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

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This version: July 2018

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Abstract: This paper contributes to the mergers and acquisitions (M&As) literature by providing evidence on the role of industry relatedness in the association between earnings management practices carried out by the target firm one year before the deal and the premium offered by the acquirer. We argue that, due to their familiarity with the accounting practices of the industry, acquirers operating in the target's industry are more able to see through its EM practices. Our results based on a European sample support this prediction, since we observe that the association between discretionary accruals and the premium offered by the acquirer is significantly negative only when the acquirer and the target belong to the same industry.

Keywords: mergers and acquisitions (M&As); earnings management (EM); bid premiums; industry relatedness.

1. INTRODUCTION

Prior literature on M&As widely validates that acquirer firms perform earnings management (EM) before stock-for-stock deals to lower their acquisition costs (e.g. Botsari & Meeks, 2008; Erickson & Wang, 1999; Higgins, 2013; Louis, 2004). However, little is known about the target's EM activities and their effects on the M&A negotiations (Anagnostopoulou & Tsekrekos, 2015; Campa & Hajbaba, 2016). This paper aims to build on this research line by investigating the association between the targets' EM practices prior to the deal announcement and the premium offered by the acquirer. Specifically, we investigate the role of industry relatedness on this association.

As pointed out by Skaife and Wangerin (2013), there is no consensus on the effect that poor accounting quality might have on bid premiums, since acquirers may or may not unveil that condition. Consequently, we hypothesize that target's EM practices might affect the bid premium offered by the acquirer but do not make a specific prediction on the direction of such association. In addition, research on takeovers reports that, in general, intra-industry (industry related) deals are associated with better knowledge about the target (e.g. less uncertainty about their future cash flows) and potential synergies (e.g. economies of scale) derived from the M&As than inter-industry (industry unrelated) deals (Tuch & O'Sullivan, 2007). Accordingly, we argue that industry relatedness can help the acquirer firm detecting and discounting the target's EM practices. Specifically, we pose that this should be reflected in the deal premiums offered.

To test our predictions, we use a sample of 769 M&As announced in Europe between 1999 and 2017. The European market of corporate control is a complex and relatively under-explored setting that can enrich our understanding on the role of targets' opportunism in the M&A process. Europe is a growing and dymanic takeover market, where many regulatory efforts, like the European Takeover Bid Directive of 2006, have been done to harmonize takeovers legislation and foster M&A activity. As opposed to the US, Europe comprehends several jurisdictions with different law systems and financial markets (Faccio & Masulis, 2016; Humphery-Jenner, 2012; Moschieri & Campa, 2009, 2014).

Following prior research, such as Raman, Shivakumar and Tamayo (2013) and Skaife and Wangerin (2013), in our empirical tests we express the deal premium offered by the acquirer

as a function of several characteristics of the deal, and the target's financial condition before the announcement, including its EM practices. We employ discretionary accruals to proxy for EM using the performance adjusted model proposed by Kothari, Leone, and Wasley (2005). Additionally, to assess the effect of the industry relatedness on the association between the target's EM and bid premiums, the model includes the interaction term of the EM measure and an indicator variable that captures if the acquirer and target firms belong to the same industry.

The results reveal that the target firms' discretionary accruals do not relate to the bid premium subsequently offered by the acquirer. However, we see a negative and statistically significant coefficient of the interaction term between the target's EM and the industry relatedness variables, meaning that in industry-related transactions EM practices are associated with lower deal premiums than in inter-industry takeovers. These results are robust to a number of alternative model specifications, and variables definitions. Overall, the results confirm our prediction on the role of industry relatedness on the association between the target's EM practices and the bid premium offered by the acquirer. We also observe that deal premiums are higher in industry related deals than in unrelated takeovers. Sum together, these findings suggest that despite that in industry related deals acquirers are willing to pay more for the synergies derived from the M&A, they can also take advantage of their knowledge on the industry to detect the upward earnings manipulation of target firms and accordingly reduce the premium offered. This study brings evidence in support of the notion that industry familiarity helps the acquirer firms to disentangle the complex mix between the real economic value of synergies and the *noise* of management discretion incorporated in the financial statements of target firms.

To the best of our knowledge, this is the first study to analyze how the target's EM relate to the premium offered by the acquirer in M&As, as well as the role of industry relatedness on the such association. By concentrating on EM practices it is possible to asses how bidders incorporate the target's opportunism into the negotiations. Our study extends the growing literature on the target's EM around M&As and the pre-acquisition process, and complements the literature on financial reporting quality (FRQ), of which EM is a particular dimension (Dechow, Ge, & Schrand, 2010). Related papers analyze the effect of IFRS adoption (Bozos, Ratnaike, & Alsharairi, 2014) as well as FRQ of target firms (Raman et al., 2013; Skaife &

Wangerin, 2013) on deal premiums. This work differs from these studies as we focus on the particular direction of management discretion in target firms which, perhaps, is not the main objective in prior research.[1]

Our results are linked with some of the intriguing outcomes concerning the financial performance of M&As. Martynova and Renneboog (2008) pose that stock returns around the deal announcement are positive for targets firms, but at best insignificant for acquirers, because of the predominantly negotiation power that targets have in the M&A process. Besides, some authors indicate that after the M&A completion acquirer firms experiment overwhelming negative share returns in the long-run, probably because of the overvaluation of the expected gains derived from the synergies (Guest, Bild, & Runsten, 2010; Martynova & Renneboog, 2008; Tuck & O'Sullivan, 2007). Our findings suggest that the knowledge of the business may help acquirers to gain a better position to negotiate the terms of the deal (like the bid offered) as well as to diminish the risk of overestimating the real value of the target (i.e. the synergies).

The study has implications for practicioners involved in M&As because upwards EM is a prevalent phenomenon which frequently seeks to increase/maintain the share prices, in this case of target firms.[2] Furthermore, given the need to correctly assess the target's value and determine the bid price (Ahammad & Glaister, 2013; McNichols & Stubben, 2015), acquirers invest many resources, money and time, in the due diligence process (Angwin, 2001; Very & Schweiger, 2001), and our results provide new insights on these procedures. Given that the target's accounting information is a key source to estimate the synergies and other benefits of the takeover (Raman et al., 2013) but it could be contaminated by upwards EM, disentangling this complex mix is a desirable goal of the pre-acquisition process that will enhance its value for acquirers. Our study suggests that this process is more valuable for bidders in industry related deals because they can properly *digest* financial public information

[1] At this regard, Bozos et al., (2014) concentrate on the distance between local GAAP and IFRS in Europe as a measure of accounting quality while Raman et al. (2013) and Skaife and Wangerin (2013) use unsigned proxies that reflect not only the intentional (or opportunism) besides other dimensions of financial reporting quality as we will discuss latter.

[2] Research evidences the use of upwards EM by managers to boost management compensation (Healy & Wahlen, 1999), to get job security (Dechow & Sloan, 1991; DeFond & Park, 1997), to meet or beat a benchmark (Bartov, Givoly, & Hayn, 2002; Gunny, 2010; Skinner & Sloan, 2002), to obtain private benefits from IPOs (Friedlan, 1994; Teoh, Welch, & Wong, 1998a; Teoh, Wong, & Rao, 1998), SEOs (Cohen & Zarowin, 2010; Kim & Park, 2005; Rangan, 1998; Teoh, Welch, & Wong, 1998b) and M&As.

of target firms to isolate the expected synergies from management discretion. In this sense, this work relates to recent research examining the economic value of due-diligence for bidder firms (Cumming & Zambelli, 2017).

The remainder of the study is as follows. The next section details the related literature and develops the hypotheses. In section 3 we explain the methodology to contrast our assertions whereas section 4 shows and discusses the findings. Finally, section 5 concludes.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Literature review

Our study mainly relates with two lines of research on M&As: studies concerning EM practices in both acquirer and target firms; and those concerned to the effect of industry relatedness on these transactions. Our predictions are built on the evidence of these research, which we briefly review in this section.

2.1.1. Earnings management in M&As

A vast majority of the extant studies analyzing EM practices of both acquirer and target firms in M&As focus on the US setting. Erickson and Wang (1999) provide evidence that acquiring firms increase the price of their stock through upwards EM to reduce the acquisition cost of target companies. Louis (2004) gets similar results and also posits that the negative post-takeover stock returns of acquiring companies may be partly attributable to the reversal in the share prices as consequence of the EM done previously. Building on these studies, Baik, Kang and Morton (2007) provide evidence that acquirers performing stock-for-stock deals are more prone to carry on EM before the deal when acquiring private companies; and Gong, Louis and Sun (2008) find that EM practices are positively related with subsequent lawsuits, which are partially anticipated by the market at the deal's announcement date. Furthermore, Gong et al., (2008) suggest that EM has an indirect effect on the acquirer's future performance through the substantial costs of the lawsuits.

There are also some studies that challenge the evidence of the studies exposed above (Heron & Lie, 2002; Pungaliya & Vijh, 2009). For example, Heron and Lie (2002) are not able to confirm that the method of payment correlates with the acquirer's EM activity before the

deal, nor with its subsequent underperformance. But, despite these claims, recent research provides additional evidence that acquirer firms perform EM prior to stock deals. For example, Baik, Cho, Choi, and Kang (2015) find that US acquirers perform EM before the deal in cross-border stock swaps as a strategy to compensate the risks of acquiring targets located in environments with institutional differences; and Louis and Sun (2016) show that bidders with inflated earnings decide to announce stock-swaps when markets are distracted (Fridays) because otherwise, investors would penalize them anticipating overvalued shares.

The US based literature has also studied the target firms' EM activity. Easterwood (1998) confirms that acquired companies perform EM before hostile transactions while Erickson and Wang (1999) detect such activity in stock-for-stock deals. Also, Anilowski, Macias and Sánchez (2009) find that target firms perform EM prior to takeovers via auctions to exploit the low level of scrutiny that bidders have. Examining different types of EM practices, Campa and Hajbaba (2016) show that the target's EM is associated with the method of financing (e.g. cash deals associate more with real EM) and with the post-takeover bidder underperformance (e.g. the more real EM the worse post-performance). However, there is also some evidence suggesting that target firms do not always perform EM at the expense of the acquirers. For example, Chen, Thomas and Zhang (2016) show that acquired companies perform downwards EM to transfer positive performance to bidders before the M&A completion. This may enhance the acquirers' future performance and can be interpreted as the achievement of synergies pursued by the M&A, justifying the premiums paid to targets.

As indicated by Dechow et al. (2010), EM is a particular dimension of earnings quality; and there are also a number of relevant papers indicating that the target's poor FRQ influences not only the completion of the transaction but also the payment. In this regard, Skaife and Wangerin (2013) corroborate that the target's poor FRQ increases the odds that an M&As go terminated. These authors use an index that entails many dimensions of FRQ,[3] and find that the target's poor FRQ is associated with higher premiums and to the deal's renegotiation. Also, Raman et al. (2013) posit that the target's poor FRQ, measured by the mapping of accruals into cash flows (as in Francis, LaFond, Olsson, & Schipper (2005)), is associated

[3] The index comprises the absolute value of discretionary accruals, the weakness of internal control, the off-balance-sheet liabilities, the absolute value of analyst forecast error and their dispersion.

with higher bid premiums and usually motivates acquirers to negotiate takeovers. However, because of this, acquirers seem to share overvaluation risks by using more stock-for-stock as the payment method. Also, acquirers offer higher deal premiums for low FRQ targets in negotiated than in hostile M&As probably because negotiations allow bidders to get relevant information about the real value of the target firms, which is not possible in hostile deals. Similarly, Marquardt and Zur (2014) show that targets with good FRQ are prone to be involved in negotiated deals instead of auctions, require less time to reach an agreement and are more likely to complete the M&A.

Examining the stock returns around the deal's announcement, McNichols and Stubben (2015) suggest that FRQ configures a zero-sum game between the acquirer's and the target's investors. Therefore, better informed acquirers benefit from a good target's FRQ at the expense of the target's investors as long as the former pay less from the latter.

This review shows that despite the growing interest in analyzing the target's EM prior to takeovers, most of the evidence is setting specific, since it is based on hostile deals or auctions. As Anagnostopoulou and Tsekrekos (2015) point out, this might be due to the complexity in modeling the motivations and opportunities that target firms have to perform pre-EM (or EM before the deal) in M&As. Hence, compared to the research on the acquirers' pre-EM in stock deals, little is known about the incentives and the effects of the target's pre-EM (Campa & Hajbaba, 2016).

There are also a few M&As studies carried out in non-US settings. Examples include, Koumanakos, Siriopoulos and Georgopoulos (2005), who find that Greek acquiring firms exhibit weak signs of EM before cash-financed takeovers; or Ben-Amar and Missonier-Piera (2008), who observe that target firms perform downward EM before friendly M&A deals in Switzerland. For stock deals, Francoeur, Ben-Amar and Rakoto (2012) confirm that acquirers carry out EM in Canada, and Botsari and Meeks (2008) show that UK bidders perform upwards EM up to one year before the deal's announcement, mainly using the working capital component of accruals; while Higgins (2013) poses that Japanese bidders in stock-swaps perform EM using long-term accruals (e.g. depreciation, deferred taxes, among others) given the low level of scrutiny around such items in Japan. Besides, Alsharairi, Black, Hofer and Al-Hamadeen (2015) show that acquirers' EM practices have a positive effect on their

abnormal stock returns after stock deals for private targets in Europe; and Lehmann (2015) provides evidence contrary to the common claims that high levels of corporate governance are negatively related with EM as long as in stock swaps from UK well-governed acquirers are more prone to carry out EM.[4]

In summary, we observe that most of the literature of EM around M&A concentrates on acquirers performing stock swaps in the US while less is known about target's pre-EM in non-US contexts.

2.1.2. The effects of industry-relatedness on M&As

Several studies report benefits for the acquirer firms involved in intra-industry deals (e.g. Gregory, 1997; Maquieira, Megginson, & Nail, 1998; Moeller & Schlingemann, 2005; Singh & Montgomery, 1987; Walker, 2000). In contrast, inter-industry takeovers are associated with higher agency costs that result in managers performing M&As with low benefit (or value destroying), possibly due to their low expertise in the target's industry (Jensen, 1986).[5] Moreover, the acquirer's investors reward with higher prices the synergies expected from industry related M&As in comparison with inter-industry deals. This relies on the fact that the specific gains from intra-industry takeovers, such as economies of scale, economies of scope and market power, are not anticipated for investors in industry unrelated deals (Singh & Montgomery, 1987).

The literature also reports higher bid premiums for intra-industry deals. An explanation for this result is that the economies of scale are more prevalent in intra-industry than in inter-industry M&As. Additionally, the uncertainty that the acquirer firm experiments regarding the target's future cash flows is higher in inter-industry deals than in more familiar (intra-industry) takeovers (Walkling & Edmister, 1985).

The role of industry relatedness on the information asymmetry and adverse selection problem around joint-ventures and M&As has also been studied. Given the specialized nature of the

[4] Lehmann (2015) indicates that there are mix results around the relation between corporate governance and EM despite the commonly assumption that the former restraints the latter. At this point, acquirer's pre-EM in stock swaps minimize any dilution effect from the deal and is in line with the best interest of bidder's shareholders before the M&A.

[5] Jensen and Meckling (1976) define agency cost in a principal-agent relationship as the sum of the monitoring expenditures by the principal, the bonding expenditures by the agent and the residual loss.

targets' assets, the acquirers face valuation problems that result in reducing deal prices. Thus, the most efficient solution for both firms might be a joint venture instead of a takeover to exploit the synergies. However, that is not necessarily the case if the acquirers and the targets are industry related, because the information asymmetry, and adverse selection, between them might be less severe than the conflicts (or costs) from administering the joint venture (Balakrishnan & Koza, 1993).

Other studies analyze the information asymmetries between public acquirers and private targets in inter-industry M&As. The acquirers avoid buying firms in unrelated industries due to the risk of overvaluing the target's assets, which is aggravated by the private status of the targets (Shen & Reuer, 2005). The target firms have an information advantage over the acquirers, and may use it to misrepresent their resources and prospects. This makes the bidders to be reluctant to perform inter-industry deals (Capron & Shen, 2007).

Literature on FRQ also explores the effect of industry relatedness on takeovers. Particularly, Raman et al. (2013) posit that the bidders in intra-industry deals have a better understanding of the economic performance, the key risks and the economic drivers of target firms as both companies compete in the same business, have access to confidential industry reports and normally share information that keep them well informed about the activities of industry peers (e.g., industry association conference, CEO level meetings, etc.). Hence, well informed acquirers in industry related M&AS face less information asymmetries because of their high level of comprehension over the uncertainty sources affecting the target's earnings quality.

2.2.Hypotheses

This study concentrates on the question of how acquirers incorporate EM done by the target firms into the M&As negotiations, particularly in the deal premiums offered. We assume the target's EM before the takeover as exogenous since there are many motivations apart from M&As, such as external factors or earnings-based targets (Dechow et al., 2010), that may induce target firms to carry out pre-EM; not to mention the fact that in many cases targets lack of the time to window-dress their financial statements via EM, as they are not the deal initiators (Anagnostopoulou & Tsekrekos, 2015).

Regarding the association between EM done by target firms and bid premiums offered by acquirers, two opposite scenarios can be posed: i) acquirers might fall prey to the target's upwards EM and pay more for *artificially* overvalued targets; or ii) they might see through the targets' EM and discount their prices (pay less) as a result (Skaife & Wangerin, 2013). Despite that prior research validates that the poorer the FRQ of the target the higher the bid premiums offered by acquirers (Raman et al., 2013; Skaife & Wangerin, 2013), *a priori* we do not expect a negative association of the target's EM on the deal premiums. This is because prior studies do not exclusively examine upwards EM but also use proxies that account for several dimensions of FRQ besides target´s manipulation: un-intentional errors, internal control weaknesses, or off-balance sheet liabilities among other factors. Thus, we posit the next non-directional hypothesis:

H1: The upward EM done by the target before the deal announcement relates to the deal premium offered by the acquirer.

Additionally, based on the literature previously discussed, we argue that the acquirers in intra-industry M&As can take advantage of their business knowledge to detect EM practices in the target's financial reports from the year before the deal announcement. As long as firms developed a profound knowledge on the routines of their business with the past of the time (Levitt & March, 1988), bidders in industry related deals might be able to analyze target's financial reports deeply. Accordingly, the acquirers would discount the EM from the bid premium, and offer a lower (or slightly higher) price for the target shares in comparison with their market price at the date of the deal's announcement. In other words, when the target belongs to its own industry, the bidder reads the financial information carefully, detect the EM, and discount it from the price offered. We therefore formulate the following hypothesis:

H2: In industry related M&As, the upwards EM done by the target before the deal announcement negatively affects the deal premium.

We refer to this rationale as the moderating effect of industry relatedness on the association between the target's EM and the acquirer´s bid premium. Taking into account our first hypothesis, we contend that independent of the association between the EM of the target and the bid premium the background on its own business is the key element that allows acquirers to identify and discount the target's manipulation practices.

3. METHODOLOGY

3.1. Empirical model

To test our predictions, we estimate the model specified in equation (1), where bid premiums are expressed as a function of some deal's and target firm's characteristics identified in the literature, as well as the target's EM, and the knowledge of the bidder about the industry (i.e., industry-relatedness).

$$\begin{aligned} \boldsymbol{Premium_t} = {} & \alpha_0 + \alpha_1 EM_{t-1} + \alpha_2 EM_{t-1} * Ind.Related_t \\ & + \sum_{i=1}^{k} \beta_i Deal.Controls_{i,t} + \sum_{j=1}^{l} \gamma_j Target.Controls_{j,t-1} + \alpha_m Year\ dummies \\ & + \alpha_n Country\ dummies + \varepsilon_t \end{aligned} \quad (1)$$

where: the dependent variable (*Premium*) is the ratio of the offer price to the target's share price four weeks before the deal's announcement date, minus one; *EM* represents the target's earnings management measure before the deal; *Ind.Related* is an indicator variable taking the value of 1 when the acquirer and the target firms belong to the same industry, and 0 otherwise; the two groups of control variables refer to the features of the deal ($Deal.Controls$) and the target firms ($Target.Controls$); year and country fixed effects control for the year of the announcement and for the target's country level characteristics.[6]

Table 1 includes the definitions of all the variables used in the study, with the exception of *EM* that is detailed in the next subsection. Regarding the industry, following prior studies, we define that the acquirer and the target are industry related if the first 2-digits of their SIC codes are the same (e.g. Hubbard & Palia, 2002; Maquieira et al., 1998; Moeller & Schlingemann, 2005; Skaife & Wangerin, 2013; Walker, 2000). We predict a positive coefficient for intra-industry M&As (*Ind.Related*), since bidders anticipate to reach economies of scales and should not penalty the deals with risk-adjusted discounts because

[6] The inclusion year fixed effects allows us to control for the occurrence of exogenous shocks that possibly affect both EM practices and bid premiums (e.g. the revised Corporate Governance Code in the UK (2003), the IFRS adoption in the EU (2005) and the European Takeover Directive in the EU (2006)). Similarly, country fixed effects incorporate the institutional features of each jurisdiction (e.g. law investor protection and development of financial markets).

they are more familiar with the target's future performance, as opposed to inter-industry deals (Walkling & Edmister, 1985). However, a negative and significant coefficient of the interaction would be consistent with our expectation on the role of industry relatedness on the association between the target's EM and the premium offered by the acquirer.

As for the control variables, we expect that the bid premium is positively related to hostile deals (*Hostile*), competition (*Multibid*), public acquirers (*Public-Bidder*), tender offers (*Tender*) and cash-financed takeovers (*Cash*), whereas the acquirer's ownership on the target (*Toehold*), stock-swaps (*Stock*) and the size of the target (*Size*) have a negative relation (Bargeron, Schlingemann, Stulz, & Zutter, 2008; Betton & Eckbo, 2000; Schwert, 2000; Walkling & Edmister, 1985). As we analyze a sample of European M&As, in line with prior work (Bozos et al., 2014; Hagendorff, Hernando, Nieto, & Wall, 2012), we also control for cross-border takeovers (*Domestic*) to incorporate the institutional differences between companies located in distinct countries.

The literature also indicates that some financial characteristics of the target firm relate to bid premiums (Bargeron et al., 2008; Schwert, 2000; Walkling & Edmister, 1985). Hence, we include as controls the following characteristics of the target firm: ROE, sales growth, leverage, liquidity, MTB, P/E and cash flows from operations (CFO). Additionally, research posits that profitability, leverage, growth or the deviation of CFO can also affect the firm's FRQ (Dechow et al., 2010; Skaife & Wangerin, 2013). We therefore consider control variables related to the target's innate characteristics that can determine its EM practices. By including the target firm's controls we cope with the endogeneity problem of correlated omitted-variables that could bias our results. We estimate the model including the deal and the target features as controls separately.

Table 1. Variable definitions

Variable	Definition
Deal characteristics	
Premium	Ratio of the offer price to the target's share price four weeks before the deal's announcement date, minus one
Ind.Related	Takes the value of 1 if acquirer and target industries are the same (using the first 2 digits of their SIC codes) (0: o.w.)
Hostile	When the deal is classified as hostile or unsolicited takes the value of 1 (0: o.w.)
Multibid	Takes the value of 1 if there are multiple bidders (0: o.w.)
Toehold	% of common shares outstanding held by the acquirer at the date of announcement
Tender	When a tender offer is launched for the target takes the value of 1 (0: o.w.)
Stock	Takes the value of 1 for transactions in which the only consideration offered is stock (0: o.w.)
Cash	Takes the value of 1 for transactions in which the only consideration offered is cash (0: o.w.)
Public-Bidder	When acquiring firm is a public company takes the value of 1 (0: o.w.)
Domestic	Takes the value of 1 if acquirer and target countries are the same (0: o.w.)
Size	natural log of the market capitalization (target firm) in year t-1
Target characteristics	
EM	See sub-section 3.2. for details
MTB	Market to book ratio in year t-1
ROE	Return on equity ratio in year t-1
Growth	Natural log of the ratio between sales in year t-1 and sales in year t-2
Leverage	Ratio between long-term debt and common equity in year t
Liquidity	Ratio between the working capital (current assets - current liabilities) over assets in year t-1
P/E	Price to earnings ratio in year t-1
SD.CFO	Standard deviation of the cash flows from operating activities over sales for years t-1, t-2, and t-3

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

3.2. Earnings management measure

Most of the extant studies analyzing EM around M&As consider measures of accrual manipulation to proxy for EM, in particular, discretionary accruals (*DA*) estimated from the adjusted performance model proposed by Kothari et al. (2005) (e.g. Alsharairi et al., 2015; Anilowski et al., 2009; Baik et al., 2015, 2007; Botsari & Meeks, 2008; Chen et al., 2016; Francoeur et al., 2012; Gong et al., 2008; Lehmann, 2015; Louis, 2004; Pungaliya & Vijh,

2009). Related research on FRQ of target firms and deal premiums use the performance adjusted model (Skaife & Wangerin, 2013). Following this approach, we measure EM practices carried out by the target firm in the year *t*-1 (one year before the year of the deal announcement) by estimating the model in equation (2) for each combination of industry (at 2-digit SIC code level) and year, and requiring a minimum of 10 observations per regression, as Kothari et al. (2005) do.[7]

$$TA_{it-1}/Assets_{it-2} = \beta_0 + \beta_1(1/Assets_{it-2}) + \beta_2 \Delta Rev_{it-1}/Assets_{it-2} + \beta_3 PPE_{t-1}/Assets_{it-2} + \varepsilon_{it} \quad (2)$$

where: TA stands for total accruals (net income – CFO); ΔRev is the change in net sales; PPE is the level of gross property, plant and equipment; and $Assets$ is the total assets.

Our proxy for EM is calculated as follows:

- The residuals of the OLS estimations are the non-adjusted discretionary accruals (DA_{na}).
- We form ten portfolios for each cross-section group based on the decile rankings of the targets' return on assets (*ROA*) in year *t.*
- Performance adjusted discretionary accruals (DA_{pa}) are obtained by substracting from each observation the median DA_{na} of the corresponding *ROA* decile.
- Lastly, *EM* is the decile rank (1-10) for each DA_{pa} observation.

3.3. Sample

We collect all the deals (completed and withdrawn) that were announced in Europe between 1999 and 2017 from the Thomson One Banker (*T1B*) M&A database. The transactions included in the sample meet the following criteria:

1. Target and acquirer firms are both domiciled in the European Union (EU) (the group of 28 countries).

[7] Industry groups are in accordance with our definition of industry related deals (*Ind.Related*) which use the first 2-digits of the SIC codes from those firms involved in the takeover.

2. Neither the target nor the acquirer belong to the financial sector.
3. Target companies are public companies (in order to get the information about their financial statements from *Worldscope*).
4. The deal value of the transaction must be higher than USD 1 million.
5. Acquirer firms seek to get the control of the target firm at the completion of the deal (i.e., own at least 50% of the target firm's ownership).

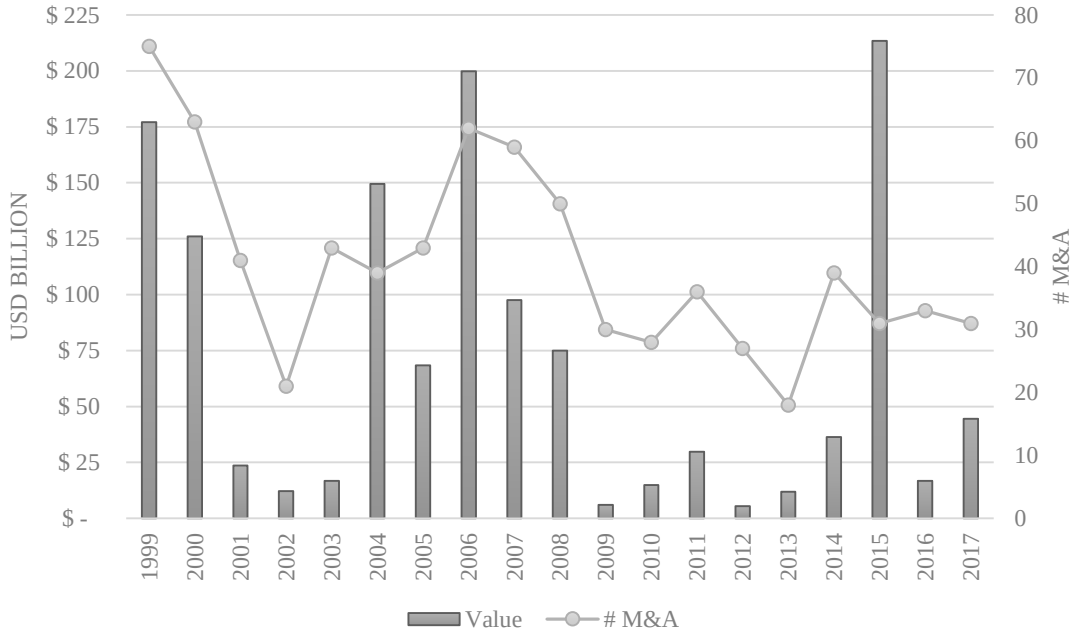
The process described results in a final sample of 769 observations. Table 2 summarizes the process.

Table 2. Sample selection process

Filters	**Obs.**
Public targets	196,701
Acquirers obtaining control of target firms	49,474
Deals completed and withdrawn	38,917
Target and acquirer domiciled in the EU	7,514
Deal Value >= $ 1 Mil	5,865
Acquirer and target firms not belong to financial sector	1,958
Required variables for equations 1 and 2	769
Final sample	**769**

Figure 1 exhibits the takeover activity per year in our sample. From here we extract that the value of an average deal in the sample is USD 1.7 billion and that deal announcements are clustered over time in a wave pattern. Coinciding with the burst of the "*.com*" bubble, after 1999 the number of deals dropped 72% (from 75 to 21) while their value suffered an even sharper decrease (93.2%) from 177 to less than USD 13 billion in 2002. However, M&As recovered and gradually grew to reach a peak in 2006, with 62 announcements priced at USD 177 billion. Then, the financial crisis of "*subprime-mortgages"* (around 2008) smashed takeovers and in 2013 their levels were comparable to those of 2002 (18 deals priced at USD 11.9 billion). Later, the number of deals exhibited a slight recovery in 2014 (39) and kept a steady trend with around 30 events per year. Yearly values also improved and climbed to USD 213 billion (2015) but do not exhibit a clear pattern afterwards. This evidence is consistent with prior research on takeovers and business environment shocks in Europe (Martynova & Renneboog, 2008, 2011).

Figure 1. Deal announcements over time in Europe



Source: *Thomson One Banker*

Table 3 summarizes the targets' and acquirers' country of origin, and Table 4 shows the distribution of the sample by the target's industry. The UK targets comprise more than a half of the sample (50.1%) followed by France (13.4%), Sweden (8.9%) and the Netherlands (6.4%). These four countries represent around 80% of the targets in the sample deals (79.6%). The ranking is similar for the acquirers' domicile, where these four countries sum together more than 70% of the sample (72.95%). On the other hand, we see that consumer goods (durables and nondurables), manufacturing and business equipment are the most typical industry filiation of target firms (51.8%).

Table 5 provides the descriptive statistics of the research variables. In accordance with definitions in Table 1, dummy variables are taken directly from *Thomson One Banker* while the remaining variables are collected from *Worldscope*. All continuous variables are winsorized at 1%.

Table 3. Sample distribution by acquirer and target country

Panel A. Acquirer country

Country	Freq.	Percent	Cum.
United Kingdom	352	45.77	45.77
France	110	14.30	60.08
Sweden	51	6.63	66.71
Netherlands	48	6.24	72.95
Germany	31	4.03	76.98
Italy	31	4.03	81.01
Finland	24	3.12	84.14
Belgium	21	2.73	86.87
Denmark	20	2.60	89.47
Poland	19	2.47	91.94
Ireland-Rep	17	2.21	94.15
Austria	11	1.43	95.58
Spain	11	1.43	97.01
Greece	6	0.78	97.79
Luxembourg	6	0.78	98.57
Portugal	4	0.52	99.09
Cyprus	2	0.26	99.35
Hungary	2	0.26	99.61
Estonia	1	0.13	99.74
Lithuania	1	0.13	99.87
Malta	1	0.13	100.00
Total	*769*	*100.00*	

Panel B. Target country

Country	Freq.	Percent	Cum.
United Kingdom	392	50.98	50.98
France	103	13.39	64.37
Sweden	68	8.84	73.21
Netherlands	49	6.37	79.58
Italy	28	3.64	83.22
Poland	23	2.99	86.22
Finland	21	2.73	88.95
Denmark	20	2.60	91.55
Belgium	19	2.47	94.02
Ireland-Rep	11	1.43	95.45
Austria	7	0.91	96.36
Greece	7	0.91	97.27
Spain	7	0.91	98.18
Hungary	4	0.52	98.70
Luxembourg	4	0.52	99.22
Portugal	4	0.52	99.74
Czech Republic	1	0.13	99.87
Malta	1	0.13	100.00
Total	*769*	*100.00*	

Table 4. Sample distribution by target industry*

Description	Freq.	Percent	Cum.
Consumer Nondurables	78	10.14	10.14
Consumer Durables	20	2.60	12.74
Manufacturing	105	13.65	26.40
Oil, Gas, and Coal Extraction and Products	14	1.82	28.22
Chemicals and Allied Products	27	3.51	31.73
Business Equipment	195	25.36	57.09
Telephone and Television Transmission	34	4.42	61.51
Utilities	20	2.60	64.11
Wholesale, Retail, and Some Services	61	7.93	72.04
Healthcare, Medical Equipment, and Drugs	52	6.76	78.80
Other	163	21.20	100.00
Total	*769*	*100.00*	

Note: *Using the 12 industry classification groups of Fama and French (1997)

Table 5. Descriptive statistics of research variables

Deal characteristics	**Obs**	**Mean**	**Std. Dev.**	**Min**	**Max**
Premium	769	0.350	0.407	(0.740)	2.208
Hostile	769	0.073	0.260		
Multibid	769	0.129	0.335		
*Toehold**	769	0.044	0.107	-	0.450
Tender	769	0.635	0.482		
Stock	769	0.165	0.372		
Cash	769	0.482	0.500		
Public-Bidder	769	0.623	0.485		
Domestic	769	0.744	0.437		
Ind.Related	769	0.601	0.490		
Size	769	11.858	1.983	7.343	18.749
Target characteristics					
MTB	769	2.600	3.394	(7.460)	25.648
ROE	769	0.010	0.468	(3.839)	1.942
Growth	769	0.091	0.267	(0.976)	1.917
Leverage	767	0.345	0.653	(2.983)	4.102
Liquidity	764	0.154	0.217	(0.422)	0.822
P/E	761	11.541	52.523	(234.259)	269.500
SD.CFO	657	0.218	0.872	0.006	8.485
Earnings management					
EM	769	5.518	2.841	1	10
DA_{pa}	769	-0.0031	0.126	-0.418	0.352

Deal announcements in the sample exhibit a deal premium of 35% in average and most of them are tender offers (63.5%) performed by public acquirers (62.3%) over targets in the same industry (60.1%) that are willing to pay on cash (all-cash) (48.2%). In contrast, M&As are not often cross-border (15.6%), hostile (7.3%) nor have a large percentage of the target shares (toehold) before the deal (4.4%). These characteristics of the sample are similar to those of recent research on M&As in Europe (Alcalde & Pérez-Soba, 2016; Humphery-Jenner, 2012; Martynova, Oosting, & Renneboog, 2007; Martynova & Renneboog, 2011; Moschieri & Campa, 2014). For the target-controls, ratios present similar results to prior studies in the US (Raman et al., 2013; Skaife & Wangerin, 2013). However, European firms seem to be more profitable (ROE) and less leveraged and volatile (SD.CFO) than their US counterparts.

Regarding correlations among the deal and target characteristics, we show both Spearman (rank-order) and Pearson (product-moment) correlations in Table 6. To ease analysis, we concentrate on Pearson correlations in the lower left portion. Bidder premiums are positively associated with tender offers and the liquidity of target firms, while at the same time are negatively related with our EM measure and the target's leverage along with the fact that acquirers have toeholds, pay in stocks and bid for local targets. Moreover, high decile ranks of DA from the EM proxy are correlated with high levels of target liquidity and volatility, as well as with the presence of toeholds and tender offers; on the contrary of the MTB of targets firms (with a negative correlation). In essence, these statistics suggest that there are some deal and characteristics that may shape the relation between the deal premiums offered by acquirers and the pre-EM of target firms in the sample as we anticipate.

Table 6. Pairwise correlations matrix

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	*Premium*		-0.031	0.008	-0.001	**0.082**	**-0.094**	**0.079**	**-0.181**	**0.096**	**-0.070**	**-0.107**	-0.058	-0.019	0.031	0.055	-0.033	**0.099**	-0.003	-0.057
2	*EM*	**-0.070**		0.002	0.031	-0.015	**0.095**	**0.067**	0.016	-0.016	-0.022	0.006	-0.012	**-0.100**	0.005	-0.017	-0.036	**0.075**	**-0.066**	**0.113**
3	*Ind.Related*	0.021	0.003		0.030	0.044	-0.009	-0.012	0.030	-0.048	0.011	**-0.070**	0.007	**-0.086**	0.011	**-0.085**	-0.052	0.065	-0.041	0.058
4	*Hostile*	-0.014	0.031	0.030		**0.172**	**0.112**	-0.035	-0.018	0.037	0.056	-0.064	**0.195**	0.037	0.049	0.004	0.028	-0.023	0.024	**-0.078**
5	*Multibid*	0.046	-0.016	0.044	**0.172**		0.013	0.009	-0.045	**0.067**	0.031	-0.031	**0.187**	0.037	**0.080**	**0.126**	**0.083**	-0.044	0.041	-0.052
6	*Toehold*	**-0.089**	**0.108**	-0.003	0.046	-0.040		**0.132**	-0.040	**0.070**	**-0.121**	-0.019	0.034	**-0.068**	-0.014	0.049	0.026	**-0.075**	-0.018	-0.009
7	*Tender*	**0.073**	**0.066**	-0.012	-0.035	0.009	**0.120**		**-0.165**	**0.096**	-0.023	-0.053	**-0.075**	**0.086**	**0.073**	0.016	**-0.115**	**0.075**	0.033	0.032
8	*Stock*	**-0.100**	0.016	0.030	-0.018	-0.045	-0.020	**-0.165**		**-0.434**	**0.333**	0.064	**0.094**	-0.015	**-0.117**	-0.003	0.046	-0.060	**-0.099**	0.050
9	*Cash*	0.047	-0.017	-0.048	0.037	**0.067**	0.053	**0.096**	**-0.434**		**-0.384**	**-0.119**	**-0.078**	-0.012	0.005	-0.051	0.008	0.009	0.034	0.041
10	*Public-Bidder*	-0.065	-0.021	0.011	0.056	0.031	**-0.114**	-0.023	**0.333**	**-0.384**		-0.028	**0.112**	0.052	-0.008	**0.086**	-0.001	-0.028	-0.025	**-0.069**
11	*Domestic*	**-0.091**	0.007	**-0.070**	-0.064	-0.031	-0.044	-0.053	0.064	**-0.119**	-0.028		**-0.227**	-0.031	0.019	0.044	**-0.109**	-0.011	0.002	**0.087**
12	*Size*	**-0.097**	-0.011	0.013	**0.204**	**0.176**	**0.066**	**-0.083**	**0.104**	**-0.096**	**0.127**	**-0.243**		**0.321**	**0.259**	**0.126**	**0.295**	**-0.099**	**0.247**	**-0.306**
13	*MTB*	-0.014	**-0.072**	**-0.068**	-0.023	-0.006	-0.017	**0.066**	0.009	-0.007	0.042	0.012	**0.184**		**0.328**	**0.201**	**0.099**	0.062	**0.318**	0.000
14	*ROE*	0.017	0.032	-0.018	0.043	0.004	0.025	0.022	**-0.074**	-0.008	-0.056	**0.093**	**0.189**	**0.085**		**0.168**	0.022	-0.013	**0.425**	**-0.305**
15	*Growth*	0.032	-0.038	**-0.103**	0.021	**0.078**	0.049	0.018	-0.025	-0.017	0.046	0.015	**0.122**	**0.083**	**0.092**		0.005	0.021	**0.099**	**0.146**
16	*Leverage*	**-0.067**	-0.053	-0.016	0.005	**0.104**	0.021	**-0.084**	0.024	0.017	-0.019	-0.058	**0.198**	**0.344**	-0.017	0.014		**-0.255**	**0.093**	**-0.192**
17	*Liquidity*	**0.102**	**0.088**	0.056	-0.017	-0.024	**-0.080**	**0.074**	-0.056	-0.002	-0.025	0.000	**-0.086**	0.056	-0.030	0.028	**-0.114**		**-0.121**	**0.232**
18	*P/E*	-0.063	-0.023	-0.013	0.017	0.014	-0.038	-0.015	**-0.079**	-0.023	-0.024	0.010	**0.083**	**0.111**	**0.103**	0.040	**0.067**	**-0.067**		**-0.213**
19	*SD.CFO*	-0.060	**0.115**	0.062	-0.029	-0.042	-0.049	-0.046	**0.143**	**-0.074**	0.056	-0.008	**-0.079**	0.040	**-0.172**	-0.064	**-0.076**	**0.193**	**-0.073**	

Note: Pearson (Spearman) correlation coefficients are reported in the lower left (upper right) portion of the table. **Bold** text indicates correlations are statistically significant at p-value < 0.10.

4. RESULTS

4.1. Regression analysis

We estimate two alternative specifications of model (1). The rationale behind this is to examine the statistical significance of *EM* and the moderating effect of industry relatedness, *EM*Industry* term, in gradually more complex model specifications that control not only for the determinants of deal premiums, but also for those of target firms' EM.

Table 7 shows the regression results of bid premiums on *EM* and *EM*Industry* controlling for the deal characteristics (*Deal.Controls*). Column (1) presents estimations for the base model (without *EM*), while columns (2) and (3) include *EM* and *EM*Industry* respectively. On average, models explain more than the 17% of the changes in the deal premiums in the sample. Concerning the control variables, results for *Multibid* (+), *Toehold* (-), *Stock* (-), and *Size* (-) are in line with the predicted effects exposed in the previous section. Similarly, domestic takeovers have a negative effect on bid premiums indicating that cross-border deals exhibit higher bid premiums than domestic ones in accordance with prior research in Europe (Bozos et al., 2014). Furthermore, we see that when the variables of interest, *EM* and *EM*Ind.Related,* are included the models' predictive power increases (see Adj-R2s), suggesting that we are gradually unveiling relevant insights of the M&A process with regard to the base specification.

Concerning the H1, results from column (2) suggest that there is no effect of target's pre-EM on the bid premiums offered by acquirer firms because the coefficient for *EM* is not statistically significant. Also, it seems that intra-industry deals (*Ind.Related*) are not associated with higher deal premiums contrary to our expectations. However, in the case of column (3), evidence is in line with the H2 since the coefficient of the interaction term, *EM*Industry*, is negative and statistically significant (at 5% level), and the overall effect (*EM + EM*Industry*) of intra-industry M&As on the relation between *EM* and the dependent variable is negative. Moreover, the *Ind.Related* coefficient is positive and significant in this specification.

Overall, our empirical results validate that acquirers in intra-industry deals, in contrasts with inter-industry transactions, are more able to detect and discount from bid offers the EM practices performed by the target firm the year before the M&A announcement.

Table 7. *Regression analysis of bid premiums and earnings management moderated by industry relatedness including controls for deal characteristics*

Dependent variable:						
Premium	(1)		(2)		(3)	
Independent variables:	b/t		b/t		b/t	
EM			-0.005		0.012	
			[-0.98]		[1.56]	
*EM * Ind.Related*					-0.015	**
					[-2.26]	
Ind.Related	0.021		0.022		0.170	***
	[0.73]		[0.76]		[2.85]	
Hostile	-0.021		-0.019		-0.017	
	[-0.52]		[-0.47]		[-0.43]	
Multibid	0.094	***	0.094	***	0.098	***
	[2.72]		[2.70]		[2.77]	
Toehold	-0.275	**	-0.261	*	-0.289	**
	[-2.08]		[-1.95]		[-2.14]	
Tender	0.004		0.006		0.007	
	[0.13]		[0.18]		[0.22]	
Stock	-0.115	**	-0.115	**	-0.111	**
	[-2.36]		[-2.35]		[-2.28]	
Cash	-0.053		-0.053		-0.049	
	[-1.55]		[-1.55]		[-1.44]	
Public-Bidder	-0.045		-0.045		-0.047	
	[-1.37]		[-1.38]		[-1.45]	
Domestic	-0.097	***	-0.096	***	-0.098	***
	[-2.85]		[-2.83]		[-2.90]	
Size	-0.018	**	-0.018	**	-0.019	**
	[-2.22]		[-2.21]		[-2.26]	
Constant	2.488	***	2.510	***	0.613	***
	[17.96]		[17.81]		[3.89]	
Year dummies	Included		Included		Included	
Country dummies	Included		Included		Included	
Sample size	769		769		769	
R2	0.1697		0.1709		0.1789	
Adj-R2	0.1181		0.1181		0.1253	

Note: Coefficients for dummy variables are omitted for brevity. Standard errors are clustered by firm.*, **, *** denotes significance at 10%, 5% and 1% respectively. See ***Table 1*** for variable definitions.

Table 8 exhibits the results of the estimation of the model including the target firms' characteristics (*Target.Controls*). Since literature do not necessarily agree on controlling by *SD.CFO* in our specification,[8] besides the fact that by including *SD.CFO* imposes a substantial reduction in our sample size;[9] we decided to split the target-controls into two groups, including or not *SD.CFO*, in order to perform an in-depth examination of those factors that possibly affect both bid premiums and EM in the sample. Columns (1), (2) and (3) are similar to those in Table 7, and include target-controls without *SD.CFO*, while columns (4), (5) and (6) follow the same design but include *SD.CFO*.

The first three specifications in Table 8 include *MTB*, *ROE*, *Growth*, *Leverage*, *Liquidity* and *P/E* to control for the target's financial conditions one year before the deal. These models have similar R2s than those in Table 7 (0.177 on average) as well as estimated coefficients for deal-controls, *EM* and *EM*Ind.Related*. However, except for liquidity in column (3), target-controls are mostly non-significant. This indicates that adding them into the equation does not help to improve the predictive power of the model, when deal-controls are already included (see Adj-R2 in columns 3 of both tables).

The last three columns of Table 8 present the estimations for all the target-controls. Once again, results for deal-controls, *EM*, and *EM*Ind.Related* are similar to the previous findings, and the predicting power of the model is persistently low compared to the setting with deal-controls only (see Adj-R2 for column 3 in Table 7 and their equivalent in column 6 of Table 8). It also has lower Adj-R2 (0.094) than the model without *SD.CFO* (Adj-R2 of 0.122).

In spite of its shortcomings, this analysis exhaustively attempts to cope with the endogeneity issues stemmed from the potential correlated-omitted variables problem. In doing so, as our results remain unchanged, we conclude that our evidence supports the notion that the observed moderating effect of intra-industry deals on the relation between the target's pre-EM and the bid premiums offered by acquirers does not rely on factors determining the target EM practices.

[8] Dechow, Ge, and Schrand (2010) do not indicate that *SD.CFO* is a determinant of earnings quality. Also, the work of Skaife and Wangerin (2013) does not properly relate *SD.CFO* with the bid premiums while Raman et al. (2013) do not include it as a control in their specification.

[9] Those specifications including target-controls except *SD.CFO* have 754 observations while those that incorporate *SD.CFO* have 654, which implies that *SD.CFO* imposes a reduction in the sample of 16% compared to *Table 7* with 769 observations.

Table 8. *Regression analysis of bid premiums and earnings management moderated by industry relatedness including controls for deal and target characteristics*

Dependent variable:												
Deal premiums	(1)		(2)		(3)		(4)		(5)		(6)	
Independent variables:	b/t		b/t		b/t						b/t	
EM			-0.006		0.014	*			-0.006		0.009	
			[-1.03]		[1.66]				[-0.97]		[1.02]	
*EM * Ind.Related*					-0.016	**					-0.014	**
					[-2.41]						[-1.98]	
Ind.Related	0.026		0.026		0.189	***	0.008		0.008		0.136	**
	[0.89]		[0.90]		[3.08]		[0.26]		[0.25]		[2.01]	
Hostile	-0.030		-0.028		-0.028		-0.022		-0.020		-0.023	
	[-0.72]		[-0.66]		[-0.67]		[-0.49]		[-0.45]		[-0.50]	
Multibid	0.090	**	0.090	**	0.095	***	0.097	**	0.097	**	0.101	**
	[2.50]		[2.50]		[2.59]		[2.41]		[2.40]		[2.51]	
Toehold	-0.257	*	-0.240	*	-0.269	*	-0.249		-0.233		-0.249	
	[-1.88]		[-1.73]		[-1.92]		[-1.64]		[-1.52]		[-1.61]	
Tender	-0.004		-0.002		-0.002		-0.011		-0.009		-0.008	
	[-0.13]		[-0.07]		[-0.06]		[-0.33]		[-0.25]		[-0.23]	
Stock	-0.109	**	-0.109	**	-0.105	**	-0.054		-0.053		-0.051	
	[-2.18]		[-2.19]		[-2.11]		[-0.97]		[-0.96]		[-0.93]	
Cash	-0.053		-0.053		-0.048		-0.022		-0.022		-0.021	
	[-1.52]		[-1.53]		[-1.39]		[-0.60]		[-0.61]		[-0.57]	
Public-Bidder	-0.044		-0.044		-0.046		-0.041		-0.043		-0.044	
	[-1.33]		[-1.34]		[-1.41]		[-1.15]		[-1.19]		[-1.23]	
Domestic	-0.095	***	-0.094	***	-0.095	***	-0.099	***	-0.098	***	-0.099	***
	[-2.74]		[-2.71]		[-2.77]		[-2.96]		[-2.94]		[-2.97]	
Size	-0.016	*	-0.016	*	-0.015	*	-0.017	*	-0.017	*	-0.017	*
	[-1.86]		[-1.83]		[-1.82]		[-1.87]		[-1.85]		[-1.84]	
MTB	-0.006		-0.006		-0.006		-0.002		-0.002		-0.003	
	[-1.08]		[-1.13]		[-1.23]		[-0.31]		[-0.36]		[-0.51]	

ROE	-0.017		-0.016		-0.017		0.008		0.010		0.009	
	[-0.51]		[-0.48]		[-0.50]		[0.21]		[0.26]		[0.24]	
Growth	0.034		0.031		0.030		0.040		0.039		0.035	
	[0.52]		[0.47]		[0.47]		[0.58]		[0.56]		[0.51]	
Leverage	-0.012		-0.012		-0.013		-0.023		-0.023		-0.022	
	[-0.57]		[-0.56]		[-0.61]		[-1.08]		[-1.07]		[-1.03]	
Liquidity	0.097		0.106		0.112	*	0.132	*	0.139	*	0.144	**
	[1.44]		[1.60]		[1.70]		[1.80]		[1.90]		[1.97]	
P/E	0.000		0.000		0.000		0.000		0.000		0.000	*
	[-1.18]		[-1.18]		[-1.44]		[-1.59]		[-1.60]		[-1.76]	
SD.CFO							-0.036	*	-0.033	*	-0.031	
							[-1.89]		[-1.74]		[-1.61]	
Constant	0.330	*	0.373	*	0.591	***	0.311	*	0.356	*	0.638	***
	[1.76]		[1.95]		[3.58]		[1.69]		[1.86]		[3.67]	
Year dummies	Included		Included		Included		Included		Included		Included	
Country dummies	Included		Included		Included		Included		Included		Included	
Sample size	754		754		754		644		644		644	
R2	0.1727		0.1741		0.1835		0.1615		0.1628		0.1687	
Adj-R2	0.1126		0.1128		0.1217		0.0892		0.0892		0.094	

Note: Coefficients for dummy variables are omitted for brevity. Standard errors are clustered by firm. *, **, *** denotes significance at 10%, 5% and 1% respectively. See ***Table 1*** for variable definitions.

4.2. Discussion of results

The evidence does not validate H1 as we do not find an effect of target's EM on the bid premium offered by the acquirer firms. Although at some extent this result appears to contradict prior FRQ literature (Raman et al., 2013; Skaife & Wangerin, 2013), it should be considered that FRQ is a wider construct, of which EM is just a dimension, and these studies use unsigned proxies of FRQ that reflect not only the intentional (EM) but also the unintentional errors in financial reports which might be not proper to reach our objective of gauging the effects of accounting distortions by managers trying to boost earnings (Dechow et al., 2010; Marquardt & Zur, 2014; Skaife & Wangerin, 2013).

Also, from the research on FRQ and M&As one can think of two conflicting scenarios where the relation between target EM practices and bid premiums depends on the ability of acquirers to detect (negative association) or not (positive association) the upwards EM of target firms (Skaife & Wangerin, 2013). Both situations might compensate each other in our sample which in turn could explain our finding of no relation between the target's EM and the bid premium. Nevertheless, this result does not contradict the idea that accounting information is relevant to the deal negotiations (Raman et al., 2013). Rather, it suggests that a more refined analysis is needed in order to properly understand how acquirer firms assimilate the target's EM practices.

Following that rationale, H2 states that there is a negative moderating effect of industry familiarity among the relation between target's pre-EM and the bid premium offered by acquirers. This notion implies that bidders need of backgrounds on the target's industry to discount their upwards pre-EM in M&As because otherwise, target's pre-EM seem to have no influence on the bid premiums. Our results strongly support this idea. Besides, by incorporating this effect into the model we unveiled that acquirers are willing to bid more for targets in the same industry than in unrelated takeovers, which is in line with the more synergies and familiarity of intra-industry deals perceived by acquirer firms (Walkling & Edmister, 1985).

Taken all together, we interpret these results as evidence that acquirers, helped by their knowledge on their business, can disentangle the complex mix between the real economic value of synergies and the *noise* of the upwards pre-EM of target firms, since on the one side

they are willing to pay more for targets in industry related deals, but on the other side they can also detect and discount the target's pre-EM at intra-industry M&As.

4.3. Robustness checks

To corroborate the strong nature of our findings, we perform several robustness tests, which results (non-tabulated) overall confirm the findings presented previously.

Firstly, we employ other models explored in the EM literature about stock-for-stock M&As to estimate DA: 1) *Jones* (Jones, 1991), 2) *Modified Jones* (Dechow, Sloan, & Sweeney, 1995), and 3) *Teoh* (Teoh, Welch, & Wong, 1998a). Secondly, to cope with the issue of the minimum observations of cross-section groups to estimate DA_{pa}, we set the threshold to stricter criteria, n=15 and n=20, following recent literature in EM (Roychowdhury, 2006) and bid premiums (Raman, et al., 2013; Skaife & Wangerin, 2013). Finally, we also define intra-industry M&As based on the 48 industry classification of Fama and French (1997).

5. CONCLUSIONS

This study extends the stream of research that explore the role of the target's pre-EM on the M&A negotiations by examining the target's EM as an explanatory variable of deal premiums of European takeovers. This is in line with prior US studies that look at the impact of FRQ over bid premiums. We argue that industry relatedness between the acquirer and target firms is a moderator factor in such association.

The evidence indicates that in general the upwards EM practices of target firms one year before the year of the deal announcement do not relate to bid premiums. However, an in-depth analysis reveals that in intra-industry deals this variable has a negative and statistically significant relation. Besides, consistent with prior research, results from this analysis show a positive and significant effect of intra-industry deals over the deal premiums. Thus, based on their knowledge on the industry acquirers in industry related takeovers can see through the target's pre-EM and are more able to estimate the real economic value of the expected synergies from the deal.

At this point, we admit that this research is not free from limitations. We note the endogeneity related to the omitted-correlated variables problem, besides the measurement error of the research variables. However, we have performed many efforts to reduce these concerns. We have included target-controls, that can be associated with bid premiums and pre-EM of the target, in addition to the deal-controls. Also, the results are robust to several sensibility tests: model specifications, EM measures, sizes of cross-section groups to estimate EM, and industry related proxies.

Our results exhibit valuable insights about how bidders incorporate target's management discretion into the pre-acquisition process and it could have implications to some stylized facts of the acquirer's financial performance after the M&A. We suggest that in industry-related deals acquirers, by relying on their backgrounds in the business, can counterbalance the predominantly negotation power that targets have in the M&A process to achieve better terms from the takeover (like a favorable bid price). Similarly, acquirers can mitigate the risks of overstating the synergies of their bid offers in intra-industry deals since they are able to distinguish between the upwards pre-EM and the synergies both present into the target's accounting information. Future research can test the validity of this conjectures.

In the same vein, there are other outcomes from the M&A negotiations, as the likelyhood of completion, the percentage of shares used as payment method and the timing of the deals that future research can explore. The idiosyncrasies of the European market of corporate control offers a perfect scenario to enrich our understanding on the use of accounting information in the M&A process.

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