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# Does continuous disclosure affect the market reaction to mergers and acquisitions announcements?

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## ABSTRACT

We examine the association between the degree of continuous disclosure by bidders and the market reaction to the announcement of 3512 mergers and acquisitions (M&As) by Australian bidders during the period 2000–2017. Using four proxies for continuous disclosure (total number of disclosures, total number of sensitive disclosures, total number of pages, and total number of sensitive pages), we find a positive association between the market reaction to M&A announcements and the level of continuous disclosure made by bidders. These findings imply that investors, when assessing M&A deals, find bidders' disclosures to be informative and value relevant. Further analyses reveal that this positive association is more pronounced for private target acquisitions, stock-financed acquisitions, and unrelated acquisitions.

“Failure to comply with the continuous disclosure requirements is an offence ... and can create a civil or criminal liability. There have been a number of very substantial class action settlements involving continuous disclosure obligations with the largest thus far being the Centro case settlement for \$200 million in June 2012.”

– Australian Institute of Company Directors

## 1. Introduction

Continuous disclosure regulation requires the immediate dissemination of material information to market participants to reduce information asymmetry and to facilitate the smooth functioning of capital markets. In response to a string of large corporate collapses attributed to the failure to disclose material information to shareholders, combined with the 1991 report from the Australian House of

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Representatives Standing Committee on Legal and Constitutional Affairs, continuous disclosure regulation was introduced in 1994 in Australia.<sup>1</sup> Listing Rule 3.1 of the Australian Stock Exchange (ASX, now the Australian Securities Exchange) stipulates that ‘once an entity is or becomes aware of any information concerning it that a reasonable person<sup>2</sup> would expect to have a material effect on the price or value of its securities, the entity must immediately tell the ASX that information’.<sup>3</sup> In the continuous disclosure setting, firms must disclose any information on a timely basis that a reasonable person might expect to have a material effect on the price or value of the firm’s securities. A violation of Listing Rule 3.1 implies a breach of Section 674 (2) of the Australian Corporations Act 2001, through which the parties involved can face both civil (s1317E) and criminal (s1311) penalties. The goals of the continuous disclosure regulation are to (i) have a well-informed market, (ii) increase investor confidence, and (iii) improve the accountability of company management (ASX Listing Rules Guidance Note 8). This regime is essential to ensure that no investor is disadvantaged by the lack of access to information.

In this study, we examine how continuous disclosure affects the market response to M&A announcements made by Australian bidders, with information asymmetry a central issue influencing acquisition outcomes. It has been argued that, in a world of information asymmetry characterised by agency conflict between investors and managers, acquisition deals often satisfy managers’ personal objectives at the expense of shareholders’ wealth (Mørck et al., 1990; Datta et al., 1992; DeLong, 2001). Consequently, many empirical studies find acquisition announcements to be associated with a negative market reaction for bidding firms (e.g., Dodd, 1976; Brown and Horin, 1986; Bradley et al., 1988; Shekhar and Torbey, 2005; Fan and Goyal, 2006<sup>4</sup>; Antoniou et al., 2008; Diepold et al., 2008). Despite these negative reactions, Australian firms appear to invest a significant amount of funds in acquiring other firms. For example, in 2021, Australia was ranked the fourth-largest M&A market in the world by attracting deals worth US\$230 billion (Statista, 2023). If continuous disclosure reduces information asymmetry and improves corporate decision making by holding managers accountable for their actions, then an association should exist between the level of continuous disclosure and the market’s assessment of M&As. However, studies investigating how continuous disclosure influences acquisition outcomes are lacking and, in particular, few studies explore the relationship between continuous disclosure and market reactions to acquisition announcements. The current study intends to fill that gap.

The information asymmetry and uncertainty associated with M&A decisions are well recognised in the accounting and finance literature. According to Affleck-Graves et al. (2002) and Miller (2002), a higher level of day-to-day information asymmetry persists for firms with more uncertain investments and longer-term projects. M&As are typically large, and long-term investments which are difficult to reverse (Nguyen and Phan, 2017). In this context, the intensity of investor demand for supplementary information (i.e. the additional information disclosed by bidders in addition to what is contained in M&A press releases) can be highly visible during the M&A process. Under the continuous disclosure regime, bidders are legally obliged to make immediate disclosures to the market about ‘giving or receiving a notice of intention to make a takeover’.<sup>5</sup> Consequently, bidders may be required to disclose additional information to the capital market during the M&A process. Prior studies argue that bidders with higher uncertainty and greater information asymmetry are more likely to engage in market timing behaviour (e.g., Luypaert and Van Caneghem, 2017). However, under the continuous disclosure regime, bidders are required to disclose all material information in a timely manner, thereby reducing information asymmetry between bidder management and investors, and mitigating the uncertainty associated with those deals. In addition, unlike the voluntary disclosure setting, in continuous disclosure settings, directors can be held personally liable for a company’s failure to disclose price-sensitive information to the market. This process may act as an alternative due diligence mechanism for investors, allowing them access to reliable and readily available price-sensitive information to assess the synergistic benefits of M&A deals. Based on these arguments, it can be conjectured that bidders who tend to disclose more continuous disclosures to the market are rewarded by market participants when they announce their intention to make M&As.

A counterargument is that excessive disclosure of information to the market during the M&A process would place bidders in an informationally disadvantaged position. The reason is that such an environment allows competitors to use the information to ascertain the synergistic benefits of the deal and to make counteroffers without incurring any information search costs. In addition, the

<sup>1</sup> See [https://www.aph.gov.au/parliamentary\\_business/committees/house\\_of\\_representatives\\_committees?url=reports/1991/1991\\_pp293report.htm](https://www.aph.gov.au/parliamentary_business/committees/house_of_representatives_committees?url=reports/1991/1991_pp293report.htm) (accessed on 15 March 2023).

<sup>2</sup> Merriam-Webster defines a reasonable person as follows: “a fictional person with an ordinary degree of reason, prudence, care, foresight, or intelligence whose conduct, conclusion, or expectation in relation to a particular circumstance or fact is used as an objective standard by which to measure or determine something (as the existence of negligence)” (<https://www.merriam-webster.com/legal/reasonable%20person>).

<sup>3</sup> Listing Rule 3.1 does not apply to particular information while each of the following conditions is met: “(3.1 A.1): One or more of the following five situations applies: it would be a breach of law to disclose the information; the information concerns an incomplete proposal or negotiation; the information comprises matters of supposition or is insufficiently definite to warrant disclosure; the information is generated for the internal management purposes of the entity; or the information is a trade secret; and (3.1 A.2): The information is confidential and ASX has not formed the view that the information has ceased to be confidential; and (3.1 A.3): A reasonable person would not expect the information to be disclosed.”

<sup>4</sup> The statistical tests reveal that mean and median abnormal returns are significant at the 5 % level. The positive and significant abnormal return reported in our study differs from the findings of prior US and UK studies that reported either negative and significant (e.g. Gupta and Misra, 2007; Sudarsanam and Mahate, 2006; Antoniou et al., 2008), or close to zero (e.g. Andrade et al., 2001; Netter et al., 2011) abnormal return. However, our findings are more in line with the evidence uncovered in prior Australian studies (e.g. Shams et al., 2013; Colombage et al., 2014; Humphery-Jenner and Powell, 2011; Krishnamurti et al., 2018) that reported positive and significant abnormal return to acquirers. Additionally, our sample contains 48 % private target deals, 35 % cash deals and 39 % related deals, which have been found to generate positive abnormal returns to acquirers.

<sup>5</sup> See the document titled “Continuous disclosure: An abridged guide” available at <https://www.asx.com.au/content/asx/search.html?q=continuous+disclosure> (accessed on 31 March 2024).

disclosure of information may increase the risk of shareholder litigation (Dutordoir et al., 2014), thereby pushing an acquisition decision to the negative net present value boundary. Based on these arguments, the excessive disclosure of price-sensitive information may negatively impact on the market's assessment of M&A deals.

Using a sample of 3512 M&A announcements made by Australian firms during the period 2000–2017 and four proxies for continuous disclosure (total number of disclosures, total number of sensitive disclosures, total number of pages, and total number of sensitive pages), we find a positive association between the level of continuous disclosure made by acquirers prior to M&A announcements and acquirers' announcement period abnormal returns. Further analyses reveal that the above influence is stronger when they acquire private targets or use their own stock to finance deals or make unrelated acquisitions (as opposed to the acquisition of public targets or making cash-financed deals or related acquisitions). We also find that the positive association between continuous disclosure and the abnormal returns earned by acquirers is more pronounced for small bidders compared to large bidders implying that higher level of continuous disclosure by small firms is likely to resolve the information asymmetry issues pertinent to deals executed by those firms. This finding implies that investors, when assessing M&A decisions announced by focal firms, find their continuous disclosures to be informative and value relevant. Our main findings remain robust to addressing the endogeneity concern, tested by employing two-stage least squares (2SLS) regression with instrumental variables and propensity score matching (PSM) techniques.

Our study contributes to the literature in several ways. First, we contribute to information asymmetry literature by examining the influence of continuous disclosure on the market's assessment of corporate financial decisions using the data from a principles-based disclosure regime. Even though Australian firms are required to meet their continuous disclosure obligations, there is very limited empirical evidence on whether such disclosure reduces the information asymmetry problem in this market. Therefore, we address this issue by investigating the influence of continuous disclosure on the market performance of firms announcing M&A deals.

Second, even though many studies have investigated the factors affecting the market response to M&A announcements in Australia, no attempt has been made to investigate whether market participants consider disclosures made by bidders in evaluating those decisions. As M&As are long-term investment decisions that are irreversible in nature, the demand for material information by investors can be greater around the period of M&A announcements. Therefore, an investigation of how the market participants value continuous disclosure made by bidders prior to M&A announcements would provide evidence from a different perspective from that of the existing M&A literature in Australia.

Third, we relate a number of bid characteristics – such as the organisational form of the target, the method of payment, the relatedness of the target, and the size of the bidding firms – which present various choices available to management in M&As that are commonly affected by information asymmetry issues. The evidence uncovered in this investigation can be useful to market participants, since acquirers could encounter different degrees of information asymmetry when evaluating these acquisition choices. Finally, our results have important implications for regulators, policy makers, investors, and company management, given that continuous disclosure plays a significant role in reducing information asymmetry in M&A deals.

The remainder of the paper is structured as follows. Section 2 presents a review of the related literature and proposes the research questions examined in the study. Section 3 describes the sample and research methodology. Section 4 reports and discusses the results. The final section, Section 5, concludes the paper.

## 2. Literature review and research questions

The Australian continuous disclosure regulation is a principles-based disclosure regime that eliminates the internal inconsistencies of several individual rules and applies regulation to firm-specific information releases (Russell, 2015a, 2015b). With incremental levels of enforcement over time, numerous studies highlight potential issues and mixed opinions regarding the effectiveness of this regime in reducing information asymmetry. Areas in contention include determining what does and does not require disclosure, share price sensitivity in response to good versus bad news, and the strategic disclosure behaviour of firms (Hsu, 2009; Mayorga, 2013; Russell, 2015a, 2015b). Lev (1988) argues that information asymmetry can lead to the inefficient allocation of resources due to high transaction costs and lower liquidity, thus reducing the efficacy of capital markets. Corporate disclosure is therefore required to ensure that no individual investor is disadvantaged by a comparative lack of access to pertinent information, despite possible managerial incentives to withhold bad news. This is in line with the proposition that a continuous disclosure regime is more effective than periodic disclosure regimes in limiting information asymmetry. However, Mayorga (2013) identifies the challenges faced by practitioners in deciding whether to disclose as the interpretation of what a so-called reasonable person intrinsically deems material or confidential information, which is subjective in nature. A level of discretion is thus exercised in deciding what information is and is not material (Brown et al., 1999; Hsu, 2009; Russell, 2015a).

Several studies analyse the impact of continuous disclosure on a firm's information asymmetry. Russell (2015a) finds that firms with a high degree of information asymmetry tend to disclose more information under the Australian continuous disclosure regime. Disclosure can, however, lead to greater information asymmetry for firms facing uncertainty in their operations or with inherently higher levels of asymmetry. In contrast, Hsu (2009) finds support for the efficacy of these guidelines, noting the positive influence of the introduction in 2004 of civil liabilities and fines on ensuring that directors do not exploit the discretionary nature and subjectivity of disclosure requirements in Australia. Furthermore, Chapple et al. Statista (2020) find that not only does continuous disclosure in Australia improve timeliness and market efficiency, but also it is effective in discouraging firms from opportunistically delaying to Fridays the dissemination of price-sensitive information, since this would directly breach the requirement to immediately disclose material information. These assessments highlight the strengths of continuous disclosure in ensuring that managers disclose both good and bad news on a timely basis, as opposed to delaying the issuance of negative guidance. Other research on continuous disclosure in Australia suggests that price sensitivity is a key proponent of the informativeness of continuous disclosure and that sensitivity is

influenced by firm and industry characteristics, such as the inherent scarcity of information, capital structure, asset tangibility, and agency costs. [Russell \(2015b\)](#) suggests that, in Australia, larger profitable firms are more exposed to price sensitivity to bad news when compared to smaller unprofitable firms and that this relationship is the opposite for good news.

A number of studies reveal a strong relationship between corporate disclosure and information asymmetry. [Diamond and Verrecchia \(1991\)](#) present a theoretical model to show that the increased disclosure of public information by a firm reduces information asymmetry as reflected by the increased liquidity of its securities. [Healy et al. \(1999\)](#) find that the expansion in disclosure is associated with a growth in institutional ownership, a decrease in the bid–ask spread, and an increase in analyst coverage, thus reducing information asymmetry.<sup>6</sup> While [Brown and Hillegeist \(2007\)](#) find that firms with higher disclosure quality experience increased trading by uninformed investors, which consequently increases the trading intensity of informed investors, [Maffett \(2012\)](#), using multi-country data, finds that interactive relations between firm-level financial reporting and the country-level disclosure regime significantly influence the extent of institutional investors' informed trading and their ability to create profitable trading advantages. However, for the Australian market, [Poskitt \(2005\)](#) finds that price-sensitive disclosure levels supported by continuous disclosure have no effect on informational efficiency as measured by the probability of informed trading and market spreads.

Information asymmetry between the bidder and the target has been the main issue of focus of many M&A studies. The literature documents evidence that information asymmetry strongly affects deal attributes, as well as the value created by both the bidder and the target (e.g., [Hansen, 1987](#); [Fishman, 1989](#); [Eckbo et al., 1990](#); [Moeller et al., 2007](#); [Chemmanur et al., 2009](#); [Officer et al., 2009](#)). [Bruner and Perella \(2004\)](#) shows that acquirers with private information face a lower level of competition and are in a position to engage in both deals tailoring and the achievement of advantageous bid pricing. [Cuypers et al. \(2017\)](#) argue that the value generated by either the bidder or the target depends on the information disparity between the two parties. Using previous M&A experience to account for this information disparity, these authors find that the acquirer (target) obtains more value at the expense of the target (acquirer) when its experience advantage is greater relative to the target (acquirer). [Luybaert and Van Caneghem \(2017\)](#) find that acquirers earn higher announcement period abnormal returns and a larger fraction of total M&A gains if the target is characterised by greater information asymmetry: bidders are also more likely to make cash offers to avoid sharing these gains with target shareholders. [Dionne et al. \(2015\)](#) analyse the influence of information asymmetry on the premium paid in acquisitions between potential buyers. They find that informed buyers pay a significantly lower conditional premium than buyers who do not possess privileged information. [Lobo et al. \(2023\)](#) argue that there is a greater degree of information asymmetry between the acquiring company and the target in contested takeovers. As a result, managers of contested targets are highly motivated to disclose superior information to actively resist the offer and mitigate mispricing. Their study reveals that contested targets tend to release significantly more favorable earnings forecasts during the takeover period compared to the pre-takeover period or compared to their friendly target counterparts. Consequently, these positive forecasts lead to higher offer prices for targets involved in contested takeovers.

The continuous disclosure regime significantly mitigates information asymmetry between companies and investors and among market participants. The Australian Institute of Company Directors (AICD) (2016) contends that continuous disclosure significantly mitigates information asymmetry in financial markets by ensuring that all material information is promptly shared with all market participants. This practice levels the playing field for investors, reducing the likelihood of insider trading and ensuring that no single group has an undue advantage over others. Continuous disclosure promotes transparency by mandating the regular and timely release of critical financial and operational data, which helps investors make more informed decisions ([Russell, 2015a](#)). This transparency enhances market efficiency and builds investor confidence, leading to more stable and fair market conditions. Moreover, by mitigating information asymmetry, continuous disclosure can help companies build a reputation for reliability and trustworthiness, allowing them to attract long-term investments and support sustainable growth.

The degree of information asymmetry between a company and market participants plays an important role when investors assess the value created by an acquisition bid made by a company. [Draper and Paudyal \(2008\)](#) argue that information dissemination is one of several possible causes of the increase in value through takeovers since it helps acquirers reveal both the value of existing assets and the synergy benefits associated with acquisitions. They also argue that corporate managers willing to enhance their firm's transparency will likely disseminate information using a credible method such as takeovers. In a related study, [Kimbrough and Louis \(2011\)](#) claim that conference calls offer an optimum platform for managers to convey critical merger information. They find that bidders that hold conference calls alongside their M&A announcements experience 6.5 % higher abnormal return during the announcement period than they would otherwise experience. The dissemination of additional information by firms during takeover bids can be more pronounced in a continuous disclosure regime since (i) bidding firms are legally obliged to disclose material information promptly without any delay to reduce the information gap between management and shareholders and (ii) the directors of bidding firms can face civil or criminal liabilities if they fail to make continuous disclosures of price-sensitive information during the M&A process. Even though the managers of acquiring firm may have private information regarding the value and synergy benefits of the combined firm that is not available to investors ([Barney, 1988](#); [Schijven and Hitt, 2012](#); [Shleifer and Vishny, 2003](#)), a continuous disclosure regime would force them to disclose such information to the market reducing the information asymmetry between the two parties. [Ortiz et al. \(2023\)](#) show that both mandatory disclosure and the intensity of disclosure allow investors to better evaluate the strategic fit and synergies of an acquisition. In this context, a continuous disclosure regime could provide investors with a clearer understanding of the financial health, operations, and strategic intentions of the firms involved in a bid. In line with this conjecture, [Shams et al. \(2024\)](#) find that positive media sentiments toward bidders is associated with an increase in abnormal returns earned by bidders, while [Cao et al. \(2023\)](#)

<sup>6</sup> Further evidence that increased disclosure reduces the bid–ask spread has been uncovered by [Welker \(1995\)](#), [Leuz and Verrecchia \(2000\)](#), [Heflin et al. \(2001\)](#), and [Cheng et al. \(2006\)](#), among others.

demonstrate that positive sentiments toward target firms lead to increased returns for those firms. Previous M&A studies (e.g., Barger et al., 2015; Lin and Pursiainen, 2023) have underscored the critical roles of culture and trust in the success of M&A deals. Balachandran et al. (2024) show that, when target firms disclose greater integrity in their 10-K reports, bidders experience more positive returns around the M&A announcement. Hence, we posit that continuous disclosure cultivates trust and confidence among stakeholders, such as employees, customers, and investors, facilitating a smoother and more successful post-acquisition integration between the two firms. Additionally, early identification of potential risks through continuous disclosure allows for proactive risk management strategies to be implemented, thereby streamlining the post-integration process. In these scenarios, a positive connection between continuous disclosure and the value investors ascribe to acquisition bids announced by companies may be evident.

Earlier studies show that managers have an incentive to convey favorable private information to the market during M&A announcements: when managers do so, bidders experience higher abnormal returns (Kimbrough and Louis, 2011). Therefore, bidders have an incentive to disclose price-sensitive information to the market (e.g. the rationale for proposed M&As and forecasts of synergistic benefits), to create an optimistic view about the deal among market participants. This phenomenon has particular relevance for continuous disclosure, since bidders are obliged to immediately disclose giving or receiving a notice of intention of a takeover and other relevant price-sensitive information to the market. Therefore, in effect, continuous disclosure should reduce information asymmetry between managers and shareholders.

Based on these arguments, we test the following research question.

*RQ1: Is there an association between bidders' announcement period returns and the degree of continuous disclosure prior to M&A announcements?*

Prior studies show that acquisitions of private targets, stock-financed acquisitions, or unrelated acquisitions are exposed to a higher level of information asymmetry between investors and the management of firms. For example, publicly available information for private targets is scarce and, therefore, the information search cost is substantially higher for private targets (Easley and O'Hara, 2004; Chang, 1998). Investors find it difficult to acquire value relevant private information about the target firms when bidders offer their overvalued stock to acquire target firms (Shleifer and Vishny, 2003; Rhodes-Kropf and Viswanathan, 2004). Managers could use the information disparity between themselves and investors to engage in diversification exercises, such as acquiring unrelated targets, for the purpose of gaining power and prestige (Moeller and Schlingemann, 2005; Freund et al., 2007; Markides and Ittner, 1994). Additionally, the acquisitions of unrelated targets are riskier than acquisitions of related targets (Park, 2003) requiring the investors of bidding firms to seek more value relevant information for unrelated acquisitions since such decisions expose them to a greater degree of risk in relation to post-acquisition integration and management of the target firm. In this scenario, one would expect the relationship

**Table 1**  
Sample selection and distribution.

Panel A: Sample Selection					
All acquisition announcements					17,168
Less: Firm-year observations with deal value \$1 million or below					(6145)
Less: Firm-year observations with missing 30-day CD measures					(5307)
Less: Firm-year observations with missing accounting variables					(1646)
Less: Firm-year observations with missing CAR					(191)
Less: Firm-year observations contaminated with other announcements					(367)
<b>Final test sample from 2000 to 2017</b>					<b><u>3512</u></b>
Panel B: Industry and Year Distribution of Firms in Sample					
Name of Industry	Number of Firms	% of Sample	Year	Number of Firms	% of Sample
Basic materials	625	17.80	2000	84	2.39
Consumer goods	192	5.47	2001	104	2.96
Consumer services	484	13.78	2002	136	3.87
Financials	863	24.57	2003	174	4.95
Health care	201	5.72	2004	222	6.32
Industrials	596	16.97	2005	267	7.60
Oil and gas	178	5.07	2006	348	9.91
Technology	258	7.35	2007	420	11.96
Telecommunications	58	1.65	2008	217	6.18
Utilities	57	1.62	2009	140	3.99
<b>Total Sample</b>	<b><u>3512</u></b>	<b><u>100</u></b>	2010	190	5.41
			2011	130	3.70
			2012	121	3.45
			2013	147	4.19
			2014	192	5.47
			2015	192	5.47
			2016	198	5.64
			2017	<u>230</u>	<u>6.55</u>
			<b>Total</b>	<b><u>3512</u></b>	<b><u>100</u></b>



between continuous disclosure and market response to M&A announcements to be stronger for private target acquisitions, stock-financed acquisitions, and unrelated acquisitions when investors actively seek private and value relevant information for these types of acquisitions. We therefore test the following research question.

*RQ2: Is the relationship between continuous disclosure and acquirers' abnormal return more pronounced for the acquisition of private targets, stock-financed acquisitions, or unrelated acquisitions compared with public target acquisitions, cash-financed acquisitions, or related acquisitions?*

### 3. Methodology

#### 3.1. Sample and data

We focus on a sample of ASX-listed companies that made M&A announcements during the period 2000–2017. Our sample period begins in 2000, since the continuous disclosure data are available from the SIRCA database from 2000, and ends in 2017, the final year of data collection. For this period, we collected 17,168 M&A announcements from the SDC Platinum database. We impose a restriction of including deals worth at least \$1 million. Consequently, as shown in Table 1, Panel A, we excluded 6145 acquisition announcements that did not meet this criterion. A further 5307 announcements (1646 observations) were dropped because they did not have the continuous disclosure measures prior to M&A announcements (necessary financial control variables for estimating the regression models). Another 191 observations did not have the necessary data to calculate abnormal returns, and 367 observations were contaminated with other concurrent firm-specific announcements; these observations were also disregarded. Consequently, the final sample analysed contains 3512 M&A announcements made by 1069 unique firms during the sample period. The distribution of acquisition announcements across these unique firms can be summarised as follows: 408 firms, only one acquisition; 218 firms, two acquisitions; 141 firms, three acquisitions; 80 firms, four acquisitions; 60 firms, five acquisitions; 38 firms, six acquisitions; 23 firms, seven acquisitions; 21 firms, eight acquisitions; 19 firms, nine acquisitions; and firms, 61 firms, ten or more acquisitions. For this sample, the necessary continuous disclosure and corporate governance information is obtained from the SIRCA database while financial data and deal characteristic information is collected from DataStream and SDC Platinum databases, respectively.

The industry and year distributions of the sample are presented in Table 1, Panel B. The industry sectors of financials (24.57 %), basic materials (17.80 %), and consumer services (13.78 %) comprise a substantial portion of our sample, while the industry sectors of utilities (1.62 %) and telecommunications (1.65 %) comprise the smallest portion. The year-by-year distribution of the sample reveals that the number of annual M&A announcements increases gradually from 2000 onwards, peaking in 2007 (the year before the global financial crisis), and then drops during the global financial crisis year period (2008 and 2009) and recovers afterwards. Since our sample shows signs of industry concentration and year-by-year variation, we control for both year and industry effects in our regression models.

#### 3.2. Empirical models

To test RQ1 (i.e., whether there is an association between the degree of continuous disclosure and bidders' announcement period returns), we estimate the following regression equation:

$$\begin{aligned} CAR_{i,t+\tau} = & \beta_0 + \beta_1 CDISC_{i,t} + \beta_2 CASH_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 LEV_{i,t} + \beta_5 TOBINQ_{i,t} + \beta_6 GROWTH_{i,t} + \beta_7 ROA_{i,t} + \beta_8 PRIVATE_{i,t} \\ & + \beta_9 ALLCASH_{i,t} + \beta_{10} ALLSTOCK_{i,t} + \beta_{11} RELATED_{i,t} + \beta_{12} RELSIZE_{i,t} + \beta_{13} HIGHTECH_{i,t} + \beta_{14} FOREIGN_{i,t} \\ & + \beta_{15} HOSTILE_{i,t} + \beta_{16} SERIAL_{i,t} + \beta_{16} MULTIPLE_{i,t} + \sum YEAR_{i,t} + \sum INDUSTRY_{i,t} + \varepsilon_{i,t} \end{aligned} \quad (1)$$

where  $CAR$  is the cumulative abnormal return ( $CAR$ ) earned by an acquirer during a three-day event period.<sup>7</sup> The main explanatory variable is  $CDISC$ , which is the frequency and volume of continuous disclosure of acquirers (as explained in Section 3.3). All the variables are defined in Appendix A.

Following prior studies, we include a number of control variables to account for the possible influence of bid characteristics and acquirer financial characteristics on the market response to M&A announcements. For example, Harford (1999) supports the free cash flow hypothesis, in that cash-rich firms tend to make significantly worse M&A decisions than other firms. Therefore, we control for cash flow ( $CASH$ ). Humphery-Jenner and Powell (2011) and Sha et al. Statista (2020) find that smaller bidders are more likely to generate more positive abnormal returns, because they have less information asymmetry problems than larger acquirer firms. Thus, we control for firm size ( $SIZE$ ). Further, we control for leverage, because leverage has some power in preventing managers from making bad M&As (Masulis et al., 2007). Sha et al. Statista (2020) find that firms with more growth opportunities create less shareholder wealth when making acquisitions. Thus, we control for growth opportunities ( $TOBINQ$ ). Capron and Shen (2007) find that highly

<sup>7</sup> We employ a market model approach based on the conventional event-study method (Brown & Warner, 1985) to calculate cumulative abnormal return earned by an acquirer over a 3-day event period (from  $t = -1$  to  $t = +1$ ) surrounding the announcement day ( $t = 0$ ). The firm-specific  $\alpha_i$  and  $\beta_i$  parameters of the market model are estimated using daily returns for acquirer  $i$  and the market (represented by the ASX All Ordinaries Index) for a 200-day estimation period spanning  $t = -231$  to  $t = -32$ . The length of our estimation period follows Chang (1998), Moeller et al. (2004), and Masulis et al. (2007). We exclude the 30-day window immediately before the acquisition announcement from the estimation period because our continuous disclosure measure (described in the next section) is based on the information disclosed during that period.

profitable firms tend to make value-destroying M&As. Therefore, we control for profitability (*ROA*).

Turning to bid characteristics, we control for private firm (*PRIVATE*) acquisitions, because Fuller et al. (2002) find that acquirers experience significantly higher abnormal returns when buying private firms than when public firms are the target. Travlos (1987) shows that acquirers realise lower returns when they use their own stock to settle the deal rather than paying cash. Deng et al. (2013) find a negative association between stock-financed acquisitions and abnormal returns. Therefore, we control for all cash (*ALLCASH*) and all stock (*ALLSTOCK*) deals. Moeller et al. (2005) argue that abnormal returns are expected to be lower for deals in unrelated industries. Thus, we control for related acquisitions (*RELATED*). Furthermore, Moeller et al. (2004) find a negative association between the relative size of the target and the abnormal returns earned by bidders, whereas Deng et al. (2013) find a negative association between the acquisition of high-tech targets and abnormal returns. Thus, we control for relative size (*RELSIZE*) and the acquisition of high-tech targets (*HIGHTECH*). Nguyen and Phan (2017) find hostile acquisitions to be negatively associated with shareholder wealth. Therefore, we control for hostile acquisitions (*HOSTILE*). Further, deals with multiple bidders have lower abnormal returns (Bradley et al., 1988), while single bidders earn higher abnormal returns compared with frequent bidders (Antoniou and Zhao, 2007). Thus, we control for multiple bidders (*MULTIPLE*) and serial bidders (*SERIAL*). We also control for the industry and year in Eq. (1), to control for industry and time effects in our findings.

### 3.3. Measurement of continuous disclosure

To develop continuous disclosure measures, we use the frequency and volume of all types of disclosures made by a firm as listed in the ASX announcement types/subtypes.<sup>8</sup> More specifically, we count the total number (pages) of disclosures to measure the frequency (volume) of continuous disclosures made by a firm during the 30 days prior to the acquisition announcement. These disclosures can be identified as either price-sensitive disclosures or non-price-sensitive disclosures. Consequently, in total, we use four proxies for continuous disclosure: (i) the total number of disclosures (*DISC\_TOT*), (ii) the total number of price-sensitive disclosures (*DISC\_SEN*), (iii) the total number of pages (*PAGE\_TOT*), and (iv) the total number of price-sensitive pages (*PAGE\_SEN*). However, to estimate the regression by employing Eq. (1), we transform all proxies for continuous disclosure into their natural logarithmic form. The definitions of these proxies are provided in Appendix A. Additionally, we use two alternative proxies of continuous disclosures: industry-adjusted continuous disclosure and only takeover-related continuous disclosure.

## 4. Results

### 4.1. Descriptive statistics and correlation matrix

Table 2 presents descriptive statistics of the dependent and independent variables. In Panel A, acquirers earn a mean (median) three-day CAR (*CAR*) of 1.90 % (0.07 %) during the announcement period.<sup>8</sup> In Panel B, the mean (median) values for the four continuous disclosure measures are as follows: *DISC\_TOT*, 8.99 (7); *DISC\_SEN* 2.36 (1); *PAGE\_TOT*, 60.27 (33), and *PAGE\_SEN* 10.55 (2). The bottom four rows of Panel B present the same statistics for the natural logarithms of the above four disclosure measures. The mean (median) value of the total number of continuous disclosures measured by the natural logarithm of the total number (*LNDISC\_TOTAL*) is 2.05 (2.08), which is lower than the value of 3.97 (3.97) reported by Matolcsy et al. (2012).

Panels C and D of Table 2 present descriptive statistics for the firm and bid characteristics. On average, a firm in our sample has a market capitalisation (*SIZE*) of A\$1214.21 million, while a typical firm uses 23.40 % debt to finance its assets. A typical firm holds cash stock worth 12.10 % of its total asset value. As shown by Tobin's Q values and sales growth figures, the firms in our sample can be viewed as growth firms. Turning to bid characteristics, approximately 47.80 % of firms in our sample acquired private targets. About 34.50 % of the acquisition deals are all-cash deals, while only 11.30 % are all-stock deals. About 20.60 % of the acquisitions involve foreign targets, while 17.20 % involve high-tech targets. The average deal value relative to the market capitalisation of the acquirer (*RELSIZE*) is 60.10 %. While 10.30 % of the bidders can be classified as serial bidders, hostile bids and multiple bids are not common in the Australian market.

Table 3 presents Pearson's correlation matrix. Not surprisingly, the four disclosure measures have a significantly positive correlation with each other. We also find a positive and significant association between *CAR* and all four proxies for the continuous disclosure measure. Even though many of our control variables have significant correlations with each other, these correlations are not of a large enough magnitude to cause any multicollinearity problems in the analysis. Gujarati and Porter (1999) suggest that correlations between variables below 0.80 do not create any multicollinearity problems, and the correlations among our control variables are all less than 0.80. We also examine the variance inflation factor (*VIF*) values in our models to further test for multicollinearity. A *VIF* value is considered high if it is greater than 10 (Greene, 2008). The *VIF* values in our models range between 1.104 and 5.08, suggesting that multicollinearity problems are unlikely in our regression models.

### 4.2. Regression results

Table 4 presents the regression results. Models (1) and (2) report the regression results using the total number of disclosures and the

<sup>8</sup> See [https://datanalysis.morningstar.com.au/licensee/datpremium/html/ASX\\_Announcements\\_Onesheet.pdf](https://datanalysis.morningstar.com.au/licensee/datpremium/html/ASX_Announcements_Onesheet.pdf) (accessed on 4 May 2024).

**Table 2**  
Descriptive statistics.

	Observations	Mean	Std. Dev.	Median	1st Quartile	3rd Quartile
<b>Panel A: Market reactions and long-term performance</b>						
<i>3DCAR</i>	3512	0.019	0.120	0.007	-0.016	0.041
<i>AVGTOBINQ</i>	1059	1.233	0.267	1.207	1.087	1.269
<i>BHAR</i>	835	0.025	0.424	0.034	-0.134	0.192
<b>Panel B: Continuous disclosure</b>						
<i>DISC_TOT</i>	3512	8.992	7.339	7.000	3.000	12.000
<i>DISC_SEN</i>	3512	2.358	3.162	1.000	0.000	4.000
<i>PAGE_TOT</i>	3512	60.268	80.987	33.000	10.000	81.000
<i>PAGE_SEN</i>	3512	10.547	24.927	2.000	0.000	8.000
<i>LNDISC_TOT</i>	3512	2.046	0.736	2.079	1.386	2.565
<i>LNDISC_SEN</i>	3512	0.854	0.821	0.693	0.000	1.609
<i>LNPAGE_TOT</i>	3512	3.377	1.323	3.526	2.398	4.407
<i>LNPAGE_SEN</i>	3512	1.310	1.378	1.099	0.000	2.197
<b>Panel C: Firm characteristics</b>						
<i>CASH</i>	3512	0.121	0.180	0.053	0.019	0.135
<i>SIZE (in A\$ million)</i>	3512	1214.210	3207.234	220.060	42.720	924.625
<i>LEV</i>	3512	0.234	0.886	0.191	0.021	0.320
<i>TOBINQ</i>	3512	1.213	0.504	1.113	1.050	1.234
<i>GROWTH</i>	3512	2.862	17.121	0.168	-0.013	0.595
<i>ROA</i>	3512	-0.221	3.292	0.047	-0.012	0.081
<b>Panel D: Bid characteristics</b>						
<i>PRIVATE</i>	3512	0.478	0.500	0.000	0.000	1.000
<i>ALLCASH</i>	3512	0.345	0.475	0.000	0.000	1.000
<i>ALLSTOCK</i>	3512	0.113	0.317	0.000	0.000	0.000
<i>RELATED</i>	3512	0.392	0.488	0.000	0.000	1.000
<i>RELSIZE</i>	3512	0.601	5.323	0.081	0.028	0.279
<i>HIGHTECH</i>	3512	0.172	0.377	0.000	0.000	0.000
<i>FOREIGN</i>	3512	0.206	0.404	0.000	0.000	0.000
<i>HOSTILE</i>	3512	0.003	0.051	0.000	0.000	0.000
<i>SERIAL</i>	3512	0.103	0.303	0.000	0.000	0.000
<i>MULTIPLE</i>	3512	0.019	0.135	0.000	0.000	0.000

This table provides descriptive statistics for the variables used in the study. Appendix A provides definitions of all variables.

total number of price-sensitive disclosures as proxies for continuous disclosure. Models (3) and (4) report the regression results using the total number of pages and the total number of pages of price-sensitive disclosures, respectively, as the proxies for continuous disclosure. The *R*-squared values of our models remain between 3.20 % to 3.5 %, consistent with prior acquisition studies (e.g. Moeller et al., 2004). The coefficients of *CDISC* are positive and statistically significant in Models (1) and (2) ( $\beta = 0.010, p < 0.01$ ;  $\beta = 0.013, p < 0.01$ , respectively), indicating that bidders with a greater total number of continuous disclosures and total number of price-sensitive disclosures experience positive and significant announcement period returns. Similarly, we find that the coefficients of *CDISC* are positive and statistically significant in Models (3) and (4) ( $\beta = 0.007, p < 0.01$ ;  $\beta = 0.006, p < 0.01$ , respectively), indicating that bidders who disclose a higher total number of pages and total number of price-sensitive pages earn positive and significant announcement period abnormal returns. These findings imply that a significant association exists between continuous disclosure and M&A announcement period abnormal returns.<sup>9</sup> The positive and significant coefficients generated for the *CDISC* variable reveal that bidders with a higher number of continuous disclosures are rewarded with positive abnormal returns by market participants. It appears that investors find continuous disclosure by firms prior to acquisition announcements to be informative and value relevant. Our findings are also economically significant. Using the coefficients in Models (1) and (2), we find that a one standard deviation increases in *DISC\_TOT* (*DISC\_SEN*) leads to a 0.07 % (0.04 %) increase in abnormal returns.<sup>10</sup> Similarly, using the coefficients in Models (3) and (4), a one standard deviation increases in *PAGE\_TOT* (*PAGE\_SEN*) leads to a 0.57 % (0.15 %) increase in abnormal returns.<sup>11</sup>

Regarding the control variables, we find that Tobin's Q (*TOBINQ*) is positively associated with announcement period abnormal returns (*CAR*) and firm size (*SIZE*) is negatively associated with acquisition announcement period abnormal returns. These results are generally in line with the findings of previous studies, such as those by Humphery-Jenner and Powell (2011), Sha et al. Statista (2020),

<sup>9</sup> The *CDISC* variable generates positive and significant coefficients across all four models when we use five-day announcement period abnormal return as the dependent variable. These findings are presented in Panel A of Appendix B.

<sup>10</sup> The standard deviation of *DISC\_TOT* (*DISC\_SEN*) is 7.339 (3.162). The values of 0.07 % and 0.04 % are computed as  $(0.010 \times 0.01 \times 7.339 \times 100)$  and  $(0.013 \times 0.01 \times 3.162 \times 100)$ , respectively.

<sup>11</sup> The standard deviation of *PAGE\_TOT* (*PAGE\_SEN*) is 80.987 (24.927). The values of 0.57 % and 0.15 % are computed as  $(0.007 \times 0.01 \times 80.987 \times 100)$  and  $(0.006 \times 0.01 \times 24.927 \times 100)$ , respectively.



**Table 3**  
Correlation matrix.

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]
<i>3DCAR</i>	[1]	1.000																		
<i>DISC_TOT</i>	[2]	0.050***	1.000																	
<i>DISC_SEN</i>	[3]	0.081***	0.685***	1.000																
<i>PAGE_TOT</i>	[4]	0.061***	0.777***	0.529***	1.000															
<i>PAGE_SEN</i>	[5]	0.063***	0.620***	0.880***	0.596***	1.000														
<i>CASH</i>	[6]	0.053***	-0.039**	-0.043**	-0.023	-0.024	1.000													
<i>SIZE</i>	[7]	-0.093***	0.182***	0.157***	0.215***	0.159***	-0.351***	1.000												
<i>LEV</i>	[8]	0.005	-0.015	0.008	-0.005	0.012	-0.047***	-0.041**	1.000											
<i>TOBINQ</i>	[9]	0.039**	0.072***	0.058***	0.024	0.036**	-0.057***	-0.032*	0.004	1.000										
<i>GROWTH</i>	[10]	0.012	-0.024	-0.019	-0.010	-0.004	0.072***	-0.127***	-0.013	0.007	1.000									
<i>ROA</i>	[11]	-0.079***	0.022	0.010	0.027	0.012	-0.184***	0.163***	-0.245***	-0.063***	0.001	1.000								
<i>PRIVATE</i>	[12]	0.020	-0.115***	-0.093***	-0.049***	-0.113***	0.037**	-0.129***	0.003	-0.024	0.051***	-0.042**	1.000							
<i>ALLCASH</i>	[13]	0.006	0.059***	0.047***	0.055***	0.041**	-0.055***	0.143***	-0.019	0.018	-0.029*	0.029*	-0.158***	1.000						
<i>ALLSTOCK</i>	[14]	0.024	0.023	0.016	0.007	0.049***	0.156***	-0.228***	-0.010	-0.026	0.006	-0.073***	-0.033*	-0.260***	1.000					
<i>RELATED</i>	[15]	0.025	0.028*	0.036**	0.026	0.058***	0.024	0.008	-0.049***	0.001	-0.013	0.025	-0.211***	0.210***	0.018	1.000				
<i>RELSIZE</i>	[16]	0.003	-0.025	-0.006	-0.026	-0.004	0.102***	-0.162***	0.026	0.014	0.017	-0.073***	0.040**	-0.042**	0.105***	-0.031*	1.000			
<i>HIGHTECH</i>	[17]	0.013	-0.040**	-0.031*	-0.057***	-0.042**	0.161***	-0.129***	-0.021	0.002	0.029*	-0.054***	0.091***	0.033*	0.030*	-0.026	0.026	1.000		
<i>FOREIGN</i>	[18]	0.006	-0.024	-0.008	0.020	-0.022	0.019	0.101***	0.012	-0.027	-0.003	-0.020	0.123***	-0.021	-0.062***	-0.041**	-0.005	0.063***	1.000	
<i>HOSTILE</i>	[19]	-0.009	0.006	0.006	-0.021	0.003	-0.028*	0.041**	0.005	-0.008	-0.008	0.005	-0.048***	-0.001	-0.000	-0.029*	0.001	-0.008	-0.026	1.000
<i>SERIAL</i>	[20]	-0.012	0.049***	0.046**	0.069***	0.022	-0.099***	0.158***	0.012	-0.062***	-0.019	0.029*	0.115***	-0.032*	-0.079***	-0.062***	-0.026	-0.074***	0.053***	-0.017
<i>MULTIPLE</i>	[21]	-0.015	0.038**	0.036**	0.026	0.067***	-0.015	0.075***	-0.009	-0.010	-0.005	0.012	-0.123***	-0.024	0.051***	0.002	-0.000	-0.023	-0.054***	0.160**

This table reports correlation matrix for the variables used in the study. Superscript asterisks \*\*\*, \*\* and \* indicate statistical significance at 1 %, 5 % and 10 % levels, respectively. Appendix A provides definitions of all variables.

**Table 4**

Regression results between continuous disclosure and announcement period abnormal return.

	Dependent variable = 3DCAR			
	Model (1)	Model (2)	Model (3)	Model (4)
	<i>LNDISC_TOT</i>	<i>LNDISC_SEN</i>	<i>LNPAGE_TOT</i>	<i>LNPAGE_SEN</i>
<i>CDISC</i>	0.010*** (3.266)	0.013*** (4.787)	0.007*** (3.329)	0.006*** (4.110)
<i>CASH</i>	0.004 (0.206)	0.005 (0.258)	0.003 (0.172)	0.005 (0.227)
<i>SIZE</i>	-0.005*** (-2.777)	-0.005*** (-2.936)	-0.005*** (-2.905)	-0.005*** (-2.920)
<i>LEV</i>	-0.002 (-0.841)	-0.002 (-0.950)	-0.002 (-0.894)	-0.002 (-0.968)
<i>TOBINQ</i>	0.007** (1.997)	0.007* (1.897)	0.008** (2.106)	0.008** (2.086)
<i>GROWTH</i>	-0.000 (-0.136)	-0.000 (-0.117)	-0.000 (-0.154)	-0.000 (-0.175)
<i>ROA</i>	-0.002 (-1.393)	-0.002 (-1.393)	-0.002 (-1.384)	-0.002 (-1.385)
<i>PRIVATE</i>	0.003 (0.608)	0.003 (0.721)	0.002 (0.524)	0.003 (0.678)
<i>ALLCASH</i>	0.002 (0.466)	0.003 (0.668)	0.002 (0.580)	0.003 (0.663)
<i>ALLSTOCK</i>	0.000 (0.013)	0.000 (0.016)	-0.000 (-0.033)	-0.000 (-0.024)
<i>RELATED</i>	0.004 (0.954)	0.004 (0.891)	0.004 (0.933)	0.004 (0.837)
<i>RELSIZE</i>	-0.000 (-0.813)	-0.000 (-0.861)	-0.000 (-0.819)	-0.000 (-0.860)
<i>HIGHTECH</i>	-0.001 (-0.083)	-0.001 (-0.099)	-0.001 (-0.101)	-0.001 (-0.072)
<i>FOREIGN</i>	0.002 (0.478)	0.002 (0.461)	0.002 (0.433)	0.003 (0.500)
<i>HOSTILE</i>	-0.001 (-0.045)	-0.002 (-0.089)	-0.002 (-0.092)	-0.001 (-0.059)
<i>SERIAL</i>	0.005 (0.959)	0.004 (0.832)	0.004 (0.872)	0.005 (1.048)
<i>MULTIPLE</i>	-0.006 (-0.874)	-0.007 (-0.907)	-0.006 (-0.857)	-0.008 (-1.114)
Constant	0.068* (1.924)	0.080** (2.166)	0.081** (2.162)	0.082** (2.237)
Year fixed effect	Yes	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes	Yes
Observations	3512	3512	3512	3512
R-squared	0.032	0.035	0.033	0.033

This table presents the results of acquirers' continuous disclosure on acquisition announcement period abnormal returns (3DCAR). Models (1)–(4) report the regression results of the association between continuous disclosure and announcement period abnormal returns using four proxies for continuous disclosure: total number of disclosures, total number of price-sensitive disclosures, total number of pages and total number of price-sensitive pages of disclosures. The *t*-values are based on robust standard errors clustered at firm level as shown in parentheses. Superscript asterisks \*\*\*, \*\* and \* indicate statistical significance at 1 %, 5 % and 10 % levels, respectively. Appendix A provides definitions of all variables.

and Moeller et al. (2004). Overall, we find that higher levels of continuous disclosure before acquisition announcements help mitigate the information asymmetry problem for bidding firms, resulting in higher market performance in terms of positive abnormal returns during the M&A announcement period.<sup>12</sup>

#### 4.3. Endogeneity analysis

In our regression models, a potential endogenous relationship between continuous disclosure and acquisitions performance could be a concern. For example, the association between continuous disclosure and acquisitions performance may be affected by reverse causality. It is reasonable to argue that firms with a higher level of continuous disclosure reduce the information asymmetry that

<sup>12</sup> Further analysis reveals that the positive association between bidders' announcement period abnormal returns and continuous disclosures is more pronounced when the bidding firms are subjected to more significant information asymmetry, as reflected by low analysts' coverage. As reported in Panel B of Appendix B, when we estimate a modified version of Eq. (1) by adding low analyst's coverage (*LOW\_ANALYST*) and the interaction between *LOW\_ANALYST* and *CDISC*, the interaction term generates positive and significant coefficients. Our main findings also remain qualitatively similar if the regression models are estimated without year or industry-fixed effects.

impacts on their performance. The effect in the opposite direction is also possible; firms with better performance may provide a higher level of continuous disclosure due to the benefits enjoyed by these firms from continuous disclosure.

To mitigate the potential endogeneity problem arising from reverse causality, we use the 2SLS technique with instrumental

**Table 5**

Two-stage least squares (2SLS) regression results.

	First Stage	Second Stage	First Stage	Second Stage
	<i>LNDISC_TOT</i>		<i>LNPAGE_TOT</i>	
	Model (1)	Model (2)	Model (3)	Model (4)
<i>CDISC</i>	—	0.012*** (3.147)	—	0.078*** (4.952)
<i>CASH</i>	0.069 (0.898)	0.012 (0.474)	0.258* (1.660)	−0.003 (−0.097)
<i>SIZE</i>	0.040*** (5.769)	−0.004** (−2.154)	0.139*** (9.641)	−0.016*** (−4.189)
<i>LEV</i>	−0.030 (−0.485)	0.005 (0.397)	0.115 (0.794)	−0.001 (−0.078)
<i>TOBINQ</i>	0.097*** (2.976)	0.014** (2.082)	0.236*** (4.322)	−0.003 (−0.406)
<i>GROWTH</i>	−0.001 (−1.084)	−0.000 (−0.441)	0.002 (1.484)	−0.000 (−1.305)
<i>ROA</i>	0.005 (0.631)	−0.004 (−0.774)	0.008 (0.399)	−0.004 (−0.693)
<i>PRIVATE</i>	−0.101*** (−3.859)	0.007 (1.635)	−0.130** (−2.414)	0.015** (2.399)
<i>ALLCASH</i>	−0.000 (−0.002)	0.001 (0.163)	0.012 (0.224)	−0.002 (−0.287)
<i>ALLSTOCK</i>	0.101** (2.419)	−0.003 (−0.214)	0.254*** (3.072)	−0.018 (−1.225)
<i>RELATED</i>	−0.016 (−0.623)	0.008* (1.678)	−0.037 (−0.739)	0.010* (1.696)
<i>RELSIZE</i>	0.000 (0.442)	−0.000 (−0.702)	0.003 (0.231)	−0.001 (−0.805)
<i>HIGHTECH</i>	−0.011 (−0.321)	−0.010 (−1.209)	0.008 (0.112)	−0.006 (−0.604)
<i>FOREIGN</i>	−0.018 (−0.628)	−0.003 (−0.574)	−0.038 (−0.621)	0.001 (0.106)
<i>HOSTILE</i>	0.096 (0.544)	0.010 (0.294)	0.539 (1.337)	−0.027 (−0.497)
<i>SERIAL</i>	0.059 (1.632)	−0.001 (−0.158)	0.221*** (2.945)	−0.019** (−2.557)
<i>MULTIPLE</i>	0.075 (0.986)	−0.003 (−0.322)	0.047 (0.386)	−0.006 (−0.453)
<i>CDISC_IND_YEAR</i>	0.324*** (38.359)	—	0.193*** (3.088)	—
<i>CDISC_LAG</i>	0.121*** (7.005)	—	0.125*** (7.025)	—
Constant	0.125 (1.000)	0.039 (0.990)	−0.827*** (−3.259)	0.096** (2.031)
Year and industry fixed effect	Yes	Yes	Yes	Yes
Observations	2503	2503	2503	2503
R-squared	0.070	0.596	0.056	0.596
<b>Instrument diagnostics tests:</b>				
Durbin–Wu–Hausman stats (Test of endogeneity)		3.587*		47.723***
Kleibergen–Paap rk LM statistic (Under-identification test)		776.488***		64.585***
Kleibergen–Paap rk Wald F statistic (Weak identification test)		810.190		36.772
				0.760
Hansen J statistic (Over-identification test)		0.037 (p-value = 0.264)		(p-value = 0.814) (p-value>0.10)

This table presents the two-stage least squares (2SLS) regression results. Models (1) and (3) report the first-stage regression results using two proxies for continuous disclosure: total number of disclosures and total number of pages. Models (2) and (4) show the second-stage regression results using two proxies for continuous disclosure: total number of disclosures and total number of pages. The *t*-values are based on robust standard errors clustered at firm level as shown in parentheses. Superscript asterisks \*\*\*, \*\* and \* indicate statistical significance at 1 %, 5 % and 10 % levels, respectively. Appendix A provides definitions of all variables.

variables. Following prior studies, we use the annual industry average of continuous disclosure (*CDISC\_IND\_YEAR*) (see, Gul et al., 2020) and lagged continuous disclosure (*CDISC\_LAG*) (see Coles et al., 2008; Henry, 2010) as instrumental variables. In Table 5, Models (1) and (3) report the respective first-stage regression results where continuous disclosure is the dependent variable, while the two instrumental variables and other control variables are the predictors of continuous disclosure.<sup>13</sup> In those models, both instrumental variables enter in the respective models with positive coefficients that are significant at the 1 % level.

In relation to the control variables, large firms, firms with growth opportunities, and those that make high relative size acquisitions seem to make more continuous disclosures, while bidders for foreign targets seem to make fewer continuous disclosures. The nonsignificant Hansen *J*-statistic reveals that *CDISC\_IND\_YEAR* and *CDISC\_LAG* are valid instrumental variables. Furthermore, the Kleibergen–Paap rk Lagrange multiplier and Wald *F*-statistics for the under-identification and weak identification tests show that our two instrumental variables are neither under-identified nor weakly identified. More importantly, in our second-stage regression models, Models (2) and (4), the respective continuous disclosure variables generate positive coefficients that are significant at the 1 % level, implying that our findings remain robust after accounting for possible reverse causality.

#### 4.4. Alternative proxies for continuous disclosure

The continuous disclosures made by a firm can be affected by some firm- and industry-specific factors. For example, larger firms may disclose more information than smaller firms for various reasons.<sup>14</sup> In Australia, mining firms are required to prepare quarterly activities reports, so they may make more disclosures than companies in other industries.<sup>15</sup> Similarly, financial firms are required to issue substantial shareholder notices and changes to their holdings on a regular basis. Companies that announce new equity issues and share buyback programmes may disclose more information, since they usually provide updates on these financing transactions. Given that the extent of disclosure in annual reports tends to increase in the period following a firm's entry into the capital market (Choi, 1973), firms that are listed for a longer period may disclose more information to the public.

To overcome some of the above concerns, we also use a number of alternative continuous disclosure measures to address the possible influence of the above factors on the disclosure environment of the firm. First, we use two longer continuous disclosure periods – 60 days and 180 days prior to the acquisition announcement – to minimise possible variability in disclosures among firms arising from firm-specific disclosure events that may occur in a shorter window. The estimates derived using these two measures of continuous disclosure are reported in Panels A and B of Table 6, respectively. We find that, in both panels, the *CDISC* variable generates positive and significant coefficients in almost all four models estimated and the magnitudes of *CDISC* coefficients remain similar to those reported in Table 4. Next, we consider only the takeover-related continuous disclosures made by firms during the 30 days prior to the acquisition announcement, to make disclosures among sample firms qualitatively similar.<sup>16</sup> In Panel C, we find that all the *CDISC* coefficients enter into the respective models with positive and significant coefficients. Finally, we use industry-adjusted continuous disclosure and re-estimate the respective models in Panel D and find three of the four *CDISC* coefficients to be statistically significant.<sup>17</sup> Therefore, our findings remain insensitive to the use of alternative measures of continuous disclosure.

#### 4.5. Bid characteristics and continuous disclosure

In this section, we investigate RQ2 that examine whether the association between acquirers' announcement period abnormal returns and the level of continuous disclosure depends on the bid characteristics. In this respect, three bid characteristics are analysed: (i) the organisational form of the target (i.e. public versus private targets), (ii) the method of payment (i.e. cash- versus stock-financed deals), and (iii) the diversification motives of the acquisition (i.e. related versus unrelated acquisitions). For this purpose, we partition the sample into two groups in each case based on the organisational form of the target, the method of financing, and the relatedness of the acquisition.

The results are reported in Table 7. Our analysis shows that the level of continuous disclosure is significantly and positively associated with the acquisition of private targets (Panel A), stock-financed acquisitions (Panel B), and unrelated acquisitions (Panel C). These findings may imply that the higher information asymmetry associated with these types of acquisitions can be a result of material information supplied to the market by bidders through their continuous disclosure practices. Consequently, the association between continuous disclosure and announcement abnormal returns is more pronounced for bidders who acquire private targets, offer stock

<sup>13</sup> To conserve space, we report the results only for the two total disclosure measures. The findings remain similar for the two price-sensitive disclosure measures.

<sup>14</sup> Buzby (1975) presents a number of reasons why larger firms disclose more information. First, they gather a large volume of data for internal decisions and can therefore supply already available data to the public at lower cost. Second, larger firms make extensive use of the capital market for external financing, and substantial disclosure of information is needed to retain investor confidence. Finally, larger firms are closely watched by government agencies and these firms may believe that better reporting will lessen this undesired pressure from the government.

<sup>15</sup> See [https://www.asx.com.au/documents/rules/guidance\\_note\\_31\\_reporting\\_on\\_mining\\_activities.pdf](https://www.asx.com.au/documents/rules/guidance_note_31_reporting_on_mining_activities.pdf) (accessed on 14 May 2024).

<sup>16</sup> We compute takeover related *CDISC* as per announcement types/subtypes by ASX. Following announcements are considered as takeover related continuous disclosures: (i) Takeover/Scheme Announcement, (ii) Intention to Make Takeover Bid, (iii) Bidder's/Target's Statement – Off-market/Market bid, (iv) Off-market bid offer document to bid class holders, (v) Directors' Statement re Takeover, (vi) Variation of Takeover Bid, (vii) Takeover – Other, (viii) Supplementary Bidder's/Target's Statement, and (ix) Scheme of Arrangements.

<sup>17</sup> We compute industry adjusted *CDISC* as the difference between bidder's continuous disclosures and the yearly industry average disclosures where the bidding firms operate.

**Table 6**  
Regression results: Alternative proxies for continuous disclosure.

Panel A: Regression results between acquirers' continuous disclosure and announcement period abnormal returns: 60 days event window				
	Dependent variable = 3DCAR			
	Model (1)	Model (2)	Model (3)	Model (4)
	<i>LNDISC_TOT</i>	<i>LNDISC_SEN</i>	<i>LNPAGE_TOT</i>	<i>LNPAGE_SEN</i>
<i>CDISC</i>	0.007** (2.422)	0.009*** (3.942)	0.005** (2.063)	0.004*** (3.090)
Constant	0.067* (1.897)	0.080** (2.152)	0.077** (2.079)	0.081** (2.194)
Control variables	Yes	Yes	Yes	Yes
Year & industry fixed effect	Yes	Yes	Yes	Yes
Observations	3512	3512	3512	3512
R-squared	0.030	0.032	0.030	0.030

  

Panel B: Regression results between acquirers' continuous disclosure and announcement period abnormal returns: 180 days event window				
	Dependent variable = 3DCAR			
	Model (1)	Model (2)	Model (3)	Model (4)
	<i>LNDISC_TOT</i>	<i>LNDISC_SEN</i>	<i>LNPAGE_TOT</i>	<i>LNPAGE_SEN</i>
<i>CDISC</i>	0.005** (1.977)	0.009*** (3.322)	0.001 (0.465)	0.004*** (2.933)
Constant	0.067* (1.909)	0.084** (2.199)	0.075** (2.056)	0.086** (2.240)
Control variables	Yes	Yes	Yes	Yes
Year & industry fixed effect	Yes	Yes	Yes	Yes
Observations	3512	3512	3512	3512
R-squared	0.029	0.032	0.028	0.030

  

Panel C: Regression results between acquirers' continuous disclosure and announcement period abnormal returns: Only takeover related continuous disclosure				
	Dependent variable = 3DCAR			
	Model (1)	Model (2)	Model (3)	Model (4)
	<i>LNDISC_TOT</i>	<i>LNDISC_SEN</i>	<i>LNPAGE_TOT</i>	<i>LNPAGE_SEN</i>
<i>CDISC</i>	0.017*** (2.596)	0.048*** (6.470)	0.012*** (3.003)	0.047*** (6.240)
Constant	0.080** (2.149)	0.045 (1.385)	0.080** (2.144)	0.043 (1.335)
Control variables	Yes	Yes	Yes	Yes
Year & industry fixed effect	Yes	Yes	Yes	Yes
Observations	3512	3512	3512	3512
R-squared	0.041	0.119	0.037	0.114

  

Panel D: Regression results between acquirers' continuous disclosure and announcement period abnormal returns: Industry-adjusted measure of CDISC				
	Dependent variable = 3DCAR			
	Model (1)	Model (2)	Model (3)	Model (4)
	<i>LNDISC_TOT</i>	<i>LNDISC_SEN</i>	<i>LNPAGE_TOT</i>	<i>LNPAGE_SEN</i>
<i>CDISC</i>	0.010*** (3.230)	0.013*** (4.676)	0.007*** (3.231)	0.006*** (3.647)
Constant	0.087** (2.253)	0.087** (2.325)	0.091** (2.317)	0.085** (2.322)
Control variables	Yes	Yes	Yes	Yes
Year & industry fixed effect	Yes	Yes	Yes	Yes
Observations	3512	3512	3512	3512
R-squared	0.032	0.035	0.032	0.032

This table presents the results using alternative proxies of continuous disclosure. Panel A (Panel B) presents the results when a 60-day (180-day) window is used to generate continuous disclosure measures. Panel C presents the results when takeover related disclosures are used as the measure of continuous disclosure while Panel D presents results using industry-adjusted disclosure measures. The *t*-values are based on robust standard errors clustered at firm level, shown in parentheses. Superscript asterisks \*\*\*, \*\* and \* indicate statistical significance at 1 %, 5 % and 10 % levels, respectively. Appendix A provides definitions of all variables.



**Table 7**  
Continuous disclosure and announcement period abnormal return: Bid characteristics.

Panel A: Private vs. public acquisitions									
Dependent variable = <i>3DCAR</i>									
	Model (1)		Model (2)		Model (3)		Model (4)		
	<i>LNDISC_TOT</i>		<i>LNDISC_SEN</i>		<i>LNPAGE_TOT</i>		<i>LNPAGE_SEN</i>		
	Private	Public	Private	Public	Private	Public	Private	Public	
<i>CDISC</i>	0.016*** (2.782)	0.006* (1.853)	0.015*** (3.321)	0.011*** (3.921)	0.012*** (3.146)	0.003 (1.528)	0.007*** (2.736)	0.005*** (3.469)	
Constant	0.068 (0.928)	0.064** (2.133)	0.075 (0.998)	0.077** (2.407)	0.085 (1.121)	0.082** (2.133)	0.077 (1.028)	0.079** (2.471)	
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Industry fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Observations	1678	1834	1678	1834	1678	1834	1678	1834	
R-squared	0.049	0.036	0.050	0.042	0.052	0.036	0.047	0.039	

  

Panel B: Cash vs. stock acquisitions									
	Model (1)		Model (2)		Model (3)		Model (4)		
	<i>LNDISC_TOT</i>		<i>LNDISC_SEN</i>		<i>LNPAGE_TOT</i>		<i>LNPAGE_SEN</i>		
	Cash	Stock	Cash	Stock	Cash	Stock	Cash	Stock	
<i>CDISC</i>	0.003 (0.934)	0.039** (2.123)	0.007** (2.267)	0.038** (2.164)	0.003 (1.401)	0.026*** (2.611)	0.006*** (2.637)	0.017* (1.928)	
Constant	0.033 (0.787)	0.126* (1.652)	0.040 (0.920)	0.184** (2.178)	0.045 (1.054)	0.179** (2.151)	0.044 (1.000)	0.210** (2.388)	
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Industry fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Observations	1212	398	1212	398	1212	398	1212	398	
R-squared	0.112	0.114	0.116	0.118	0.111	0.118	0.119	0.110	

  

Panel C: Related vs. unrelated acquisitions									
	Model (1)		Model (2)		Model (3)		Model (4)		
	<i>LNDISC_TOT</i>		<i>LNDISC_SEN</i>		<i>LNPAGE_TOT</i>		<i>LNPAGE_SEN</i>		
	Related	Unrelated	Related	Unrelated	Related	Unrelated	Related	Unrelated	
<i>CDISC</i>	0.007 (1.382)	0.012*** (2.665)	0.015*** (3.249)	0.011*** (3.358)	0.004 (1.426)	0.009*** (2.745)	0.008*** (3.044)	0.005*** (2.744)	
Constant	0.032 (0.893)	0.099 (1.539)	0.048 (1.268)	0.106 (1.607)	0.039 (1.064)	0.114* (1.679)	0.051 (1.350)	0.108 (1.638)	
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Industry fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Observations	1377	2135	1377	2135	1377	2135	1377	2135	
R-squared	0.060	0.041	0.069	0.042	0.060	0.044	0.066	0.039	

This table presents the regression results of acquirers' continuous disclosure on acquisition announcement period abnormal returns (*3DCAR*). Models (1)–(4) report the regression results of the association between continuous disclosure and bid characteristics using four proxies for continuous disclosure: total number of disclosures, total number of price-sensitive disclosures, total number of pages and total number of price-sensitive pages of disclosures. Panels A, B, C, D and E present results for private vs. public, cash vs. stock, related vs. unrelated, foreign vs. domestic and serial vs. non-serial acquisitions, respectively. The *t*-values are based on robust standard errors clustered at firm level, shown in parentheses. Superscript asterisks \*\*\*, \*\* and \* indicate statistical significance at 1%, 5% and 10% levels, respectively. Appendix A provides definitions of all variables.

deals, and purchase targets from unrelated business.

#### 4.6. Size effect

Prior studies show that the size effect is pronounced in acquirer returns, suggesting that large bidders are more likely to destroy shareholder wealth (Moeller et al., 2004). Additionally, information asymmetry can be a more pronounced issue for small companies than their large counterparts (Fosu et al., 2016). We, therefore, investigate whether firm size plays any role in the relationship between continuous disclosure and announcement period abnormal return of acquirers. For this purpose, we split the sample bidders into two groups based on bidders' market capitalisation above A\$100 million and estimate regression models separately for the two groups. The findings are reported in Table 8. We find that the positive association between continuous disclosures and announcement period

**Table 8**  
Regression results: Size effect.

	Dependent variable = 3DCAR							
	Model (1)		Model (2)		Model (3)		Model (4)	
	LNDISC_TOT		LNDISC_SEN		LNPAGE_TOT		LNPAGE_SEN	
	Large	Small	Large	Small	Large	Small	Large	Small
CDISC	-0.001 (-0.714)	0.034*** (3.905)	0.002 (1.449)	0.039*** (4.921)	-0.000 (-0.311)	0.022*** (3.997)	0.001 (1.150)	0.018*** (3.995)
Constant	0.025 (1.344)	0.146 (1.322)	0.033 (1.556)	0.186 (1.631)	0.028 (1.497)	0.170 (1.529)	0.033 (1.584)	0.185 (1.611)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2310	1202	2310	1202	2310	1202	2310	1202
R-squared	0.059	0.058	0.060	0.065	0.059	0.060	0.059	0.056

This table presents the results of the sensitivity tests. Table 8 reports the impact of acquirers' continuous disclosure on acquisition announcement period abnormal returns for large and small bidders (100 million market capitalisation as a cut-off). The *t*-values are based on robust standard errors clustered at firm level, shown in parentheses. Superscript asterisks \*\*\*, \*\* and \* indicate statistical significance at 1 %, 5 % and 10 % levels, respectively. Appendix A provides definitions of all variables.

abnormal returns hold for small bidders as the *CDISC* is positive and significant in all four proxies for the small bidders group. The same variable generates insignificant coefficients for the large bidders group. These findings imply that the size effect is pronounced in our sample of acquisitions, and investors rely more on continuous disclosures when bidders are small. It appears that continuous disclosure is more effective in mitigating the information asymmetry issue of small bidders.

## 5. Conclusion

In this study, we investigate the association between continuous disclosure made by bidders and the market reaction to their acquisition announcements. We find a positive and significant relationship, implying that the market rewards bidders who disclose information on a continuous basis with positive abnormal returns when they announce their intention to make acquisitions. This result implies that reduced information asymmetry leads to better acquisition decisions, which are rewarded by the capital market. Regression estimates corrected for endogeneity reveal that our findings remain robust to addressing possible reverse causality. With respect to bid characteristics, we find that this positive association is more pronounced for private target acquisitions, stock-financed acquisitions, and unrelated acquisitions. This implies that bidders who release higher levels of continuous disclosures mitigate the information asymmetry associated with these types of acquisitions, thereby encouraging market participants to be more positive about the prospects of these deals.

We further find that the association between continuous disclosure and announcement period abnormal returns is more pronounced when small bidders releasing higher levels of continuous disclosures. The reasons could be the mitigation of the risk associated with the lack of publicly available information about small bidders through continuous disclosure (compared with large bidders for whom such a risk is less severe due to greater media coverage and higher number of analysts they attract).

The findings of this study have several implications for regulators, investors, analysts, policy makers, and company management. First, since market participants believe that continuous disclosure improves the quality of firms' acquisition decisions, analysts and investors may demand that managers disclose price-sensitive information in a continuous and timely manner during the acquisition announcement period. Second, regulators may be pleased to see that continuous disclosure works in favour of market participants and creates value in capital markets. Finally, since M&A investments require the commitment of a significant amount of funds and are irreversible in nature, the contribution that continuous disclosure makes to these decisions could be beneficial to all the above-mentioned stakeholders.

## CRediT authorship contribution statement

**Syed Shams:** Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Data curation, Conceptualization.  
**Sudipta Bose:** Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Data curation, Conceptualization.  
**Abeyratna Gunasekarage:** Writing – review & editing, Writing – original draft, Supervision, Methodology, Conceptualization.  
**Eswaran Velayutham:** Writing – original draft, Formal analysis, Data curation.

## Data availability

All data used in this paper are publicly available.

## Appendix

### Appendix 1. Definitions of variables

#### Panel B: Market reactions

<i>3DCAR</i>	Three (3) day cumulative abnormal return	Cumulative abnormal return earned by the acquirer during the three-day announcement period.
<i>5DCAR</i>	Five (5) day cumulative abnormal return	Cumulative abnormal return earned by the acquirer during the five-day announcement period.

#### Panel B: Continuous disclosure

<i>CDISC</i>	Continuous disclosures	Four proxies of continuous disclosures.
<i>LNDISC_TOT</i>	Total number of disclosures	The natural logarithm of total number of disclosures.
<i>LNDISC_SEN</i>	Total number of sensitive disclosures	The natural logarithm of total number of price-sensitive disclosures.
<i>LNPAGE_TOT</i>	Total number of pages disclosures	The natural logarithm of total number of pages.
<i>LNPAGE_SEN</i>	Total number of price-sensitive pages disclosures	The natural logarithm of total number of price-sensitive pages.

#### Panel C: Firm characteristics

<i>CASH</i>	Cash	The ratio of total cash scaled by total assets.
<i>SIZE</i>	Firm size	The natural logarithm of the bidder's market capitalisation.
<i>LEV</i>	Leverage	The sum of the bidder's short-term debt, plus the current portion of long-term debt, plus the remaining long-term debt divided by total assets.
<i>TOBINQ</i>	Tobin's Q	Market value of total assets divided by book value of total assets. Market value of total assets is equivalent to enterprise value.
<i>GROWTH</i>	Sales growth	The percentage increase in sales over the previous year.
<i>ROA</i>	Profitability	Operating income divided by book value of total assets.
<i>GOVINDEXT</i>	Corporate governance index	Corporate governance index is computed as the sum of four dummy variables: CEO duality, CEO ownership dummy, board independence dummy, and proportion of executive directors on the board dummy. The dummy is computed based on yearly median of CEO duality, CEO ownership, board independence, and the proportion of executive directors on board.
<i>LOW_ENTRENCHMENT</i>	Free cash flow	Low entrench bidder is defined if free cash flow is less than median value of the bidders free cash flow.
<i>LARGE</i>	Large bidder	Large bidder is defined if market capitalisation is greater than A\$100 million.
<i>SMALL</i>	Small bidder	Small bidder is defined if market capitalisation is lower than A\$100 million.

#### Panel C: Bid characteristics

<i>PRIVATE</i>	Private	An indicator variable that takes a value of 1 if the target is privately owned, and 0 otherwise.
<i>ALLCASH</i>	All cash	An indicator variable that takes a value of 1 where the consideration exchanged is all cash, and 0 otherwise.
<i>ALLSTOCK</i>	All stock	An indicator variable that takes a value of 1 where the consideration exchanged is all equity in the acquirer, and 0 otherwise.
<i>RELATED</i>	Related	An indicator variable that takes a value of 1 where the target and acquirer belong to the same Standard Industrial Classification (SIC) codes, and 0 if they are different.
<i>RELSIZE</i>	Relative size	Transaction value reported by SDC Platinum database as a percentage of the market value of the acquirer at announcement.
<i>HIGHTECH</i>	High-tech industry	An indicator variable that takes a value of 1 if the target belongs to the high-tech industry, and 0 otherwise.
<i>FOREIGN</i>	Foreign	An indicator variable that takes a value of 1 if the target is not an Australian company, and 0 otherwise.
<i>HOSTILE</i>	Hostile	An indicator variable that takes a value of 1 if the target is hostile, and 0 otherwise.
<i>SERIAL</i>	Serial	An indicator variable that takes a value of 1 if the bidder has acquired a target in the twelve months prior to the acquisition announcement month, and 0 otherwise.
<i>MULTIPLE</i>	Multiple	An indicator variable that takes the value of 1 if the target has received a bid from a different acquirer subsequent to the initial bid, and 0 otherwise.

#### Panel D: Instrumental variables

<i>CDISC_IND_YEAR</i>	Instrumental variable 1	Annual industry average of continuous disclosure proxies.
<i>CDISC_LAG</i>	Instrumental variable 2	One-year lag of continuous disclosure proxies.

#### Panel E: Other

<i>LOW_ANALYST</i>	Low financial analysts' coverage	An indicator variable that takes a value of 1 if the number of financial analysts following the bidder is lower than the annual median value, and 0 otherwise.
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### Appendix 2. Sensitivity tests

This table presents the results of the sensitivity tests. Panel A presents the results of the impact of acquirers' continuous disclosure on acquisition

announcement period abnormal returns using *SDCAR*. Panel B presents the results of the moderating role of analysts' coverage on the association between acquirers' continuous disclosure and announcement period abnormal returns. The *t*-values are based on robust standard errors clustered at firm level, shown in parentheses. Superscript asterisks \*\*\*, \*\* and \* indicate statistical significance at 1 %, 5 % and 10 % levels, respectively. Appendix A provides definitions of all variables.

Panel A: Continuous disclosure and announcement period abnormal returns: Five-day announcement period abnormal return				
	Dependent variable = <i>SDCAR</i>			
	Model (1)	Model (2)	Model (3)	Model (4)
	<i>LNDISC_TOT</i>	<i>LNDISC_SEN</i>	<i>LNPAGE_TOT</i>	<i>LNPAGE_SEN</i>
<i>CDISC</i>	0.008** (2.319)	0.010*** (3.620)	0.005** (2.361)	0.004*** (2.903)
Constant	0.081** (2.494)	0.090*** (2.679)	0.090*** (2.652)	0.092*** (2.731)
Control variables	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes	Yes
Observations	3512	3512	3512	3512
R-squared	0.030	0.032	0.031	0.031

  

Panel B: Continuous disclosure and announcement period abnormal returns: Moderating role of analysts				
	Dependent variable = <i>3DCAR</i>			
	Model (1)	Model (2)	Model (3)	Model (4)
	<i>LNDISC_TOT</i>	<i>LNDISC_SEN</i>	<i>LNPAGE_TOT</i>	<i>LNPAGE_SEN</i>
<i>CDISC</i>	0.007 (0.394)	0.019 (1.076)	0.005 (0.382)	0.014 (1.453)
<i>CDISC</i> × <i>LOW_ANALYST</i>	0.034 (1.647)	0.036* (1.678)	0.026* (1.901)	0.021* (1.807)
<i>LOW_ANALYST</i>	-0.086* (-1.669)	-0.051 (-1.529)	-0.111** (-1.992)	-0.048 (-1.510)
Constant	0.124 (0.719)	0.126 (0.782)	0.140 (0.739)	0.158 (0.985)
Control variables	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes	Yes
Observations	2002	2002	2002	2002
R-squared	0.103	0.109	0.105	0.111

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