Choice of acquisition form in Australia and the post-takeover employment of target firm directors on the acquiring firm board

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Abstract

In Australia, a corporate acquisition can be effected by either a scheme of arrangement or a takeover. We investigate whether lower takeover premiums in schemes are the result of potential self-dealing by target firm directors. Specifically, we examine the likelihood that one pay-off to target directors for accepting a lower premium in a scheme is a seat on the acquiring firm's board. We find the odds of a target director subsequently sitting on the merged entities' board are significantly higher in schemes. We also find no association between the target director appointment to the board and the merged entity's post- acquisition performance.

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1 Introduction

Prior research documents that director incentives have important implications for shareholders in corporate takeovers. Our study examines whether choice of deal structure provides potential benefits for target firm directors. In Australia, there are two channels for acquiring control of publicly listed companies. One channel entails a highly regulated takeover bid that provides for a competitive public auction. The other channel is a "scheme of arrangement" (SOA) requiring the cooperation of the target and bidder firm boards and the approval of the target firms' shareholders as well as the Court. As a SOA requires the active cooperation of the target's board (hence often described as "friendly") the target firm's board has more scope to block the acquisition. A further attraction of schemes to acquirers is the lower shareholder approval threshold to achieve 100% ownership. Whilst only 75% of target shareholders must approve a scheme, a bidder must acquire 90% of shares in a takeover to be able to compulsorily acquire the remaining shares.

Earlier commentary in the financial press argued that target shareholders are disadvantaged in schemes (Askew, 2003, Hughes, 2003) relative to takeovers. Bugeja *et al.,* (2016) empirically test these assertions and document that bid premiums are systematically lower when firms are acquired via schemes. The results in that study raise the question as to why target firm directors are willing to structure the deal as a SOA and recommend an acquisition at a premium which is lower than that which could be potentially received in a takeover. This study addresses that question by examining whether target firm directors are induced to structure a deal as a SOA in return for a private benefit. The specific research question we test is whether target firm directors are more likely to receive a board seat post- acquisition on the board of the merged entity in SOA than in takeover offers.

To be clear: our analysis does not assume that the alternative to a scheme of arrangement is necessarily a takeover bid. One can envisage cases where a firm is not worth taking over if bidders are required to pay a price at the average premium offered in a takeover bid. In these circumstances, there would be no takeover bid in the absence of a scheme of arrangement and target shareholders would miss out on the takeover premium. The policy issue we address is the appropriateness of directors' accepting inducements narrowly targeted to their self-interest in return for facilitating a scheme of arrangement. We acknowledge that our study cannot determine directional causality between scheme use and director appointment,

however documenting an association is likely to be of concern and interest to shareholders and regulators alike.[1]

The research question we address is economically significant given the increasing use of schemes to facilitate a change in corporate control. Bugeja *et al.,* (2016) document that in most years between 2007 and 2011 the value of deals structured as SOA vastly exceeds those organised as takeover bids. Pertinently, the allegations that target shareholders are disadvantaged in schemes prompted the Australian Government's Corporations and Markets Advisory Committee (CAMAC) to investigate the issue in 2008. CAMAC's final report issued in December 2009 recommended against any substantive changes in the use of schemes to effect a change in corporate control. CAMAC's recommendation of retaining the status quo with respect to schemes notwithstanding their association with lower premiums for control is understandable given that, as noted earlier, there is no certainty that acquisitions effected via schemes would have been undertaken at a higher price or considered at all had they been required to be structured as takeover bids. Furthermore, the charge that schemes facilitate "regulatory arbitrage" in changes of control is difficult to sustain without providing motive for, and evidence of, target directors choosing to benefit themselves at the expense of their shareholders. Our study addresses this gap in the literature.

Our analysis draws on a sample of 108 SOA and 155 friendly takeovers completed for Australian Securities Exchange (ASX) listed firms between 2000 and 2011.[2] As takeover hostility is a key driver of target director turnover in acquisitions (Bugeja *et al.,* 2009) we only include friendly takeovers in our analysis. We use this approach since SOA are by their nature friendly and we aim to make our comparison of deals as similar as possible in terms of target firm attitude to the deal. We analyse the incidence of target firm directors holding a board seat on the merged entity one, two and three years subsequent to the acquisition. Our results show target firm directors are significantly more likely to be appointed to the acquiring firm board in SOA than in takeovers. This result holds both at the individual director level and using the proportion of the target firm board appointed to the board of the combined firm. For instance,

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[1] In practice, it is likely that deal structure, premiums and director retention are determined simultaneously as part of negotiations between the bidder and target firm. As a result, we cannot conclusively show whether scheme use leads to director retention or alternatively the promise of director retention leads to the deal being structured as a scheme. In our robustness testing (see section 6.2) we conduct simultaneous equation analysis which indicates that whilst SOA use is significantly related to director retention, the reverse association is insignificant.

[2] A takeover is classified as friendly if the initial recommendation of the target firm board is that shareholders accept the offer.

whilst 16% of target directors sit on the board of the acquirer at the end of the first financial year after a successful takeover bid, 24% of target directors do so in a SOA. These results are robust to controlling for endogeneity arising from the choice of acquisition method.

We also investigate if the proportion of the target firm directors appointed to the acquiring firm board is associated with better post- acquisition accounting and share market performance of the combined entity. We undertake this analysis because it could be argued that the higher rate of appointment of target directors in SOA is justified as it leads to higher subsequent performance. Our results conducted separately for the one, two and three years after the acquisition document no association between the performance of the merged entity and the appointment of target directors. The lack of a significant association between the appointment of target firm directors to the merged entity and post- merger performance holds for both SOA and takeover bids. These results indicate that the merged entity is no worse-off from appointing more target firm directors.

Our paper's principal contribution is to extend the results in Bugeja *et al.,* (2016) and address the empirical question of whether target directors are more likely to be appointed to the merged entity's board in SOA. Our results suggest directors in SOA trade-off a lower premium in return for being appointed to the board of the acquiring firm. From a legal and Australian policy perspective, the fiduciary obligations of directors to act in the best interest of the company make it questionable, at the very least, whether it is appropriate for a director to accept a seat on the merged entity as a condition for enabling a SOA.

More generally our study also contributes to prior literature on the extent managers' interests align with shareholders in contests for corporate control (Walkling and Long, 1984; Eddey and Casey, 1989; Henry, 2005). Much of this literature has focused on the shareholder wealth effects of managerial response to putative expressions of interest from potential acquirers. Our findings add to the evidence in Wulf (2004) and Qiu *et al.,* (2014) who show that target CEO retention is associated with lower takeover premiums. We document that the negative association between retention and premiums extends beyond the target firm CEO to other board members, and also influences the decision on how to structure the acquisition.

Our study also contributes to prior research on the turnover of target firm directors' post-acquisition (Harford, 2003; Bugeja *et al.,* 2009). Our results show target directors are more likely to be appointed to the acquiring firm's board the higher their ownership in the target firm and the higher the number of other board seats they hold. In addition, we find that the takeover

premium is negatively associated with the likelihood that a target director receives a board appointment with the bidder, also consistent with directors acting in their own interest. Lower bidding firm performance and higher growth opportunities are also positively associated with the probability a target director is appointed to the acquiring firm board.

Finally, this study also adds to prior literature which investigates the post- acquisition performance of the combined entity (Limmack, 1991, Agrawal *et al.,* 1992, Gregory, 1997, Mitchell and Stafford, 2000, Moeller *et al.,* 2005, Savor and Lu, 2009). This literature to date has not examined whether appointing target firm directors to the acquiring firm board improves takeover outcomes. For instance, it may be predicted that having the expertise of target firm directors on the board of the combined entity may assist the integration of the target firm into the group leading to higher performance. Our results however, indicate that there is no association between the appointment of target firm directors and the abnormal returns and accounting performance of the combined firm.[3]

The remainder of this study is structured as follows. The Australian regulatory environment governing corporate control changes is discussed in more detail in Section 2. Section 3 describes prior literature and outlines our main hypothesis, whilst Section 4 discusses our research method. Section 5 outlines our sample and provides descriptive statistics and Section 6 discusses the results of our analysis. The final section of the paper provides a conclusion and suggestions for future research.

2 Schemes of arrangement vs takeover bids: institutional arrangements

In Australia, merger and acquisition transactions are regulated by the Corporations Act 2001. Schemes of arrangement allow a company to enter into a binding agreement with either their creditors or shareholders. Schemes that result in a transfer of corporate control require the reconstruction of a company's share capital and are undertaken as either a cancellation scheme or a transfer scheme. Under a cancellation scheme all the shares not held by the bidding firm are cancelled with the result that the bidding firm becomes the sole owner. In contrast, under a transfer scheme the shareholders of the target firm sell their shares to the bidding firm. The end result under both types of scheme is identical: the bidding firm becomes entitled to 100% ownership of the target firm.

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[3] The evidence in Fich *et al.,* 2016 shows that the retention of the target firm CEO does not benefit the acquiring firm.

The implementation of a SOA requires the approval of both the target shareholders and the approval of the court. The court is involved initially to approve the calling of a meeting of target shareholders to vote on the implementation of the scheme agreement between the target and bidding firm. The terms of the proposed scheme are detailed in the SOA documentation. This document is also reviewed by the Australian Securities and Investments Commission (ASIC) which is permitted to make submissions to the Court on any issues of concern, or object to the approval of the scheme. If target shareholders vote in favour of scheme implementation the court is required to provide final approval before the SOA is given final effect. In practice, if shareholders approve a scheme it is unusual for ASIC to object or for the Court to withhold endorsement.[4]

Takeovers are regulated by Chapter 6 of the Australian Corporations Act 2001 and do not require the involvement of the Court or ASIC. A takeover involves the bidding firm making an offer directly to target shareholders either on or off market. The Corporations Act requires both the bidder and target firm to provide a range of disclosures in documents sent to target firm shareholders and ASIC (i.e., a Bidder and Target statement).

There are a number of key differences between schemes and takeovers. Firstly, SOA allow structural flexibility in arranging the transaction. For example, a scheme may involve a compromise negotiation position in which the terms favour either or both parties in order to reach a final settlement (Damian and Rich 2009). In addition, schemes can be structured to achieve multiple objectives in a single transaction. These may include for instance, splitting the assets of a company by demerging a division while transferring other parts of the organisation to an acquirer. As such, schemes are well suited to implementing complex mergers (Hughes 2003). In contrast, a takeover offer caters for basic takeover transactions (Damian & Rich 2009) involving a change of corporate control and are driven by the market price mechanism of supply and demand.

Another key difference between SOA and takeovers is the different threshold requirements in offer acceptance that need to be reached for the bidding firm to obtain 100% control. In a SOA if 75% or more of target shareholders vote in favour of the scheme the bidding firm gains 100% control of the target firm. This 'all or nothing' approach is allegedly beneficial to

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[4] The discussion in CAMAC's (2009) report on Members Schemes of Arrangement supports this observation. Pertinently, the CAMAC report notes "[o]n one judicial view, primary weight in a scheme should be given to those shareholders who vote on a proposal, as the apathetic shareholder who chooses not to vote upon a scheme should not be presumed to be antagonistic to the scheme or to warrant paternalistic protection" (p. 46).

bidders because it provides greater certainty in financing the acquisition (CAMAC, 2008). Furthermore, a SOA offers a specific date when the success or failure of the transaction will be known (i.e., the shareholder meeting date). This is in contrast to takeover bids where it is uncertain when (or if) offer acceptances reach 90% and compulsory acquisition may proceed.

A further point of distinction between SOA and takeovers is that takeovers are subject to the so called "Eggleston Principles", included in Chapter 6 of the Corporations Act 2001. These principles are designed to ensure that all target shareholders have a reasonable and equal opportunity to share in the benefits arising from the sale proceeds in the takeover (McConvill, 2006). The Eggleston principles do not apply to schemes but it can be argued that target shareholders in schemes are protected by the involvement of the Court and ASIC, however, as noted earlier, the efficacy of this protection has been questioned, particularly in view of schemes being associated with lower premiums for control (e.g., FINSIA 2006).

3. Prior literature and hypothesis development

Schemes vs takeovers

Bugeja *et al.,* (2016) undertake an empirical investigation of what drives the choice between schemes and takeovers. Their results indicate that scheme use is positively associated with acquiring firm leverage and target firm size. These findings are consistent with bidding firms preferring the 'all-or-nothing' outcome associated with schemes as it provides them greater certainty in negotiating finance for the acquisition of larger target firms. Their evidence also indicates that SOA use is associated with target firm ownership structure. In particular, schemes are used more often when the acquiring firm has a lower toehold in the target. Additionally, target firms with fewer substantial shareholders are more likely to be acquired in schemes, consistent with reduced close monitoring making it more feasible for bidding firms to insert a wedge between the interest of target firm shareholders and directors.

Bugeja *et al.,* (2016) also find that schemes are associated with the payment of a significantly lower premium than takeovers. Their finding is robust to controlling for endogeneity using both a Heckman (1979) two-step procedure and adopting propensity score matching. That study however, does not address why target firm directors enable a change of control via a scheme at a premium lower than that obtained on average from a takeover bid. This study addresses the potential personal incentives directors have to agree to structure the deal as a SOA.

Motives for target director actions in takeovers

Walkling and Long (1984) are among the first to note the substantial conflict of interest between shareholders and target firm directors in a takeover. Whilst directors have a fiduciary responsibility to recommend a takeover offer if it is in the best interest of their shareholders,[5] directors are likely to find they are unemployed if the takeover is successful. This tension motivates two competing hypotheses about the reaction of target firm directors and executive to a takeover offer: the shareholder welfare hypothesis and the managerial welfare hypothesis.

Walkling and Long (1984) investigate manager's resistance to takeover bids in a sample of U.S. takeovers and find contrary to the shareholder welfare hypothesis no association between takeover hostility and takeover premiums. Consistent with managerial self-interest being the primary driver of directors' receptiveness to a takeover bid they find bid resistance is negatively related to the change in managerial wealth arising from the acquisition. They also report that managers of the target are more likely to be employed post- acquisition by the bidder in friendly takeovers.

In Australia, Section 180 of the Corporations Act requires directors to exercise their powers and discharge their duties with the degree of care and diligence that a reasonable person would exercise. Additionally, Section 182 states that a director must not improperly use their position to gain an advantage for themselves. Eddey and Casey (1989) test the shareholder and managerial welfare hypotheses using Australian data. In contrast to Walkling and Long (1984), they find a significant positive association between the takeover premium and the recommendation of takeover acceptance by the target firm board. In addition, the ownership of the target firm directors and the directors' wealth change from the acquisition are not associated with the target board's recommendation to shareholders. Maheswaran and Pinder (2005) also using Australian data find target firm hostility is not significantly associated with takeover premiums. They find larger firm size and lower firm growth increase the likelihood that the target firm board will recommend rejection of the takeover.

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[5] The Corporations Act (Section 181) requires directors to act in the company's interest, which would seem to include more than the interests of shareholders. However, shareholders are clearly recognized as a key stakeholder in changes of corporate control as evidenced by the requirement for them to approve any SOA put to them by management. As such, directors have at least an implied duty not to act against the interests of shareholders.

Henry (2005) presents Australian findings which diverge from those reported in Eddey and Casey (1989). Consistent with Walkling and Long's (1984) US findings, Henry reports that target director ownership and the potential wealth gain of directors are positively associated with an accept recommendation. A number of other studies also document that takeover hostility is associated with lower target firm director ownership (Shivdasani, 1993, Cotter and Zenner, 1994, Holl and Kyriazis, 1996 and O'Sullivan and Wong, 1998). Furthermore, Cotter *et al.,* (1997) and O'Sullivan and Wong (1998) report that takeover resistance is not associated with target board independence. In summary, the weight of evidence on target board recommendations favours the proposition that target directors' recommendations are positively associated with their potential wealth gain from the bid succeeding.

It is commonly argued that one motivation for takeovers is to remove managers that are either underperforming or not otherwise acting in shareholders' interest (e.g., Shliefer and Vishny 1997). An implication of this conjecture is that target firm managers and directors lose their positions post- acquisition and this likelihood is greater in poorly performing firms. This expectation is consistent with the notion of ex-post settling-up discussed in Fama (1980), whereby target directors' reputation and past performance in advancing shareholders' interests affects their employment prospects subsequent to a successful takeover.

Several studies have tested the expost settling up hypothesis by analysing the post- takeover employment of target firm CEOs. Using US data, Martin and McConnell (1991) and Kini *et al.,* (2004) find there is a significant increase in the rate of turnover of target firm CEOs following a successful acquisition and that the rate of turnover is higher for poorly performing targets. Martin and McConnell (1991) however find takeover hostility does not make a difference to the rate of CEO turnover, whilst Kini *et al.,* (2004) find takeover hostility increases the proportion of CEOs that are replaced.

Hartzell *et al.,* (2004) also find an increased rate of target firm CEO turnover post-acquisition in the US. Furthermore, consistent with CEOs acting in their own interest they find evidence that CEOs are willing to trade off a lower premium in return for being offered a position with the bidding firm post- takeover. Similar results are documented in Wulf (2004) and Qui *et al.,* (2014). Kennedy and Limmack (1996) examine CEO turnover after UK takeovers and find similar to the US that CEO turnover is greater for poorly performing targets. They also find that turnover is positively associated with takeover premiums but unrelated to takeover hostility.

Other studies have examined the turnover of target firm directors after a successful takeover. Harford (2003) documents that in US takeovers 19% of insiders and 10% of grey and other directors are appointed to the acquiring firm board after a successful takeover. He finds that inside directors are more likely to be appointed to the bidding firm board in friendly takeovers and when the target is performing well. These variables are however unrelated to outside director turnover. UK results reported in Franks and Mayer (1996) show that director turnover in successful takeovers is related to takeover hostility but unrelated to target firm performance.

Australian evidence in Bugeja, *et al.,* (2009) reveals that the vast majority of directors and CEOs are removed after a successful acquisition. The results show that director turnover is negatively related to target firm performance, the number of other directorships that a director holds and an indicator variable highlighting whether a director cross-sits on the board of the bidder. They find an insignificant association between the takeover premium and the likelihood of director turnover.

Hypothesis development

During the negotiation phase of a corporate acquisition there are many matters which need to be agreed upon between the acquiring and target firm management. These items include matters such as deal structure, offer price and the post- takeover employment opportunities for target firm directors within the merged entity. It is highly likely that during the course of these negotiations a number of trade-offs are agreed to between the two sets of parties. The evidence in Bugeja *et al.,* (2016) indicates that SOA are associated with the payment of a significantly lower premium to target shareholders. The main research question addressed in this study, is whether as part of this bargaining process the target firm board agrees to structure the deal as a SOA and accept a lower premium in return for a private benefit (i.e., a future board seat).

A number of prior studies present evidence consistent with the managerial welfare hypothesis and show that target firm CEOs trade-off premiums in return for a board seat post- acquisition (Wulf, 2004 and Qui *et al.,* 2014). The Australian evidence in Bugeja, *et al.,* (2009) however shows director appointments to the merged entity board are unrelated to takeover premiums. That study however does not distinguish between SOA and takeovers. Given that schemes by their inherent nature require the cooperation of the target firm board they present target directors with much greater bargaining power over the bidding firm than

exists in a takeover. It is plausible that directors seeking to advance their own self-interest (Hartzell *et al.,* 2004) use this heightened bargaining position to secure post- deal employment opportunities on the merged entity board in return for agreeing to structure the deal as a scheme. For a bidding firm this may be a worthwhile trade-off as it reduces the threshold for success to 75% and lowers the consideration required to complete the acquisition. In contrast, in a takeover bid because the bidding firm is able to make an offer directly to shareholders irrespective of the support of the target firm board the negotiation power of target directors is reduced.

As a counter argument, the shareholder welfare hypothesis argues that target directors in mergers act in the interest of their shareholders (Walkling and Long, 1984). Such a hypothesis predicts that acquisitions are negotiated as schemes to allow target shareholders to realise a premium that would otherwise not be forthcoming. As such, it would be expected that directors receive no private benefit from agreeing to structure the deal as a scheme and as a result the rate of appointment of directors to the merged entity board will be similar to that in takeovers. Given these conflicting predictions we do not state a formal hypothesis.

It should be noted that in testing for an association between director appointments post- deal completion and acquisition structure we are unable to specify the direction of the causal relationship. Without being present at the private negotiations between the two parties it is not possible to determine if deal structure choice influences director retention or the promise of retention drives deal structure choice. In all likelihood there is a degree of causality in both directions.[6] For the purpose of this study we contend that determining the exact direction of the association is less important than establishing whether there is evidence of an association.[7] In particular, documenting an association would be consistent with the self-dealing of target directors and would be of interest to target shareholders and corporate regulators.

4. Research method

Director-level

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[6] Similarly, it is not possible to determine if a lower premium influences director retention or the promise of a board seat leads to target directors accepting a lower premium.
[7] We attempt to address possible reverse causality in additional testing (section 6.1).

To test for an association between SOA and director retention we estimate the following logit regression model which includes controls for a number of director related characteristics. We also control for takeover premiums and target and bidder firm performance and growth.[8]

$$ONBOARD = \alpha_i + \beta_1 SOA + \beta_2 BDSIZE + \beta_3 EXECDUM + \beta_4 CEODUM + \beta_5 CHAIRDUM +$$
$$\beta_6 OTHBDSTS + \beta_7 CROSSIT + \beta_8 DIROWN + \beta_9 PREM30 + \beta_{10} TROA + \beta_{11} TMB +$$
$$\beta_{12} RELSIZE + \beta_{13} BROA + \beta_{14} BMB + INDUSTRY + \varepsilon_i \qquad (1)$$

The dependent variable is an indicator variable coded as one if an individual target director holds a seat on the acquiring firm board subsequent to the acquisition. This variable is measured alternatively at three points in time: the first (*ONBOARDZERO*), second (*ONBOARDONE*) and third financial years post- deal completion (*ONBOARDTWO*). The main variable of interest is an indicator variable denoting acquisitions which are structured as a scheme (*SOA*).

We include a number of director-level corporate governance variables to control for the strength of a director's bargaining position in negotiating a position on the acquiring firm board. The first three control variables indicate respectively whether a specific director is an executive (*EXECDUM*), managing director/CEO (*CEO*), or chairperson on the target firm board (*CHAIRDUM*). We predict that the appointment of a target director to the acquiring firm board is greater for executive directors and CEOs, as their expertise is potentially of higher value to the acquiring firm subsequent to the acquisition. Bugeja *et al.,* (2009) however, find that CEO and executive directors of the target firm are no more likely to be appointed to the board of the bidding firm after a successful acquisition. It is also possible that the chairperson of the target firm board has greater bargaining power and this may influence their ability to negotiate a position on the acquiring firm board.

Our next control is an indicator variable (*CROSSIT*) highlighting target firm directors who already hold a board seat with the acquiring firm. These directors are predicted to be more likely to retain their board seat after deal completion. Bugeja *et al.,* (2009) find evidence consistent with this expectation. The results in Harford (2003) indicate that target directors that are blockholders are more likely to be appointed to the bidding firm board consistent with these directors having greater bargaining power. It is notable however, that Bugeja *et al.,*

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[8] We control for premiums as we aim to examine if the effect of deal structure is additional to the influence of lower premiums on director retention.

(2009) find this variable insignificant in Australia. We control for each director's ownership in the target firm using their individual percentage shareholding at the date of the takeover announcement (*DIROWN*). The next control is target firm board size (*BDSIZE*) at the date of the takeover announcement. As it is not practically feasible for the acquiring firm to appoint all target firm directors to their board post- acquisition, a larger target firm board size reduces the likelihood that any specific director is appointed.

We also include a variable to control for a director's reputation and experience. This variable is a count of the other (i.e., non-target) board seats held by a director at the date of the takeover announcement on ASX listed firms (*OTHBDSTS*). It is predicted that directors with more board seats have an increased likelihood of being appointed to the acquiring firm board. The results in Bugeja *et al.,* (2009) are partially consistent with this expectation. Alternatively, it may be argued that directors with a greater number of other board seats are already busy and are less likely to accept a board position on the merged entity.

We control for the takeover premium because a greater premium suggests more possible efficiency improvements after the acquisition from removing poorly performing managers (Kennedy and Limmack, 1996). Furthermore, Hartzell, *et al.,* (2004), report that target firm CEOs may negotiate a lower premium with bidders in return for being appointed to the acquiring firm board. The takeover premium is measured as the offer price less the target share price one month prior to the takeover announcement, divided by the target share price one month prior to the takeover announcement (*PREM30*).[9]

We also include controls for target firm performance and growth options prior to the acquisition using respectively the target firm return on assets (*TROA*) and the market-to-book ratio (*TMB*). If directors of poorly performing targets are disciplined through a change in corporate control it is predicted that there is a positive association between target firm performance and the probability a director is appointed to the acquiring firm board (Fama, 1980). Bugeja *et al.,* (2009) using target firm pre- takeover abnormal returns as a measure of performance find results consistent with this expectation. We also include a control for the relative size of the target to the bidding firm (*RELSIZE*) measured using the market capitalisation of each firm three months before the takeover announcement. A larger relative size of the target to bidder firm increases the bargaining power of the target and is predicted to lead to a greater likelihood that a director is appointed to the acquiring firm board. In

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[9] Results are consistent if we estimate takeover premiums using the target firm share price either two months or 15 days prior to the takeover announcement.

addition, the expertise of a target firm director is potentially more valuable where they have served on boards of larger firms (Masulis and Mobbs, 2014).

Finally, we include controls in model (1) for bidder firm performance and growth opportunities. Similar to the target variables, we measure performance using return on assets for the year prior to the takeover announcement (*BROA*) and growth opportunities using the market-to-book ratio at the end of the financial year prior to the deal announcement (*BMB*). An acquiring firm which has greater growth opportunities possibly has a greater need to expand their board to include directors with additional experience and expertise.

The model includes controls for industry fixed-effects through the inclusion of indicator variables for target firm two-digit GICS codes. In the interests of brevity the results on these variables are not reported. As this model is estimated at the director level each firm enters the regression multiple times. To control for potential serial correlation, standard errors are clustered by target firm and are also adjusted for heteroskedasticity.

Firm level models

To expand our testing we also estimate a firm-level model using a generalized linear model (GLM) which includes a number of revised corporate governance variables.[10] This firm-level model is summarized as:

$$PROP = \alpha_i + \beta_1 SOA + \beta_2 BDSIZE + \beta_3 EXECRATIO + \beta_4 TOTOTHBDSTS +$$
$$\beta_5 TOTDIROWN + \beta_6 TOTCROSSIT + \beta_7 PREM30 + \beta_8 TROA + \beta_9 TMB + \beta_{10} RELSIZE +$$
$$\beta_{11} BIDROA + \beta_{12} BIDMB + INDUSTRY + \varepsilon_i \qquad (2)$$

The dependent variable is calculated as the proportion of the target firm board which holds a board seat on the acquiring firm (*PROP*). Model (2) is estimated for the first, second and third years after the completion of the acquisition. The main test variable remains the indicator variable noting acquisitions conducted as a SOA.

The independent variables are similar to those included above, although we now re-specify these to be aggregate measures. For example, we include a variable which measures the proportion of the target firm board that are executive directors (*EXECRATIO*). Given the findings in Kini *et al* ., (1995), if boards dominated by insiders are less likely to discipline management, then the proportion of directors appointed to the bidding firm board may be

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[10] A GLM is used because the proportion of the target firm board which can be appointed to the bidding firm board is bounded at one and zero. The sensitivity of the results to the use of GLM is discussed below.

positively associated with board independence. We also recalculate our other variables to reflect: the total number of other board seats held by target firm directors (*TOTOTHBDSTS*); aggregate ownership of the target firm board (*TOTDIROWN*) and the total number of directors which cross-sit on the acquiring firm board (*TOTCROSSIT*). We expect these three control variables to be positively associated with the proportion of the target firm directors appointed to the acquiring firm board. The remaining variables in regression model (2) are consistent with those included in model (1). Model (2) continues to control for industry fixed-effects through the use of two-digit industry codes of target firms. Standard errors are adjusted for heteroskedasticity.

5. Sample and descriptive statistics

We use the Connect 4 Mergers and Acquisitions database to identify all takeovers and SOA for ASX listed targets between 2000 and 2011. This search identified 910 acquisitions. To arrive at our final sample, we exclude 301 acquisitions that are not successful as target firm directors are highly unlikely to be appointed to the board of an unsuccessful bidder (Bugeja *et al.,* 2009). We also remove 52 schemes which consisted of more complex transactions than a simple change of control.[11] We then exclude 226 acquisitions in which the acquiring firm is not publicly listed in Australia as we are unable to readily obtain data on the identity of directors of these firms post- acquisition. As discussed earlier, since SOA are by definition friendly deals we exclude 38 hostile takeovers as directors are unlikely to be appointed to the merged entity subsequent to these deals (Bugeja *et al.,* 2009). Finally, we exclude 30 acquisitions which are missing the data necessary to estimate our regression models. This leaves us with a sample of 263 acquisitions. This sample construction process is summarised in Table 1.

INSERT TABLE 1 HERE

Table 2 shows the breakdown of the sample between schemes and takeovers.
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INSERT TABLE 2 HERE

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[11] For example, if a SOA also involves the "spin-off" of a subsidiary the deal is excluded from the sample. This ensures we are comparing similar transactions in takeovers and schemes.

Approximately 41% of the acquisitions are conducted through the use of a SOA. The percentage of acquisitions structured as schemes varies from a low of 18% in 2005 through to a high of 53% in 2007. Table 2 also presents details on the target firm market capitalisation by year partitioned by schemes and takeovers. It is noticeable that over 50% of deals by target firm market value are completed using SOA. Furthermore, there is an increasing trend towards the use of schemes in the second half of the sample period with over 70% of deals as measured by size being organised as SOA in 2006, 2007 and 2009.

Table 3 provides details on the industry distribution of the sample (using the two-digit GICS code of the target firm) partitioned into SOA and takeovers. In the telecommunications and financial industries over half of deals are arranged as schemes. In contrast, there are no SOA in the utilities sector.

INSERT TABLE 3 HERE

The identity of the target and bidding firm directors at the date of the takeover announcement are obtained from the takeover and scheme documents lodged by the bidder and target firms with the ASX. We use the same documents to collect information on the offer price and the target and bidding firm director shareholdings at the date of the takeover announcement. The respective financial statements of the bidder and target firm are used to hand collect all required financial information to estimate the regression models.

To identify whether target firm directors are appointed to the acquiring firm board we manually check the annual report for the first year of consolidation of the target firm into the acquiring firm financial statements. We repeat the same process for the subsequent two financial years. The DatAnalysis Premium database is used as the main source of financial statements. Information on other directorships on listed firms held by target firm directors are obtained by manually searching for each director's name in the Connect 4 Boardroom database. Share prices needs to calculate market capitalisation and takeover premiums are obtained from the Core Research Database maintained by Sirca Limited.

Descriptive statistics for the variables included in the regression models are provided in Table 4. The Table also presents the results of a *t*-test or *Chi*-square test for whether there is any statistically significant difference between the variables across schemes and takeovers.

INSERT TABLE 4 HERE

The findings indicate that 19% of target firm directors hold a position on the acquiring firm board in the first year that the target is consolidated into the acquiring firm's financial statements. As would be expected through director attrition, this percentage decreases to 17% and 14% in the second and third year after acquisition respectively. The percentage of directors that sit on the acquiring firm board is significantly higher in schemes for all three years after deal completion. As a basis of comparison, the percentage of directors that hold a board seat on both the acquiring and target firm at the date of the takeover is 15% for both schemes and takeovers (*CROSSIT*). A similar conclusion is reached when comparing the proportion of the target firm board which hold a seat on the acquiring firm board post-acquisition. The average percentage is respectively 20%, 18% and 15% in the three years commencing from the first year of consolidation. Once more, this percentage is significantly higher in schemes of arrangement when compared with takeovers.

Turning to the control variables, the level of target board ownership is relatively low with each director on average owning 3% of shares. The mean number of other board seats is just below one, although it is notable that the median number of other board seats is zero. The average target firm board size is 5.6 directors, with targets involved in schemes having a statistically larger board than targets involved in takeovers. This is likely driven by target firms in schemes being larger in size that those being acquired using a takeover Bugeja *et al.,* (2016). There is no statistical difference between schemes and takeovers for the remaining governance variables.

Similar to earlier studies we find that target shareholders receive substantial bid premiums (Bugeja and Walter, 1995, Bugeja, 2005, Chapple *et al.,* 2007). However, consistent with the results in Bugeja *et al.,* (2016) takeover premiums in SOA (17%) are significantly lower than those in takeovers (33%). The mean target firm return on assets is negative, whilst the average acquiring firm return on assets is positive suggesting acquiring firms are performing better than acquired firms. A comparison between schemes and takeovers indicates that there are no statistical differences for either acquiring firm return on assets or market-to-book ratios.

Table 5 presents a Pearson correlation matrix for the non-binary variables included in the regression models. Panel A presents correlations for director level variables, whilst the results in Panel B show the firm level correlations.

INSERT TABLE 5 HERE

The findings in Panel B show that the proportion of the target firm board which obtain board seats with the acquiring firm is positively associated with the total number of other board seats held by target firm directors and the total number of directors that cross-sit on the acquiring firm board. Total director ownership is positively correlated to the proportion of the board retained in the second and third years subsequent to deal completion. There is a significant negative correlation between the proportion of the board retained and: the takeover premium and bidding firm performance. The negative correlation between takeover premiums and target director appointment on the acquiring firm board is consistent with directors acting in their own self-interest. The correlation between the independent variables included in the regression analysis are below levels (0.60) which would cause multicollinearity concerns with the estimation of the models (Gujarati, 1995).

6. Results and additional testing

6.1 Main results

SOA and takeover premiums

Prior to presenting the results of our main analysis we estimate an OLS regression model to assess the association between takeover premiums and SOA. The variables included in this model are identical to those used in Bugeja *et al.,* (2016).[12] The results of this regression are presented in the first set of columns in Table 6. Similar to the findings in Bugeja *et al.,* (2016) we find takeover premiums are significantly lower in SOA. To extend this analysis we estimate the regression with the inclusion of *PROPZERO* as an additional test variable, and the interaction of this variable with *SOA* (*PROPZERO*SOA*). The results of this analysis are reported in the second column of Table 6. The results on both *SOA* and *PROPZERO* are statistically insignificant indicating that board appointments and SOA separately are unrelated to takeover premiums. Importantly, the interaction term between *SOA*PROPZERO* is negative and significant suggesting that lower premiums are received in SOAs when a greater proportion of the target firm board holds a board seat on the merged entity post- acquisition.

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[12] As our sample is restricted to friendly takeovers we replicate the friendly takeover only analysis in Bugeja *et al.,* (2016). The model of takeover premiums includes controls for: method of payment (*PAYT*); competing bidders (*MULT*); acquiring firm toehold (*TOEHOLD*); target and bidder firm leverage (*TDE* and *BDE*); target and bidding firm free cash flow (*TFCF* and *BFCF*); target and bidding firm size (*TSIZE* and *BSIZE*); and bidding firm aggregate percentage board ownership (*BOWN*). These variables are defined in Appendix 1.

INSERT TABLE 6 HERE

A possible concern with these regression results is the issue of endogeneity and more specifically selection bias. Selection bias occurs because choices made by firms (e.g., acquisition type) do not occur randomly (Tucker, 2010; Lennox *et al.,* 2012). The main methods for dealing with self-selection bias are the use of propensity score matching or the Heckman (1979) two–stage method.[13] To address if the takeover premium results are sensitive to controlling for self-selection we employ both approaches. We first estimate a probit regression model where the dependent variable is an indicator variable for acquisitions structured as a SOA. The variables employed in this model are similar to that used in Bugeja *et al.,* (2016).[14] The results of estimating this probit model are presented in Table 7. The findings of this model are similar to those reported in Bugeja *et al.,* (2016) except bidder leverage is insignificant.

INSERT TABLE 7 HERE

Using the results from this probit model we create a propensity-score matched sample by matching for each sample firm using a SOA, one control firm that does not structure their bid as an SOA but has the closest predicted probability of using a SOA. The results from estimating our OLS premium regression for this matched sample are presented in the last two columns of Table 6 and provide results consistent with the original findings. We also use the probit results to calculate the inverse-Mills ratio (*MILLS*) and re-estimate our regression including this additional variable as a control for selection bias. The results of this analysis (not tabulated) are consistent with the results presented.[15]

Board retention at the director level

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[13] A more detailed discussion of the issues associated with the use of the Heckman (1979) method and propensity score matching is provided in Tucker, (2010) and Lennox et al., (2012).

[14] Amongst a number of different ownership concentration measures Bugeja *et al*., (2016) find that only the number of substantial shareholders significantly influences the likelihood of a scheme. As such, we include that variable (*TSUBSHNO*) in our probit model.

[15] In additional testing we examine if the association between board retention and takeover premiums is conditional on board experience and payment method. To test this association we include an interaction variable between *PROPZERO* and respectively *PAYT* and *TOTOTHBDSTS* in the model. The results on these interaction terms are insignificant. We also test if industry relatedness of the target and bidder firms moderates the association between board retention and takeover premiums. We first construct an indicator variable (*SAMEIND*) if the target and bidder are in the same two-digit GICS code. This variable is then interacted with *PROPZERO* and our takeover premium model re-estimated. The coefficient on both *SAMEIND* and the interaction variable *SAMEIND*PROPZERO* are insignificant. Importantly, the coefficient on *SOA*PROPZERO* remain negative and significant in this additional testing.

Panel A of Table 8 presents the results of estimating regression model (1) for the full sample, whilst Panel B presents the results for the propensity score-matched sample to control for endogeneity. This regression is estimated at the director level and tests the likelihood that an individual director holds a board seat on the acquiring firm board for each of the three years subsequent to the acquisition.

INSERT TABLE 8 HERE

The Wald Chi-squared statistic indicates that the regression model is significant and the pseudo R-squared highlights that the model has reasonable explanatory power. For both the full and propensity score-matched samples the results indicate that directors in schemes are significantly more likely to hold a position on the acquiring firm board for the first and second years after the completion of the deal. To assess the economic significance of our findings we calculate the marginal effect on the probability of a director being appointed to the acquiring firm board in the first year after the acquisition. This analysis indicates that in a SOA a director is 7% or 6% more likely to be appointed to the merged board for the full sample and propensity score matched sample respectively.

An examination of the control variables indicates that directors that cross-sit prior to the announcement of the deal are more likely to retain their position after deal completion. The findings also indicate that directors that hold a greater number of non-target board seats are more likely to be appointed to the acquiring firm board. This result likely reflects the greater experience and expertise of these directors. Consistent with greater bargaining power we also document that directors with a higher personal ownership in the target firm are more likely to achieve a board appointment. We find no association between the likelihood of being appointed to the acquiring firm board and the status of the target firm director (i.e., CEO, chairperson or executive).

Interestingly, the findings show a significant negative relationship between takeover premiums and the likelihood a director holds a board seat with the acquiring firm in the first year after deal completion. This suggests that where target directors are able to extract a higher premium for their shareholders they are likely to be penalised by not being offered a seat on the board of the acquiring firm. Table 8 reports that target firm growth and performance and the relative size of the acquisition are insignificant. In contrast, the

acquiring firm is less likely to appoint target directors when they are better performing and are more likely to appoint target directors when they have higher growth opportunities.[16]

Board retention at the firm level

Table 9 presents the results of estimating generalised linear model (2) at the firm level. Similar to above, the model is estimated for each of the three years' post- acquisition. Panel A presents the results for the full sample, whilst Panel B presents the results for the propensity score matched sample.

<div align="center">**INSERT TABLE 9 HERE**</div>

Consistent with the results estimated at the director level, our findings for both the full sample and propensity score matched sample indicate that a greater proportion of the target firm board is likely to be appointed to the board of the bidder in SOA.[17] This effect occurs for each of the three years after the acquisition. The results on the governance and other control variables are largely consistent with those reported at the director level.[18] For example, we find that the proportion of the board retained is positively related to the total number of directors that cross-sit on the acquiring firm board and the total number of other directorships held be target firm directors. Interestingly, whilst individual director ownership explains board retention this result does not hold using total director ownership. As expected a larger target firm board reduces the proportion of target directors that are appointed to the board of the merged entity.[19]

6.2 Additional analysis and robustness testing

Reverse causality

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[16] A modified version of model (1) which includes only target firm corporate governance variables as controls provides consistent results to those shown in Table 8.

[17] For the firm level analysis we also employ a Heckman (1979) two-stage approach using the findings in Table 7 as the first-step to calculate the inverse Mills ratio and OLS regression for the second stage. We acknowledge that the second stage regression is potentially mis-specified due to the use of the proportion as the dependent variable. The results from this testing (untabulated) are largely consistent with those presented in Table 9 with SOA being significantly positively associated with the proportion of the target firm board in each of the three years after the acquisition.

[18] In additional testing, we include in the estimation of models (1) and (2) an indicator variable denoting takeovers in which cash is used exclusively as the method of payment. The inclusion of this variable does not change the conclusions from our analysis. The method of payment variable is significant and negatively related to target direct appointment on the acquiring firm board for the first and second years after the acquisition.

[19] In unreported analysis we construct our propensity score matched sample using only the results of a probit regression comprising the significant variables reported in Table 7. The conclusions from estimating models (1) and (2) for this alternative sample are unchanged from those presented.

A potential concern with our findings is the possibility of reverse causality since the choice to structure a deal as a SOA may be driven by target director retention rather than the effect occurring in the opposite direction. Although, we contend that a regulatory concern of director self-dealing exists irrespective of the precise direction of the relationship, we test for the possibility for reverse causality using a three-stage simultaneous equations framework. The systems of models we estimate include model (2) and the probit model used to predict SOA shown in Table 7. In the model predicting SOA we include *PROPZERO* as an additional endogenous explanatory variable. The results are reported in Table 10.

INSERT TABLE 10 HERE

The findings show that *PROPZERO* has a positive but insignificant coefficient in explaining the choice to structure a deal as a SOA. In contrast, *SOA* has a positive and significant association with the proportion of directors on the merged entity board. Overall, these results are consistent with deal structure significantly influencing the decision to appoint directors to the merged firm board rather than this association occurring in the reverse direction.

Use of a linear probability model for director level analysis

The director level analysis is estimated using a logit regression. As a robustness check we re-estimate the model using a linear probability model (LPM). The significance of the SOA variable when estimating the model using LPM (not tabulated) is increased in comparison to the results shown in Table 8. Specifically, the SOA variable is positive and significant for each of the three years post acquisition at the 1%, 5% and 10% levels respectively commencing from the first year after deal completion.

OLS and tobit models for firm level analysis

Although a GLM is appropriate when the dependent variable is a proportion we assess whether our results at the firm level are robust to using both OLS regression and a Tobit model. These findings (not tabulated) continue to indicate that the proportion of directors retained on the acquiring firm board is significantly greater in SOA for the three years' post-acquisition. The conclusions from the findings on the control variables are also largely unchanged, although the coefficient on total target firm board ownership is positive and significant using the Tobit model.

Schemes and takeover competition

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The results in Bugeja *et al.,* (2016) document lower premiums in SOA. Although, not the primary focus of this study it is possible that lower premiums in SOA are driven by less competition for target firms in SOA. This conclusion would be consistent with earlier research (Varaiya, 1987 and Gilberto and Varaiya, 1989) which documents takeover competition is positively associated with offer premiums. To empirically test whether there is less competition for target firms in SOA we estimate a multivariate logit regression model with the dependent variable coded as one if there is more than one simultaneous bidder for a target firm and zero otherwise.[20] This analysis is conducted for both the full sample and propensity score matched sample. The results of this model (not tabulated) provide a negative but insignificant coefficient on *SOA* inconsistent with there being a different rate of competition across deal type.

Influence of cross-sitting directors

Our results indicate that directors that cross-sit on the target and bidder board pre-acquisition are more likely to retain their board seat after deal completion. To examine if this positive association only exists for SOAs we partition our sample by deal type and estimate regression models (1) and (2) separately for each group. The results of this analysis (not tabulated) show a positive and significant association between director retention and *CROSSSIT* for both SOAs and takeovers at both the firm and director level.

Attitude of the target firm board

As described above our analysis is conducted using SOA and friendly takeover bids. We adopt this approach since SOA are by definition friendly and we aim to make our comparison of deals as similar as possible in terms of target firm attitude. To determine if the results presented are sensitive to inclusion of both hostile and friendly takeover bids we re-estimate our tests with the inclusion of both hostile and friendly takeover bids.[21] The conclusions from this additional testing are consistent with the results presented and document a higher rate of director appointment to the merged entity board in SOA.

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[20] The control variables included in this model are: method of payment (*PAYT*); acquiring firm toehold (*TOEHOLD*); target and bidder firm leverage (*TDE* and *BDE*); target and bidding firm free cash flow (*TFCF* and *BFCF*); target and bidding firm size (*TSIZE* and *BSIZE*); target and bidding return on assets (*TROA* and *BROA*); target and bidding firm market to book ratio (*TMB* and *BMB*); takeover premium (*PREM30*); an indicator variable denoting a break-fee payable by the target firm (*BFEE*) and bidding firm aggregate percentage board ownership (*BOWN*).

[21] Takeover attitude is determined using the initial recommendation of target firm directors, with takeovers classified as friendly if the original recommendation is takeover acceptance.

Post-acquisition performance of the combined firm and director appointments

Our findings indicate that SOA are associated with a higher rate of target director appointments to the board of the merged entity. Arguably a possible justification for the higher rate of appointment of target firm directors in SOA is that there is an additional need for their expertise and experience post-merger compared with takeovers.[22] If this is the case, it would be predicted that the performance of the merged entity after the acquisition would be positively associated with the proportion of the target directors appointed to the acquiring firm board. To test this assertion we estimate the following OLS regression model:

$BHAR = \alpha_i + \beta_1 PROPZERO + \beta_2 SOA + \beta_3 SOA*PROPZERO + \beta_4 PREM30 + \beta_5 PAYT + \beta_6 MULT + \beta_7 RELSIZE + \beta_8 TROA + \beta_9 TMB + \beta_{10} BFCF + \beta_{11} BROA + \beta_{12} BDE + \beta_{13} BMB + \beta_{14} BOWN + INDUSTRY + YEAR + \varepsilon_i$ (3)

The dependent variable is measured alternatively as the buy-and-hold abnormal return (*BHAR*) over the one (*1YR*), two (*2YR*) and three years (*3YR*) commencing six months after the takeover announcement. We use two alternative reference groups to calculate abnormal returns. The first method (i.e., industry-adjusted) is a variation of the model proposed by Barber and Lyon (1997) and matches each sample firm with a control firm within the same industry (using 2-digit GICS codes). The control firm chosen is that with the closest market capitalisation six months after the takeover announcement. The second method (i.e., size-adjusted) follows the approach of Brown and da Silva Rosa (1998). All acquiring firms are matched with a portfolio of control firms using the same size decile based on market capitalisation six months after the takeover announcement. Average returns for this control portfolio are then used to calculate abnormal returns. Only firms that survive over the entire measurement period are used within this control portfolio.[23]

The main test variables used in regression model (3) are the SOA indicator variable (*SOA*), the proportion of the target firm board holding a board seat on the combined group at the end of the first financial year after the takeover (*PROPZERO*) and an interaction term between these two variables (*SOA*PROPZERO*). We add indicator variable controls for whether there are

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[22] We acknowledge an anonymous reviewer for making this suggestion. Whilst there is no prima facie theoretical reason to expect directors' expertise is more valuable in SOAs, we further investigate this conjecture as it provides an alternative explanation to self-dealing for the higher rate of target director board appointments in SOA.

[23] The median size adjusted BHARs are respectively: -19% (1 year) -47% (2 years) and –74% (3 years). The median industry adjusted BHARs are respectively: -2% (1 year) -9% (2 years) and –20% (3 years). For both measures of BHARs the median is significantly higher for SOA only in the first year after the acquisition.

multiple simultaneous bids for the target firm (*MULT*) and whether the payment method used in the acquisition is exclusively cash (*PAYT*). Prior research has generally documented poor performance of acquirer firms after an acquisition (Limmack, 1991, Agrawal *et al.,* 1992, Gregory, 1997, Mitchell and Stafford, 2000, Moeller *et al .,* 2005) with the greatest underperformance being exhibited for acquirers offering stock as payment (Shleifer and Vishny, 2003, Dong *et al.,*, 2006, Savor and Lu, 2009). We also control for the ownership of the acquiring firm board at the date of the takeover announcement (*BOWN*) as bidding firms with low ownership may make poorer acquisitions due to agency problems. The remaining control variables included in model (3) are as previously defined.

The findings (untabulated) show that there is no association between post-acquisition BHARs and the proportion of the target firm board appointed to the board of the merged group. Although, SOA have significantly higher returns in the one-year subsequent to the acquisition,[24] this result does not differ if a greater percentage of the target firm directors receive a board appointment on the merged entity as the coefficient on the interaction term *SOA*PROPZERO* is insignificant.[25] This superior returns in SOA is possibly driven by the better target firm performance in schemes prior to the bid documented in Table 4. The results on the control variables are largely insignificant and often provide inconsistent conclusions between the two reference samples used to calculate BHARs. There is limited evidence that returns are positively associated with premiums, cash payment and target firm performance. The results suggest growth acquirers (*BMB*) have higher post-acquisition performance which runs counter to the results in Rau and Vermaelen (1998). [26][27]

As an additional test, we redefine the dependent variable in model (3) as the change in bidding firm ROA from the year prior to the acquisition to alternatively the first, second and third year of target firm consolidation. The results of this analysis (not tabulated) show no significant association between the change in accounting performance post- acquisition and the proportion of the target firm directors appointed to the acquiring firm board. Although,

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[24] SOA also have significantly higher returns in the second year using industry-adjusted returns.

[25] We also estimate model (3) using the propensity score matched sample. The findings for this reduced sample also show no association between the appointment of target firm directors and the performance of the merged group after the acquisition and the interaction term remains insignificant.

[26] We also estimate model (3) using the proportion of target directors on the board of the merged group one and two years after the acquisition. This analysis continues to show no association between post-acquisition performance and the proportion of target directors who receive board seats on the acquiring firm.

[27] The conclusions from our findings are similar if we control for self-selection using the Heckman (1979) procedure.

SOA have significantly higher ROA in the first year after acquisition this is not associated with the percentage of directors appointed to the board.[28]

We acknowledge that there is a possible alternative explanation for our insignificant findings on the association between post- acquisition performance and director retention. It is conceivable that SOA would have performed worse than takeovers in the absence of the higher rate of director appointments and it is the individual expertise and experience of the directors appointed in SOA which results in their performance being indistinguishable. This alternative explanation is difficult to rule out without defining the specific types of expertise which are more likely to be valuable in SOA and we leave this analysis to future research. To partially address these concerns however, we firstly restrict our analysis to schemes and assess if performance is related to the proportion of directors appointed to the acquiring firm board. The results of this analysis (not tabulated) continue to find no association between board appointments and performance. Secondly, we include as an additional control variable in our original post-acquisition performance analysis the number of other directorships held by the appointed directors. This additional variable should partially control for the appointed directors reputation and experience. The conclusions from our results are robust to the inclusion of the new variable as the interaction term between schemes and board appointments remains insignificant. Furthermore, the coefficient on this additional variable is largely insignificant.[29]

7. Conclusions

The Australian Corporations Act, 2001 allows firms to structure a change in corporate control as either a competitive takeover bid or as a scheme of arrangement. In more recent times, SOA have increasingly been used to acquire publicly listed targets. Due to differences in the threshold required to achieve full ownership of the target firm, SOA have been subject to public criticism that they disadvantage target firm shareholders through the payment of lower takeover premiums. Recent empirical evidence in Bugeja *et al.,* (2016) is consistent with these criticisms. This study extends the findings in that paper to assess why target directors are

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[28] In additional testing we use industry-adjusted ROA (using two digit bidder GICS) and find similar results. The results are also unchanged using the propensity-score matched sample and the Heckman (1979) two-step approach.

[29] The only exception to this finding is a significant positive coefficient on the number of other board seats of appointed directors using the three year size adjusted abnormal returns.

motivated to structure a deal as a SOA which results in their shareholders receiving a lower premium.

Our findings suggest that target firm directors facilitate a SOA in return for a board seat post-acquisition. Whilst, target shareholders in SOA still receive significant premiums they are likely to be concerned with the possibility that target directors receive a private benefit for agreeing to the transaction. Our results are robust to controlling for endogeneity and reverse causality and indicate that the appointment of target firm directors to the board of the combined entity does not improve or worsen post- acquisition performance. Consistent with target directors acting in their self-interest we also find a negative association between takeover premiums and the likelihood of a director receiving a board seat with the acquiring firm. Target firm director appointments to the board of the acquiring firm board are also found to be positively associated with director expertise acquired from positions on other boards.

We acknowledge that a weakness in our analysis is that premiums, deal type and director retention are likely to be determined simultaneously during negotiations between the bidder and target firm. Thus whilst out study can document an association we are unable to be definitive as to causality in any specific direction. Despite this weakness the findings in this study are likely to be of interest to regulators in any future review of Australia's Corporations Act and in particular the mechanisms for undertaking a change in corporate control.

Future research can study in more detail other differences between takeover and schemes. Furthermore, it may be worthwhile repeating the analysis in this study in other jurisdictions that provide target and bidder firms a choice in acquisition structure to determine if directors are willing to trade-off shareholders' interests for their own. An additional area for future research is to further investigate the association between specific types of director expertise and director retention post- acquisition and their influence on merged entity performance.

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Table 1 Sample Construction

Deals announced between 2000 and 2011 on the Connect 4 Mergers and Acquisitions database		910
Exclusions:		
Deals not completed	301	
Takeovers where the initial recommendation was rejection	38	
Schemes which involve more complex transactions than control change	52	
Acquiring firms which are not publicly listed	226	
Firms with missing data needed to estimate the regression model	30	(647)
Total sample size to estimate regression model (2)		**263**

Table 2: Distribution of schemes and takeovers included in the sample

Year	Takeovers No.	Schemes No.	Total	% of no. in schemes	Takeovers Mkt cap $'m	Schemes Mkt cap $'m	Total Mkt cap $'m	% of Mkt cap in schemes
2000	13	14	27	52%	6,862	8,758	15,621	56%
2001	17	12	29	41%	4,091	3,431	7,522	46%
2002	9	7	16	44%	208	2,084	2,293	91%
2003	9	4	13	31%	4,472	1,906	6,377	30%
2004	10	11	21	52%	2,375	4,441	6,816	65%
2005	14	3	17	18%	12,950	2,881	15,831	18%
2006	22	12	34	35%	3,097	11,783	14,880	79%
2007	15	17	32	53%	3,008	18,923	21,931	86%
2008	11	9	20	45%	10,319	20,875	31,194	67%
2009	11	10	21	48%	275	817	1,092	75%
2010	11	5	16	31%	2,732	1,223	3,955	31%
2011	13	4	17	24%	1,308	2,016	3,324	61%
	155	108	263	41%	51,698	79,139	130,837	60%

Table 3: Industry Distribution of the Sample

GICS Industry Sector	GICS Industry Code	Takeover	SOA	Total	SOA Percentage
Energy	10	13	7	20	35%
Materials	15	45	27	72	38%
Industrials	20	14	6	20	30%
Consumer Discretionary	25	26	8	34	24%
Consumer Staples	30	6	5	11	45%
Health Care	35	8	7	15	47%
Financials	40	24	38	62	61%
Information Technology	45	12	6	18	33%
Telecommunication Services	50	4	4	8	50%
Utilities	55	3	0	3	0%
Total		155	108	263	41%

Table 4: Descriptive statistics for the variables included in the model determining the choice of deal type

Variable	N	Mean	Median	Mean-SOA	Mean - Takeover	Stat Diff
Director-level						
ONBOARDZERO	1,463	0.19	0.00	0.24	0.16	4.03***
ONBOARDONE	1,463	0.17	0.00	0.21	0.13	4.06***
ONBOARDTWO	1,463	0.14	0.00	0.17	0.12	2.54**
EXECDUM	1,463	0.22	0.00	0.21	0.22	-0.64
CEODUM	1,463	0.12	0.00	0.11	0.13	-1.37
CHAIRDUM	1,463	0.17	0.00	0.15	0.18	-1.47
OTHBDSTS	1,463	0.92	0.00	0.92	0.91	0.20
DIROWN	1,463	0.03	0.00	0.02	0.03	-0.29
CROSSIT	1,463	0.15	0.00	0.15	0.15	0.13
Firm level						
PROPZERO	263	0.20	0.00	0.25	0.17	2.20**
PROPONE	263	0.18	0.00	0.23	0.14	2.25**
PROPTWO	263	0.15	0.00	0.19	0.13	1.74*
BDSIZE	263	5.56	5.00	6.06	5.21	3.85***
EXECRATIO	263	0.22	0.20	0.22	0.22	-0.01
TOTOTHBDSTS	263	5.09	4.00	5.59	4.74	1.56
TOTDIROWN	263	0.15	0.04	0.16	0.14	0.31
TOTCROSSIT	263	0.86	0.00	0.93	0.82	0.44
PREM30	263	0.27	0.21	0.17	0.33	- 3.89***
TROA	263	-0.05	0.06	0.05	-0.12	1.69*
TMB	263	2.33	1.45	2.33	2.32	0.03
RELSIZE	263	1.84	0.23	3.83	0.46	1.15
BROA	263	0.01	0.05	0.01	0.01	0.10
BMB	263	7.61	1.87	3.55	10.44	-0.93

* is significant at 10%, ** is significant at 5%, and *** is significant at 1%. Stat diff is a *t*-test for continuous and *Chi²*-test for binary variables. All variables are defined in Appendix A.

Table 5 Pearson Correlation Matrix for the non-binary variables included in the regression models

Panel A:	*OTHBDSTS*	*DIROWN*	*BDSIZE*
Director level			
OTHBDSTS	1		
DIROWN	-0.01	1	
BDSIZE	0.02	**-0.09**	1

Correlations that are significant at 10% or lower are denoted in bold text. All variables are defined in Appendix A.

Table 5 Pearson Correlation Matrix for the non-binary variables included in the regression models – continued

Panel B:	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Firm level														
1. PROPZERO	**1**													
2. PROPONE	**0.88**	1												
3. PROPTWO	**0.83**	**0.93**	1											
4. BDSIZE	-0.05	-0.02	-0.06	1										
5. EXECRATIO	**-0.11**	-0.07	-0.09	**-0.12**	1									
6. TOTOTHBDSTS	**0.20**	**0.16**	**0.12**	**0.42**	**-0.10**	1								
7. TOTDIROWN	0.09	**0.12**	**0.12**	-0.03	0.06	**-0.11**	1							
8. TOTCROSSIT	**0.46**	**0.49**	**0.42**	**0.22**	-0.07	**0.26**	0.07	1						
9. PREM30	**-0.16**	**-0.15**	**-0.12**	-0.13	0.08	**-0.11**	0.01	-0.09	1					
10. TROA	-0.00	-0.00	-0.07	**0.11**	-0.04	0.06	-0.05	0.08	-0.03	1				
11 TMB	-0.07	-0.07	-0.03	0.08	0.09	-0.06	-0.07	-0.05	0.13	**-0.14**	1			
12 RELSIZE	-0.02	-0.02	-0.03	0.09	-0.08	0.02	-0.02	-0.03	-0.05	0.01	-0.01	1		
13 BROA	**-0.18**	**-0.15**	**-0.14**	0.07	-0.00	0.02	**-0.13**	0.04	-0.00	0.03	0.05	0.01	1	
14 BMB	**-0.17**	**0.18**	**0.20**	-0.02	-0.00	-0.02	-0.01	0.00	**-0.10**	**-0.20**	0.06	-0.01	-0.02	1

Correlations that are significant at 10% or lower are denoted in bold text. All variables are defined in Appendix A.

Table 6

OLS regression testing the association between takeover premiums and deal type

This table presents the results of an OLS regression examining if schemes of arrangement are associated with lower takeover premiums. The dependent variable is the takeover premium calculated as the offer price minus the target share price one month before the takeover announcement. All variables are defined in Appendix A.

	OLS		*OLS*		*PROPENSITY MATCHED*		*PROPENSITY MATCHED*	
	Coef.	*t*-stat	Coef.	*t*-stat	Coef.	*t*-stat	Coef.	*t*-stat
Intercept	0.75	3.21***	0.64	2.34***	0.40	1.43	0.11	0.36
SOA	-0.08	-1.86*	0.00	0.08	-0.08	-1.76*	0.06	0.85
PROPZERO	-	-	0.02	0.15	-	-	0.06	0.46
*PROPZERO*SOA*	-	-	-0.29	-1.89*	-	-	-0.33	-1.98**
PAYT	-0.00	-0.02	-0.01	-0.25	-0.01	-0.18	0.02	0.38
MULT	-0.00	-0.05	-0.03	-0.44	0.02	0.36	-0.00	-0.01
TOEHOLD	0.12	1.11	0.23	1.51	0.40	1.14	0.84	1.87*
TOTDIROWN	0.04	0.83	0.10	1.64	0.00	0.08	0.08	1.05
TROA	0.02	0.83	0.04	1.27	-0.01	-0.64	0.02	0.83
TMB	0.01	2.62**	0.01	1.68*	-0.01	-0.05	0.00	0.06
TDE	0.00	1.47	0.01	1.34	0.01	1.41	0.01	1.61
TFCF	-0.13	-1.52	0.10	0.83	-0.13	-1.54	0.08	0.65
TSIZE	-0.07	-4.44***	-0.09	-4.89***	-0.05	-3.23***	-0.07	-3.47***
BROA	0.12	1.19	0.02	0.12	0.22	1.93*	0.09	0.60
BMB	-0.00	-6.75***	-0.00	-4.71***	-0.00	-0.42	0.00	0.72
BDE	0.00	1.23	0.00	1.07	0.00	0.05	0.00	0.26
BFCF	-0.10	-0.56	-0.12	-0.54	-0.36	-1.70*	-0.26	-1.03
BSIZE	0.04	3.30***	0.06	4.06***	0.04	2.94***	0.06	3.57***
BOWN	-0.20	-1.78*	-0.18	-1.21	-0.21	-1.57	-0.17	-0.89
N	263		263		216	-	216	
Year fixed effects	Y		Y		Y		Y	
Industry fixed effects	Y		Y		Y		Y	
F-stat	22.43***		7.25***		2.73**		3.27***	
R-squared	0.34		0.37		0.33		0.36	

* is significant at 10%, ** is significant at 5%, and *** is significant at 1%.

Table 7

Probit model of the choice of deal type

The table reports the results of a probit regression examining factors which influence the choice of whether to structure an acquisition as a SOA or takeover bid. The dependent variable is an indicator variable coded as one when the acquisition is a scheme. All variables are defined in Appendix A.

	Coefficient	z-stat
Intercept	-1.94	-1.64
TOEHOLD		-
	-8.13	4.43***
TSUBSHNO	-0.13	-2.21**
TOTDIROWN	0.19	0.67
TROA	0.09	0.74
TMB	-0.01	-0.41
TDE	-0.04	-1.55
TFCF	-0.38	-0.95
TSIZE	0.20	2.90***
BROA	0.32	0.57
BMB	-0.00	-0.23
BDE	0.04	1.33
BFCF	0.12	0.14
BSIZE	-0.05	-0.89
N	263	
Pseudo R^2	0.35	
Year fixed effects	Y	
Industry fixed effects	Y	

* is significant at 10%, ** is significant at 5%, and *** is significant at 1%.

Table 8

Logit regression testing the likelihood a director has a board seat on the acquiring firm board

This table presents the results of a logit regression predicting the likelihood that an individual target firm director will hold a board seat on the acquiring firm board. The dependent variable is measured using alternatively the director information for the first (*ONBOARDZERO*), second (*ONBOARDONE*) and third years (*ONBOARDTWO*) the target firm is consolidated into the acquiring firm financial statements after a successful acquisition. All variables are defined in Appendix A.

Panel A	*ONBOARDZERO*		*ONBOARDONE*		*ONBOARDTWO*	
Full sample	Coef.	*z*-stat	Coef.	*z*-stat	Coef.	*z*-stat
Intercept	-1.97	-2.82***	-2.97	-2.61**	-3.12	-3.52***
SOA	0.63	2.34**	0.50	1.71*	0.30	1.07
BDSIZE	-0.06	-0.77	-0.02	-0.27	-0.09	-1.44
EXECDUM	-0.30	-1.04	-0.13	-0.48	-0.14	-0.46
CEODUM	0.41	1.26	0.27	0.91	0.25	0.76
CHAIRDUM	0.21	1.04	0.27	1.31	0.22	1.07
OTHBDSTS	0.26	3.76***	0.19	2.63***	0.16	2.56**
CROSSIT	3.04	9.90***	3.15	10.45***	2.68	9.46***
DIROWN	1.94	1.73*	2.28	2.61***	1.83	1.57
PREM30	-1.02	-2.10**	-0.65	-1.29	-0.23	-0.42
TROA	0.08	0.36	0.07	0.24	-0.07	-0.28
TMB	0.03	0.78	0.03	0.75	0.04	1.32
RELSIZE	-0.00	-1.10	-0.00	-1.23	-0.01	-1.28
BROA	-1.34	-5.11***	-1.21	-4.68***	-1.13	-3.88***
BMB	0.03	2.71***	0.04	2.91***	0.03	2.04**
N	1,463		1,463		1,463	
Wald Chi-squared	202.74***		180.25***		147.26***	
Pseudo R-squared	0.32		0.35		0.29	

* is significant at 10%, ** is significant at 5%, and *** is significant at 1%.

Table 8 - continued

Panel B Propensity matched	ONBOARDZERO		ONBOARDONE		ONBOARDTWO	
	Coef.	z-stat	Coef.	z-stat	Coef.	z-stat
Intercept	-2.68	-3.67***	-16.41	-14.28***	-15.50	-14.51***
SOA	0.56	1.79*	0.53	1.66*	0.30	0.88
BDSIZE	-0.05	-0.53	-0.01	-0.12	-0.12	-1.66*
EXECDUM	-0.39	-1.28	-0.03	-0.11	-0.02	-0.07
CEODUM	0.54	1.52	0.22	0.69	0.08	0.23
CHAIRDUM	0.06	0.25	0.18	0.76	0.07	0.29
OTHBDSTS	0.23	2.96***	0.17	2.03**	0.14	1.85*
CROSSIT	3.00	8.65***	3.03	8.85***	2.65	8.01***
DIROWN	2.48	2.28**	2.91	3.40***	2.59	2.16**
PREM30	-1.30	-2.24**	-0.86	-1.43	-0.31	-0.46
TROA	0.09	0.37	0.08	0.26	-0.07	-0.24
TMB	0.05	1.21	0.04	0.95	0.08	1.77*
RELSIZE	-0.00	-1.14	-0.01	-1.27	-0.01	-1.25
BROA	-1.46	-4.81***	-1.43	-4.69***	-1.37	-4.11***
BMB	0.03	3.12***	0.04	3.75***	0.04	3.18***
N	1,230		1,230		1,230	
Wald Chi-squared	180.91***		391.23***		356.49***	
Pseudo R-squared	0.31		0.34		0.28	

* is significant at 10%, ** is significant at 5%, and *** is significant at 1%.

Table 9

Proportion of directors appointed to the acquiring firm board

This table presents the results of a generalised linear model predicting the proportion of the target firm board holding a board seat on the acquiring firm board. The dependent variable is measured alternatively for the first (*PROPZERO*), second (*PROPONE*) and third years (*PROPTWO*) the target firm is consolidated into the acquiring firm financial statements after a successful acquisition. All variables are defined in Appendix A.

Panel A	PROPZERO		PROPONE		PROPTWO	
Full sample	Coef.	*t*-stat	Coef.	*t*-stat	Coef.	*t*-stat
Intercept	0.33	0.43	-0.31	-0.40	-0.36	-0.56
SOA	0.74	2.97***	0.63	2.38**	0.48	1.81*
BDSIZE	-0.40	-3.75***	-0.34	-3.47***	-0.41	-3.83***
EXECRATIO	-1.52	-2.07**	-0.90	-1.03	-1.54	-1.73*
TOTOTHBDSTS	0.11	3.17***	0.06	1.91*	0.72	2.26**
TOTDIROWN	0.25	0.44	0.57	1.24	0.73	1.75*
TOTCROSSIT	0.52	6.51***	0.56	7.16***	0.46	7.06***
PREM30	-0.95	-2.23*	-0.73	-1.54	-0.70	-1.58
TROA	0.02	0.20	0.02	0.13	-0.10	-0.64
TMB	0.02	0.64	0.02	0.41	0.05	1.22
RELSIZE	-0.00	-1.14	-0.00	-1.02	-0.01	-0.94
BROA	-1.04	-3.67***	-0.88	-3.27***	-0.81	-2.44**
BMB	0.01	1.59	0.02	1.72*	0.01	0.86
Year fixed effects	Y		Y		Y	
Industry fixed effects	Y		Y		Y	
N	263		263		263	
Panel B	PROPZERO		PROPONE		PROPTWO	
Propensity matched	Coef.	*t*-stat	Coef.	*t*-stat	Coef.	*t*-stat
Intercept	-0.99	-0.79	-1.94	-1.72*	-1.32	-1.10
SOA	0.87	2.83***	0.78	2.39**	0.59	1.79*
BDSIZE	-0.32	-2.30**	-0.31	-2.67***	-0.40	-3.20***
EXECRATIO	-1.47	-1.60	-0.56	-0.57	-1.00	-1.04
TOTOTHBDSTS	0.08	1.82*	0.07	1.75*	0.07	1.67*
TOTDIROWN	0.52	0.93	0.55	0.99	0.93	1.99**
TOTCROSSIT	0.53	4.95***	0.61	5.97***	0.48	6.49***
PREM30	-1.20	-2.23**	-1.06	-1.60	-0.86	-1.45
TROA	0.22	2.25**	0.26	2.49**	0.20	1.65*
TMB	0.07	2.20**	0.07	2.26**	0.12	3.32***
RELSIZE	-0.00	-0.95	-0.00	-1.12	-0.01	-0.89
BROA	-1.25	-4.08***	-1.14	-3.76***	-1.09	-3.13***
BMB	0.03	3.05***	0.03	4.23***	0.04	3.28***
Year fixed effects	Y		Y		Y	
Industry fixed effects	Y		Y		Y	
N	216		216		216	

* is significant at 10%, ** is significant at 5%, and *** is significant at 1%.

Table 10

Simultaneous equations estimation of the association between director retention

and the use of schemes of arrangement

This table presents the results of three-stage simultaneous equations estimation for the association between director retention and schemes of arrangement for the propensity score matched sample. The endogenous dependent variables are respectively the proportion of the target board that hold board seats on the merged entity one year after the acquisitions (*PROPZERO*) and an indicator variable denoting schemes of arrangement (*SOA*). All variables are defined in Appendix A.

	PROPZERO		*SOA*	
	Coef.	*t*-stat	Coef.	*t*-stat
Intercept	0.13	1.17	0.08	0.21
SOA	0.21	3.01***	-	-
PROPZERO	-	-	0.08	0.44
BDSIZE	-0.03	-2.85***	-	-
EXECRATIO	-0.10	-1.00	-	-
TOTOTHBDSTS	0.01	1.61	-	-
TOTDIROWN	0.08	1.30	0.06	0.58
TOTCROSSIT	0.09	8.69***	-	-
PREM30	-0.07	-1.36	-	-
TROA	0.03	1.26	0.02	0.44
TMB	0.00	0.77	0.01	0.90
RELSIZE	-0.00	-0.41	-	-
BROA	-0.22	-3.45***	0.11	0.68
BMB	0.00	1.57	-0.00	-0.38
TOEHOLD	-	-	-2.66	-7.56***
TSUBSHNO	-	-	-0.03	-1.96*
TDE	-	-	-0.02	-2.09**
TFCF	-	-	-0.02	-0.14
TSIZE	-	-	0.06	2.85***
BDE	-	-	0.01	0.98
BFCF	-	-	0.12	0.49
BSIZE	-	-	-0.03	-1.740
Year fixed effects	Y			
Industry fixed effects	Y			
N	216		216	
R-squared	0.43		0.39	

* is significant at 10%, ** is significant at 5%, and *** is significant at 1%.

Appendix 1

Variable names and definitions

Variable name	Definition
ONBOARDZERO	An indicator variable set as one if a specific target firm director holds a board seat on the acquiring firm board for the first financial year the target firm is consolidated after the acquisition
ONBOARDONE	An indicator variable set as one if a specific target firm director holds a board seat on the acquiring firm board for the second financial year the target firm is consolidated after the acquisition
ONBOARDTWO	An indicator variable set as one if a specific target firm director holds a board seat on the acquiring firm board for the third financial year the target firm is consolidated after the acquisition
SOA	An indicator variable set as one if the acquisition is conducted as a Scheme of Arrangement
EXECDUM	An indicator variable set as one if a specific target firm director is an executive on the target firm board at the date of the takeover announcement
CEODUM	An indicator variable set as one if a specific target firm director is the Chief Executive Officer or Managing Director of the target firm at the date of the takeover announcement
CHAIRDUM	An indicator variable set as one if a specific target firm director is the Chairperson of the target firm board at the date of the takeover announcement
OTHBDSTS	The number of other board seats on ASX listed entities held by a specific target firm director at the date of the takeover announcement
DIROWN	The percentage ownership in the target firm by a specific target firm director at the date of the takeover announcement
CROSSIT	An indicator variable set as one if a specific target firm director also holds a position on the acquiring firm board at the date of the takeover announcement
PROPZERO	The proportion of the target firm board at the date of the takeover announcement that hold a board seat on the acquiring firm board for the first financial year the target firm is consolidated after the acquisition
PROPONE	The proportion of the target firm board at the date of the takeover announcement that hold a board seat on the acquiring firm board for the second financial year the target firm is consolidated after the acquisition
PROPTWP	The proportion of the target firm board at the date of the takeover announcement that hold a board seat on the acquiring firm board for the third financial year the target firm is consolidated after the acquisition
BDSIZE	The number of directors on the target firm board at the date of the takeover announcement
EXECRATIO	The ratio of executive directors to total board size for the target firm at the date of the takeover announcement
TOTOTHBDSTS	The total number of other board seats on ASX listed entities held by all target firm directors at the date of the takeover announcement
TOTDIROWN	The total percentage ownership in the target firm by all target firm directors at the date of the takeover announcement
TOTCROSSIT	The total number of target firm directors that also hold a board seat on the bidding firm board at the date of the takeover announcement

PREM30	The takeover premium measured as the initial offer price minus the target firm share price one month prior to the takeover announcement, divided by the target firm share price one month before the takeover announcement
TROA	Target firm return on assets for the financial year prior to the takeover
TMB	Target firm market-to-book ratio calculated at the end of the financial year prior to the takeover announcement
TDE	Target firm debt-to-equity ratio calculated at the end of the financial year prior to the takeover announcement
TFCF	Target firm free cash flow calculated as cash from operations minus dividends divided by total assets for the financial year prior to the takeover announcement
TSIZE	The size of the target firm measured using the natural logarithm of market capitalisation three months prior to the takeover announcement
RELSIZE	The relative size of the target to bidder firm measured using market capitalisation of the respective firms three months prior to the takeover announcement
BROA	Acquiring firm return on assets for the year prior to the takeover
BMB	Acquiring firm market-to-book ratio calculated at the end of the financial year prior to the takeover announcement
BDE	Acquiring firm debt-to-equity ratio calculated at the end of the financial year prior to the takeover announcement
BFCF	Acquiring firm free cash flow calculated as cash from operations minus dividends divided by total assets for the financial year prior to the takeover announcement
BSIZE	The size of the acquiring firm measured using the natural logarithm of market capitalisation three months prior to the takeover announcement
TOEHOLD	The bidding firm ownership in the target firm at the date of the takeover announcement
TSUBSHNO	The number of substantial shareholders in the target firm at the date of the takeover announcement
PAYT	An indicator variable denoting acquisitions in which the payment method is exclusively cash
MULT	An indicator variable denoting acquisitions in which there are competing bids for the target firm
BOWN	The total percentage ownership in the acquiring firm by all acquiring firm directors at the date of the takeover announcement