

**EARNINGS MANAGEMENT OF TARGET FIRMS AND DEAL PREMIUMS:  
THE ROLE OF INDUSTRY RELATEDNESS**

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**Abstract:** This paper contributes to the merger and acquisitions (M&A) literature by providing evidence for the role of industry relatedness in the association between target firms' earnings management (EM) before the deal and the premium offered by the acquirer. We argue that familiarity with the industry's policies and practices is a crucial factor that helps acquirers to see through targets' EM. Our evidence supports this prediction in relation to accounting manipulation as we observe that the income increasing accrual manipulation of the target results in significantly higher premiums offered by acquirers in interindustry deals, which is not the case when targets and acquirers belong to the same industry.

**Keywords:** mergers and acquisitions; earnings management; bid premium; industry relatedness.

**JEL codes:** G34 (Mergers • Acquisitions • Restructuring • Corporate Governance); M41 (Accounting).

## 1. INTRODUCTION

Global merger and acquisitions (M&A)<sup>1</sup> came to 4.1 trillion USD in deal announcements in 2018, the third highest volume since 2002 (J.P. Morgan, 2019). Nevertheless, it is well-known that most deals fail to create value for acquirers (Very & Schweiger, 2001), which is commonly rooting in bidders paying excessive premiums due to targets' overvaluation (PwC, 2016). A number of empirical papers in the M&A literature corroborates this scenario for stock returns, which are positive for targets, but at best insignificant for acquirers (Bowman, Fuller, & Nain, 2009; Guest, Bild, & Runsten, 2010; Martynova & Renneboog, 2008; Malmendier & Tate, 2008; Tuch & O'Sullivan, 2007), and for acquirers' postmerger operating performance, which is often negative (Fu, Lin, & Officer, 2013; Ghosh, 2011; Harford, Humphery-Jenner, & Powell, 2012).

Part of the problem lies in bidders mostly ignoring crucial private information about risks, economic resources and obligations of targets before M&A (Wangerin, 2019). Instead they very much depend on public financial information, such as financial statements, to properly gauge the target's value during the pre-acquisition process (also known as due diligence) (Angwin, 2001; Lajoux & Elson, 2009; Marquardt & Zur, 2015; Wangerin, 2019). This process is not straightforward, and acquirers often face many obstacles to obtain reliable information about the target's financial condition to understand why the value destruction occurs.

With this scenario, a relevant hurdle to bear in mind is that the target's financial reports might be distorted by opportunistic earnings management (EM). Thus, identifying target's EM before M&A is worthy because rigged financial reports may push bidders to overvalue targets by offering excessive premiums as a result. This paper aims to shed light on one of the critical factors that might help bidders to become more aware of the target's EM practices before the deal, namely industry relatedness. We particularly investigate the role of industry relatedness in the association between the target's EM practices and the premium offered by the acquirer. Here industry relatedness distinguishes between those deals in which bidders and targets belong to the same industry (intra-industry) or not (inter-industry).

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<sup>1</sup> As usual in the literature, we employ the terms mergers, acquisitions, deals, takeovers and M&A interchangeably (e.g., Weitzel & Berns, 2006).

In the 1960s and 1970s, with the diversification wave, M&A brought about gains that came in the form of diversification to acquirer firms involved in both inter- and intra-industry deals (Martynova & Renneboog, 2008). However, that was temporary, and the benefits for acquirers in inter-industry deals ceased (Lang & Stulz, 1994; Servaes, 1996); besides, regarding overvaluation, the extant studies clearly suggest that it is lower in intra-industry mergers (Gregory, 1997; Maquieira, Megginson, & Nail, 1998; Moeller & Schlingemann, 2005; Singh & Montgomery, 1987; Walker, 2000).<sup>2</sup>

In a related study, Raman, Shivakumar and Tamayo (2013) state that, compared to inter-industry deals, bidders in intra-industry deals display a better understanding of the sources of uncertainty in the target's financial reports because they have privileged knowledge over the industry practices governing the target's business activities. Besides, the financial reporting literature suggests that firms in the same industry are more likely to follow similar accounting policy choices and procedures (Ballas & Hevas, 2005; Gu, Lee, & Rosett, 2005; Jaafar & McLeay, 2007). These findings have important implications for our research because they allow us to expect that bidders in intra-industry deals understand the target's EM practices to boost earnings, and discount them in the premium offered more easily than in industry-unrelated M&A.

This study helps to further our understanding of the role that the target's EM plays in the M&A process, adding to the relatively scarce academic evidence on the role of the target's information quality in takeover decisions (Raman et al., 2013). Actually, some studies suggest that these practices are not always at the acquirer's expense (Anagnostopoulou & Tsekrekos, 2013; Anagnostopoulou & Tsekrekos, 2015; Chen, Thomas, & Zhang, 2016). Furthermore, anecdotal evidence suggests that a misunderstanding regarding the target's manipulated financial statements underlies the overvaluation of some M&A. One example is the acquisition of the UK firm *Autonomy* in the corporate software and services sector by the US hardware business *HP*. In 2018, the US Department of Justice filed a criminal investigation against Mike Lynch, the former CEO and co-founder of *Autonomy*. As alleged

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<sup>2</sup> Other determinants of the variability in the acquirers' gains studied in prior research are: the relative size of the transaction (Asquith, Bruner & Mullins, 1983); the bidder's size (Moeller, Schlingemann & Stulz, 2004) and growth opportunities (Sudarsanam & Mahate, 2003); the method of payment (Chang, 1998; Fuller, Netter & Stegemoller, 2002; Barbopoulos & Sudarsanam, 2012); or the relative conditions of the equity markets at the announcement time of the deal (Andriosopoulos & Barbopoulos, 2017).

by *HP*, he and other executives engaged in financial mismanagement before the deal completion in 2011 (Jolly, 2018). *HP* invested USD 11.1 billion in the deal, paid a premium of 64% for *Autonomy* and booked an impairment loss of USD 8.8 billion only 1 year later (Ciesielski, 2016; Gupta, Damouni, & Sandle, 2012). This occurred despite the fact that *HP* had performed an intensive due diligence before the merger (Moore, 2012). Indeed this is an extreme case of accounting fraud by the target company, but it can be argued that such incidents are quite rare. Nevertheless, as EM practices are a pervasive widespread strategy of firms (Bagnoli & Watts, 2000), and acquirers obviously have clear incentives to hide this type of (non efficient) decisions, the chances are that such cases of (less extreme) earnings upward manipulation underlying M&A overvaluation are probably more frequent than the anecdotal evidence would lead us to believe.

We test our prediction in a sample of 694 M&A announced in Europe during the 1997-2017 period. The European market for corporate control is a growing, dynamic, and relatively underexplored market. Moreover, Europe is an attractive setting for global M&A research as it comprises several jurisdictions with different legal systems and financial markets (Faccio & Masulis, 2016; Humphery-Jenner, 2012; Moschieri & Campa, 2009, 2014).

In the empirical tests, we express the premium offered in the M&A announcement according to the target's EM practices, industry relatedness, and the interaction of both, by means of which we test our research question. We also control for several of the deal's characteristics, the target's financial condition before the announcement, and other factors that have been related to bid premiums in the previous related literature. To proxy for accounting manipulation, we employ a measure based on signed discretionary accruals (DA), estimated by the performance-matched model proposed by Kothari, Leone and Wasley (2005). We also consider EM measures by real activities using the estimations for sales manipulation and overproduction proposed by Roychowdhury (2006).<sup>3</sup>

The results confirm the role of industry relatedness in the association between target's EM and premium because we find that in inter-industry deals the income increasing accrual

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<sup>3</sup> The literature differentiates between accounting EM and real EM (e.g., see Healy & Whalen, 1999; Dechow & Skinner, 2000). The former refers to earnings manipulation using accruals, while the second is done by manipulating cash flows through economic transactions like delaying R&D activities or cutting discretionary expenses.

manipulation of the target results in significantly higher premiums offered by acquirers. However, this effect is significantly lower in intra-industry deals, in which bidders do not pay more for artificially boosted earnings. None of our estimations indicate a significant association between the bid premium and real EM proxies. These results are robust to several alternative model specifications after controlling for a large set of covariates.

Overall, evidence confirms our prediction of the target's EM practices. It would seem that when both firms belong to the same industry, acquirers can take advantage of their knowledge of industry and can, therefore, detect upward earnings manipulation via DA and, thus, avoid paying higher premiums for artificially overvalued targets. This is not the case with inter-industry takeovers. Thus industry familiarity helps acquirers to untangle the complex mix that appears between the real economic value of synergies and the noise that management discretion incorporates into the target's financial statements. In other words, our results imply that due diligence is a useful tool to identify accounting manipulation, which occurs only when the acquirer possesses good knowledge of the target industry.

Regarding earnings manipulation through real activities, its association with the premium offered by the acquirer is only marginally significant, and only when other forms of EM are ignored. Besides, industry relatedness does not change this association. This falls in line with the claims that real EM practices are less pervasive than accounting manipulation because they affect cash flows and are, therefore, more costly (Bagnoli & Watts, 2000; Graham, Harvey, & Rajgopal, 2005; Cohen, Dey, & Lys, 2008). Although recent research points out a shift from accruals to real EM in the USA, this is not the case with other settings (Evans, Houston, Peters, & Pratt, 2015).

This paper contributes to the literature in a number of ways. First, although prior research widely confirms that acquirers perform EM before stock-for-stock deals to lower their acquisition costs (Botsari & Meeks, 2008; Erickson & Wang, 1999; Higgins, 2013; Louis, 2004), very little is known about the effects of the target's EM activity on M&A negotiations (Anagnostopoulou & Tsekrekos, 2015; Campa & Hajbaba, 2016). This contrasts with two facts: 1) EM is a widespread phenomenon that companies use in a pervasive manner (Bagnoli & Watts, 2000); 2) although acquirers invest plenty of resources in the due diligence process (Angwin, 2001; Very & Schweiger, 2001), flaws are usual. This paper provides new insights

into due diligence by delving into the target's accounting information, which is a key source to estimate the benefits of the takeover, but could be contaminated by EM practices (Raman et al., 2013). Disentangling this complex mix is a desirable goal of the pre-acquisition process to enhance its value for acquirers. Accordingly, this paper relates to recent research that has examined the economic value of due diligence (Cumming & Zambelli, 2017). However, this research differs from prior US papers that refer to the impact of FRQ on the bid premium, because it focuses on EM and considers the role of industry relatedness. Similarly, the present paper differs from recent evidence for the target's EM and bid premiums in deals completed in the USA (Farooqi, Jory, & Ngo, 2020), because it focuses on deal announcements to examine how acquirers use financial statements in M&A negotiations.

Secondly, our results are linked with some intriguing outcomes about the post-acquisition performance of M&A, which indicate that acquirers do not benefit from such deals (Bowman, Fuller, & Nain, 2009; Guest, Bild, & Runsten, 2010; Malmendier & Tate, 2008; Martynova & Renneboog, 2008). Our findings suggest that knowledge of business accounting practices may help acquirers to occupy a better position to negotiate the terms of the deal and to lower the risk of overestimating the target's value.

Finally, this study is related to the literature on the role of industry in evaluating the economic effects of accounting information. Although this role has already been studied in the equity valuation setting (Ballas & Hevas, 2005; Barth, Beaver, Hand, & Landsman, 1999), it has not been considered in M&A to date. Furthermore, this paper contributes to calls claiming for more research on industry-related accounting differences (Jaafar & McLeay, 2007).

The remainder of the study is as follows. The next section reviews the related literature and develops the hypothesis. Section 3 presents the methodology, Section 4 discusses the results and Section 5 presents the conclusions.

## **2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

### **2.1. Related literature**

#### **2.1.1. Earnings management and M&A**

Although neither the incentives nor the ability of acquirers or targets to manipulate earnings before M&A take place are clear *a priori*, some studies have investigated this issue.

Several US-based studies provide evidence that acquirers manipulate earnings before takeovers. Erickson and Wang (1999) show that acquiring firms increase their stock price through upward EM in stock-for-stock transactions, and Louis (2004) suggests that the negative post-takeover returns of acquiring companies could be attributable to the reversal in share prices of prior EM practices. Based on these studies, Baik, Cho, Choi and Kang (2007) provide evidence that those acquirers performing stock-for-stock deals are more prone to carry out EM before the deal when acquiring private companies; while Gong, Louis and Sun (2008) point out that EM performed by the acquirer before the merger is positively related to post-takeover lawsuits. However, Heron and Lie (2002) do not confirm that the payment method correlates with either the acquirer's EM activity before the deal or its subsequent underperformance. Baik, Cho, Choi and Kang (2015) more recently report that US acquirers in cross-border stock swaps manipulate earnings before the deal as a strategy to offset risks from the targets located in lower institutional quality settings. Louis and Sun (2016) show that bidders with inflated earnings are more likely to announce stock swaps on Fridays when markets are distracted, otherwise, they are penalized by investors who anticipate that their shares are overvalued.

The US-based literature has also studied target firms' EM activity. Early studies support the thesis that acquired companies perform EM before hostile transactions (Easterwood, 1998) and stock-for-stock deals (Erickson & Wang, 1999). More recently, Chen et al. (2016) suggest that the target's EM activity before the merger is not always at the acquirer's expense. These authors confirm downward EM practices to transfer profits to future years, which helps bidders to justify the premium paid. Campa and Hajbaba (2016) show that targets carry out real EM activities before cash deals, and that this activity is related to the acquirer's subsequent poor performance. Farooqi et al. (2020) report that bid premiums are lower the higher EM via the target's real activities is, but they are not related to accruals manipulation. They believe that this might occur because of switching from accrual-based to real EM methods.



A few related papers show that the target's FRQ influences the terms and completion of the takeover. Skaife and Wangerin (2013) corroborate that when the target FRQ is poor, the probability of the deal not being completed increases. These authors use an index that entails different FRQ dimensions,<sup>4</sup> and find that the poorer the target's FRQ, the higher premiums go which, in turn, are usually renegotiated in a later M&A process stage. Raman et al. (2013) find that bidders prefer negotiated deals when the target's FRQ is poor, and any private information arising during negotiations leads to higher bid premiums. They also show that acquirers prefer paying with equity when faced with poor FRQ targets. Marquardt and Zur (2015) indicate that not only targets with low FRQ are more prone to be involved in auctions, but an agreement is reached earlier with high FRQ targets, which means that the merger is more likely to take place. Finally, McNichols and Stubben (2015) analyze stock returns around the deal announcement and observe that the better the target's FRQ, the larger the acquirer returns.

A number of studies refer to non-US settings and have focused on EM practices in M&A. Koumanakos, Siriopoulos and Georgopoulos (2005) find that Greek acquirers exhibit signs of EM before cash-financed takeovers. Ben-Amar and Missonier-Piera (2008) observe that target firms perform downward EM before friendly M&A in Switzerland. Regarding stock-for-stock deals, Francoeur, Ben-Amar and Rakoto (2012) confirm that acquirers carry out EM in Canada. Botsari and Meeks (2008) show that UK bidders artificially increase earnings through the working capital component of accruals up to 1 year before the deal announcement. Higgins (2013) suggests that Japanese acquirers do the same in stock swaps, but use long-term accruals (e.g., depreciation and deferred taxes) due to the low level of scrutiny of such items in that country. In the UK, Lehmann (2015) provides contrary evidence to the common claim that good governance constrains EM practices. He finds that well-governed UK acquirers are more prone to carry out EM in stock swaps. Finally for stock deals with private targets in Europe, Alsharairi, Black, Hofer and Al-Hamadeen (2015) show that acquirers' EM practices positively affect their abnormal stock returns.

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<sup>4</sup> The index comprises the absolute value of discretionary accruals, the weakness of internal control, off-balance-sheet liabilities, and the absolute value and dispersion of analyst forecast errors.

In short, most of the EM-related literature about M&A focuses on acquirers performing stock swaps in the USA. Despite growing interest shown in analyzing the target's EM activity before takeovers, most evidence for this issue is setting-specific (i.e., negotiated deals, auctions and stock swaps).

#### 2.1.2. Industry relatedness in M&A

Firms tend to diversify their activities via cross-border deals (Denis, Denis, & Yost 2002) or unrelated-industry transactions (Martynova & Renneboog, 2008) as a way to grow and improve performance, which is not always achieved. As claimed by Martynova and Renneboog (2008), this is why inter-industry deals boomed in the late 1960s and early 1970s. The imperfections of capital markets at that time favored inter-industry deals as a way to cope with lack of external funds, which investors valued positively in the short run. However, such imperfections were temporary, and investors' appetite for this kind of deals ceased, which proved to be value-destroying in the long run. A number of studies provide evidence that is consistent with this thesis. For example, Lang and Stulz (1994) conclude that firms performing inter-industry deals are less efficient than those engaging in intra-industry deals. Servaes (1996) examines that wave of inter-industry deals, and confirms that inter-industry deals were even valued lower than single-segment firms back then.

The literature provides plenty of evidence for the benefits of intra-industry M&A compared to inter-industry deals. The more similar the firms involved in a M&A are, the easier it is to integrate knowledge and combine operations. Therefore, expected synergies like economies of scale and cost cuts are higher (Ahuja & Katila, 2001; Capron, 1999; Helfat & Eisenhardt, 2004; Nesta & Saviotti, 2005). The literature finds that the acquirers' market value is higher after M&A in intra-industry deals (Maquieira et al., 1998) and industry relatedness positively affects the success of M&A (PwC, 2016). Accordingly, prior studies reveal higher bid premiums for intra-industry deals than for inter-industry ones (Walkling & Edmister, 1985; Tuch & O'Sullivan, 2007). Some studies also indicate that overvaluation is lower in intra-industry mergers as they achieve higher returns than inter-industry takeovers in both the short and long terms (Gregory, 1997; Maquieira et al., 1998; Moeller & Schlingemann, 2005; Singh & Montgomery, 1987; Walker, 2000).

Industry relatedness also plays a role in mitigating information asymmetries and adverse selection problems concerning the target's value, which could also influence the choice between joint ventures and M&A. In principle, given the difficulties in valuing the assets of targets, the most efficient way to exploit synergies might be to pursue a joint venture rather than a takeover. However, if the acquirer and target are industry-related, then information asymmetries, particularly the adverse selection problem, might be less severe than the conflicts arising from administering a joint venture (Balakrishnan & Koza, 1993). Similarly, there is evidence that public acquirers avoid buying private firms in unrelated industries given the overvaluation risk, which is aggravated by the target's private status (Capron & Shen, 2007; Shen & Reuer, 2005).

The literature also explores the role of industry relatedness in reducing the information risk in M&A. As indicated by Raman et al. (2013), when targets have a low earnings quality, bidders make decisions that intend to share the information risk with them, such as choosing negotiated deals or paying with equity. These results are stronger in inter-industry takeovers. These authors posit that concerns about asymmetric information are greater in inter-industry than in intra-industry takeovers. In the latter, bidders better understand targets' key risks and economic drivers because both companies compete in the same business, have access to confidential industry reports, and regularly share information that keeps them well informed about their industry peers (e.g., industry association conferences, CEO-level meetings).

Briefly, the literature on the role of industry relatedness in M&A suggests that determining the target's value is easier in industry-related takeovers, which benefits acquirers.

### 2.1.3. Industry and financial reporting

The academic literature supports the notion that industry affiliation is one of the main drivers of accounting policy choices and, therefore, of FRQ. In other words, firms tend to follow their industry peers when adopting accounting practices (Reppenhagen, 2010).

Bagnoli and Watts (2000) developed a theoretical model, which allows them to conclude that firms frequently engage in EM. The rationale underlying their thesis is that companies compete for resources, and investors compare the financial statements of potential alternative investments to allocate their funds. These authors argue that industry filiation is a relevant

factor that lies behind EM choices as a firm follows its rivals, which are generally industry peers. Their reasoning lies in two assumptions: 1) firms in related industries face similar costs of EM practices; 2) investors/creditors focus on specific components of earnings when analyzing an industry.

Gu et al. (2005) examine the variability of accounting accruals and its implications for EM. They find that the accepted accounting procedures and management choices (e.g., inventory valuation or bad debt provisions) vary across industries. These authors also state that the volatility of some financial figures depends on industry. In line with this, Barth et al. (1999) point out a considerable variation in earnings components —accruals and cash flows— between industries, with different implications for the firms' valuation. Thus acquirers' ability to detect the target's EM probably depends on their understanding of the industry dynamics regarding accruals. More recently, Chen, Collins, Kravet and Mergenthaler (2018) conclude that the ability to compare the target's financial statements improves M&A efficiency, which is not likely to occur in inter-industry acquisitions.

In Europe, Ballas and Hevas (2005) use a valuation framework to examine how the perception of some figures from financial reports differs in four capital markets, namely France, Germany, the Netherlands, and the UK. They conclude that industry-specific valuation multiples are more accurate than country-specific ones when using accounting variables to forecast market values. In line with this rationale, their results show a convergence in financial reporting practices within industries, including timeliness and conservatism. In the same vein, Jaafar and McLeay (2007) examine accounting policies for inventory, depreciation and goodwill in a sample of European companies before IFRS implementation. They conclude that country differences are more significant than industry differences.

Finally, research shows that auditors tend to specialize in specific industries (Rhode, Whitsell, & Kelsey, 1974), and that the auditors who are industry specialists better constrain EM and financial fraud (Balsam, Krishnan, & Yang, 2003; Carcello & Nagy, 2004; Krishnan, 2003).

In short, academic research supports the notion that accounting policies are similar for companies in the same industry, but differ among industries, and that the techniques followed to perform EM are similar among firms in the same industry.

## **2.2. Hypothesis**

This study investigates how acquirers incorporate the target's EM when deciding the deal premium to be offered. EM is a dimension of the broad FRQ construct, which has been previously studied, as reviewed in the section above (e.g., Raman et al., 2013; Skaife & Wangerin, 2013). While empirical proxies of FRQ usually include unsigned proxies of DA because they intend to capture intentional and unintentional errors in financial reporting, EM is measured with signed measures. We believe that this is more appropriate for our objective, namely gauging the effects of accounting distortions by managers attempting to boost earnings with the risk of overpayment by acquirer firms. The bid premium is determined during the due diligence before the acquisition agreement is signed.<sup>5</sup> This is why we focus on deal announcements rather than on completed ones. In this stage of negotiations, their valuation relies primarily on publicly available financial statements (Angwin, 2001; Lajoux & Elson, 2009; Marquardt & Zur, 2015; Wangerin, 2019).<sup>6</sup>

We do not make any assumption about target companies' potential incentives to carry out EM due to M&A. Instead we assume the target's EM practices before the takeover as an exogenous factor because many other motivations may underlie these practices. Bagnoli and Watts (2000) support this assumption, as they consider EM to be a noncooperative game in which similar firms compete for funding using financial information by prompting them to regularly engage in EM. Similarly, Dechow, Ge and Schrand (2010) sustain that external factors like capital requirements or earnings-based objectives induce firms to engage in EM practices. Despite these potential motivations, targets are not usually the deal initiators

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<sup>5</sup> For an in-depth review of the acquisition due process, see Chen et al. (2018), Marquardt and Zur (2015) or Wangerin (2019).

<sup>6</sup> Nevertheless, due diligence does not conclude at this point. Acquirers can request more (private) information from targets subsequently, which may lead to the completion, withdrawal or renegotiation of their initial bid. Nonetheless, by focusing on deal announcements, we can analyze how bidders use publicly available financial information during the M&A process.

(Anagnostopoulou & Tsekrekos, 2015), and they generally lack the time to window-dress their financial statements to specifically influence the deal.

Farooqi et al. (2020) argue that the association between the target's EM practices and the bid premium offered by the acquirer should be negative. However *a priori*, this association is unclear. Skaife and Wangerin (2013) point out that this depends on the acquirer's ability to detect, or not, the target's upward EM with the limited resources and time that are available during the due diligence process. Indeed prior evidence indicates that more than half M&A lead to substantial losses for acquirers during the post-M&A period because they usually overpay for targets (Kumar, 2009; PwC, 2016). Therefore, whether acquirers can detect the target's EM at the time the deal announcement is made and not overpay accordingly is questionable. We propose that industry relatedness is a crucial determinant of this ability, and we expect the association between bid premiums and the target's EM to differ between inter-industry and intra-industry deals.

We particularly posit that the acquirers operating in the targets' industry have an advantage that stems from their knowledge of industry. Indeed they are aware of both the accounting practices and the usual techniques to carry out EM. Accordingly, acquirers should detect EM practices in the target's financial statements before the deal announcement, and not bid higher for target's shares the higher the income-increasing EM practices are. The opposite can be expected in inter-industry deals, where acquirers are not expected to disentangle EM practices but, thus, offer higher premiums to those targets with higher EM. Therefore, we formulate the following hypothesis in an alternative form:

*H1: The association between the target's income increasing EM practices and the bid premium offered by the acquirer is significantly lower in intra-industry than in inter-industry M&A.*

### **3. DATA AND METHODOLOGY**

#### **3.1. Sample**

We collected data on all the completed and withdrawn mergers announced in Europe (28 Member States) between 1997 and 2017 from the *Thomson One Banker* (now *Refinitiv*)

M&A database. The average number of announcements per year is 33 (ranges between 13 and 58).<sup>7</sup> Targets are public companies, and their financial information comes from *Worldscope*. Following previous studies (Botsari & Meeks, 2008; Chen et al., 2016; Marquardt & Zur, 2015; McNichols & Stubben, 2015; Raman et al., 2013; Skaife & Wangerin, 2013), the deals included in the sample meet the following criteria:

1. Neither the target nor the acquirer belong to the utilities or financial industries
2. The deal value is higher than 1 million USD
3. The acquirer has less than 50% of the target's shares before the deal announcement and seeks to own more than 50% after completing the transaction

The described sample selection process resulted in a final sample of 694 observations.<sup>8</sup> Figure 1 shows the number and value of M&A per year. The average merger is USD 1.5 billion, and deal announcements are clustered over time in waves. Coinciding with the burst of the *.com* bubble, the number of takeovers dropped by 40% (from 58 to 23) between 1999 and 2002, while their value dropped even more sharply (83%) during the same period, from 81 to less than USD 14 billion. Later M&A activity recovered and gradually grew to peak in 2006, with 45 announcements priced at USD 142 billion. In 2009, not only the number of takeovers plummeted as a result of the *subprime* crisis (to 26 deals), but also its total annual value (USD 5.6 billion), which ranked the lowest over more than one decade. Subsequently, M&A activity has exhibited progressive recovery. The number of deals reached 54 announcements in 2014, while yearly values climbed to a new peak with USD 211 billion in 2015. This evidence is consistent with prior research into takeovers and business environment shocks in Europe (Martynova & Renneboog, 2008, 2011).

[INSERT FIGURE 1 HERE]

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<sup>7</sup> Before 1997, there were only two deals with information for the variables under study and met the sample criteria: one in 1991 and another in 1994. The inclusion of these two observations did not change our results.

<sup>8</sup> The sample is smaller than in US-based related studies, but falls in line with EU-based ones. On US studies, McNichols and Stubben (2015) have 2427 observations corresponding to 1990-2010, Raman et al. (2013) use 4716 observations corresponding to 1977-2005 and Skaife and Wangerin (2013) have the smallest sample, with 1468 observations for the 2002-2008 period. However, related research in Europe exhibits smaller sample sizes. Botsari and Meeks (2008) use 147 British observations for the 1997-2001 period, while Bozos et al. (2014) include 973 observations corresponding to European M&A during 2000-2011.

Table 1 provides information on the number of deals for the target's industry filiation, and the country of the target. Panel A shows that, according to the Fama-French 12-industry classification scheme, three sectors make up half the M&A in the sample (50.7%): business equipment, manufacturing, wholesale and retail (164, 107, and 81 deals, respectively). Panel B depicts how M&A concentrate highly in a few countries when considering the target's domicile at the time of the deal announcement. For instance, of the 19 countries in the sample, only seven (the UK, France, Germany, Sweden, the Netherlands, Italy, Spain) account for 89% of the deals with 619 announcements. This is particularly true for the UK, which reports 348 deals and represents half the sample (50.1%). A similar pattern appears for the acquirer's country of origin, although in some countries, like France, there are more acquirers than targets while in other countries, such as the UK, we see the opposite (nontabulated). This is not surprising as the unit of analysis is the deal, and an acquirer may have multiple deals, either locally or across borders.<sup>9</sup>

[INSERT TABLE 1 HERE]

### **3.2. Earnings management measures**

The vast majority of M&A studies that analyze EM employ measures of accruals quality. DA, as estimated by the performance-matched model proposed by Kothari et al. (2005), is the most widely used measure (Alsharairi et al., 2015; Baik et al., 2015, 2007; Botsari & Meeks, 2008; Chen et al., 2016; Francoeur et al., 2012; Gong et al., 2008; Lehmann, 2015; Louis, 2004). Related studies on the FRQ of target firms also employ DA adjusted to performance (Skaife & Wangerin, 2013).

Like former studies, we measure EM in year  $t-1$  (i.e., 1 year before the deal announcement). We particularly estimate the model in Equation (1) for each industry and year combination, where samples (industry-year) comprise targets and the peer firms listed on the leading stock exchanges in the EU. We require a minimum of 15 observations per regression. Following our definition of industry-related deals, industries are defined using the Fama-French 48-

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<sup>9</sup> Our results are qualitative the same if we eliminate from the sample those countries with too few observations (<3), namely Hungary, Luxembourg, Portugal, Austria, Czech Republic and Malta.



industry classification. The adjusted DA ( $DA_{pa}$ ) are the residuals of the OLS estimation of Equation (1), and we use the quintile ranks of  $DA_{pa}$  as the EM proxy via DA ( $EM\_ACC$ ).

$$\begin{aligned}
& TA_{i,t-1}/Assets_{i,t-2} \\
& = \beta_0 + \beta_1\left(\frac{1}{Assets_{i,t-2}}\right) + \beta_2(\Delta Rev_{i,t-1} - \Delta AR_{i,t-1})/Assets_{i,t-2} \quad (1) \\
& + \beta_3 PPE_{i,t-1}/Assets_{i,t-2} + \beta_3 ROA_{i,t-2} + \varepsilon_{i,t-1}
\end{aligned}$$

where:  $TA$  stands for total accruals (i.e., net income less cash flow from operations);  $\Delta Rev$  is the change in net sales;  $\Delta AR$  is the change in accounts receivable;  $PPE$  is the level of property, plant, and equipment;  $ROA$  is return on assets (i.e., net income over total assets);  $Assets$  is total assets.

We also include two proxies of EM through real activities. Following Roychowdhury (2006), we calculate sales manipulation ( $RA_{sales}$ ) and overproduction ( $RA_{prod}$ ) with a cross-sectional approach that is consistent with our  $DA_{pa}$  measure, as expressed in Equations (2) and (3).

$$\begin{aligned}
& CFO_{i,t-1}/Assets_{i,t-2} \\
& = \beta_0 + \beta_1\left(\frac{1}{Assets_{i,t-2}}\right) + \beta_2 Rev_{i,t-1}/Assets_{i,t-2} \quad (2) \\
& + \beta_3 \Delta Rev_{i,t-1}/Assets_{i,t-2} + \varepsilon_{i,t-1}
\end{aligned}$$

$$\begin{aligned}
& PROD_{i,t-1}/Assets_{i,t-2} \\
& = \beta_0 + \beta_1\left(\frac{1}{Assets_{i,t-2}}\right) + \beta_2 Rev_{i,t-1}/Assets_{i,t-2} \quad (3) \\
& + \beta_3 \Delta Rev_{i,t-1}/Assets_{i,t-2} + \beta_4 \Delta Rev_{i,t-2}/Assets_{i,t-2} + \varepsilon_{i,t-1}
\end{aligned}$$

where:  $CFO$  stands for the cash flow from operations;  $Rev$  is net sales;  $PROD$  stands for production level, as measured by the cost of goods sold, plus the change in inventory.

The sales manipulation ( $RA_{sales}$ ) and overproduction ( $RA_{prod}$ ) levels are the residuals of the OLS estimation of Equation (2) and Equation (3), respectively. We use their quintile ranks as EM proxies via real activities ( $EM\_SALES$  and  $EM\_PROD$ ).

Considering that the high values for  $DA_{pa}$  and  $RA_{prod}$  account for abnormally high accruals and production levels, respectively, the above procedure implies that higher  $EM\_ACC$  and  $EM\_PROD$  ranks are associated with firms artificially boosting earnings through  $DA$  and overproduction, respectively. On the contrary, lower  $RA_{sales}$  values denote upwards sales manipulation. Therefore, higher  $EM\_SALES$  indicates lower income increasing EM through sales.

### 3.3. Empirical model

To test our hypothesis, we estimate the model specified in Equation (4), where the bid premium is expressed as a function of the target's EM practices before M&A, industry relatedness, the interaction of these two variables, and a set of controls. All the variables are described in the *Appendix*.

$$\begin{aligned}
 Premium_t = & \alpha_0 + \alpha_1 EM\_PROXY_{i,t-1} + \alpha_2 EM\_PROXY_{i,t-1} * INTRA + \alpha_3 INTRA \\
 & + \sum_{j=1}^9 \beta_j Deal\_Controls_{j,t} + \sum_{k=1}^7 \gamma_k Target\_Controls_{k,t-1} \\
 & + \sum_{l=1}^4 \rho_l Other\_Controls_{l,t} + \varepsilon_t
 \end{aligned} \tag{4}$$

where: *Premium* is the ratio of the price offered to the target's share price 4 weeks before the deal announcement date, minus 1; *EM\_PROXY* refers to each EM measure detailed in Section 3.2. (*EM\_ACC*, *EM\_SALES* and *EM\_PROD*) 1 year before the deal announcement; *INTRA* is a dummy variable that captures industry relatedness with a value of 1 for intra-industry, and 0 for inter-industry deals. We first estimate the model separately for each EM proxy, and then include all three together as the complement or substitute effects among them are well-known (e.g., Chen, Huang, & Fan, 2012; Cohen et al., 2008; Zang, 2012). Here M&A are labelled as intra-industry deals if both the acquirer and target belong to the same industry according to the Fama-French 48-industry classification; in other words, if they are horizontal M&A. We do not consider vertical M&A (between suppliers and clients) to be intra-industry

because they usually involve the combination of businesses with different activities and accounting practices.<sup>10</sup>

In line with our hypothesis, we expect negative coefficients for  $EM\_ACC*INTRA$  and  $EM\_PROD*INTRA$ , and a positive coefficient for  $EM\_SALES*INTRA$ . We refer to this as the moderating effect of industry relatedness on the relation between the target's EM and the bid premium.<sup>11</sup> Regarding  $INTRA$ , the higher expected synergies from industry-related deals allow us to expect a positive coefficient.

Model (4) includes three sets of controls: 1) the characteristics of the deal (*Deal.Controls*); 2) those of the target firm (*Target.Controls*); 3) a group of variables that combines some target and bidder characteristics (*Other.Controls*).

Regarding deal controls, and consistently with prior research, we expect a higher bid premium when the acquirer is public (*Public*), the takeover is hostile (*Hostile*), there are many bidders (*Multibid*), the offer is public (*Tender*), and the deal is financed by cash (*Cash*), whereas the prior acquirer's ownership on the target (*Toehold*),<sup>12</sup> the stock swaps (*Stock*) and the size of the target (*Size*) are expected to lower the premium (Bargeron, Schlingemann, Stulz, & Zutter 2008; Betton & Eckbo, 2000; Schwert, 2000; Walkling & Edmister, 1985). The set of controls also includes a dummy variable that represents cross-border takeovers (*CB*). In line with prior evidence for Europe that premiums are higher in cross-border than local deals (Moschieri & Campa, 2009; Bozos Ratnaike, & Alsharairi, 2014), we expect a positive sign.

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<sup>10</sup> Let's consider the hypothetical scenario in which *Volkswagen* (German automaker) is planning the acquisition of *Toyota* (Japanese automaker) or *Bridgestone* (Japanese tire manufacturer). It is likely that before the M&A announcement, *Volkswagen* can have a good picture of *Toyota*'s financial position and performance by analysing its financial statements given its knowledge of the automaker industry and the particular accounting practices (e.g., bad debt provisions or impairment of inventories). This would not be the case of *Bridgestone* because no matter the degree of interrelation, the cost structure, profit margin, financing policies, and accounting practices likely differ between both industries.

<sup>11</sup> See Helm and Mark (2012) for a discussion on moderator effects on regression models.

<sup>12</sup> Note that different toehold levels can shape the relation between acquirers and targets. For instance, depending on the toehold acquirers can access valuable private information from targets that is otherwise beyond reach, and they are even allowed to nominate a director on the target's board in some cases (Ouimet, 2013; Povel & Sertsios, 2014). This would result in a lower premium (Betton & Eckbo, 2000; Betton, Eckbo, & Thorburn, 2009). Thus in an additional nontabulated test, we also control for several indicator variables that represent different toehold ranks (a:1%-10%; b:11%-20%; c:21-30%; d:31-40%; e:41-50%), and our results remained consistent.

The literature also indicates that the target's financial characteristics influence the bid premium (Bargeron et al., 2008; Schwert, 2000; Walkling & Edmister, 1985). Hence the following variables make up our set of target-related controls: market to book (*MTB*), liquidity (*Liquidity*), return on equity (*ROE*),<sup>13</sup> price to earnings (*PE*), sales growth (*Growth*), leverage (*Leverage*), and cash ratio (*CR*). In turn, prior research finds that profitability, leverage and growth also affect the firm's FRQ (Dechow et al., 2010). We do not expect these variables to specifically affect the deal premium because previous findings are nonconclusive.

As *Other.Controls*, we include some variables that combine the characteristics of both the target and bidder, and that have been related to bid premiums in the previous literature. Recent empirical studies indicate that institutional characteristics (e.g., governance and regulation) of the countries of both target and acquirer affect the bid premium of deals (Hagendorff, Hernando, Nieto, & Wall, 2012; Rossi & Volpin, 2004; Barbopoulos, Paudyal, & Pescetto, 2012). Consequently, the model considers the institutional differences between the countries of both firms. To do so, we follow the former literature (Andriosopoulos & Yang, 2015; Baik et al., 2015; Humphery-Jenner, 2012), and use the Worldwide Governance Indicators (WGI) developed by the *World Bank*.<sup>14</sup> We specifically perform a principal component analysis to cluster the six WGI into a single index (first principal component) per country, and to then calculate the difference between the acquirer and target indices, which is included as an additional variable in the model (*Inst.Diff*).<sup>15</sup>

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<sup>13</sup> Using *ROE* and *Leverage* might be considered problematic given the impact of capital structure on *ROE*. However, using *ROA* could instead cause potential multicollinearity issues because our *EM-Accruals* measures were obtained using Kothari et al. (2005)'s model, which employs *ROA* in the performance-matched procedure to estimate discretionary accruals. Previous related literature also controls by profitability and indebtedness using *ROE* and *Leverage* as we do (Walkling & Edmister, 1985; Betton & Eckbo, 2000; Schwert, 2000; Skaife & Wangerin, 2013; Raman et al., 2013). Additional tests reveal that the inclusion of *ROA* instead of *ROE* in our model did not change our results.

<sup>14</sup> The WGI project provides information for six institutional governance indices: 1) voice and accountability; 2) political stability; 3) government effectiveness; 4) regulatory quality; 5) rule of law; 6) control of corruption (Kaufmann, Kraay, & Mastruzzi, 2009).

<sup>15</sup> This procedure provides a comprehensive measure of the institutional environment per country to help us to cope with the high correlations among the WGI indices (Baik et al., 2015; Dang, Henry, Nguyen, & Hoang, 2018; Davies, Desbordes, & Ray, 2018; Hur, Parinduri, & Riyanto, 2011). Nonetheless, this aggregate may not capture what is essential for the takeover market. So we also used the Rule of Law index (RL) instead of *Inst.Diff* in an additional test as it could be the primary source of discrepancies between institutional settings. This index measures the level of confidence in and abidance that agents in the society to contract enforcement and property rights (Kaufmann et al., 2009). The results remained unchanged after performing this procedure.

In the same vein, by considering that our hypothesis relies on the assumption that acquirers face higher information asymmetries in industry-unrelated deals, we also control for the existence of other mechanisms that help to reduce such asymmetries. We particularly control for the presence of financial advisors, as well as for the bidder's experience in the target's sector.<sup>16</sup> It is well-known that acquirers use advisors to reduce information asymmetry and reach favorable deal outcomes which, in this context, can spell lower premiums when targets exhibit EM. However, targets also use advisors and, therefore, the effect of advisors on premiums is not straightforward. Thus advisors on the sell-side (targets) are motivated to push for the highest sale price (increasing premiums), while it is quite an opposite scenario (decreasing premiums) for advisors on the buy-side (acquirers) (Song, Wei, & Zhou, 2013). Following Hayward (2002), we control for the presence (or absence) of advisors on both the sell- and buy-sides using dummy variables (*SS.Advisor*, *BS.Advisor*). We expect the bidders using advisors to offer lower premiums, while the targets employing advisors to push for higher premiums.<sup>17</sup>

Similarly, experienced bidders in the target industry can better deal with information asymmetry compared to those with relative inexperience (Cuypers, Cuypers, & Martin, 2017; Finkelstein & Halebian, 1999; Hayward, 2002). In our research context, this means that those bidders may use their past experience in the target industry to overcome artificially overstated earnings and to offer lower premiums accordingly, no matter whether the deal is inter- or intra-industry. Therefore, we also control for the bidder's experience in the target industry by including a variable that indicates the number of completed deals that the bidder has performed in that industry in the 10 years before the deal announcement<sup>18</sup> (*Bidder.Exp*). We expect a negative coefficient for this variable.

Finally, we include fixed effects per year and country of the target (*Year-Indicators*, *Country-Indicators*) to control for the differences in the volume and value of deals with time, and also

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<sup>16</sup> We thank an anonymous referee for pointing out these potential omitted variables in our model. Furthermore, following Larcker and Rusticus (2010), we employ the method of Frank (2000) to examine the potential impact of unobserved confounding variables. The results suggest this is not a concern in our research.

<sup>17</sup> In nontabulated tests, we also control for the presence of multiple advisors on the sell- and buy-sides, and the results remained the same.

<sup>18</sup> Here we use the Fama-French 48-industry classification. Like Cuypers et al. (2017), we also control for many windows to construct *Bidder-Exp*, and for the natural logarithm of the sum between *Bidder.Exp* and one ( $\ln(\text{Bidder.Exp} + 1)$ ). The results were qualitatively the same.

for the country-specific factors that prior studies have found to be related to M&A activity, such as investors' protection level (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1998; Rossi & Volpin, 2004; Moschieri & Campa, 2009).<sup>19</sup>

## 4. RESULTS

### 4.1. Descriptive statistics and correlations

Table 2 provides the descriptive statistics of the research variables. We include  $DA_{pa}$ ,  $RA_{sales}$  and  $RA_{prod}$  for information purposes because, as previously indicated, our EM measures are their quintile ranks. All the continuous variables are winsorized at 1%.

This table shows that the average premium of the deal announcements in the sample is about 36% of market price on the announcement date, with a standard deviation of 38%. When focusing on our earnings manipulation measures,  $DA_{pa}$  ( $RA_{prod}$ ) has a mean that comes close to zero, -0.0058 (-0.0061) and has a standard deviation of 0.0984 (0.2845). The average of  $RA_{sales}$  is 0.0084 and its standard deviation is 0.1147. Regarding the target firms' characteristics, on average sales growth is 7.3%, return on equity is -1.1%, and the mean  $MTB$  and price-to-earnings ratios are 2.5 and 13.2, respectively. An average target in the sample has 0.73 cents in debt per dollar in common equity and its working capital (cash) represents 14% (13%) of total assets. These descriptive statistics well compare to those in previous related studies (e.g., Raman et al., 2013; Skaife & Wangerin, 2013; Campa & Hajbaba, 2016).

In most M&A in Europe, on the one hand, acquirers belong to the same industry as targets (62%), they are tender offers (66%), they are made in cash (57%) and they are from public bidders (62%). On the other hand, deals in Europe are not usually cross-border (26%), are not paid for with just stock (17%), they do not involve multiple bidders (14%), bidders hardly face hostilities (8%) and, on average, own targets' low stakes before the deal announcement (6%). These sample characteristics are similar to those considered in recent research into M&A in Europe (e.g., Alcalde & Pérez-Soba, 2016; Humphery-Jenner, 2012; Martynova, Oosting, & Renneboog, 2007; Martynova & Renneboog, 2011; Moschieri & Campa, 2014).

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<sup>19</sup> The results were similar when we used country-fixed effects for acquirers.

Other controls reveal that the institutional differences between targets and bidders are small, *Inst.Diff* averages -0.0010, which is expected as deals are predominantly local. Similarly, the mean of *Bidder.Exp*, 0.17, suggests that most bidders have not acquired experience in the target industry. Data on the presence of advisors denote that both targets and bidders appeal strongly to them as the mean *BS.Advisor* (*SS.Advisor*) value confirms that bidders (targets) use advisory services in 89% (82%) of deals.

[INSERT TABLE 2 HERE]

Table 3 shows the Pearson product-moment and the Spearman rank-order pair correlations between the variables of interest, the characteristics of the deal and target and the other controls that are continuous variables. As both offer similar results, the discussion focuses on Pearson product-moment correlations. Bidder premium correlates negatively with toehold and the bidder's experience (-), as well as with some of the target's characteristics, such as *Liquidity* (+), *Size* (-) and *Leverage* (-). The observed negative correlation with *EM-Sales* confirms that those observations with larger EM based on sales manipulation are associated with higher bid premiums.

Overall, the evidence provided by this section suggests that there are specific deal and target characteristics that can shape the relation between the deal premium offered by the acquirer and the target's EM level prior to the takeover announcement. Finally, although some high correlations appear between the independent variables, we rule out multicollinearity concerns as the variance inflation factors (VIFs) are below the suggested threshold value of 10.

[INSERT TABLE 3 HERE]

## **4.2. Main results**

### **4.2.1. Preliminary tests**

Table 4 shows the univariate test results, including the differences in the mean of the research variables between the groups of inter- and intra-industry deals (columns (1) and (2)). For the mean premiums and other research variables, we also compare the differences in the means for groups in which the target's EM is low and high. In columns (3) to (8), we report the results of the three EM measures. The income increasing (High-EM) groups for *EM\_ACC* and *EM\_PROD* comprise those deals by exhibiting positive *DA<sub>pa</sub>* and *RA<sub>prod</sub>* values,

respectively, while the income decreasing (Low-EM) groups cluster M&A with negative  $DA_{pa}$  and  $RA_{prod}$  values. The opposite applies for  $EM\_SALES$  (High-EM:  $RA_{sales} > 0$ ; Low-EM:  $RA_{sales} < 0$ ).

As columns (1) and (2) indicate, the average bid premium is not statistically different between the inter- and intra-industry subsamples. However, these two groups present significant differences in some variables, mainly those related to the deal's characteristics. In particular, the acquirers in industry-unrelated deals use significantly more cash than stocks compared to those involved in industry-related mergers. Conversely, the acquirers in intra-industry takeovers bid for larger targets, are more prone to perform cross-border deals and have acquired more experience in inter-industry deals than acquirers. Finally, the targets in intra-industry M&A are significantly more leveraged than those in inter-industry deals.

In columns (3) to (8), we observe that premiums do not differ between Low- and High-EM deals regardless of the EM method, except for a weak statistically significant difference when considering sales manipulation. The differences between Low- and High-EM deals generally emerge when considering that targets carry out  $EM\_ACC$  and  $EM\_SALES$ . There are some differences in the size of deals and using stock as the payment method, and also in some of the target's characteristics, namely  $MTB$ ,  $ROE$ ,  $Growth$  and  $CR$ .

[INSERT TABLE 4 HERE]

In short, the above analysis indicates that the premium does not significantly differ between inter- and intra-industry deals, nor between deals with low and high EM targets. Nevertheless, this might be attributed to the relation among EM, premiums, and industry relatedness being more complex than previous univariate tests could portray. Our hypothesis follows this rationale because it proposes that industry relatedness moderates the relation between the target's EM and the bid premium. Accordingly, we performed a bivariate test to analyze the differences in the average bid premiums between inter- and intra-industry deals at the low and high levels of the target's EM. Table 5 reports the results.

Interestingly, we observe that industry relatedness, premium, and the target's  $EM\_ACC$  are interrelated. Premiums significantly differ between inter- and intra-industry deals in both the Low-EM and High-EM subsamples, although the direction of the association changes.



Specifically, when bidders face targets where DA are income increasing (High-EM), they offer lower premiums if the target belongs to the same industry than in those cases in which the target comes from a different industry. This evidence is consistent with our hypothesis, which predicts that bidders are better able to detect and discount the overvaluation of targets when they know the industry. No significant differences are observed in the average premium between the inter- and intra-industry groups when examining the target's EM via real activities. Although these results indicate the existence of a moderating effect for industry relatedness on the association between the target's accrual EM and the premium offered by bidders, we cannot reach conclusive results from the preliminary tests included in this section. To control for other related factors, we now turn to the multivariate analysis.

[INSERT TABLE 5 HERE]

#### 4.2.2. Regression analysis

Table 6 shows the regression analysis findings. Columns (2), (4) and (6) present the results of the estimation of model (4) using *EM\_ACC*, *EM\_SALES* and *EM\_PROD* to measure the target's EM, while column (8) includes all the measures together. To the left of each of these findings (i.e., in columns (1), (3), (5), and (7)), we provide the results of the corresponding baseline model, which excludes the interactions of the EM variables with *INTRA*. We use standard errors, clustered by target firms, to test the significance of our coefficients. The results are qualitatively the same as when robust standard errors are employed. The estimations generally exhibit a good fit as they explain around 20% of deal premium variability. Besides, we see that the moderating effect of *INTRA* helps to improve the model's explanatory power.

The results in columns (1), (3), (5) and (7) indicate that, on average, the target's EM before the deal is not significantly related to the premium offered by the acquirer. Only the negative coefficient of *EM\_SALES* is statistically significant, albeit marginally so (column (3) *t*-statistic = -1.96; and column (7) *t*-statistic = -1.89). This result suggests that the higher the earnings overstatement through sales manipulation, the higher the premium.<sup>20</sup> Even though

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<sup>20</sup> Farooqi et al. (2020) find the opposite result. However, they concentrate on completed deals in the US setting, while our study focuses on announced deals in Europe. In the nontabulated results, we perform our empirical analysis only with completed deals, and the significance of the *EM\_SALES* coefficient disappears.

this evidence does not suggest that the target's EM activity directly influences the bid premium, the results do not contradict the notion that accounting information is relevant for dealing negotiations. We propose that a more refined analysis is needed to better understand how acquirers process target firms' EM practices. In particular, we are interested in the role of industry relatedness in such an association. The coefficient of the interaction between the EM measures and *INTRA* captures this moderating effect.

Consistently with our predictions, the results observed in columns (2) and (8) support the argument that industry familiarity conditions the relation between the bid premium offered and the target's accounting EM. The coefficient of *EM\_ACC* is positive and statistically significant at the 5% percent level (column (2) *t*-statistic = 2.55 and column (8) *t*-statistic = 2.12); and, more importantly, the coefficient of its interaction with *INTRA* is negative and significant (column (2) *t*-statistic = -3.56 and column (8) *t*-statistic = -3.41). This evidence indicates that when the target belongs to a different industry than the acquirer (*INTRA* = 0), the target's income increasing accrual manipulation results in significantly higher premiums offered by acquirers, but this effect is significantly lower in deals where targets and acquirers belong to the same industry. In other words, industry relatedness acts as a moderator in the relation between the target's accounting EM and the premium offered by the bidder. When they belong to the same industry, acquirers are able to detect the target's accounting manipulation and do not offer higher premiums for boosted earnings. These results are both statistically and economically significant. The coefficient of the interaction between *EM\_ACC* and *INTRA* (-0.0761) in column (8) indicates that bidders in intra-industry deals offer premiums 761 basis points lower than bidders in inter-industry deals when the target's accrual manipulation moves from one quintile to the next quintile rank. If we bear in mind that the average deal premium in the sample is 35.61% (in Table 2, Panel A), then the economic significance of this result is considerable.

The moderating effect of industry relatedness is not observed when the target's real earnings manipulation is considered. The coefficients of the interaction between *EM\_SALES* and *EM\_PROD* with *INTRA* (in columns (4), (6) and (8)) do not significantly differ from zero. Therefore, our findings suggest a moderating effect of industry relatedness on the association between the target's EM before the deal and the bid premium offered by the acquirers only for the target's EM through DA.

This is consistent with the claim that firms prefer to carry out EM via accruals as real activities are more costly (Bagnoli & Watts, 2000). The manipulation of real activities involves real production decisions, which compromise future cash flows and might ultimately have adverse effects on the firm's long-term objectives, financial health and future performance (Graham et al., 2005; Cohen et al., 2008; Zang, 2012; Kothari et al., 2016). Therefore, EM via real activities is probably less pervasive than accruals manipulation.

As for the control variables, the coefficients of *Toehold*, *CB*, and *Size* are statistically significant in all the estimations, and their effects on premiums fall in line with the previous literature. The larger the toehold and company size, the lower the premium, while premiums are significantly higher in cross-border takeovers.

[INSERT TABLE 6 HERE]

#### **4.3. Robustness tests**

In order to corroborate the robust nature of our findings, we replicate the regression analysis using the full specification which includes the three EM measures, and we apply more stringent screens to the sample to rule out other potential explanations of our results. The results are shown in Table 7, Panel A. We also use other models to estimate discretionary accruals to cope with potential measurement error regarding this variable. Table 7, Panel B, exhibits the results of those additional tests. For simplicity reasons, we do not report the control variables. Overall, the results are qualitatively the same as those stated in the previous section.

In Panel A, we first consider the potential effects of changes in the regulatory environment as they could have affected M&A deals. To that end, column (1), we use a subsample that excludes the deals announced before the implementation of the European Takeover Directive (ETD) (period 2007-2017) (see European Commission, 2007). Then we consider two other subsamples with which we intend to eliminate the impact of the mandatory adoption of IFRS. In column (2), we eliminate any observations that require financial data from 2005 and

2006.<sup>21</sup> In column (3), we limit the subsample to those announcements after IFRS adoption (period 2006-2017).

Second, we replicate the regression analysis only for those deals where acquirers exclusively use cash as the payment method (cash deals). The results are provided in column (4). Here our rationale is that in non-cash deals, acquirers can use stocks to compensate EM from overvalued targets.<sup>22</sup>

Third, another possible explanation for our results is that highly experienced bidders can leverage their expertise to unveil rigged financial information due to the target EM by distorting our results. In column (5), from the sample we omit those deals in which bidders have completed at least one M&A in the target industry in the last 10 years (see the description of *Bidder.Exp* in the *Appendix*).

Fourth, we also contemplate the effect that lack of advisors could have on negotiations, particularly when bidders set premiums. For example, for those acquirers who do not use advisors, it may be more difficult to spot the target's EM, who then end up offering large premiums in High-EM deals. So in column (6), we exclude from the sample those deals in which bidders do not use advisors.

Fifth, following Baker, Pan and Wurgler (2021), we repeat the regression analysis to include only those deals in which bidders seek to fully acquire targets, column (7) provides the results. Here we attempt to rule out the possibility of bidders possibly using partial acquisitions ( $\geq 50\%$  and  $< 100\%$  target ownership) to cope with the potential risks of full acquisitions ( $= 100\%$  target ownership), including targets' potential overvaluation due to EM before the deal.<sup>23</sup>

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<sup>21</sup> The EU adopted IFRS in 2005, and the previous literature indicates that both EM and M&A activity were affected by IFRS implementation (see Bozos et al., 2014; Doukakis, 2014; Francis, Huang, & Khurana, 2016). In particular, the estimation of EM measures in 2005 and 2006 could have been affected as they require first differences in some variables.

<sup>22</sup> Raman et al. (2013) offer evidence in that direction as they validate the notion that when targets exhibit poor FRQ, payments are made in stocks rather than in cash.

<sup>23</sup> Recent studies on M&A ownership choices highlight the differences among minority, partial and full acquisitions in terms of the costs, risks and benefits assumed by acquirers (Contractor, Lahiri, Elango, & Kundu, 2014; Dang & Henry, 2016; Dang, Henry, & Hoang, 2017; Dang et al., 2018).

Finally, we also consider the likely bias on our results due to the potential measurement error of our main interest variable, EM\_ACC, by considering additional models to calculate this variable. In particular, we estimated DA using the models of Jones (1991), Dechow, Sloan, and Sweeney (1995) and Teoh, Welch, and Wong (1998). The results are shown in columns (1) to (3) of Table 7, Panel B, respectively. In general, our results remain consistent to the use of these different models. The interaction term between the EM\_ACC variable and INTRA remains negative, suggesting that in intra-industry deals acquirers can identify accounting earnings manipulation and offer lower premiums.

[INSERT TABLE 7 HERE]

## 5. CONCLUSIONS

This study examines the role of industry relatedness in the relation between the target's EM practices and the deal premium offered by the acquirer. We especially argue that operating in the same industry helps the acquirer to identify the target's income increasing manipulation practices and do not, consequently, offer a higher premium for artificially overvalued firms. In other words, the due diligence process is more effective for bidders in industry-related deals because they can better understand target firms' public financial information, and isolate the expected synergies from managers' discretion.

This evidence is based on a sample of European M&A announcements during the 1997-2017 period. On average, there is no direct association between the target's EM and the bid premium. However, our findings indicate that such an association differs depending on whether deals are inter-industry or intra-industry. We find that in the presence of upwards EM by targets via DA, bidders in industry-related deals offer premiums that are 761 basis points lower than those in industry unrelated deals. As the average value of the deal premium in the sample is 35.61%, the economic significance of this result is considerable. Lack of significance of our proxies for EM via real activities may be because this way of manipulating earnings is less prevalent than manipulation through accruals because it implies higher costs. The measures taken by the EU to foster regional economic integration by setting common rules for different aspects, including takeovers (ETD) and financial reporting (IFRS), did not affect our results.

Our results provide insights into how bidders incorporate targets' management discretion into the pre-acquisition due process. By disentangling upward EM from the value of the synergies in the target's accounting information, acquirers mitigate the risks of overstating these synergies in intra-industry deals. Our findings suggest that business insight can help acquirers to complete a more valuable due diligence process and to occupy a better position when negotiating the merger. Thus based on their knowledge of the industry, we propose that, particularly for accounting practices, acquirers in industry-related takeovers can see through the target EM, which is not the case in unrelated transactions.

Indeed our results for unrelated transactions are consistent with previous studies that have found how M&A do not improve acquirers' stock returns and operating performance. This enhances our understanding of some well-known facts of the acquirer's financial performance after M&A, such as the prevalence of value-destroying takeovers which, to some extent, are due to overpayments (Fu, Lin, & Officer et al., 2013; Harford, et al., 2012; Malmendier & Tate, 2008; Roll, 1986). Although the overvaluation risk is higher in inter-industry deals than in intra-industry deals according to the literature, our results cannot confirm that value-destroying activities, such as management hubris (Roll, 1986), overconfidence (Malmendier & Tate, 2008) and entrenchment (Harford et al., 2012), are associated with unidentified EM practices of targets and subsequent overpayments. This opens up new research avenues.

Our results fall in line with prior research that has found how poor-quality accounting information increases the premium offered by acquirers (Raman et al., 2013; Skaife & Wangerin, 2013). However, our study focuses on EM practices and considers the influence of industry relatedness to provide a profounder understanding of this association. Our findings indicate that EM (i.e., poor-reporting quality) leads to higher premiums in inter-industry deals, in which acquirers are unable to disentangle the target's EM. However, this is not the case of intra-industry deals. This evidence suggests that by relying on their industry background in industry-related mergers, acquirers can counteract targets' dominant negotiation power during the M&A process and achieve better terms in the takeover.

To conclude, we highlight future research opportunities in the M&A scenario. Indeed there are other outcomes from M&A negotiations, such as the likelihood of completion, the percentage of shares used as the payment method, and the timing of the deals that future

investigations can explore. In fact the relatively unexplored EU setting offers many opportunities for future studies.

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## REFERENCES

- Ahuja, G., & Katila, R. (2001). Technological acquisitions and the innovation performance of acquiring firms: a longitudinal study. *Strategic Management Journal*, 22(3), 197–220. <https://doi.org/10.1002/smj.157>.
- Alcalde, N., & Pérez-Soba, I. (2016). Has the EU Takeover Directive Improved Minority Shareholder Protection? The Spanish Evidence. *European Business Organization Law Review*, 17(3), 261–283. <https://doi.org/10.1007/s40804-016-0049-8>.
- Alsharairi, M., Black, E.L., Hofer, C., & Al-Hamadeen, R. (2015). The post-merger performance of the European M&As: Does pre-merger earnings management matter? *Corporate Ownership and Control*, 13 (1), 994–1005. Retrieved from April, 22, 2016. <http://www.scopus.com/inward/record.url?eid=2-s2.0-84949740612&partnerID=tZOtx3y1>.
- Anagnostopoulou, S. C., & Tsekrekos, A. E. (2013). Do firms that wish to be acquired manage their earnings? Evidence from major European countries. *International Review of Financial Analysis*, 30, 57–68. <https://doi.org/10.1016/j.irfa.2013.06.002>.
- Anagnostopoulou, S.C., & Tsekrekos, A.E. (2015). Earnings management in firms seeking to be acquired. *The British Accounting Review*, 47(4), 351–375. <https://doi.org/10.1016/j.bar.2014.07.001>.

- Andriosopoulos, D., & Yang, S. (2015). The impact of institutional investors on mergers and acquisitions in the United Kingdom. *Journal of Banking and Finance*, 50, 547–561. <https://doi.org/10.1016/j.jbankfin.2014.06.004>.
- Andriosopoulos, D., & Barbopoulos, L. (2017). Relative equity market valuation conditions and acquirers' gains. *Review of Quantitative Finance and Accounting*, 49, 855–884. <https://doi.org/10.1007/s11156-016-0610-0>.
- Angwin, D. (2001). Mergers and acquisitions across European borders: National perspectives on preacquisition due diligence and the use of professional advisers. *Journal of World Business*, 36(1), 32–57. [https://doi.org/10.1016/S1090-9516\(00\)00053-5](https://doi.org/10.1016/S1090-9516(00)00053-5).
- Asquith, P., Sruner, R.F., Mullins, W.D. (1983). The gains to bidding firms from merger. *Journal of Financial Economics* 11, 121–139. [https://doi.org/10.1016/0304-405X\(83\)90007-7](https://doi.org/10.1016/0304-405X(83)90007-7).
- Bagnoli, M., & Watts, S. G. (2000). The Effect of Relative Performance Evaluation on Earnings Management: A Game-theoretic Approach. *Journal of Accounting and Public Policy*, 19 (December), 377–397. [https://doi.org/https://doi.org/10.1016/S0278-4254\(00\)00005-3](https://doi.org/10.1016/S0278-4254(00)00005-3).
- Baik, B., Cho, K., Choi, W., & Kang, J.K. (2015). The Role of Institutional Environments in Cross-Border Mergers: A Perspective from Bidders' Earnings Management Behavior. *Management International Review*, 55(5), 615–646. <https://doi.org/10.1007/s11575-015-0249-4>.
- Baik, B., Kang, J.K., & Morton, R.M. (2007). Earnings Management in Takeovers of Privately Held Targets. Working Paper, Seoul National University. Available at SSRN: <http://dx.doi.org/10.2139/ssrn.1013639>.
- Baker, M., Pan, X., & Wurgler, J. (2012). The effect of reference point prices on mergers and acquisitions. *Journal of Financial Economics*, 106(1), 49–71. <https://doi.org/10.1016/j.jfineco.2012.04.010>.
- Balakrishnan, S., & Koza, M.P. (1993). Information asymmetry, adverse selection and joint-ventures: Theory and evidence. *Journal of Economic Behavior & Organization*, 20(1), 99–117. [https://doi.org/10.1016/0167-2681\(93\)90083-2](https://doi.org/10.1016/0167-2681(93)90083-2).
- Ballas, A. A., & Hevas, D. L. (2005). Differences in the valuation of earnings and book value: Regulation effects or industry effects? *International Journal of Accounting*, 40(4), 363–389. <https://doi.org/10.1016/j.intacc.2005.06.007>.



- Balsam, S., Krishnan, J., & Yang, J. S. (2003). Auditor Industry Specialization and Earnings Quality. *AUDITING: A Journal of Practice & Theory*, 22(2), 71–97. <https://doi.org/10.2308/aud.2003.22.2.71>.
- Barbopoulos, L., Paudyal, K. & Pescetto, G. (2012). Legal systems and gains from cross-border acquisitions. *Journal of Business Research* 65, 1301–1312. <https://doi.org/10.1016/j.jbusres.2011.10.029>.
- Barbopoulos, L. & Sudarsanam, S. (2012). Determinants of earnout as acquisition payment currency and bidder's value gains. *Journal of Banking and Finance* 36, 678–694. <https://doi.org/10.1016/j.jbankfin.2011.10.007>.
- Bargeron, L.L., Schlingemann, F.P., Stulz, R.M., & Zutter, C.J. (2008). Why do private acquirers pay so little compared to public acquirers? *Journal of Financial Economics*, 89(3), 375–390. <https://doi.org/10.1016/j.jfineco.2007.11.005>.
- Barth, M. E., Beaver, W. H., Hand, J. R. M., & Landsman, W. R. (1999). Accruals, Cash Flows, and Equity Values. *Review of Accounting Studies*, 3, 205–229. <https://doi.org/10.1023/A:1009630100586>.
- Ben-Amar, W., & Missonier-Piera, F. (2008). Earnings management by friendly takeover targets. *International Journal of Managerial Finance*, 4(3), 232–243. <https://doi.org/10.1108/17439130810878811>.
- Betton, S., & Eckbo, B. E. (2000). Toeholds, Bid Jumps, and Expected Payoffs in Takeovers. *The Review of Financial Studies*, 13(4), 841–882. <http://www.jstor.org/stable/2646055>.
- Betton, S., Eckbo, B. E., & Thorburn, K. S. (2009). Merger negotiations and the toehold puzzle. *Journal of Financial Economics*, 91(2), 158–178. <https://doi.org/10.1016/j.jfineco.2008.02.004>.
- Botsari, A., Meeks, G., 2008. Do acquirers manage earnings prior to a share for share bid? *Journal of Business Finance and Accounting*, 35(5–6), 633–670. <https://doi.org/10.1111/j.1468-5957.2008.02091.x>.
- Bouwman, C. H. S., Fuller, K., & Nain, A. S. (2009). Market Valuation and Acquisition Quality: Empirical Evidence. *Review of Financial Studies*, 22(2), 633–679. <https://doi.org/10.1093/rfs/hhm073>.

- Bozos, K., Ratnaik, Y. C., & Alsharairi, M. (2014). How has the international harmonisation of financial reporting standards affected merger premiums within the European Union? *International Review of Financial Analysis*, 31, 48–60. <https://doi.org/10.1016/j.irfa.2013.09.004>.
- Campa, D., & Hajbaba, A. (2016). Do targets grab the cash in takeovers: The role of earnings management. *International Review of Financial Analysis*, 44, 56–64. <https://doi.org/10.1016/j.irfa.2016.01.008>.
- Capron, L. (1999). The long-term performance of horizontal acquisitions. *Strategic Management Journal*, 20(11), 987–1018. [https://doi.org/10.1002/\(SICI\)1097-0266\(199911\)20:11<987::AID-SMJ61>3.0.CO;2-B](https://doi.org/10.1002/(SICI)1097-0266(199911)20:11<987::AID-SMJ61>3.0.CO;2-B).
- Capron, L., & Shen, J.C. (2007). Acquisitions of private vs. public firms: Private information, target selection, and acquirer returns. *Strategic Management Journal*, 28(9), 891–911. <https://doi.org/10.1002/smj.612>.
- Carcello, J. V., & Nagy, A. L. (2004). Client size, auditor specialisation and fraudulent financial reporting. *Managerial Auditing Journal*, 19(5), 651–668. <https://doi.org/10.1108/02686900410537775>.
- Chang, S. (1998). Takeovers of privately held targets, methods of payment, and bidder returns. *Journal of Finance* 53, 773–784. <https://doi.org/10.1111/0022-1082.315138>.
- Chen, C.-L., Huang, S.-H., & Fan, H.-S. (2012). Complementary association between real activities and accruals-based manipulation in earnings reporting. *Journal of Economic Policy Reform*, 15(2), 93–108. <https://doi.org/10.1080/17487870.2012.667965>.
- Chen, S., Thomas, J., & Zhang, F. (2016). Spring-loading when no one is looking? Earnings and cash flow management around acquisitions. *Review of Accounting Studies*, 21(4), 1081–1115. <https://doi.org/10.1007/s11142-016-9365-z>.
- Chen, C. W., Collins, D. W., Kravet, T. D., & Mergenthaler, R. D. (2018). Financial Statement Comparability and the Efficiency of Acquisition Decisions. *Contemporary Accounting Research*, 35(1), 164–202. <https://doi.org/10.1111/1911-3846.12380>.
- Ciesielski, J. 2016. *How Autonomy Fooled Hewlett-Packard*. Retrieved March 12, 2019, from <http://fortune.com/2016/12/14/hewlett-packard-autonomy/>.
- Cohen, D. A., Dey, A., & Lys, T. Z. (2008). Real and Accrual-Based Earnings Management in the Pre-and Post-Sarbanes-Oxley Periods. *The Accounting Review*, 83(3), 757–787. Retrieved from <http://www.jstor.org/stable/30244500>.

- Contractor, F. J., Lahiri, S., Elango, B., & Kundu, S. K. (2014). Institutional, cultural and industry related determinants of ownership choices in emerging market FDI acquisitions. *International Business Review*, 23(5), 931–941. <https://doi.org/10.1016/j.ibusrev.2014.02.005>.
- Cuypers, I. R. P., Cuypers, Y., & Martin, X. (2017). When the target may know better: Effects of experience and information asymmetries on value from mergers and acquisitions. *Strategic Management Journal*, 38, 609–625. <https://doi.org/10.1002/smj.2502>.
- Cumming, D., & Zambelli, S. (2017). Due Diligence and Investee Performance. *European Financial Management*, 23 (2), 211–253. <https://doi.org/10.1111/eufm.12100>.
- Dang, M., & Henry, D. (2016). Partial-control versus full-control acquisitions: Does target corporate governance matter? Evidence from eight East and Southeast Asian countries. *Pacific Basin Finance Journal*, 40, 251–265. <https://doi.org/10.1016/j.pacfin.2015.12.011>.
- Dang, M., Henry, D., & Hoang, V. A. D. (2017). Target CEO age, ownership decisions, and takeover outcomes. *Research in International Business and Finance*, 42(June), 769–783. <https://doi.org/10.1016/j.ribaf.2017.07.015>.
- Dang, M., Henry, D., Nguyen, M. T., & Hoang, V. A. (2018). Cross-country determinants of ownership choices in cross-border acquisitions: Evidence from emerging markets. *Journal of Multinational Financial Management*, 44, 14–35. <https://doi.org/10.1016/j.mulfin.2018.01.001>.
- Davies, R. B., Desbordes, R., & Ray, A. (2018). Greenfield versus merger and acquisition FDI: Same wine, different bottles? *Canadian Journal of Economics/Revue Canadienne d'économique*, 51(4), 1151–1190. <https://doi.org/10.1111/caje.12353>.
- Dechow, P.M., Ge, W., & Schrand, C. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics*, 50(2–3), 344–401. <https://doi.org/10.1016/j.jacceco.2010.09.001>.
- Dechow, P. M., & Skinner, D. J. (2000). Earnings management: Reconciling the views of accounting academics, practitioners, and regulators. *Accounting Horizons*, 14(2), 235–250. <https://doi.org/10.2308/acch.2000.14.2.235>.
- Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1995). Detecting Earnings Management. *The Accounting Review*, 70(2), 193–225. <http://www.jstor.org/stable/248303>.
- Denis, D. J., Denis, D. K., & Yost, K. (2002). Global diversification, industrial diversification, and firm value. *The Journal of Finance* 57(5), 1951-1979. <https://www.jstor.org/stable/3094501>.

- Doukakis, L. C. (2014). The effect of mandatory IFRS adoption on real and accrual-based earnings management activities. *Journal of Accounting and Public Policy*, 33(6), 551–572. <https://doi.org/10.1016/j.jaccpubpol.2014.08.006>.
- Easterwood, C.M. (1998). Takeovers and Incentives for Earnings Management: An Empirical Analysis. *Journal of Applied Business Research*, 14(1), 29–47. <http://dx.doi.org/10.19030/jabr.v14i1.5726>.
- Erickson, M., & Wang, S. (1999). Earnings management by acquiring firms in stock for stock mergers. *Journal of Accounting and Economics*, 27, 149–176. [https://doi.org/10.1016/S0165-4101\(99\)00008-7](https://doi.org/10.1016/S0165-4101(99)00008-7).
- European Commission. (2007). *Report on the implementation of the Directive on Takeover Bids*. Brussels.
- Evans, M. E., Houston, R. W., Peters, M. F., & Pratt, J. H. (2015). Reporting Regulatory Environments and Earnings Management: U.S. and Non-U.S. Firms Using U.S. GAAP or IFRS. *The Accounting Review*, 90(5), 1969–1994. <https://doi.org/10.2308/accr-51008>.
- Faccio, M., & Masulis, R.W. (2005). The Choice of Payment Method in European Mergers and Acquisitions. *The Journal of Finance*, 60(3), 1345–1388. <https://doi.org/10.1111/j.1540-6261.2005.00764.x>.
- Farooqi, J., Jory, S., & Ngo, T. (2020). Target firm earnings management, acquisition premium and shareholder gains. *The International Journal of Accounting*. Forthcoming, Retrieved from <https://eprints.soton.ac.uk/433610/>.
- Finkelstein, J., & Halebian, S. (1999). The Influence of Organizational Acquisition Experience on Acquisition Performance : A Behavioral Learning Perspective. *Administrative Science Quarterly*, 44(1), 29–56. <https://doi.org/10.2307/2667030>.
- Francis, J. R., Huang, S. X., & Khurana, I. K. (2016). The Role of Similar Accounting Standards in Cross-Border Mergers and Acquisitions. *Contemporary Accounting Research*, 33(3), 1298–1330. <https://doi.org/10.1111/1911-3846.12176>.
- Francoeur, C., Ben-Amar, W., & Rakoto, P. (2012). Ownership structure, earnings management and acquiring firm post-merger market performance: Evidence from Canada. *International Journal of Managerial Finance*, 8(2), 100–119. <https://doi.org/10.1108/17439131211216594>.

- Frank, K. A. (2000). Impact of a Confounding Variable on a Regression Coefficient. *Sociological Methods & Research*, 29(2), 147–194. <https://doi.org/10.1177/0049124100029002001>.
- Fu, F., Lin, L., & Officer, M. S. (2013). Acquisitions driven by stock overvaluation: Are they good deals? *Journal of Financial Economics*, 109(1), 24–39. <https://doi.org/10.1016/j.jfineco.2013.02.013>.
- Fuller, K., Nener, J., Stegemoller, M. (2002). What do returns to acquiring firms tell us? Evidence from firms that make many acquisitions. *Journal of Finance* 57, 1763–1793. <https://doi.org/10.1111/1540-6261.00477>.
- Ghosh, A. (2001). Does operating performance really improve following corporate acquisitions? *Journal of Corporate Finance*, 7(2), 151–178. [https://doi.org/10.1016/S0929-1199\(01\)00018-9](https://doi.org/10.1016/S0929-1199(01)00018-9).
- Gong, G., Louis, H., & Sun, A.X. (2008). Earnings management, lawsuits, and stock-for-stock acquirers' market performance. *Journal of Accounting and Economics*, 46(1), 62–77. <https://doi.org/10.1016/j.jacceco.2008.03.001>.
- Gregory, A. (1997). An examination of the long run performance of UK acquiring firms. *Journal of Business Finance & Accounting*, 24(7–8), 971–1002. <https://doi.org/10.1111/1468-5957.00146>.
- Gu, Z., Lee, C. W. J., & Rosett, J. G. (2005). What determines the variability of accounting accruals? *Review of Quantitative Finance and Accounting*, 24(3), 313–334. <https://doi.org/10.1007/s11156-005-6869-1>.
- Guest, P.M., Bild, M., & Runsten, M. (2010). The effect of takeovers on the fundamental value of acquirers. *Accounting and Business Research*, 40(4), 333–352. <https://doi.org/10.1080/00014788.2010.9663409>.
- Gupta, P., Damouni, N., & Sandle, P. (2012). *How a desperate HP suspended disbelief for Autonomy deal*. Retrieved March 12, 2019, from <http://www.reuters.com/article/2012/11/30/us-hp-autonomy-idUSBRE8AT09X20121130>.
- Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The economic implications of corporate financial reporting. *Journal of Accounting and Economics*, 40(1–3), 3–73. <https://doi.org/10.1016/j.jacceco.2005.01.002>.

- Hagendorff, J., Hernando, I., Nieto, M.J., & Wall, L.D. (2012). What do premiums paid for bank M&As reflect? The case of the European Union. *Journal of Banking and Finance*, 36(3), 749–759. <https://doi.org/10.1016/j.jbankfin.2011.03.009>.
- Harford, J., Humphery-Jenner, M., & Powell, R. (2012). The sources of value destruction in acquisitions by entrenched managers. *Journal of Financial Economics*, 106(2), 247–261. <https://doi.org/10.1016/j.jfineco.2012.05.016>.
- Hayward, M. L. A. (2002). When do firms learn from their acquisition experience? Evidence from 1990 to 1995. *Strategic Management Journal*, 23(1), 21–39. <https://doi.org/10.1002/smj.207>.
- Healy, P., & J. M. Whalen. (1999). A review of the earnings management literature and its implications for standard setting. *Accounting Horizons*, 13, 365-383.
- Helfat, C. E., & Eisenhardt, K. M. (2004). Inter-temporal economies of scope, organisational modularity, and the dynamics of diversification. *Strategic Management Journal*, 25(13), 1217–1232. <https://doi.org/10.1002/smj.427>.
- Helm, R., & Mark, A. (2012). Analysis and evaluation of moderator effects in regression models: state of art, alternatives and empirical example. *Review of Managerial Science*, 6(4), 307–332. <https://doi.org/10.1007/s11846-010-0057-y>.
- Heron, R., & Lie, E. (2002). Operating Performance and the Method of Payment in Takeovers. *Journal of Financial and Quantitative Analysis*, 37(1), 137–155. <https://doi.org/10.2307/3594998>.
- Higgins, H. N. (2013). Do stock-for-stock merger acquirers manage earnings? Evidence from Japan. *Journal of Accounting and Public Policy*, 32(1), 44–70. <https://doi.org/10.1016/j.jaccpubpol.2012.10.001>.
- Humphery-Jenner, M. (2012). The impact of the EU takeover directive on takeover performance and empire building. *Journal of Corporate Finance*, 18(2), 254–272. <https://doi.org/10.1016/j.jcorpfin.2011.12.004>.
- Hur, J., Parinduri, R. A., & Riyanto, Y. E. (2011). Cross-Border M&A Inflows and Quality of Country Governance: Developing vs. Developed Countries. *Pacific Economic Review*, 16(5), 638–655. <https://doi.org/10.1111/j.1468-0106.2011.00568.x>.
- Jaafar, A., & McLeay, S. (2007). Country effects and sector effects on the harmonisation of accounting policy choice. *Abacus*, 43(2), 156–189. <https://doi.org/10.1111/j.1467-6281.2007.00224.x>.
- Jolly, J. (2018). UK entrepreneur to face charges in US over Hewlett-Packard takeover. Retrieved March 6, 2019, from

<https://www.theguardian.com/business/2018/nov/30/autonomy-co-founder-to-face-us-files-criminal-charges-mike-lynch-hewlett-packard>.

Jones, J. J. (1991). Earnings Management During Import Relief Investigations. *Journal of Accounting Research*, 29(2), 193–228. <https://doi.org/10.2307/2491047>.

J.P. Morgan (2019). *2019 Global M&A Outlook*. Retrieved from <https://www.jpmorgan.com/global/cib/2019-ma-global-year-outlook>.

Kaufmann, D., Kraay, A., & Mastruzzi, M. (2009). Governance matters VIII: Aggregate and individual governance indicators 1996-2008. *World Bank Policy Research Working Paper No. 4978*.

Kothari, S.P., Leone, A.J., & Wasley, C.E. (2005). Performance matched discretionary accrual measures. *Journal of Accounting and Economics*, 39(1), 163–197. <https://doi.org/10.1016/j.jacceco.2004.11.002>.

Kothari, S. P., Mizik, N., & Roychowdhury, S. (2016). Managing for the Moment: The Role of Earnings Management via Real Activities versus Accruals in SEO Valuation. *The Accounting Review*, 91(2), 559–586. <https://doi.org/10.2308/accr-51153>.

Koumanakos, E., Siriopoulos, C., & Georgopoulos, A. (2005). Firm acquisitions and earnings management: Evidence from Greece. *Managerial Auditing Journal*, 20(7), 663–678. <https://doi.org/10.1108/02686900510611212>.

Krishnan, G. V. (2003). Does Big 6 Auditor Industry Expertise Constrain Earnings Management? *Accounting Horizons*, 17(s-1), 1–16. <https://doi.org/10.2308/acch.2003.17.s-1.1>.

Kumar, N. (2009). How emerging giants are rewriting the rules of M&A. *Harvard Business Review*, 87(5), 115–121. <https://hbr.org/2009/05/how-emerging-giants-are-rewriting-the-rules-of-ma>.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1998). Law and Finance. *Journal of Political Economy*, 106(6), 1113–1155. <https://doi.org/10.1086/250042>.

Lajoux, A. R., & Elson, C. M. (2009). *The Art of M&A Due Diligence: Navigating Critical Steps & Uncovering Crucial Data*. (2<sup>nd</sup> ed.). New York: McGraw-Hill.

Lang, L. H., & Stulz, R. M. (1994). Tobin's q, corporate diversification, and firm performance. *Journal of Political Economy*, 102, 1248-1280. <https://doi.org/10.1086/261970>.

- Larcker, D. F., & Rusticus, T. O. (2010). On the use of instrumental variables in accounting research. *Journal of Accounting and Economics*, 49(3), 186–205. <https://doi.org/10.1016/j.jacceco.2009.11.004>.
- Lehmann, N. (2015). The role of corporate governance in shaping accruals manipulation prior to acquisitions. *Accounting and Business Research*, 46(4), 327–364. <https://doi.org/10.1080/00014788.2015.1116969>.
- Louis, H. (2004). Earnings management and the market performance of acquiring firms. *Journal of Financial Economics*, 74(1), 121–148. <https://doi.org/10.1016/j.jfineco.2003.08.004>.
- Louis, H., & Sun, A.X. (2016). Abnormal Accruals and Managerial Intent: Evidence from the Timing of Merger Announcements and Completions. *Contemporary Accounting Research*, 33(3), 1101–1135. <https://doi.org/10.1111/1911-3846.12171>.
- Malmendier, U., & Tate, G. (2008). Who makes acquisitions? CEO overconfidence and the market's reaction. *Journal of Financial Economics*, 89(1), 20–43. <https://doi.org/10.1016/j.jfineco.2007.07.002>.
- Maqueira, C.P., Megginson, W.L., & Nail, L. (1998). Wealth creation versus wealth redistributions in pure stock-for-stock mergers. *Journal of Financial Economics*, 48(1), 3–33. [https://doi.org/10.1016/S0304-405X\(98\)00002-6](https://doi.org/10.1016/S0304-405X(98)00002-6).
- Marquardt, C., & Zur, E. (2015). The Role of Accounting Quality in the M&A Market. *Management Science*, 61(3), 604–623. <https://doi.org/10.1287/mnsc.2013.1873>.
- Martynova, M., Oosting, S., & Renneboog, L. (2007). The long-term operating performance in European mergers and acquisitions. In: Gregoriou, G.N., Renneboog, L. (Eds.), *International Mergers and Acquisitions Activity Since 1990: Recent Research and Quantitative Analysis*. Academic Press-Elsevier, Burlington (MA), San Diego (CA) and London, 79–116. <https://doi.org/10.1016/B978-075068289-3.50006-X>.
- Martynova, M., & Renneboog, L. (2008). A century of corporate takeovers: What have we learned and where do we stand? *Journal of Banking and Finance*, 32(10), 2148–2177. <https://doi.org/10.1016/j.jbankfin.2007.12.038>.
- Martynova, M., & Renneboog, L. (2011). The Performance of the European Market for Corporate Control: Evidence from the Fifth Takeover Wave. *European Financial Management*, 17(2), 208–259. <https://doi.org/10.1111/j.1468-036X.2009.00497.x>.



- McNichols, M.F., & Stubben, S.R. (2015). The effect of target-firm accounting quality on valuation in acquisitions. *Review of Accounting Studies*, 20(1), 110–140. <https://doi.org/10.1007/s11142-014-9283-x>.
- Moeller, S.B., Schlingemann, F.P., & Stulz, R.M. (2004). Firm size and gains from acquisitions. *Journal of Financial Economics* 73. 201-228. <https://doi.org/10.1016/j.jfineco.2003.07.002>.
- Moeller, S.B., & Schlingemann, F.P. (2005). Global diversification and bidder gains: A comparison between cross-border and domestic acquisitions. *Journal of Banking and Finance*, 29(3), 533–564. <https://doi.org/10.1016/j.jbankfin.2004.05.018>.
- Moore, H. (2012). *Hewlett-Packard ignored red flags ahead of Autonomy misstep*. Retrieved March 6, 2019, from <https://www.theguardian.com/commentisfree/2012/nov/21/hewlett-packard-red-flags-autonomy>.
- Moschieri, C., & Campa, J.M. (2009). The European M&A Industry: A Market in the Process of Construction. *Academy of Management Perspectives*, 23(4), 71–87. <https://doi.org/10.5465/amp.23.4.71>.
- Moschieri, C., & Campa, J.M. (2014). New trends in mergers and acquisitions: Idiosyncrasies of the European market. *Journal of Business Research*, 67(7), 1478–1485. <https://doi.org/10.1016/j.jbusres.2013.07.018>.
- Nesta, L., & Saviotti, P. P. (2005). Coherence of the knowledge base and the firm's innovative performance: Evidence from the U.S. pharmaceutical industry. *Journal of Industrial Economics*, 53(1), 123–142. <https://doi.org/10.1111/j.0022-1821.2005.00248.x>.
- Ouimet, P. P. (2013). What motivates minority acquisitions? the trade-offs between a partial equity stake and complete integration. *Review of Financial Studies*, 26(4), 1021–1047. <https://doi.org/10.1093/rfs/hhs125>.
- Povel, P., & Sertsios, G. (2014). Getting to know each other: The role of toeholds in acquisitions. *Journal of Corporate Finance*, 26, 201–224. <https://doi.org/10.1016/j.jcorpfin.2014.04.001>.
- PwC (2016). *Mergers & Acquisitions*. Retrieved from <https://www.pwc.nl/nl/assets/documents/pwc-mergers-acquisitions.pdf>.

- Raman, K., Shivakumar, L., & Tamayo, A. (2013). Target's earnings quality and bidders' takeover decisions. *Review of Accounting Studies*, 18(4), 1050–1087. <https://doi.org/10.1007/s11142-013-9224-0>.
- Reppenhagen, D. A. (2010). Contagion of accounting methods: evidence from stock option expensing. *Review of Accounting Studies*, 15(3), 629–657. <https://doi.org/10.1007/s11142-010-9128-1>.
- Rhode, J., Whitsell, G., & Kelsey, R. (1974). An Analysis of Client-Industry Concentrations for Large Public Accounting Firms. *The Accounting Review*, 49(4), 772-787. Retrieved from <http://www.jstor.org/stable/245055>.
- Roll, R. (1986). The Hubris Hypothesis of Corporate Takeovers. *The Journal of Business*, 59(2), 197–216. Retrieved from <http://www.jstor.org/stable/2353017>.
- Rossi, S., & Volpin, P. F. (2004). Cross-country determinants of mergers and acquisitions. *Journal of Financial Economics*, 74(2), 277–304. <https://doi.org/10.1016/j.jfineco.2003.10.001>.
- Roychowdhury, S. (2006). Earnings management through real activities manipulation. *Journal of Accounting and Economics*, 42(3), 335–370. <https://doi.org/10.1016/j.jacceco.2006.01.002>.
- Schwert, W.G. (2000). Hostility in takeovers: In the eye of the beholder? *Journal of Finance*, 55(6), 2599–2640. <https://doi.org/10.1111/0022-1082.00301>.
- Servaes, H. (1996). The value of diversification during the conglomerate merger wave. *Journal of Finance* 51, 1201-1225. <https://doi.org/10.1111/j.1540-6261.1996.tb04067.x>.
- Shen, J.C., & Reuer, J.J. (2005). Adverse selection in acquisitions of small manufacturing firms: A comparison of private and public targets. *Small Business Economics*, 24(4), 393–407. <https://doi.org/10.1007/s11187-005-5332-y>.
- Singh, H., & Montgomery, C.A. (1987). Corporate Acquisition Strategies and Economic Performance. *Strategic Management Journal*, 8(4), 377–386. <https://doi.org/10.1002/smj.4250080407>.
- Skaife, H.A., & Wangerin, D.D. (2013). Target financial reporting quality and M&A deals that go bust. *Contemporary Accounting Research*, 30(2), 719–749. <https://doi.org/10.1111/j.1911-3846.2012.01172.x>.

- Song, W., Wei, J. (Diana), & Zhou, L. (2013). The value of “boutique” financial advisors in mergers and acquisitions. *Journal of Corporate Finance*, 20(1), 94–114. <https://doi.org/10.1016/j.jcorpfin.2012.12.003>.
- Sudarsanam, S., & Mahate, A.A. (2003), Glamour Acquirers, Method of Payment and Post-acquisition Performance: The UK Evidence. *Journal of Business Finance & Accounting*, 30, 299-342. <https://doi.org/10.1111/1468-5957.00494>.
- Teoh, S. H., Welch, I., & Wong, T. J. (1998). Earnings management and the underperformance of seasoned equity offerings. *Journal of Financial Economics*, 50(1), 63–99. [https://doi.org/10.1016/S0304-405X\(98\)00032-4](https://doi.org/10.1016/S0304-405X(98)00032-4).
- Tuch, C., & O'Sullivan, N. (2007). The impact of acquisitions on firm performance: A review of the evidence. *International Journal of Management Reviews*, 9(2), 141–170. <https://doi.org/10.1111/j.1468-2370.2007.00206.x>.
- Very, P., & Schweiger, D.M. (2001). The acquisition process as a learning process: Evidence from a study of critical problems and solutions in domestic and cross-border deals. *Journal of World Business*, 36(1), 11–31. [https://doi.org/10.1016/S1090-9516\(00\)00052-3](https://doi.org/10.1016/S1090-9516(00)00052-3).
- Walker, M.M. (2000). Corporate Takeovers, Strategic Objectives, and Acquiring-Firm Shareholder Wealth. *Financial Management*, 29(1), 53–66. <https://www.jstor.org/stable/3666361>.
- Walkling, R.A., & Edmister, R.O. (1985). Determinants of Tender Offer Premiums. *Financial Analysts Journal*, 41(1), 27-37. <http://www.jstor.org/stable/4478804>.
- Wangerin, D. (2019). M&A Due Diligence, Post-Acquisition Performance, and Financial Reporting for Business Combinations. *Contemporary Accounting Research*, 36(4), 2344–2378. <https://doi.org/10.1111/1911-3846.12520>.
- Weitzel, U., & Berns, S. (2006). Cross-border takeovers, corruption, and related aspects of governance. *Journal of International Business Studies*, 37(6), 786–806. <https://doi.org/10.1057/palgrave.jibs.8400225>.
- Zang, A. Y. (2012). Evidence on the Trade-Off between Real Activities Manipulation and Accrual-Based Earnings Management. *The Accounting Review*, 87(2), 675–703. <https://doi.org/10.2308/accr-10196>.

## Appendix

Variable	Description
<u>Dependent variable</u>	
<i>Premium</i>	Ratio of the offer price to the target's share price, calculated four weeks before the deal's announcement date, minus one.
<u>Interest variables</u>	
<i>EM_ACC</i>	Quintile ranks of $DA_{pa}$ (the residuals of the OLS regression in equation (1)).
<i>EM_SALES</i>	Quintile ranks of $RA_{sales}$ (the residuals of OLS regression in equation (2)).
<i>EM_PROD</i>	Quintile ranks of $RA_{prod}$ (the residuals of OLS regression in equation (3)).
<i>INTRA</i>	Dummy that takes the value of 1 if acquirer and target industries are the same (using the Fama-French 48-industry classification), 0 otherwise.
<u>Deal characteristics</u>	
<i>Hostile</i>	Dummy that takes the value of 1 if the deal is classified as hostile or unsolicited, 0 otherwise.
<i>Multibid</i>	Dummy that takes the value of 1 if there are multiple bidders, 0 otherwise.
<i>Toehold</i>	% of common shares outstanding held by the acquirer at the date of announcement.
<i>Tender</i>	Dummy that takes the value of 1 if a tender offer for the target is made, 0 otherwise.
<i>Stock</i>	Dummy that takes the value of 1 for transactions in which the only consideration offered is stock, 0 otherwise.
<i>Cash</i>	Dummy that takes the value of 1 for transactions in which the only consideration offered is cash, 0 otherwise.
<i>CB</i>	Dummy that takes the value of 1 if acquirer and target countries are the same, 0 otherwise.
<i>Public</i>	Dummy that takes the value of 1 if the acquiring firm is a public company, 0 otherwise.
<u>Target characteristics</u>	
<i>Size</i>	Natural log of the market capitalization in year $t-1$ .
<i>MTB</i>	Market to book ratio in year $t-1$ .
<i>Liquidity</i>	Ratio between the working capital (current assets - current liabilities) and assets in year $t-1$ .
<i>ROE</i>	Return on equity ratio in year $t-1$ .
<i>PE</i>	Price to earnings ratio in year $t-1$ .
<i>Growth</i>	Natural logarithm of the ratio between sales in year $t-1$ and sales in year $t-2$ .
<i>Leverage</i>	Ratio between total debt and common equity in year $t-1$ .
<i>CR</i>	Ratio between cash and assets in year $t-1$ .
<u>Other controls</u>	
<i>Inst.Diff</i>	First principal component from the PCA of the WGI for target nation in year $t$ .
<i>Bidder.Exp</i>	The number of deals that the acquirer completed in target's industry (using the Fama-French 48-industry classification) ten years before the deal announcement.
<i>BS.Advisor</i>	Dummy that takes the value of 1 if the acquirer uses an advisor, 0 otherwise.
<i>SS.Advisor</i>	Dummy that takes the value of 1 if the target uses an advisor, 0 otherwise.

**Note:**  $t$  stands for the year of the deal announcement.

**Table 1.** Sample distribution by industry and country

*Panel A. Deals by affiliation of the target industry.*

<b>Industry</b>	<b>Freq.</b>	<b>Percent</b>
Consumer NonDurables -- Food, Tobacco, Textiles, Apparel, Leather, Toys	59	8.5
Consumer Durables -- Cars, TV's, Furniture, Household Appliances	19	2.7
Manufacturing -- Machinery, Trucks, Planes, Off. Furn., Paper, Com. Printing	107	15.4
Oil, Gas, and Coal Extraction and Products	12	1.7
Chemicals and Allied Products	28	4.0
Business Equipment -- Computers, Software, and Electronic Equipment	164	23.6
Telephone and Television Transmission	20	2.9
Wholesale, Retail, and Some Services (Laundries, Repair Shops)	81	11.7
Healthcare, Medical Equipment, and Drugs	39	5.6
Other	165	23.8
<i>Total</i>	<i>694</i>	<i>100.0</i>

*Panel B. Deals by target country*

<b>Country target firm</b>	<b>Freq.</b>	<b>Percent</b>
United Kingdom	348	50.1
France	82	11.8
Germany	59	8.5
Sweden	49	7.1
Netherlands	45	6.5
Italy	20	2.9
Spain	16	2.3
Finland	15	2.2
Poland	14	2.0
Belgium	12	1.7
Denmark	12	1.7
Greece	6	0.9
Ireland-Rep	6	0.9
Hungary	3	0.4
Luxembourg	2	0.3
Portugal	2	0.3
Austria	1	0.1
Czech Republic	1	0.1
Malta	1	0.1
<i>Total</i>	<i>694</i>	<i>100.0</i>

**Notes:** The table exhibits the frequency and its equivalent percentage of M&A by industry and country. As industry filiation, we employ the Fama-French 12-industry classification.

**Table 2.** Descriptive statistics.

<b>Dependent variable</b>	<b>Mean</b>	<b>Median</b>	<b>Std. Dev.</b>
<i>Premium</i>	0.3561	0.2983	0.3785
<b>Continuous variables</b>	<b>Mean</b>	<b>Median</b>	<b>Std. Dev.</b>
<i>EM_ACC</i>	2.9971	3.0000	1.4142
<i>DA<sub>pa</sub></i>	-0.0058	-0.0037	0.0984
<i>EM_SALES</i>	2.9971	3.0000	1.4142
<i>RA<sub>sales</sub></i>	0.0084	0.0137	0.1147
<i>EM-PROD</i>	2.9971	3.0000	1.4142
<i>RA<sub>prod</sub></i>	-0.0061	-0.0003	0.2845
<i>Toehold</i>	0.0590	0.0000	0.1260
<i>Size</i>	12.1114	11.9643	1.9329
<i>MTB</i>	2.5083	1.7281	2.6764
<i>Liquidity</i>	0.1432	0.1182	0.2059
<i>ROE</i>	-0.0108	0.1001	0.5356
<i>PE</i>	13.2438	11.7900	31.6059
<i>Growth</i>	0.0728	0.0783	0.2441
<i>Leverage</i>	0.4953	0.2211	0.8741
<i>CR</i>	0.1317	0.0854	0.1439
<i>Inst.Diff</i>	-0.0010	0.0799	1.4986
<i>Bidder.Exp</i>	0.1744	0.0000	0.5504
<b>Dummy variables</b>	<b>Proportion dummy = 1 (%)</b>	<b>Median</b>	
<i>INTRA</i>	61.67	1.0000	
<i>Hostile</i>	8.21	0.0000	
<i>Multibid</i>	13.54	0.0000	
<i>Tender</i>	65.71	1.0000	
<i>Stock</i>	17.29	0.0000	
<i>Cash</i>	57.06	1.0000	
<i>CB</i>	25.79	0.0000	
<i>Public</i>	61.53	1.0000	
<i>BS.Advisor</i>	89.48	1.0000	
<i>SS.Advisor</i>	82.28	1.0000	

**Notes:** Descriptive statistics of *DA<sub>pa</sub>*, *RA<sub>sales</sub>*, and *RA<sub>prod</sub>* are reported for information purposes; these variables are the residuals used to estimate the three EM measures (*EM\_ACC*, *EM\_SALES*, and *EM\_PROD*, respectively). See *Appendix* for variable definitions. Observations 694.

**Table 3.** Pairwise Pearson/Spearman correlations matrix.

	1	2	3	4	5	6	7	8
1 <i>Premium</i>		0.042	-0.048	0.023	0.040	-0.040	0.013	-0.001
2 <i>EM_ACC</i>	0.042		-0.276 <sup>c</sup>	-0.022	0.980 <sup>c</sup>	-0.283 <sup>c</sup>	-0.027	-0.042
3 <i>EM_SALES</i>	-0.082 <sup>b</sup>	-0.276 <sup>c</sup>		-0.249 <sup>c</sup>	-0.283 <sup>c</sup>	0.980 <sup>c</sup>	-0.250 <sup>c</sup>	-0.067 <sup>a</sup>
4 <i>EM-PROD</i>	0.018	-0.022	-0.249 <sup>c</sup>		-0.017	-0.250 <sup>c</sup>	0.980 <sup>c</sup>	-0.006
5 <i>DA<sub>pa</sub></i>	0.060	0.849 <sup>c</sup>	-0.252 <sup>c</sup>	-0.012		-0.292 <sup>c</sup>	-0.020	-0.041
6 <i>RA<sub>sales</sub></i>	-0.098 <sup>c</sup>	-0.271 <sup>c</sup>	0.858 <sup>c</sup>	-0.232 <sup>c</sup>	-0.317 <sup>c</sup>		-0.251 <sup>c</sup>	-0.060
7 <i>RA<sub>prod</sub></i>	0.020	-0.038	-0.228 <sup>c</sup>	0.865 <sup>c</sup>	-0.030	-0.207 <sup>c</sup>		-0.008
8 <i>INTRA</i>	0.015	-0.042	-0.067 <sup>a</sup>	-0.006	-0.051	-0.049	-0.008	
9 <i>Hostile</i>	-0.033	0.023	0.016	-0.044	0.025	0.042	0.006	-0.023
10 <i>Multibid</i>	0.034	0.040	0.043	-0.020	0.045	0.027	-0.005	0.061
11 <i>Toehold</i>	-0.133 <sup>c</sup>	-0.019	-0.040	0.019	-0.032	-0.004	0.016	-0.053
12 <i>Tender</i>	0.111 <sup>c</sup>	0.048	-0.027	-0.021	0.081 <sup>b</sup>	-0.032	-0.001	0.024
13 <i>Stock</i>	-0.137 <sup>c</sup>	-0.061	-0.064 <sup>a</sup>	0.050	-0.027	-0.063 <sup>a</sup>	0.045	0.063 <sup>a</sup>
14 <i>Cash</i>	0.033	-0.022	-0.006	0.035	-0.046	0.030	0.035	-0.115 <sup>c</sup>
15 <i>CB</i>	0.076 <sup>b</sup>	-0.062	0.025	0.001	-0.036	0.014	0.012	0.085 <sup>b</sup>
16 <i>Public</i>	-0.092 <sup>b</sup>	-0.012	0.024	-0.002	-0.027	0.023	0.009	0.065 <sup>a</sup>
17 <i>Size</i>	-0.145 <sup>c</sup>	0.014	0.191 <sup>c</sup>	-0.045	0.026	0.206 <sup>c</sup>	-0.030	0.111 <sup>c</sup>
18 <i>MTB</i>	-0.061	-0.025	0.128 <sup>c</sup>	-0.171 <sup>c</sup>	-0.042	0.104 <sup>c</sup>	-0.172 <sup>c</sup>	0.029
19 <i>Liquidity</i>	0.072 <sup>a</sup>	0.070 <sup>a</sup>	-0.027	-0.004	0.098 <sup>c</sup>	-0.026	-0.014	-0.051
20 <i>ROE</i>	0.044	0.168 <sup>c</sup>	0.264 <sup>c</sup>	-0.036	0.255 <sup>c</sup>	0.322 <sup>c</sup>	-0.040	-0.054
21 <i>PE</i>	0.006	0.019	0.067 <sup>a</sup>	0.003	0.047	0.064 <sup>a</sup>	0.060	-0.004
22 <i>Growth</i>	-0.056	0.055	0.054	0.054	0.052	0.032	0.056	0.028
23 <i>Leverage</i>	-0.093 <sup>b</sup>	-0.058	-0.037	0.006	-0.077 <sup>b</sup>	-0.006	0.006	0.072 <sup>a</sup>
24 <i>CR</i>	0.008	-0.124 <sup>c</sup>	0.175 <sup>c</sup>	-0.068 <sup>a</sup>	-0.126 <sup>c</sup>	0.157 <sup>c</sup>	-0.088 <sup>b</sup>	-0.004
25 <i>Inst.Diff</i>	0.017	0.023	-0.015	0.029	0.038	-0.037	0.036	0.000
26 <i>Bidder.Exp</i>	-0.074 <sup>a</sup>	-0.025	-0.003	0.040	-0.023	-0.008	0.041	0.083 <sup>b</sup>
27 <i>BS.Advisor</i>	0.078 <sup>b</sup>	0.023	0.026	-0.027	0.012	0.006	-0.035	0.029
28 <i>SS.Advisor</i>	0.044	0.042	0.063 <sup>a</sup>	-0.020	0.045	0.046	-0.027	0.014

**Notes:** Pearson (Spearman) correlations are reported in the table's lower left (upper right) portion. a, b, and c denote significance at 10%, 5%, and 1%, respectively. See the Appendix for variable definitions. Observations 694.

	9	10	11	12	13	14	15	16
1 <i>Premium</i>	-0.037	0.054	-0.175 <sup>c</sup>	0.133 <sup>c</sup>	-0.203 <sup>c</sup>	0.070 <sup>a</sup>	0.057	-0.114 <sup>c</sup>
2 <i>EM_ACC</i>	0.023	0.040	-0.018	0.048	-0.061	-0.022	-0.062	-0.012
3 <i>EM_SALES</i>	0.016	0.043	-0.025	-0.027	-0.064 <sup>a</sup>	-0.006	0.025	0.024
4 <i>EM-PROD</i>	-0.044	-0.020	0.002	-0.021	0.050	0.035	0.001	-0.002
5 <i>DA<sub>pa</sub></i>	0.028	0.055	-0.019	0.055	-0.055	-0.032	-0.060	-0.015
6 <i>RA<sub>sales</sub></i>	0.025	0.045	-0.029	-0.035	-0.062	0.003	0.016	0.028
7 <i>RA<sub>prod</sub></i>	-0.025	-0.016	0.008	-0.019	0.052	0.038	-0.001	-0.011
8 <i>INTRA</i>	-0.023	0.061	-0.052	0.024	0.063 <sup>a</sup>	-0.115 <sup>c</sup>	0.085 <sup>b</sup>	0.065 <sup>a</sup>
9 <i>Hostile</i>		0.173 <sup>c</sup>	0.087 <sup>b</sup>	-0.038	0.030	0.037	0.064 <sup>a</sup>	0.032
10 <i>Multibid</i>	0.173 <sup>c</sup>		-0.059	0.011	-0.025	0.003	0.007	0.053
11 <i>Toehold</i>	0.032	-0.075 <sup>b</sup>		0.099 <sup>c</sup>	-0.026	0.162 <sup>c</sup>	0.025	-0.058
12 <i>Tender</i>	-0.038	0.011	0.064 <sup>a</sup>		-0.240 <sup>c</sup>	0.097 <sup>b</sup>	0.003	-0.122 <sup>c</sup>
13 <i>Stock</i>	0.030	-0.025	-0.007	-0.240 <sup>c</sup>		-0.527 <sup>c</sup>	-0.052	0.338 <sup>c</sup>
14 <i>Cash</i>	0.037	0.003	0.162 <sup>c</sup>	0.097 <sup>b</sup>	-0.527 <sup>c</sup>		0.086 <sup>b</sup>	-0.495 <sup>c</sup>
15 <i>CB</i>	0.064 <sup>a</sup>	0.007	0.040	0.003	-0.052	0.086 <sup>b</sup>		0.067 <sup>a</sup>
16 <i>Public</i>	0.032	0.053	-0.055	-0.122 <sup>c</sup>	0.338 <sup>c</sup>	-0.495 <sup>c</sup>	0.067 <sup>a</sup>	
17 <i>Size</i>	0.148 <sup>c</sup>	0.171 <sup>c</sup>	0.062	-0.121 <sup>c</sup>	0.059	-0.083 <sup>b</sup>	0.276 <sup>c</sup>	0.123 <sup>c</sup>
18 <i>MTB</i>	-0.010	0.010	-0.063 <sup>a</sup>	0.015	0.041	-0.020	0.040	-0.010
19 <i>Liquidity</i>	-0.046	-0.061	-0.036	0.110 <sup>c</sup>	-0.073 <sup>a</sup>	0.086 <sup>b</sup>	-0.051	-0.096 <sup>b</sup>
20 <i>ROE</i>	0.033	0.048	0.024	0.020	-0.114 <sup>c</sup>	0.066 <sup>a</sup>	0.063 <sup>a</sup>	-0.002
21 <i>PE</i>	-0.067 <sup>a</sup>	0.056	0.070 <sup>a</sup>	0.011	0.013	0.049	0.026	-0.019
22 <i>Growth</i>	-0.053	0.007	-0.028	0.020	0.023	-0.030	-0.047	0.068 <sup>a</sup>
23 <i>Leverage</i>	0.077 <sup>b</sup>	0.050	0.033	-0.157 <sup>c</sup>	0.091 <sup>b</sup>	-0.051	0.109 <sup>c</sup>	0.055
24 <i>CR</i>	-0.052	-0.052	0.022	0.077 <sup>b</sup>	-0.065 <sup>a</sup>	0.107 <sup>c</sup>	-0.038	-0.103 <sup>c</sup>
25 <i>Inst.Diff</i>	-0.049	-0.075 <sup>b</sup>	-0.063 <sup>a</sup>	-0.070 <sup>a</sup>	0.031	0.015	-0.086 <sup>b</sup>	-0.004
26 <i>Bidder.Exp</i>	0.077 <sup>b</sup>	0.066 <sup>a</sup>	-0.052	-0.041	0.063 <sup>a</sup>	-0.085 <sup>b</sup>	0.113 <sup>c</sup>	0.240 <sup>c</sup>
27 <i>BS.Advisor</i>	-0.017	0.095 <sup>b</sup>	-0.107 <sup>c</sup>	0.158 <sup>c</sup>	-0.042	-0.070 <sup>a</sup>	0.095 <sup>b</sup>	0.067 <sup>a</sup>
28 <i>SS.Advisor</i>	0.029	0.085 <sup>b</sup>	-0.148 <sup>c</sup>	0.070 <sup>a</sup>	-0.017	-0.098 <sup>b</sup>	0.032	0.036

**Notes:** Pearson (Spearman) correlations are reported in the table's lower left (upper right) portion. a, b, and c denote significance at 10%, 5%, and 1%, respectively. See the Appendix for variable definitions. Observations 694.



	17	18	19	20	21	22	23	24
1 <i>Premium</i>	-0.101 <sup>c</sup>	-0.077 <sup>b</sup>	0.101 <sup>c</sup>	0.055	-0.032	-0.056	-0.039	0.006
2 <i>EM_ACC</i>	0.024	-0.048	0.082 <sup>b</sup>	0.156 <sup>c</sup>	0.106 <sup>c</sup>	0.057	0.023	-0.154 <sup>c</sup>
3 <i>EM_SALES</i>	0.190 <sup>c</sup>	0.168 <sup>c</sup>	-0.024	0.334 <sup>c</sup>	0.201 <sup>c</sup>	0.066 <sup>a</sup>	-0.063 <sup>a</sup>	0.208 <sup>c</sup>
4 <i>EM-PROD</i>	-0.038	-0.172 <sup>c</sup>	-0.020	-0.139 <sup>c</sup>	-0.025	0.028	0.092 <sup>b</sup>	-0.030
5 <i>DA<sub>pa</sub></i>	0.034	-0.049	0.088 <sup>b</sup>	0.173 <sup>c</sup>	0.122 <sup>c</sup>	0.052	0.028	-0.165 <sup>c</sup>
6 <i>RA<sub>sales</sub></i>	0.203 <sup>c</sup>	0.166 <sup>c</sup>	-0.014	0.350 <sup>c</sup>	0.205 <sup>c</sup>	0.073 <sup>a</sup>	-0.058	0.214 <sup>c</sup>
7 <i>RA<sub>prod</sub></i>	-0.043	-0.173 <sup>c</sup>	-0.015	-0.145 <sup>c</sup>	-0.010	0.034	0.079 <sup>b</sup>	-0.027
8 <i>INTRA</i>	0.096 <sup>b</sup>	0.004	-0.074 <sup>a</sup>	-0.017	-0.021	0.048	0.037	0.009
9 <i>Hostile</i>	0.141 <sup>c</sup>	-0.012	-0.044	0.053	-0.022	-0.037	0.063 <sup>a</sup>	-0.042
10 <i>Multibid</i>	0.177 <sup>c</sup>	0.063 <sup>a</sup>	-0.053	0.054	0.109 <sup>c</sup>	0.053	0.050	0.012
11 <i>Toehold</i>	0.038	-0.098 <sup>c</sup>	-0.044	-0.047	0.044	-0.073 <sup>a</sup>	-0.007	0.011
12 <i>Tender</i>	-0.112 <sup>c</sup>	0.003	0.123 <sup>c</sup>	0.063 <sup>a</sup>	-0.011	0.039	-0.145 <sup>c</sup>	0.037
13 <i>Stock</i>	0.061	-0.005	-0.074 <sup>a</sup>	-0.122 <sup>c</sup>	-0.032	0.000	0.080 <sup>b</sup>	-0.041
14 <i>Cash</i>	-0.069 <sup>a</sup>	-0.028	0.104 <sup>c</sup>	-0.005	0.056	-0.013	-0.044	0.125 <sup>c</sup>
15 <i>CB</i>	0.253 <sup>c</sup>	0.090 <sup>b</sup>	-0.041	0.032	0.064 <sup>a</sup>	-0.069 <sup>a</sup>	0.142 <sup>c</sup>	0.008
16 <i>Public</i>	0.107 <sup>c</sup>	-0.014	-0.105 <sup>c</sup>	0.005	-0.010	0.061	0.041	-0.113 <sup>c</sup>
17 <i>Size</i>		0.334 <sup>c</sup>	-0.115 <sup>c</sup>	0.269 <sup>c</sup>	0.315 <sup>c</sup>	0.048	0.317 <sup>c</sup>	0.038
18 <i>MTB</i>	0.188 <sup>c</sup>		-0.065 <sup>a</sup>	0.354 <sup>c</sup>	0.318 <sup>c</sup>	0.136 <sup>c</sup>	0.072 <sup>a</sup>	0.262 <sup>c</sup>
19 <i>Liquidity</i>	-0.099 <sup>c</sup>	-0.095 <sup>b</sup>		0.049	-0.050	0.005	-0.326 <sup>c</sup>	0.431 <sup>c</sup>
20 <i>ROE</i>	0.245 <sup>c</sup>	-0.016	0.110 <sup>c</sup>		0.304 <sup>c</sup>	0.194 <sup>c</sup>	0.018	0.062
21 <i>PE</i>	0.110 <sup>c</sup>	0.118 <sup>c</sup>	-0.011	0.148 <sup>c</sup>		0.176 <sup>c</sup>	0.033	0.013
22 <i>Growth</i>	0.032	0.056	0.010	0.209 <sup>c</sup>	0.056		-0.023	0.036
23 <i>Leverage</i>	0.184 <sup>c</sup>	0.310 <sup>c</sup>	-0.240 <sup>c</sup>	-0.188 <sup>c</sup>	0.013	-0.018		-0.268 <sup>c</sup>
24 <i>CR</i>	-0.032	0.133 <sup>c</sup>	0.580 <sup>c</sup>	-0.003	-0.040	0.061	-0.159 <sup>c</sup>	
25 <i>Inst.Diff</i>	-0.035	-0.009	0.035	-0.011	-0.014	0.027	0.016	0.005
26 <i>Bidder.Exp</i>	0.176 <sup>c</sup>	-0.044	-0.078 <sup>b</sup>	0.019	-0.051	0.022	0.085 <sup>b</sup>	-0.080 <sup>b</sup>
27 <i>BS.Advisor</i>	0.231 <sup>c</sup>	0.134 <sup>c</sup>	-0.067 <sup>a</sup>	-0.027	-0.003	0.019	0.065 <sup>a</sup>	-0.030
28 <i>SS.Advisor</i>	0.288 <sup>c</sup>	0.062	-0.113 <sup>c</sup>	0.067 <sup>a</sup>	0.016	0.054	0.045	-0.137 <sup>c</sup>

**Notes:** Pearson (Spearman) correlations are reported in the table's lower left (upper right) portion. a, b, and c denote significance at 10%, 5%, and 1%, respectively. See the Appendix for variable definitions. Observations 694.

	25	26	27	28
1 <i>Premium</i>	0.097 <sup>b</sup>	-0.104 <sup>c</sup>	0.128 <sup>c</sup>	0.076 <sup>b</sup>
2 <i>EM_ACC</i>	0.066 <sup>a</sup>	-0.059	0.023	0.042
3 <i>EM_SALES</i>	-0.039	0.014	0.026	0.063 <sup>a</sup>
4 <i>EM-PROD</i>	-0.008	0.041	-0.027	-0.020
5 <i>DA<sub>pa</sub></i>	0.073 <sup>a</sup>	-0.055	0.024	0.047
6 <i>RA<sub>sales</sub></i>	-0.037	0.006	0.023	0.063 <sup>a</sup>
7 <i>RA<sub>prod</sub></i>	-0.006	0.024	-0.052	-0.034
8 <i>INTRA</i>	-0.012	0.120 <sup>c</sup>	0.029	0.014
9 <i>Hostile</i>	-0.021	0.048	-0.017	0.029
10 <i>Multibid</i>	-0.026	0.067 <sup>a</sup>	0.095 <sup>b</sup>	0.085 <sup>b</sup>
11 <i>Toehold</i>	-0.100 <sup>c</sup>	-0.034	-0.121 <sup>c</sup>	-0.155 <sup>c</sup>
12 <i>Tender</i>	0.088 <sup>b</sup>	-0.027	0.158 <sup>c</sup>	0.070 <sup>a</sup>
13 <i>Stock</i>	0.004	0.065 <sup>a</sup>	-0.042	-0.017
14 <i>Cash</i>	-0.074 <sup>a</sup>	-0.098 <sup>c</sup>	-0.070 <sup>a</sup>	-0.098 <sup>b</sup>
15 <i>CB</i>	-0.092 <sup>b</sup>	0.094 <sup>b</sup>	0.095 <sup>b</sup>	0.032
16 <i>Public</i>	0.017	0.284 <sup>c</sup>	0.067 <sup>a</sup>	0.036
17 <i>Size</i>	-0.039	0.155 <sup>c</sup>	0.238 <sup>c</sup>	0.290 <sup>c</sup>
18 <i>MTB</i>	-0.012	-0.021	0.191 <sup>c</sup>	0.089 <sup>b</sup>
19 <i>Liquidity</i>	0.056	-0.120 <sup>c</sup>	-0.059	-0.101 <sup>c</sup>
20 <i>ROE</i>	0.035	-0.003	0.084 <sup>b</sup>	0.100 <sup>c</sup>
21 <i>PE</i>	-0.048	0.044	0.076 <sup>b</sup>	0.056
22 <i>Growth</i>	0.056	0.032	0.043	0.067 <sup>a</sup>
23 <i>Leverage</i>	-0.053	0.112 <sup>c</sup>	0.070 <sup>a</sup>	0.084 <sup>b</sup>
24 <i>CR</i>	-0.075 <sup>b</sup>	-0.083 <sup>b</sup>	-0.033	-0.124 <sup>c</sup>
25 <i>Inst.Diff</i>		-0.032	0.094 <sup>b</sup>	0.025
26 <i>Bidder.Exp</i>	-0.102 <sup>c</sup>		0.089 <sup>b</sup>	0.034
27 <i>BS.Advisor</i>	0.023	0.083 <sup>b</sup>		0.394 <sup>c</sup>
28 <i>SS.Advisor</i>	-0.074 <sup>a</sup>	0.058	0.394 <sup>c</sup>	

**Notes:** Pearson (Spearman) correlations are reported in the table's lower left (upper right) portion. *a*, *b*, and *c* denote significance at 10%, 5%, and 1%, respectively. See the Appendix for variable definitions. Observations 694.

**Table 4.** Univariate tests.

	Inter- vs. Intra- industry		Disc. Accruals Low- vs High- EM		Sales Manip. Low- vs High- EM		Overproduction Low- vs High- EM	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>Dependent</b>	<b>Diff</b>	<b>t</b>	<b>Diff</b>	<b>t</b>	<b>Diff</b>	<b>t</b>	<b>Diff</b>	<b>t</b>
<i>Premium</i>	-0.0113	-0.38	-0.0047	-0.16	-0.0569 <sup>a</sup>	-1.86	0.0161	0.56
<b>EM</b>	<b>Diff</b>	<b>t</b>	<b>Diff</b>	<b>t</b>	<b>Diff</b>	<b>t</b>	<b>Diff</b>	<b>t</b>
<i>EM_ACC</i>	0.1205	1.08	-2.4025 <sup>c</sup>	-42.43	-0.6755 <sup>c</sup>	-6.34	0.0749	0.70
<i>DA<sub>pa</sub></i>	0.0102	1.35	-0.1366 <sup>c</sup>	-25.46	-0.0430 <sup>c</sup>	-5.62	0.0031	0.41
<i>EM_SALES</i>	0.1936 <sup>a</sup>	1.77	0.7049 <sup>c</sup>	6.77	2.4473 <sup>c</sup>	45.47	0.5072 <sup>c</sup>	4.80
<i>RA<sub>sales</sub></i>	0.0116	1.31	0.0551 <sup>c</sup>	6.51	0.1631 <sup>c</sup>	25.03	0.0353 <sup>c</sup>	4.10
<i>EM_PROD</i>	0.0169	0.15	-0.0055	-0.05	-0.5343 <sup>c</sup>	-5.02	-2.3977 <sup>c</sup>	-42.15
<i>RA<sub>prod</sub></i>	0.0049	0.23	0.0061	0.28	-0.1086 <sup>c</sup>	-4.95	-0.3961 <sup>c</sup>	-25.55
<i>INTRA</i>			0.0354	0.96	-0.0366	-0.98	0.0137	0.37
<b>Continuous var.</b>	<b>Diff</b>	<b>t</b>	<b>Diff</b>	<b>t</b>	<b>Diff</b>	<b>t</b>	<b>Diff</b>	<b>t</b>
<i>Toehold</i>	0.0137	1.35	0.0012	0.13	-0.0133	-1.36	-0.0049	-0.52
<i>Size</i>	-0.4414 <sup>c</sup>	-3.06	-0.2034	-1.39	0.6699 <sup>c</sup>	4.63	0.2385	1.63
<i>MTB</i>	-0.1604	-0.81	0.1595	0.78	0.4926 <sup>b</sup>	2.46	0.7810 <sup>c</sup>	3.89
<i>Liquidity</i>	0.0218	1.36	-0.0198	-1.26	-0.0238	-1.48	-0.0106	-0.68
<i>ROE</i>	0.0592	1.52	-0.1397 <sup>c</sup>	-3.52	0.2584 <sup>c</sup>	5.9	0.0486	1.20
<i>PE</i>	0.2849	0.11	0.0027	0.00	3.9561	1.58	-1.6303	-0.68
<i>Growth</i>	-0.014	-0.74	-0.0393 <sup>b</sup>	-2.12	0.0151	0.79	-0.0227	-1.22
<i>Leverage</i>	-0.1289 <sup>b</sup>	-2.01	0.0347	0.53	-0.064	-0.93	-0.0397	-0.60
<i>CR</i>	0.001	0.09	0.0275 <sup>b</sup>	2.54	0.0245 <sup>b</sup>	2.24	0.0037	0.34
<i>Inst.Diff</i>	-0.0011	-0.01	-0.1806	-1.59	0.0088	0.08	-0.0333	-0.29
<i>Bidder.Exp</i>	-0.0937 <sup>b</sup>	-2.28	0.0214	0.51	-0.012	-0.28	0.0076	0.19
<b>Dummy var.</b>	<b>Diff %</b>	<b>z</b>	<b>Diff %</b>	<b>z</b>	<b>Diff %</b>	<b>z</b>	<b>Diff %</b>	<b>z</b>
<i>Hostile</i>	1.31	0.61	-1.05	-0.5	1.46	0.69	1.97	0.95
<i>Multibid</i>	-4.28	-1.6	-4.14	-1.59	3.15	1.20	1.07	0.41
<i>Tender</i>	-2.30	-0.62	-3.18	-0.88	-3.06	-0.84	2.5	0.69
<i>Stock</i>	-4.87 <sup>a</sup>	-1.65	2.45	0.85	-6.16 <sup>b</sup>	-2.12	-3.56	-1.24
<i>Cash</i>	11.72 <sup>c</sup>	3.03	2.81	0.75	-2.33	-0.61	-3.79	-1.01
<i>CB</i>	-7.69 <sup>b</sup>	-2.25	2.53	0.76	0.51	0.15	3.6	1.08
<i>Public</i>	-6.50 <sup>a</sup>	-1.71	-3.66	-0.99	3.74	1.00	3.97	1.07
<i>BS.Advisor</i>	-1.84	-0.77	-3.36	-1.44	1.56	0.66	3.81	1.63
<i>SS.Advisor</i>	-1.13	-0.38	-5.58 <sup>a</sup>	-1.92	3.64	1.24	2.7	0.93

**Notes:** column (1) reports the differences in means or proportions between inter-industry and intra-industry deals, and column (2) exhibits the statistic of the corresponding test for the significance of the difference. Columns (3), (5) and (7) report the differences in means or proportions between Low-EM and High-EM deals, and columns (4), (6) and (8) present the statistic of the corresponding test for the significance of the difference.

M&A in which targets exhibit positive (negative)  $DA_{pa}$  or  $RA_{prod}$  are in the High-EM (Low-EM) groups of EM via discretionary accruals and overproduction. The opposite applies to  $RA_{sales}$  and EM via sales. Descriptive statistics of  $DA_{pa}$ ,  $RA_{sales}$ , and  $RA_{prod}$  are reported just for information purposes; these variables are the residuals used to estimate the three EM measures ( $EM\_ACC$ ,  $EM\_SALES$ , and  $EM\_PROD$ , respectively). a, b, and c denote significance at 10%, 5%, and 1%, respectively. Observations 694.

**Table 5.** Mean premium by target's EM and industry relatedness.

Panel A. EM via Discretionary Accruals (*EM ACC*)

<b>SUB-SAMPLES</b>	<b><i>Inter-industry M&amp;A</i></b>	<b><i>Intra-industry M&amp;A</i></b>	<b><i>Difference</i></b>
<b><i>Low-EM</i></b>	<i>Mean Premium</i> 0.2926 <i>Obs.</i> 133	<i>Mean Premium</i> 0.3892 <i>Obs.</i> 230	-0.0966 <sup>b</sup> <i>t-stat:</i> -2.55
<b><i>High-EM</i></b>	<i>Mean Premium</i> 0.4056 <i>Obs.</i> 133	<i>Mean Premium</i> 0.3269 <i>Obs.</i> 198	0.0787 <sup>a</sup> <i>t-stat:</i> 1.76

Panel B. EM via Sales Manipulation (*EM SALES*)

<b>SUB-SAMPLES</b>	<b><i>Inter-industry M&amp;A</i></b>	<b><i>Intra-industry M&amp;A</i></b>	<b><i>Difference</i></b>
<b><i>Low-EM</i></b>	<i>Mean Premium</i> 0.3232 <i>Obs.</i> 158	<i>Mean Premium</i> 0.3372 <i>Obs.</i> 238	-0.0140 <i>t-stat:</i> -0.47
<b><i>High-EM</i></b>	<i>Mean Premium</i> 0.3870 <i>Obs.</i> 108	<i>Mean Premium</i> 0.3894 <i>Obs.</i> 190	-0.0024 <i>t-stat:</i> -0.04

Panel C. EM via Overproduction (*EM PROD*)

<b>SUB-SAMPLES</b>	<b><i>Inter-industry M&amp;A</i></b>	<b><i>Intra-industry M&amp;A</i></b>	<b><i>Difference</i></b>
<b><i>Low-EM</i></b>	<i>Mean Premium</i> 0.3852 <i>Obs.</i> 131	<i>Mean Premium</i> 0.3513 <i>Obs.</i> 217	0.0339 <i>t-stat:</i> 0.83
<b><i>High-EM</i></b>	<i>Mean Premium</i> 0.3141 <i>Obs.</i> 135	<i>Mean Premium</i> 0.3697 <i>Obs.</i> 211	-0.0556 <i>t-stat:</i> -1.31

**Notes:** Each row reports the mean of premiums for inter-industry and intra-industry deals, with their correspondent differences in means and t-stats, considering deals in the Low-EM and High-EM groups. M&A, where targets exhibit positive (negative)  $DA_{pa}$  or  $RA_{prod}$ , are in the High-EM (Low-EM) group for EM via discretionary accruals and overproduction, respectively. The opposite applies to  $RA_{sales}$  and EM via sales manipulation. a, b, and c denote significance at 10%, 5%, and 1%, respectively.

**Table 6.** Regression analysis.

<b>Dependent variable:</b>	<i>Premium</i>							
<b>Independent variables</b>	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.
	[t-stat]	[t-stat]	[t-stat]	[t-stat]	[t-stat]	[t-stat]	[t-stat]	[t-stat]
<i>EM_ACC</i>	-0.0006 [-0.05]	0.0440 <sup>b</sup> [2.55]					-0.0076 [-0.65]	0.0374 <sup>b</sup> [2.12]
<i>EM_ACC*INTRA</i>		-0.0753 <sup>c</sup> [-3.56]						-0.0761 <sup>c</sup> [-3.41]
<i>EM_SALES</i>			-0.0230 <sup>a</sup> [-1.96]	-0.0347 <sup>a</sup> [-1.78]			-0.0243 <sup>a</sup> [-1.89]	-0.0218 [-1.05]
<i>EM_SALES*INTRA</i>				0.0183 [0.79]				-0.0013 [-0.05]
<i>EM-PROD</i>					0.0105 [0.94]	0.0003 [0.01]	0.0043 [0.36]	0.0008 [0.04]
<i>EM-PROD*INTRA</i>						0.0158 [0.68]		0.0112 [0.47]
<i>INTRA</i>	0.0194 [0.64]	0.2498 <sup>c</sup> [3.68]	0.0148 [0.49]	-0.041 [-0.46]	0.0188 [0.62]	-0.0289 [-0.40]	0.0136 [0.45]	0.2167 [1.36]
<i>Hostile</i>	-0.011 [-0.23]	-0.002 [-0.04]	-0.0126 [-0.27]	-0.0138 [-0.29]	-0.0074 [-0.16]	-0.0044 [-0.09]	-0.0105 [-0.22]	0.0022 [0.05]
<i>Multibid</i>	0.0634 [1.53]	0.064 [1.57]	0.0647 [1.58]	0.0631 [1.55]	0.0637 [1.55]	0.0628 [1.53]	0.0651 [1.60]	0.0653 [1.63]
<i>Toehold</i>	-0.2910 <sup>c</sup> [-2.77]	-0.2869 <sup>c</sup> [-2.79]	-0.3002 <sup>c</sup> [-2.83]	-0.3004 <sup>c</sup> [-2.83]	-0.2895 <sup>c</sup> [-2.77]	-0.2913 <sup>c</sup> [-2.79]	-0.3000 <sup>c</sup> [-2.82]	-0.2960 <sup>c</sup> [-2.83]
<i>Tender</i>	0.0192 [0.57]	0.0178 [0.53]	0.0191 [0.57]	0.0216 [0.64]	0.0177 [0.52]	0.0166 [0.49]	0.0192 [0.57]	0.0163 [0.48]
<i>Stock</i>	-0.0684	-0.0741	-0.0765	-0.079	-0.0711	-0.0712	-0.0795	-0.0856 <sup>a</sup>

	[-1.39]	[-1.53]	[-1.55]	[-1.60]	[-1.46]	[-1.46]	[-1.60]	[-1.74]
<i>Cash</i>	-0.0259	-0.024	-0.0327	-0.0337	-0.0263	-0.0253	-0.0339	-0.0309
	[-0.69]	[-0.64]	[-0.86]	[-0.88]	[-0.69]	[-0.67]	[-0.89]	[-0.81]
<i>CB</i>	0.1039 <sup>c</sup>	0.1063 <sup>c</sup>	0.1028 <sup>c</sup>	0.1030 <sup>c</sup>	0.1053 <sup>c</sup>	0.1059 <sup>c</sup>	0.1012 <sup>c</sup>	0.1045 <sup>c</sup>
	[2.97]	[3.01]	[2.95]	[2.95]	[3.00]	[3.01]	[2.91]	[2.98]
<i>Public</i>	-0.0515	-0.0546 <sup>a</sup>	-0.0495	-0.0511	-0.0513	-0.0503	-0.0494	-0.0519
	[-1.54]	[-1.65]	[-1.49]	[-1.52]	[-1.54]	[-1.51]	[-1.48]	[-1.56]
<i>Size</i>	-0.0320 <sup>c</sup>	-0.0311 <sup>c</sup>	-0.0303 <sup>c</sup>	-0.0299 <sup>c</sup>	-0.0317 <sup>c</sup>	-0.0315 <sup>c</sup>	-0.0299 <sup>c</sup>	-0.0288 <sup>c</sup>
	[-3.41]	[-3.35]	[-3.25]	[-3.24]	[-3.39]	[-3.35]	[-3.20]	[-3.15]
<i>MTB</i>	-0.0068	-0.0068	-0.0061	-0.0058	-0.0058	-0.0057	-0.0054	-0.0051
	[-1.02]	[-1.05]	[-0.91]	[-0.87]	[-0.88]	[-0.86]	[-0.82]	[-0.79]
<i>Liquidity</i>	0.0729	0.1063	0.036	0.0323	0.069	0.0743	0.043	0.0821
	[0.86]	[1.24]	[0.43]	[0.38]	[0.84]	[0.89]	[0.50]	[0.95]
<i>ROE</i>	0.0426	0.0402	0.0578	0.0563	0.0437	0.0418	0.0616	0.0574
	[1.10]	[1.03]	[1.49]	[1.44]	[1.14]	[1.09]	[1.52]	[1.41]
<i>PE</i>	0.0004	0.0003	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004
	[0.45]	[0.44]	[0.51]	[0.53]	[0.45]	[0.45]	[0.50]	[0.48]
<i>Growth</i>	-0.1041	-0.0829	-0.1106	-0.1077	-0.1111	-0.1126	-0.1105	-0.0923
	[-1.30]	[-1.04]	[-1.36]	[-1.32]	[-1.36]	[-1.37]	[-1.37]	[-1.14]
<i>Leverage</i>	-0.0038	-0.0022	-0.0044	-0.0045	-0.0043	-0.0039	-0.0048	-0.0031
	[-0.21]	[-0.13]	[-0.24]	[-0.24]	[-0.23]	[-0.21]	[-0.26]	[-0.18]
<i>CR</i>	0.0374	0.0228	0.1028	0.1105	0.0507	0.041	0.0928	0.0705
	[0.27]	[0.16]	[0.78]	[0.83]	[0.39]	[0.31]	[0.68]	[0.50]
<i>Inst.Diff</i>	0.0079	0.008	0.008	0.0086	0.0077	0.0078	0.0079	0.0079
	[0.83]	[0.84]	[0.84]	[0.89]	[0.80]	[0.81]	[0.82]	[0.83]
<i>Bidder.Exp</i>	-0.0283	-0.028	-0.0294	-0.0298	-0.0292	-0.029	-0.0301	-0.0298
	[-1.28]	[-1.27]	[-1.34]	[-1.35]	[-1.31]	[-1.28]	[-1.36]	[-1.34]
<i>BS.Advisor</i>	0.0807	0.0718	0.0809	0.0815	0.0798	0.0794	0.0801	0.0704
	[1.37]	[1.24]	[1.37]	[1.38]	[1.36]	[1.35]	[1.36]	[1.21]
<i>SS.Advisor</i>	0.0601	0.0599	0.0615	0.0596	0.0569	0.0565	0.0599	0.0583

	[1.11]	[1.12]	[1.15]	[1.12]	[1.04]	[1.04]	[1.10]	[1.09]
<i>Cons</i>	0.4574 <sup>b</sup>	0.4948 <sup>c</sup>	0.2023	0.7158 <sup>c</sup>	0.0839	0.6213 <sup>c</sup>	0.2298	0.5644 <sup>c</sup>
	[2.41]	[3.66]	[1.02]	[4.79]	[0.46]	[4.26]	[1.11]	[2.93]
<i>Year-Indicators</i>	Included	Included	Included	Included	Included	Included	Included	Included
<i>Country-Indicators</i>	Included	Included	Included	Included	Included	Included	Included	Included
Observations	694	694	694	694	694	694	694	694
R <sup>2</sup>	0.191	0.209	0.197	0.198	0.193	0.193	0.198	0.216
Adjusted R <sup>2</sup>	0.115	0.132	0.121	0.121	0.116	0.116	0.119	0.135

**Notes:** Coefficients for indicator variables are omitted for brevity. Standard errors are clustered by target firm. a, b, and c denote significance at 10%, 5%, and 1%, respectively. See the *Appendix* for variable definitions.



**Table 7.** Robustness tests

Panel A. Subsamples analysis

<b>Dependent variable:</b>		<i>Premium</i>						
<b>Sample</b>	(1) postETD	(2) IFRS	(3) postIFRS	(4) CASH	(5) NO-EXP	(6) NO-ADV	(7) FULL	
<b>Independent variables</b>	Coef. [t-stat]	Coef. [t-stat]	Coef. [t-stat]	Coef. [t-stat]	Coef. [t-stat]	Coef. [t-stat]	Coef. [t-stat]	
<i>EM_ACC</i>	0.0513 <sup>b</sup> [2.18]	0.0237 [1.33]	0.0542 <sup>b</sup> [2.42]	0.0625 <sup>c</sup> [3.09]	0.0318 <sup>a</sup> [1.67]	0.0406 <sup>b</sup> [2.22]	0.0138 [0.84]	
<i>EM_ACC*INTRA</i>	-0.1232 <sup>c</sup> [-3.62]	-0.0610 <sup>c</sup> [-2.59]	-0.1198 <sup>c</sup> [-3.79]	-0.1097 <sup>c</sup> [-3.67]	-0.0794 <sup>c</sup> [-3.24]	-0.0752 <sup>c</sup> [-3.37]	-0.0566 <sup>c</sup> [-2.61]	
<i>EM_SALES</i>	-0.0024 [-0.08]	-0.0255 [-1.14]	0.003 [0.12]	0.0142 [0.68]	-0.0293 [-1.28]	-0.0248 [-1.14]	-0.0337 [-1.47]	
<i>EM_SALES*INTRA</i>	-0.0264 [-0.67]	-0.0005 [-0.02]	-0.0271 [-0.75]	-0.0535 <sup>a</sup> [-1.77]	-0.0017 [-0.06]	0.0034 [0.14]	0.0175 [0.65]	
<i>EM-PROD</i>	0.0176 [0.74]	-0.0041 [-0.19]	0.0223 [1.05]	0.0179 [0.84]	-0.0024 [-0.11]	0.0025 [0.12]	-0.0088 [-0.40]	
<i>EM-PROD*INTRA</i>	0.0088 [0.27]	0.0203 [0.78]	-0.0001 [-0.00]	0.0017 [0.06]	0.0251 [0.93]	0.0037 [0.15]	0.0299 [1.16]	
<i>INTRA</i>	0.4458 <sup>a</sup> [1.91]	0.1553 [0.89]	0.4507 <sup>b</sup> [2.09]	0.5244 <sup>c</sup> [2.71]	0.1858 [1.04]	0.2147 [1.35]	0.0446 [0.25]	
<i>Year-Indicators</i>	Included	Included	Included	Included	Included	Included	Included	
<i>Country-Indicators</i>	Included	Included	Included	Included	Included	Included	Included	
Observations	340	604	385	396	606	621	606	
R <sup>2</sup>	0.271	0.233	0.257	0.247	0.223	0.214	0.237	
Adjusted R <sup>2</sup>	0.133	0.143	0.13	0.107	0.133	0.123	0.146	

**Notes:** Column (1) only includes deals announced after the European Takeover Directive implementation. Column (2) excludes observations that required financial data from 2005 and 2006. Column (3) only includes deals announced after the mandatory IFRS

adoption (2006-2007). Column (4) includes only cash deals. Column (5) excludes deals where bidders have prior experience in the target's industry (see *Bidder.Exp* definition). Column (6) excludes deals where acquirers do not use advisors. Column (7) includes deals where bidders are seeking to acquire 100% of targets' shares exclusively. Coefficients for control variables and indicators are omitted for brevity. Standard errors are clustered by target firm. a, b, and c denote significance at 10%, 5%, and 1%, respectively. See *Appendix* for variable definitions.

Panel B. Analysis using different models of discretionary accruals

<b>Dependent variable:</b>	<i>Premium</i>		
	(1)	(2)	(3)
<b>Model</b>	Jones (1991)	Dechow et al. (1995)	Teoh et al. (1998)
<b>Independent variables</b>	Coef. [t-stat]	Coef. [t-stat]	Coef. [t-stat]
<i>EM_ACC</i>	0.0369 <sup>b</sup> [2.01]	0.0371 <sup>b</sup> [2.07]	0.0378 <sup>b</sup> [2.10]
<i>EM_ACC*INTRA</i>	-0.0642 <sup>c</sup> [-3.00]	-0.0646 <sup>c</sup> [-2.94]	-0.0618 <sup>c</sup> [-2.88]
<i>EM_SALES</i>	-0.0232 [-1.17]	-0.0242 [-1.23]	-0.0216 [-1.09]
<i>EM_SALES*INTRA</i>	0.0029 [0.12]	0.0044 [0.18]	0.0029 [0.12]
<i>EM-PROD</i>	0.0015 [0.08]	0.0014 [0.07]	0.0016 [0.08]
<i>EM-PROD*INTRA</i>	0.0098 [0.41]	0.0093 [0.39]	0.0091 [0.38]
<i>INTRA</i>	0.1707 [1.16]	0.1689 [1.13]	0.1678 [1.13]

<i>Year-Indicators</i>	Included	Included	Included
<i>Country-Indicators</i>	Included	Included	Included
Observations	694	694	694
R <sup>2</sup>	0.211	0.211	0.210
Adjusted R <sup>2</sup>	0.129	0.129	0.128

**Notes:** Columns (1) – (3) show regression results for model (4) using different models to proxy *EM\_ACC*: Jones (1991), Dechow et al. (1995) and Teoh et al. (1998). Coefficients for control variables and indicators are omitted for brevity. Standard errors are clustered by target firm. a, b, and c denote significance at 10%, 5%, and 1%, respectively. See the *Appendix* for variable definitions.