover (Models 3 and 5), though the signs differ from those in the first year.

It is a rather different picture amongst those firms that experience negative BHAR at the end of the first year after the takeover. Whilst the employment and wages change variables remain insignificant, the negative coefficient on lay-offs (significant at $p < 0.05$) indicates that lay-offs are associated with smaller negative BHAR (Model 2). This may indicate that those firms doing badly that instigate lay-offs achieve some remedial benefits for shareholders, consistent with Cascio *et al.'s* (1997) results. The coefficients on lay-offs in Year 2 and 3 negative BHAR models (4, 6 and 8) are of a similar sign and magnitude, though do not achieve significance at $p < 0.05$.

Although most of the coefficients for Year 1 employment change (and all for wages changes) are insignificant, in Model 4, employment change is negatively associated (at $p < 0.05$) with negative BHAR one year later. This indicates that larger employment reductions are associated with larger negative BHAR and suggests that when employees collectively suffer as a result of takeovers, shareholders also suffer in the longer-run (Birkinshaw *et al*., 2000; Stahl and Voigt, 2008). These results therefore support a 'pain-sharing' interpretation and are

consistent with those perspectives suggesting that dissipation of valuable human capital after takeovers harms performance (Cording *et al*., 2014).

Table 5. Labour and shareholder gains: segmented analysis

	Positive 12m BHAR sub-sample	**Negative 12m BHAR sub-sample (absolute values of BHAR)**	**Positive 24m BHAR sub-sample**	**Negative 24m BHAR sub-sample (absolute values of BHAR)**	**Positive 36m BHAR sub-sample**	**Negative 36m BHAR sub-sample (absolute values of BHAR)**	**Positive 36m BHAR sub-sample**	**Negative 36m BHAR sub-sample (absolute values of BHAR)**
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Lay-offs	-0.294**	-0.177*	-0.142	-0.117	-0.04	-0.188	0.026	-0.156
EmpchangeYr1	0.007	0.107	-0.011	-0.197*	-0.199	-0.162		
WagechangeYr1	0.071	-0.084	-0.097	-0.118	-0.078	-0.102		
EmpchangeYr3							-0.001	-0.212*
WagechangeYr3							0.177*	-0.093
Premium	-0.088	-0.006	-0.009	0.008	-0.08	0.095	-0.157*	0.089
Hostile	0.084	-0.003	0.065	0.005	-0.033	0.087	-0.061	0.062
All other control variables	Y	Y	Y	Y	Y	Y	Y	Y
F-statistic	2.072*	1.541	1.15	2.921***	11.165***	2.513***	7.526***	2.218***
Adjusted R2	0.09	0.077	0.062	0.221	0.236	0.22	0.297	0.221
Number of observations	165	203	159	184	154	161	153	162

Notes : OLS, using heteroscedasticity-robust standard errors. Standardized beta coefficients are reported. Significance levels: *p < 0.05; **p < 0.01; ***p < 0.001.

Models 7 and 8 report regressions where *EmpchangeYr3 and WagechangeYr3* are key independent variables. There are substantial differences in the size of the *EmpchangeYr3* coefficients between the positive and negative BHAR sub-samples. Employment change is negatively related to negative BHAR (significant at $p < 0.05$), but there is no relationship where BHAR is positive. These particular results contradict a 'wealth transfer' perspective and provide further support for a 'pain-sharing' perspective when shareholders have negative BHAR. By contrast, wage change is positively associated with positive BHAR, suggesting that 'gain-sharing' takes place as far as wages are concerned when firms are doing well. This is also consistent with those perspectives that suggest that high wages can enhance performance by retaining and developing the human capital stock.

Overall, there is evidence of 'pain-sharing' when shareholders achieve negative returns**,** and partial evidence of 'gain-sharing' (higher wages) where shareholders do well. There is no

evidence to support a 'wealth transfer' view that shareholders benefit at labour's expense. There are no clear links between employment reductions and positive returns, whilst lay-offs have a negative impact on these returns. These results therefore provide further evidence to contradict Hypothesis 2, and suggest instead that labour and shareholders' interests after takeovers function in tandem rather than at the expense of the other. Indeed, there is some limited evidence that when labour suffers, shareholders subsequently pay.

Discussion and conclusions

This paper assesses whether shareholder returns after takeovers are achieved at the expense of employees, as predicted by the 'wealth transfer' hypothesis. To do this we evaluate the association between planned lay-offs, actual lay-offs, employment and wage changes and shareholder returns at the time of the takeover and in the three year period afterwards. In general, the results indicate that takeover gains are not generated by transferring wealth from employees to shareholders. Acquirer shareholders' short-run gains (CAR) are inversely related with planned lay-offs. The latter have no impact on the takeover premium or target CAR, indicating that the gains to target shareholders are not achieved at labour's expense (c.f. Krishnan *et al*., 2007). After the takeover, there is a positive association between employment (wage) growth and shareholders' long-run gains. Where acquirer shareholders do well, so does labour, as confirmed by the sub-sample analysis. This analysis shows that in some cases shareholders and employees share gains: shareholders earn higher BHAR, while employees receive higher wage growth than in comparator firms. However, lay-offs are associated with shareholder losses when BHAR is negative, providing evidence of 'pain-sharing'.

Overall, these results suggest that the 'wealth transfer' perspective has limited utility in the analysis of the effects of takeovers. They therefore contradict those theoretical perspectives that emphasise the conflicting interests of labour and shareholders and provide an instance

where, instead, their interests are complementary (Jackson, 2005). More appropriate theoretical perspectives are those which stress the damage that employment reductions or decline in employee trust in management can do to shareholder returns after takeovers (Zollo and Meier, 2008; Cording *et al.*, 2014). Paradoxically, the theoretical basis of these views and the 'wealth transfer' perspective is not dissimilar. Both draw attention to the important role of human capital in the value of the firm but differ in their analysis as to how far shareholders can over-ride it.

Our contribution is not just that we cast doubt on the 'wealth transfer' view. The findings also provide evidence of complementary interests between shareholders and employees. We go further by distinguishing between 'pain-sharing' and 'gain-sharing'. When shareholders do well, labour does well, at least in terms of wages. When shareholders experience pain, so does labour. Furthermore, through the use of lagged variables, we are able to provide evidence that is supportive of a causal interpretation in relation to human capital. Where labour benefits from wages growth, shareholders subsequently achieve higher BHAR, though we are hesitant to make a stronger causal claim given the nature of our data. Our data also precludes a definitive assessment of the processes whereby wages growth impacts on shareholder returns, though there are a variety of possibilities such as re-establishment or reinforcement of trust (Cording *et al*., 2014), reductions in employee resistance to change (Larsson and Finkelstein, 1999), reduced employee turnover (Cording *et al*., 2008), and limitation of knowledge transfer to competitors via staff exits (Younge *et al*., 2015). Wage growth may also encourage transfer of knowledge and cooperation between employees in the merging firms (Stahl *et al*., 2011; Junni *et al*., 2015; Sarala *et al*., 2016), and this may lead to successful organisational integration (Birkinshaw *et al*., 2000; Cording *et al*., 2014). It is possible also that powerful 'insiders' are able to capture some of the gains of good post-

takeover performance. Meanwhile, the response of employment rather than wages to adverse performance is consistent with economic views of 'wage stickiness' (Blinder and Choi, 1990).

The implication for managers is that they should not underestimate the role of human capital when mounting takeovers. A clear message from the results is that takeovers that incorporate explicit plans to lay-off employees after the transaction do not generally appeal to the stock market, presumably because lay-offs signal that the takeover is risky. Shareholders receive lower abnormal returns at takeover when there are lay-off plans, and positive BHAR later on are likely to be smaller if lay-offs have taken place. Takeovers that are designed to transfer wealth from other stakeholders such as labour to shareholders may well not succeed. Instead, the implication of the longer-run results is that acquirers that look after employees — as proxied by greater wage growth — are likely to have higher positive returns. As indicated above, there are a variety of reasons why this is the case. There are lessons for labour also here: its appeal to shareholders to be well-treated during and after takeovers could well appeal to shareholder self-interest.

There are several limitations to the research, which should be borne in mind in interpreting the results. We have not been able to explore the factors external to the firm that influence which workers experience lay-offs or secure wage increases (Bauer *et al*, 2018, Siegel and Simons, 2010). A further limitation is that our data sources preclude examination of alternatives to lay-offs such as voluntary redundancies or early retirements (Goergen *et al*., 2013). In addition, there could be significant labour displacement and churn, masked by the aggregate employment figures. Labour may also be affected in other ways not captured in this study, such as by changes to pension provision (Pontiff *et al*., 1990). And takeovers may generate a sense of insecurity that has adverse effects on employee well-being, labour turnover, and employee performance. These dynamics of labour restructuring may negatively impact on

implicit labour contracts and subsequently on the acquirers' performance in the longer term. Many of these outcomes have been highlighted in previous literature on the labour outcomes of takeovers, but there is a case for examining them more closely in relation to financial measures of shareholder outcomes.

A further issue is that the relationships observed here may, to some extent, be context-specific, with labour market flexibility and efficiency moderating the relationship between gains and losses to labour and capital (Bauer *et al.*, 2018). Where there is lower labour market flexibility, the capacity of labour to resist post-takeover restructuring could mean that there is a greater net transfer of wealth from shareholders to labour. Comparative studies located in varying labour market contexts could illuminate these possibilities. A further issue concerns cross-border transactions, and the possibility that shareholders in one country load the costs of takeovers onto employees in another. Unfortunately, we were unable to examine cross-border takeovers because of the difficulties in integrating financial and company data from different national settings. We know of no direct evidence on the extent to which wealth transfers occur in cross-border transactions, though there is public disquiet that foreign takeovers have adverse impacts on domestic employees. It is possible that wealth sharing is more prevalent than wealth transfer in cross-border transactions because foreign acquirers tend to takeover good performing firms to expand their market share (Bandick and Karpaty, 2011).

Within the confines of our national focus, there are also other limitations. The exclusion of serial acquirers (to avoid 'contamination' of the employment data) may exclude those companies that are better at securing wealth transfers from labour to shareholders or, alternatively, those that are better at achieving successful integration and better outcomes for labour. The potential bias may run either way. A further limitation is that we have limited information on the identity of major shareholders. For instance, our data sources do not allow

us to differentiate between sub-types of institutional investors, such as hedge funds, pension funds, and sovereign wealth funds, each of which may have different approaches to monitoring their investee companies (see Gospel *et al.*, 2014). Our focus on the listed sector also means that we cannot examine the role of private equity acquisitions, which may involve greater wealth transfer from employees to shareholders. Future research should attempt to identify the types of institutional investors, their investment horizons and their investment strategies, as these may affect the nature and extent of labour outcomes after takeovers.

References

Amess, K., S. Girma and M. Wright (2014). 'The wage and employment consequences of ownership change', *Managerial and Decision Economics*, **35**, pp. 161–171.

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

Barney, J. (1991). 'Firm resources and sustained competitive advantage', *Journal of Management*, **17**, pp. 99–120.

Bauer, F., S. Schriber, D. Degischer and D. King (2018). 'Contextualizing speed and cross-border acquisition performance: labor market flexibility and efficiency effects', *Journal of World Business,* **53**, pp. 290-301.

Bauer, F., and K. Matzler (2014). 'Antecedents of M&A success: the role of strategic complementarity, cultural fit, and degree and speed of integration', *Strategic Management Journal*, **35**, pp. 1–23.

Bandick, R. and P. Karpaty (2011). 'Employment effects of foreign acquisitions', *International Review of Economics and Finance,* **20**, pp. 211-234.

Becker, B. (1995). 'Union rents as a source of takeover gains among target shareholders', *Industrial and Labor Relations Review*, **49**, pp. 3-19.

Beckmann, T. and W. Forbes (2004). 'An examination of takeovers, job loss and the wage decline within UK industry', *European Financial Management*, **10**, pp. 141-165.

Bethel, J. and J. Liebeskind (1993). 'The effects of ownership structure on corporate restructuring', *Strategic Management Journal*, **14**, pp. 15–31.

Bethel, J., G. Hu and Q. Wang (2009). 'The market for shareholder voting rights around mergers and acquisitions: evidence from institutional daily trading and voting', *Journal of Corporate Finance*, **15**, pp. 129-145.

Bhagat, S., A. Shleifer and R. Vishny (1990). 'Hostile takeovers in the 1980s: the return to corporate specialization', *Brookings Papers on Economic Activity: Microeconomics*, **3**, pp. 1–84.

Birkinshaw, J., H. Bresman, and L. Håkanson (2000). 'Managing the post-acquisition integration process: how the human integration and task integration processes interact to foster value creation'. *Journal of Management Studies*, **37 (3)**, pp. 395–425.

Blinder, A. and D. Choi (1990). 'A shred of evidence on theories of wage stickiness', *Quarterly Journal of Economics*, **55**, pp. 1003-1016.

Brown, S. and J. Warner (1985). 'Using daily stock returns: the case of event studies', *Journal of Financial Economics*, **14**, pp. 3–31.

Brueller, N., A. Carmeli, and G. Markman (2018). 'Linking merger and acquisition strategies to post-merger integration: a configurational perspective of human resource management', *Journal of Management,* **44 (5)**, pp. 1793–1818.

Buono, A. and J. Bowditch (1989). *The Human Side of Mergers and Acquisitions. Managing Collisions Between People, Cultures and Organizations.* London: Jossey-Bass.

Cannella A. and D. Hambrick (1993). 'Effects of executive departures on the performance of acquired firms', *Strategic Management Journal* **14 (S1)**, pp. 137–152.

Cartwright, S. and C. Cooper (1990). 'The impact of mergers and acquisitions on people at work: existing research and issues', *British Journal of Management*, **1**, pp. 65–76.

Cartwright, S. and R. Schoenberg (2006). 'Thirty years of mergers and acquisitions research: recent advances and future opportunities', *British Journal of Management*, **17**, pp. 1-5.

Cascio, W. (2002). *Responsible Restructuring*. San Francisco: Barrett-Koehler.

Cascio, W., C. Young and J. Morris (1997). 'Financial consequences of employment-change decisions in major U.S. corporations', *Academy of Management Journal*, **40,** pp. 1175–89.

Coff, R. W. (1997). 'Human assets and management dilemmas: Coping with hazards on the road to resource based theory', *Academy of Management Review*, **22**, pp. 374-402.

Coff, R. (2002). 'Human capital, shared expertise, and the likelihood of impasse in corporate acquisitions', *Journal of Management*, **28**, pp. 107-128.

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

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

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

Cording, M., P. Christmann and D. King (2008). 'Reducing causal ambiguity in acquisition integration: intermediate goals as mediators of integration decisions and acquisition performance', *Academy of Management Journal*, **51**, pp. 744–767.

Cording, M., P. Christmann, and C.Weigelt (2010). 'Measuring theoretically complex constructs: the case of acquisition performance', *Strategic Organization*, **8**, pp. 11–41.

Cording, M., Harrison, J., Hoskisson, R., Jonsen, K. (2014). 'Walking the talk: A multistakeholder exploration of organizational authenticity, employee productivity, and post-merger performance', *Academy of Management Perspectives*, **28,** pp. 38-56.

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

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

Cumming, D., R. Peter, A. Sannajust, and M. Tarsalewska (2018). 'Pre-going private ownership around the world', *British Journal of Management*, DOI: 10.1111/1467-8557.12281.

Dargenidou, C., A. Gregory and S. Hua (2016). 'How far does financial reporting allow us to judge whether M&A activity is successful?', *Accounting and Business Research*, **46**, pp. 467-499.

Datta, D. K. (1991). 'Organizational fit and acquisition performance: effects of post-acquisition integration', *Strategic Management Journal*, **12 (4)**, pp. 281-297.

Datta D. K., and J. H. Grant (1990). 'Relationships between type of acquisition, the autonomy given to the acquired firm, and acquisition success: an empirical analysis', *Journal of Management,* **16 (1)**, pp. 29–44.

Datta D. K., G. P. Pinches and V. K. Narayanan (1992). 'Factors influencing wealth creation from mergers and acquisitions: a meta-analysis', *Strategic Management Journal,* **13 (1),** pp. 67–84.

Datta, D. K., J. P. Guthrie, D. Basuil, and A. Pande (2010). 'Causes and effects of employee downsizing: a review and synthesis', *Journal of Management*, **36 (1),** pp. 281–348.

Davis, S. J., J. Haltiwanger, K. Handley, R. Jarmin, J. Lerner, and J. Miranda (2014). 'Private equity, jobs, and productivity', *American Economic Review*, **104**, pp. 3956–90.

Deakin, S., R. Hobbs, D. Nash, and G. Slinger (2003). 'Implicit contracts, takeovers and corporate governance: in the shadow of the City Code'. In D. Campbell and H. Collins (eds.) *Implicit Dimensions of Contracts*. pp. 289–331. Oxford: Hart.

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

Dessaint, O., A. Golubov and P. Volpin (2017). 'Employment protection and takeovers', *Journal of Financial Economics,* **123**, pp. 369-388.

Dixon, N. (2000). *Common Knowledge: How Companies Thrive by Sharing What They Know*, Harvard Business School Press, Boston, MA.

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

Geurts, K. and J. Biesebroeck (2017). 'Employment growth following takeovers', *Discussion paper DP12167*, Centre for Economic Policy Research.

Goergen, M., C. Brewster and G. Wood (2013). 'The effects of the national setting on employment practice: the case of downsizing', *International Business Review*, **22**, pp. 1051–1067.

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

Gokhale, J., D. Neumark and E. Groshen (1995). 'Do hostile takeovers reduce extra-marginal wage payments?', *The Review of Economics and Statistics,* **77**, pp. 470-485.

Gospel, H., A. Pendleton and S. Vitols (2014). *Financialization, New Investment Funds, and Labour: an International Comparison*. Oxford: Oxford University Press.

Graebner, M. (2004). 'Momentum and serendipity: how acquired leaders create value in the integration of technology firms', *Strategic Management Journal*, **25**, pp. 751–777.

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

Harford, J. (1999). 'Corporate cash reserves and acquisitions'. *Journal of Finance,* **54**, pp. 1969–97.

Haspeslagh, P. and Jemison, D. (1991). *Managing Acquisitions: Creating Value through Corporate Renewal*. New York: Free Press.

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

Higson, C. and J. Elliott (1998). 'Post-takeover returns: the UK evidence', *Journal of Empirical Finance*, **5**, pp. 27–46.

Hitt, M., J. Harrison, R. Ireland and A. Best (1998). 'Attributes of successful and unsuccessful acquisitions of US firms', *British Journal of Management*, **9**, pp. 91–114.

Jackson, G. (2005). 'Towards a comparative perspective on corporate governance and labour management: enterprise coalitions and national trajectories'. In Gospel, H. and A. Pendleton (eds.) *Corporate Governance and Labour Management: an International Comparison*. Oxford: Oxford University Press.

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

Jensen, M. and W. Meckling (1976). 'Theory of the firm: management behaviour, agency costs and ownership structure', *Journal of Financial Economics*, **3**, pp. 305-360.

Junni, P., R. Sarala, S. Y. Tarba, and Y. Weber (2015). 'Strategic agility in mergers and acquisitions', *British Journal of Management*, **26**, pp. 596-616.

Khan, Z., V. Soundararajan, G. Wood, and M. Ahammad (2017). 'Employee emotional resilience during post-merger integration across national boundaries: rewards and the mediating role of fairness norms', *Journal of World Business*. http://dx.doi.org/10.1016/j.jwb.2017.06.009.

King, D., D. Dalton, C. Daily, and J. Covin (2004). Meta-analyses of post-acquisition performance: indications of unidentified moderators, *Strategic Management Journal*, **25**, pp. 187-200.

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

Kuvandikov A., A. Pendleton and D. Higgins (2014). 'Employment change after takeovers: the role of executive ownership', *British Journal of Industrial Relations*, **52**, pp. 191–236.

Laamanen, T. (2007). 'On the role of acquisition premium in acquisition research'. *Strategic Management Journal*, **28**, pp. 1359-1369.

Larsson, R. and S. Finkelstein (1999). 'Integrating strategic, organisational, and human resource perspectives on mergers and acquisitions: a case survey of synergy realization', *Organization Science*, **10**, pp. 1–26.

Lazonick, W. and M.O'Sullivan (2000). 'Maximizing shareholder value: a new ideology for corporate governance'. *Economy and Society*, **29**, pp. 13-35.

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

Lichtenberg, F. and D. Siegel (1990). 'The effect of ownership changes on the employment and wages of central office and other personnel', *Journal of Law and Economics,* **33**, pp. 383-408.

Lindbeck, A. and D. Snower (1989). *The Insider-Outsider Theory of Employment and Unemployment*. Cambridge MA: MIT Press Books

Maksimovic, V., P. Gordon, and N. Prabhala (2011). 'Post-merger restructuring and the boundaries of the firm', *Journal of Financial Economics*, **102**, pp. 317-343.

Martynova, M. and L. Renneboog (2011). 'The performance of the European market for corporate control: evidence from the Fifth Takeover Wave', *European Financial Management*, **17**, pp. 208-259.

Mayer, C. (2013). *Firm Commitment: Why the Corporation Is Failing Us and How to Restore Trust in It*. Oxford: Oxford University Press.

Mayer, D. and M. Kenney (2004). 'Economic action does not take place in a vacuum: understanding Cisco's acquisition and development strategy', *Industry and Innovation*, **11** (4), pp. 299-325.

Meschi, P.-X. and E. Métais (2015). 'Too big to learn: the effects of major acquisition failures on subsequent acquisition divestment', *British Journal of Management*, **26**, pp. 408–423.

Meyer, C. (2008). 'Value leakages in mergers and acquisitions: Why they occur and how they can be addressed', *Long Range Planning*, **41**, pp. 197-224.

Mira, S., M. Goergen, and N. O'Sullivan (2018). 'The market for non-executive directors: does acquisition performance influence future board seats?', *British Journal of Management*, DOI: 10.1111/1467-8551.12290

Moeller, S., F. Schlingemann and R. Stulz (2005). 'Wealth destruction on a massive scale? A study of acquiring-firm returns in the recent merger wave', *Journal of Finance*, **60**, pp. 757-782.

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

Pablo, A. (1994). 'Determinants of acquisition integration level: A decision making perspective'. *Academy of Management Journal*, **37**, pp. 803–836.

Papadakis, V. and I. Thanos (2010). 'Measuring the performance of acquisitions: an empirical investigation using multiple criteria', *British Journal of Management*, **21**, pp. 859–873.

Pendleton, A., A. Bryson and H. Gospel (2017). 'Ownership and pay in Britain', *British Journal of Industrial Relations*, **55**, pp. 688-715.

Pontiff, J., A. Shleifer and M. Weisbach (1990). 'Reversions of excess pension assets after takeovers', *Rand Journal of Economics,* **21**, pp. 600-613.

Roll R. (1986). 'The hubris hypothesis of corporate takeovers'. *Journal of Business*, **59**, pp. 197–216.

Schoenberg, R. (2006). 'Measuring the Performance of Corporate Acquisitions: An Empirical Comparison of Alternative Metrics', *British Journal of Management*, **17**, pp. 361-370.

Schweizer, L. and H. Patzelt (2012). 'Employee commitment in the post-acquisition integration process: The effect of integration speed and leadership', *Scandinavian Journal of Management*, **38**, pp. 298-310.

Shleifer, A. and L. Summers (1988). 'Breach of trust in hostile takeovers'. In: A. Auerbach (ed.), *Corporate Takeovers: Causes and Consequences,* pp. 33-61. Chicago: University of Chicago Press.

Siegel, D. and K. Simmons (2010). Assessing the effects of mergers and acquisitions on firm performance, plant productivity, and workers: New evidence from matched employee-employee data. *Strategic Management Journal*, **31**, pp. 903-916.

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

Somaya, D., I. Williamson and N. Lorinkova (2008). 'Gone but not lost: The different performance impacts of employee mobility between cooperators versus competitors', *Academy of Management Journal*, **51**, pp. 936-953.

Stahl, G. , R. Larsson, I. Kremershof and S. Sitkin (2011). 'Trust dynamics in acquisitions: A case survey', *Human Resource Management*, **50**, pp. 575–603.

Stahl, G. and A. Voigt (2008). 'Do cultural differences matter in mergers and acquisitions? A tentative model and examination', *Organization Science*, **19**, pp. 160-176.

Sudarsanam, P. and A. Mahate (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**, pp. S7-S30.

Teerikangas, S. and P. Very (2006). 'The culture-performance relationship in M&A: From yes/no to how', *British Journal of Management*, **17**, pp. 31–48.

Walsh, J. P. (1988). 'Top management turnover following mergers and acquisitions', *Strategic Management Journal*, **9**, pp. 173-183.

Walter, G. and J. Barney (1990). 'Management objectives in mergers and acquisitions', *Strategic Management Journal*, **11**, pp. 79-86.

Wansley, J. , W. Lane and H. Yang (1983). 'Abnormal returns to acquired firms by type of acquisition and method of payment', *Financial Management*, **12**, pp. 16-22.

Williamson, O. (1985). *The Economic Institutions of Capitalism*. New York: Free Press.

Williamson O. (1988). 'Comment on 'Breach of trust in hostile takeovers''. In: A. Auerbach (ed.), *Corporate Takeovers: Causes and Consequences,* pp. 61-67. Chicago: University of Chicago Press.

Younge, K., T. Tong and L. Fleming (2015). 'How anticipated employee mobility affects acquisition likelihood: evidence from a natural experiment', *Strategic Management Journal*, **36**, pp. 688-708.

Zollo, M. and D. Meier (2008). 'What is M&A performance?', *Academy of Management Perspectives,* **22**, pp. 55–77.

Zollo, M. and H. Singh (2004). 'Deliberate learning in corporate acquisitions: post-acquisition strategies and integration capability in U.S. bank mergers'. *Strategic Management Journal*, **25**, pp. 1233–1256.

[i] We do not use corporate holdings as these are not generally important in the British context.

[ii] We select control firms that are not involved in M&A transactions during the observation period for each target and acquiring firm, matched by industry, size, and performance. We use average employment (wage) change for these control firms (matched for each target and acquirer firm) to adjust the acquiring firms' employment (wage) change during post-takeover years.

[iii] Regression diagnostics indicate multicollinearity is not a substantial issue as the Variance Inflation Factor (VIF) is well below 10 for all variables in our models. Checks for the normality of the residuals reveal that there are four (in Model 1) and six (in Models 2-4) outlier observations. The reported regressions exclude these outliers.

[iv] We also analyse market reactions to employee lay-offs according to the motives (efficiency, horizontal integration etc.) for the takeovers. For example, the market may react positively to lay-offs after takeovers with an efficiency motive. Therefore, we re-run Models 2-4, including the interactions of *Planned Lay-offs* with the dummies for each motive. The (unreported) results indicate that the associations between *Target (Acquirer) CAR* and lay-offs do not vary significantly between takeovers with different motives.

Appendix 1 Variable definitions

Variable	Definition
Dependent variables	
Premium	The difference between the purchase price and the target firm share price 30 days before the initial takeover announcement date, divided by the target firm share price 30 days before the initial takeover announcement date *(Source: Thomson Reuters and DataStream)*.
CAR	The 3-day cumulative abnormal return (in percentage points) calculated using the market model. The market model parameters are estimated using the return data for the trading days between -300 and -42 before the event. *(Source: DataStream)*.
BHAR	Buy-and-hold abnormal return (in percentage points) for acquiring firms over 12, 24 and 36 months periods after the announcement month, relative to non-acquirer control firms. *(Source: DataStream)*.
Labour variables (key independent variables)	
Planned lay-offs (0,1)	Equals 1 if media reports around the time of the M&A announcement or within a few days of the transaction indicate post-merger lay-offs will occur. *(Source: Financial Times and other press reports)*.
Lay-offs (0,1)	Equals 1 if the acquirer makes at least 1 per cent of the combined workforce of the acquired and the acquiring firms redundant by the end of the first full post-takeover fiscal year *(Source: Financial Times and other press reports)*.
EmpchangeYr1 (3)	The percentage employment change, measured as the difference between the post-takeover employment of the acquiring firm in Year 1 (Year 3) and pre-takeover combined employment of the acquiring and the acquired firm, divided by the average of pre- and post-takeover employment. This is adjusted according to employment change in the matched control firms. *(Source: DataStream)*.
Target (Acquirer) wage	The ratio of annual total staff costs in real terms (converted into 2013 values using the Consumer Price Index) of the target (acquirer) firm during the financial year immediately before takeover to the number of workers employed during that year. This is adjusted using wages in the matched control firm. *(Source: DataStream)*.
WagechangeYr1 (3)	The percentage wage change, measured as the difference between the post-takeover wage (total staff costs in real terms divided by employment) in the acquiring firm in Year 1 (Year 3) and pre-takeover combined average wages of the acquired and acquiring firms, divided by the average of pre- and post-takeover wages. This is adjusted according to wages change in the matched control firms. *(Source: DataStream)*.
Equity blockholders	
Target (acquirer) Institutional ownership	The total percentage of ownership of the target's (acquirer) all institutional shareholders owning more than 3 per cent of ordinary shares in the year before the takeover *(Source: PI Filing Expert)*.
Target (acquirer) Individual ownership	The total percentage of ownership of the target's (acquirer) individual shareholders, including managers, owning more than 3 per cent of ordinary shares in the year before the takeover *(Source: PI Filing Expert)*.
Institutional ownership	The total percentage of ownership of all institutional shareholders owning more than 3 per cent of ordinary shares in the year after the takeover *(Source: PI Filing Expert)*.

Individual ownership	The combined percentage of ownership of all individual shareholders, including managers, owning more than 3 per cent of ordinary shares in the year after the takeover *(Source: PI Filing Expert)*.
Deal characteristics	
Hostile (0,1)	Equals 1 if an acquisition is defined as hostile takeover, where an initial bid was rejected by the target firm management *(Source: Thomson Reuters* and *Financial Times)*.
All-cash payment (0,1)	Equals 1 if an acquisition was financed entirely by cash payments *(Source: Thomson Reuters)*.
Relative employment size	The ratio of the acquired firm's employment to that of the acquiring firm during the pre-takeover financial year. Log transformed. *(Source: DataStream)*.
Competing bidders (0,1)	Equals 1 if more than one firm was involved in the deal *(Source: Thomson Reuters)*
Divestment (0,1)	Equals 1 if the acquirer makes a significant asset divestment after the transaction, as reported in the press. *(Source: Financial Times)*.
Takeover motives	
Horizontal growth	Equals 1 if a M&A deal involves acquiring a rival firm and the acquiring firm managers indicate business growth and expansion as the main objective of the deal (as reported in the press), 0 otherwise *(Source: Financial Times)*.
Efficiency	Equals 1 if the acquiring firm managers specifically indicate rationalisation, cost savings and other required improvements in the targeted firm as the main objective of the takeover transaction (as reported in the press), 0 otherwise *(Source: Financial Times)*.
Vertical integration	Equals 1 if a M&A deal involves two firms where there is some type of business relationship between them, such as supplier or customer (as reported in the press), 0 otherwise *(Source: Financial Times)*.
Diversification	Equals 1 if a M&A deal is undertaken by a conglomerate acquirer, whose managers indicate business diversification as the main objective of the deal (as reported in the press), 0 otherwise *(Source: Financial Times*).
Firm characteristics	
Size	The share price 42 days prior to the initial takeover announcement multiplied by the number of ordinary shares in issue. Log transformed. *(Source: DataStream)*.
OCF/TA	Operating Cash flow-to-Total Assets, defined as sales minus cost of goods sold (excluding depreciation), selling, general and administrative expenses and working capital change, divided by total assets. *(Source: DataStream)*.
ROA	Return on Assets, defined as Earnings Before Interest, Taxes and Depreciation (EBITDA) divided by the book value of total assets at the beginning of the year, minus the respective industry median ROA. *(Source: DataStream)*.
Labour productivity	*S*ales per employee minus respective industry median labour productivity *(Source: DataStream)*.
Leverage	The ratio of the acquirer's total debt to its total assets at the end of the takeover completion fiscal year. *(Source: DataStream)*.
Target run-up	Cumulative abnormal returns of the target firm during the 40 days from day -42 to day -2 before the initial takeover announcement. *(Source: DataStream)*.

Appendix 2. Correlations table

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Acquisition premium	1																		
2	Target CAR	0.5182*	1																	
3	Acquirer CAR	-0.0009	-0.0357	1																
4	12 months BHAR	-0.0185	-0.0147	0.0676	1															
5	24 months BHAR	-0.0279	-0.0677	0.0207	0.6467*	1														
6	36 months BHAR	-0.0729	-0.0423	0.0143	0.4575*	0.7494*	1													
7	Planned lay-offs	0.0364	-0.0233	-0.013	-0.0315	-0.0944	-0.04	1												
8	Actual lay-offs	0.0343	0.0231	0.1343*	-0.004	-0.0528	-0.0031	0.5908*	1											
9	EmpchangeY1	0.0474	-0.0291	-0.0154	0.08	0.0436	0.0433	-0.2218*	-0.2846*	1										
10	EmpchangeY3	-0.0386	0.0019	0.0064	0.1280*	0.1442*	0.1691*	-0.2819*	-0.3164*	0.7533*	1									
11	WagechangeYr1	0.091	0.0451	0.0047	-0.0101	0.0732	0.0757	0.0631	0.0421	-0.3419*	-0.2226*	1								
12	WagechangeYr3	0.1365*	0.0723	-0.0131	0.0301	0.0729	0.0974	0.0621	0.0788	-0.2537*	-0.3585*	0.6607*	1							
13	Target institutional ownership	-0.0468	-0.0087	0.0266	0.0406	-0.03	-0.0477	-0.1085*	-0.0559	0.1112*	0.1186*	-0.0552	-0.0492	1						
14	Target individual ownership	0.0489	0.0106	0.0635	-0.0276	-0.033	-0.0318	-0.1860*	-0.1396*	0.0994	0.1004	0.0043	0.016	-0.3086*	1					
15	Acquirer institutional ownership	-0.0405	-0.0656	0.0035	0.0244	0.0766	0.039	-0.099	-0.087	0.0144	-0.012	-0.031	-0.0461	0.1714*	-0.0687	1				
16	Acquirer individual ownership	0.0804	-0.0123	0.0146	-0.0469	-0.0819	-0.0733	-0.1835*	-0.2501*	0.1336*	0.0855	-0.0407	-0.0567	-0.022	0.1743*	-0.1178*	1			
17	Institutional ownership	-0.0464	-0.0484	0.0518	0.0445	0.0963	0.0769	-0.1048*	-0.0553	0.0606	-0.0191	-0.0293	-0.0265	0.2327*	-0.0491	0.7376*	-0.1111*	1		
18	Individual ownership	0.0148	-0.0727	-0.031	-0.0499	-0.0478	-0.0618	-0.1851*	-0.2504*	0.1059*	0.0402	-0.074	-0.0592	-0.0093	0.1686*	-0.1170*	0.8541*	-0.1354*	1	
19	Horizontal growth motive	0.0265	-0.0023	-0.0217	-0.0214	0.0169	0.0278	-0.2400*	-0.3176*	0.1905*	0.2066*	-0.0596	-0.0193	-0.05	0.1024*	0.0405	0.1215*	0.0035	0.0877	1
20	Efficiency motive	-0.0513	0.057	0.1130*	0.0444	-0.0295	-0.0111	0.4090*	0.3987*	-0.2193*	-0.2278*	-0.0215	0.0111	0.0011	-0.0874	-0.0248	-0.1383*	0.0248	-0.0937	-0.5445*
21	Vertical integration motive	-0.0162	-0.0465	-0.0557	0.0394	-0.0085	-0.0279	-0.0926	-0.0159	0.0549	0.0553	0.0677	0.0193	0.0022	0.0644	-0.0798	0.0207	-0.1019*	0.0101	-0.4150*
22	Diversification motive	0.0464	-0.0199	-0.0547	-0.0719	0.0232	0.0038	-0.072	-0.0257	-0.0635	-0.0724	0.0438	-0.0074	0.0736	-0.1151*	0.062	-0.0262	0.0781	-0.0217	-0.3433*
23	Target size	-0.0152	-0.0224	0.0443	0.0304	0.0227	0.0384	0.4026*	0.3446*	-0.0541	-0.0468	0.0236	0.0404	-0.0578	-0.3766*	-0.1121*	-0.3548*	-0.1311*	-0.3469*	-0.1676*
24	Target OCF/TA	0.0324	0.0135	0.0459	-0.0331	0.0297	0.0211	-0.0092	0.0238	0.081	0.0333	-0.1171*	-0.0385	0.0538	-0.0203	0.0128	-0.1426*	-0.0474	-0.1280*	0.0858
25	Target ROA	0.0216	0.0264	-0.0235	0.0931	0.1280*	0.0857	0.0109	-0.0337	0.1161*	0.0663	-0.028	0.0005	0.0256	0.056	-0.0395	-0.0667	0.0017	-0.083	-0.0269
26	Target labour productivity	-0.011	-0.0055	0.0856	0.0055	0.0014	0.0623	0.1048*	0.1046*	-0.0158	-0.0073	-0.0453	0.0308	-0.1495*	0.0128	-0.067	-0.0168	-0.1436*	0.0054	0.006
27	Target leverage	-0.1361*	-0.1169*	0.0955	-0.002	0.0292	0.0667	0.0608	0.0186	-0.0699	-0.0727	0.0108	0.0928	-0.0315	-0.0937	-0.0109	0.0372	-0.0164	0.0223	-0.0118
28	Target run-up	0.3486*	-0.0637	0.0498	0.0541	0.0851	0.0039	-0.0338	0.0108	-0.0019	-0.0841	-0.0722	0.0161	-0.0665	0.0703	-0.0688	0.0816	-0.0321	0.0636	0.0436
29	Acquirer size	0.1377*	0.1326*	0.0695	0.0417	0.0891	0.0876	0.2914*	0.3394*	0.045	0.0489	0.0058	0.0462	-0.0307	-0.2148*	-0.2842*	-0.3930*	-0.2389*	-0.3730*	-0.1669*
30	Acquirer OCF/TA	0.0549	0.0506	0.0422	-0.0067	0.0614	0.0847	0.0656	0.0725	0.0102	0.0004	-0.1096*	-0.0062	0.0672	-0.1074*	-0.0618	-0.0733	-0.0521	-0.0847	-0.0465
31	Acquirer ROA	0.0748	0.0463	-0.0507	0.0443	0.0545	0.0094	-0.0205	-0.062	0.2230*	0.1074	-0.0029	0.0267	0.0691	-0.0619	-0.0548	-0.045	-0.0551	-0.0488	0.0444
32	Acquirer labour productivity	-0.0432	-0.0218	0.1088*	0.0514	0.0524	0.0386	0.011	-0.0231	-0.0642	-0.0399	-0.0015	0.011	-0.012	0.0633	0.1148*	-0.045	0.1642*	-0.0179	-0.0041
33	Acquirer leverage	0.0172	0.046	0.0403	0.0373	0.0388	0.0002	0.1208*	0.1135*	-0.0559	0.0205	0.0839	0.0809	0.0197	-0.0584	-0.1013*	-0.1178*	-0.1464*	-0.1152*	-0.0567
34	Hostile	0.1537*	0.004	0.0004	0.0928	0.0829	0.0602	0.1748*	0.1293*	-0.1294*	-0.0703	0.1189*	0.0835	-0.0096	-0.1794*	-0.1058*	0.0083	-0.1033*	0.0195	-0.0771
35	All-cash payment	0.0182	0.0375	0.1556*	0.0862	0.1127*	0.0914	0.0019	0.1091*	0.0201	-0.0132	-0.0288	0.0038	-0.0001	0.0863	-0.0323	-0.0243	0.0105	-0.0039	-0.0773
36	Relative employment size	-0.1301*	-0.0979	-0.0803	-0.032	-0.0509	-0.0242	0.0129	-0.0926	-0.1390*	-0.1207*	0.0617	0.0328	0.0593	-0.1429*	0.2171*	0.1527*	0.2281*	0.1442*	0.0356
37	Competing bidders	0.1217*	0.0248	-0.0268	-0.0045	0.0071	-0.0431	0.0467	0.0918	-0.1059*	-0.057	0.0572	0.0306	0.0606	-0.1155*	-0.0378	-0.0353	-0.0033	0.0366	-0.0203
38	Divestment	0.0761	0.0504	-0.0527	-0.0298	-0.0979	-0.0938	0.3031*	0.3822*	-0.3244*	-0.3296*	0.1384*	0.1560*	-0.0208	-0.1327*	-0.0379	-0.1708*	-0.0295	-0.1698*	-0.2219*

		20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
20	Efficiency motive	1																		
21	Vertical integration motive	-0.2541*	1																	
22	Diversification motive	-0.2102*	-0.1602*	1																
23	Target size	0.2562*	-0.0869	0.0148	1															
24	Target OCF/TA	-0.0621	-0.064	0.0237	0.0312	1														
25	Target ROA	0.0262	0.0465	-0.0468	0.1791*	0.1008	1													
26	Target labour productivity	0.0563	0.0143	-0.1016*	0.1550*	0.0947	0.0376	1												
27	Target leverage	0.0366	0.0037	-0.0352	0.011	0.097	-0.0599	0.1161*	1											
28	Target run-up	-0.0573	-0.0027	0.0127	-0.1401*	0.1118*	0.0401	0.0511	-0.0873	1										
29	Acquirer size	0.1652*	0.0064	0.0294	0.6656*	0.0858	0.1228*	0.1056*	0.0642	0.0182	1									
30	Acquirer OCF/TA	0.0149	0.0686	-0.0266	0.0527	0.1289*	-0.0383	0.0219	-0.0041	0.0143	0.1177*	1								
31	Acquirer ROA	-0.0462	-0.0533	0.0545	0.1335*	0.1733*	0.1100*	-0.1045*	0.0733	0.035	0.2544*	0.0606	1							
32	Acquirer labour productivity	0.0466	-0.0373	-0.0137	-0.0176	0.0046	0.0241	0.0836	0.0371	-0.0651	-0.0578	-0.0465	-0.074	1						
33	Acquirer leverage	0.0946	-0.0449	0.012	0.1615*	0.0317	-0.0642	0.0131	0.1507*	-0.08	0.1870*	-0.0259	0.0059	-0.045	1					
34	Hostile	0.1003	0.0025	-0.0182	0.1896*	-0.0684	0.011	-0.0069	0.0432	0.0648	0.1019*	0.0482	-0.0467	-0.0284	0.1145*	1				
35	All-cash payment	0.02	0.0079	0.0839	-0.063	0.0303	-0.0087	0.0431	-0.0117	0.0058	0.2079*	-0.0313	-0.0161	0.0461	-0.0112	-0.0047	1			
36	Relative employment size	0.0202	-0.1054*	0.0384	0.0582	-0.0461	-0.0492	-0.1364*	0.0726	-0.1418*	-0.5089*	-0.1386*	-0.1302*	0.2440*	-0.1402*	0.0745	-0.3206*	1		
37	Competing bidders	0.022	-0.0308	0.0372	0.0608	0.0122	-0.0227	-0.0568	-0.0677	0.1472*	0.0684	0.0044	-0.0246	-0.0675	-0.058	0.2565*	0.0062	-0.0093	1	
38	Divestment	0.1900*	0.0545	0.0261	0.2481*	-0.0429	-0.0063	-0.0127	0.0208	-0.0296	0.1886*	-0.0066	-0.0438	-0.0803	0.0808	0.2075*	0.0596	0.0101	0.0947	1