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## Targets' earnings management and ownership decisions in M&A: Can less be more ?

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### ABSTRACT

In a sample of 1,097 European merger and acquisitions (M&A) deals, we find that the targets exhibiting higher levels of accruals earnings management (AEM) relate to lower ownership stakes offered by acquirers. Real earnings management (REM) measures do not relate to ownership decisions. This research contributes to broadening our knowledge about accounting information's role in the intricacies of M&A negotiations.

### 1. Introduction

The ownership decision refers to how much equity acquirers aim to get from targets in mergers and acquisitions (M&A). The objective of this study is to examine how the manipulation of the target's financial statements affects this decision.

Manipulated accounting figures generate uncertainty, and highly uncertain settings are associated with minority deals, which leads to expect that higher target's earnings management (EM) relates to lower ownership stakes. However, the bidder may be unable to detect the manipulation, or it may be easier or more convenient to adjust other terms of the deal to overcome the overpayment risk.

We examine 1097 European deal announcements between 1990 and 2021, showing that higher discretionary accruals (DA), our proxy of accruals-based earnings management (AEM), are associated with lower ownership stakes and higher odds of minority deals. This suggests that, on average, acquirers are conservative regarding the equity stake they bid for when the target's financial statements are opaque, making difficult the assessment of the potential synergies from the transaction.

We also find that real earnings management (REM) proxies do not correlate with the ownership decision. This is consistent with acquirers having more difficulties in understanding REM than AEM. Indeed, REM models are proven to be less powerful than AEM models (Nguyen et al., 2023). Alternatively, this result supports the thesis that REM is less pervasive than AEM (Bagnoli and Watts, 2000).

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This study frames into the research branch that examines how financial reporting affects takeover decisions (Cumming et al., 2023), particularly, on how EM shapes ownership decisions in M&A. We contribute to the debate on how bidders use ownership decisions to cope with valuation uncertainty and the role of non-controlling stakes in learning about targets (Ouimet, 2013; Povel & Sertsios, 2014). This is especially relevant considering the current landscape of M&A, characterized by global disruptions and great uncertainties, which make acquirers more reluctant to engage in M&A, considering the difficulties in performing adequate due diligence that allow them to gauge the risks and opportunities behind the synergies from potential targets (Choi, 2020; Dang et al., 2022; Lee et al., 2021; Tian & Wang, 2024). Our evidence supports the research that underlines the benefits of minority deals for acquirers (Dai et al., 2021; Drees et al., 2013) by broadening our knowledge of the use of financial reports in M&A. Apart from lowering the offer price or changing the payment method, bidders may adjust the ownership offered when the target's reports are opaque, and they are suspicious of overpayment risk. Our findings also enrich the literature on valuation difficulty since EM differs from the traditional proxies for the target's valuation uncertainty (Emmerich et al., 2023; Kenny, 2020; Krikhaar et al., 2018).

## 2. Literature and hypothesis

### 2.1. Valuation uncertainty and ownership decision

The main obstacle that acquirers face in creating value comes from adequately valuing the target's resources, which is not entirely achieved by exercising due diligence because of the information asymmetries between acquirers and targets (Reuer, 2005). There is evidence on the role of the ownership decision to cope with this uncertainty prior M&A with the intent of control. Mantecon (2009) highlights that partial acquisitions ameliorate the valuation risk from firms with more intangibles and asset specificity; Chen and Hennart (2004) find that Japanese bidders use partial acquisitions to mitigate valuation problems when buying US targets; Ouimet (2013) confirms that valuation obstacles explain the preference for minority deals in US acquisitions; Aintablian et al. (2017) note that minority ownership positions are more prevalent in foreign acquisitions, unrelated industry deals and those involving more intangibles; similar findings are reported by Contractor et al. (2014) in India and China, and by Yang (2015) in foreign acquisitions by bidders from emerging markets.

In sum, in highly uncertain and information-asymmetric environments, acquirers tend to bid for lower ownership levels to circumvent the adverse selection problem of overpayment. This confers other benefits like less competition from other bidders because they can assure to win the auction with relatively low costs, and higher probability of completing the deal or paying a lower premium (Bessler et al., 2015; Betton and Eckbo, 2000; Drees et al., 2013). However, minority stakes also increase the risk of wealth expropriation from majority shareholders (Pinelli et al., 2022).

### 2.2. Target's reporting quality and M&A

In M&A, acquirers rely heavily on accounting reports as their main source of information about targets before the deal announcement (Lajoux and Elson, 2010; Wangerin, 2019). There is evidence that low-quality financial statements introduce opacity and make it more difficult for the acquirer to understand the potential synergies of the deal (Povel and Sertsios, 2014), therefore negotiations turn more time-consuming and harsh renegotiations occur in which initial bids are lowered or even withdrawn (Marquardt and Zur, 2015; Raman et al., 2013; Skaife and Wangerin, 2013).

Research shows that the target's financial reporting quality affects some deal terms. Low-earnings quality is associated with long-lasting negotiations and low completion rates (Marquardt and Zur, 2015; Skaife and Wangerin, 2013), more shares used as the payment method (Raman et al., 2013), higher probability of auctions (Marquardt and Zur, 2015), as well as renegotiated deals (Skaife and Wangerin, 2013). Acquirers also discount poor earnings quality by bidding low premiums (Skaife and Wangerin, 2013). However, this depends on the deal attitude (Raman et al., 2013) and the industry-relatedness between acquirers and targets (Perafán-Peña et al., 2022). The ownership decision has not been studied in this setting, which has motivated our research.

### 2.3. Target's EM and ownership decision

The higher the target's upward EM level before the deal announcement, the higher the overvaluation risk the bidder must cope with.<sup>1</sup> Whether this leads to adjusting the terms of the deal depends on the acquirer's ability to detect manipulation and its incentives to carry on the transaction, such that the benefits of adjusting the ownership decision outweigh the related costs. Faced with the risk of ending up with overvalued targets (Ouimet, 2013; Reuer, 2005; Very and Schweiger, 2001), even if they aim for a control position, when detecting EM acquirers would prefer low ownership levels, committing fewer resources (Reuer, 2005). This allows them getting a strategic position while keeping the chance to learn more about the target's value (Ouimet, 2013).

However, there are reasons to also expect that the target's EM does not affect the ownership decision. First, it is possible that the bidder does not detect EM, and consequently, investors are misled. Indeed, upward EM has been related to overvaluation in some settings (Chen et al., 2013; Chi & Gupta, 2009; DuCharme et al., 2004; Kim & Park, 2005; Shette et al., 2016). Second, the bidder's

<sup>1</sup> We consider EM as exogenous since it is prevalent and has many determining factors (Bagnoli & Watts, 2000; Dechow et al., 2010); and targets often lack time to manipulate their financial reports before the M&A because they do not usually initiate the deal (Anagnostopoulou & Tsekrekos, 2015).

incentives to carry out a controlling deal could offset the overpayment risk, like those related to diversification strategies (Dos Santos et al., 2008). Finally, the bidder might prefer adjusting other deal terms, like the premium, to compensate for the risk. Indeed, the literature recognises the initial bid premium as the most important of the offer parameters *which the bid strategy presumably is designed to protect* (Eckbo, 2009). Accordingly, the association between the target's EM and the ownership level the acquirers' bids for is an empirical issue, which this paper intends to cast light on. Therefore, we state the following non-directional hypothesis:

**H0.** *The target's EM affects the ownership level that the acquirer bids for.*

### 3. Methodology

#### 3.1. Sample selection

Our sample comprises deals announced in Europe between 1990 and 2021 covered by *Refinitiv* that meet the following criteria:<sup>2</sup>

- (1) Targets are domiciled in the EU, including the UK (most of the sample period is pre-Brexit).
- (2) Neither targets nor acquirers belong to regulated industries.
- (3) Targets are listed (financial statements come from *Worldscope*).
- (4) Acquirers had less than 5 % of the target's stock before the deal and sought more than 5 %.

The sample contains 1,097 deals, almost half of which are UK deals. In line with Kim (2012), acquirers bid for 100 % of the target in 786 deals (71.65 %).

#### 3.2. Target's EM proxies

The target's accounting data one year before the deal announcement is used to estimate AEM and REM measures. Following Kothari et al. (2005), the error term of the model (1) estimation is our AEM measure (*EM\_DACC*).

$$ACC_i / Assets_i = \beta_0 + \beta_1 \left( \frac{1}{Assets_i} \right) + \beta_2 (\Delta Rev_i - \Delta AR_i) / Assets_i + \beta_3 PPE_i / Assets_i + \beta_4 ROA_i + \varepsilon_i \quad (1)$$

where *ACC* is total accruals (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 net amount of property, plant and equipment; *ROA* is return on assets (net income over total assets); *Assets* is lagged total assets. The model is estimated for each industry (Fama-French 48-classification) and year combination, and we require at least 20 observations per regression. Estimations exclude the peer firms that completed M&A during the sample period because M&A affect accruals (Hribar and Collins, 2002).

We follow Roychowdhury (2006) to calculate REM measures, sales manipulation (*EM\_SALES*), and overproduction (*EM\_PROD*), which are the residuals of the models (2) and (3) estimation, respectively.

$$CFO_i / Assets_i = \beta_0 + \beta_1 \left( \frac{1}{Assets_i} \right) + \beta_2 Rev_i / Assets_i + \beta_3 \Delta Rev_i / Assets_i + \delta_i \quad (2)$$

$$PROD_i / Assets_i = \beta_0 + \beta_1 \left( \frac{1}{Assets_i} \right) + \beta_2 Rev_i / Assets_i + \beta_3 \Delta Rev_i / Assets_i + \beta_4 \Delta Rev_i / Assets_i + \mu_i \quad (3)$$

where *CFO* is cash flow from operations; *Rev* is net sales; *PROD* is level of production, proxied by the cost of goods sold, plus the change in inventory; the remaining variables are as in model (1).

Higher (lower) *EM\_DACC* and *EM\_PROD* (*EM\_SALES*) indicate upward EM.

#### 3.3. Empirical model

To test our hypothesis, we estimate model (4).

$$Ownership_i = \alpha_0 + \alpha_1 EM\_DACC_i + \alpha_2 EM\_SALES_i + \alpha_3 EM\_PROD_i + \beta Deal\_Controls_i + \gamma Target\_Controls_i + \delta Other\_Controls_i + \eta_i \quad (4)$$

where the ownership decision (*Ownership*) is proxied with either *Perc.Seek.Acq*, the percentage of shares that acquirers aim to own after the deal, or *Minority.Deal*, which equals 1 if acquirers seek to buy less than 50 % of the target shares (no transfer of control), and 0 otherwise.<sup>3</sup> The independent variables are *EM\_DACC*, *EM\_SALES*, *EM\_PROD*, and a set of determinants of the ownership decision

<sup>2</sup> We focus on deal announcements rather than on completed ones because on the announcement date the target's financial figures are more relevant for bidders than in final stages of due diligence (Wangerin, 2019).

<sup>3</sup> The percentage of ownership does not consider that some ownership thresholds drastically change the acquirer's benefits and risks.

identified in the literature (Contractor et al., 2014; Dang et al., 2018; Liao, 2014; Macoris et al., 2022; Ouimet, 2013; Povel and Sertsios, 2014; Soloveva et al., 2021), including:

- Deal controls:
  - *Ind.Related*: 1 if the acquirer and the target are in the same industry, 0 otherwise.
  - *Cross.Border*: 1 if the acquirer and the target are domiciled in different countries, 0 otherwise.
  - *Multibid*: 1 if there are multiple bidders, 0 otherwise.
  - *Cash*: 1 for cash-only transactions, 0 otherwise.
  - *Tender*: 1 if a tender offer is made, 0 otherwise.
  - *Size*: natural logarithm of the deal value (in million \$).
  - *Public.Bidder*: 1 if the acquirer is listed, 0 otherwise.
- Target controls:
  - *Leverage*: total debt to total assets.
  - *ROE*: net income to equity.
  - *MTB*: market to book ratio.
  - *Liquidity*: working capital to total assets.
  - *High.Tech*: 1 if the target belongs to a High-Tech industry, 0 otherwise.
- Other controls:
  - *GDP.Growth*: the GDP growth rate of the target country (World Bank database).
  - *UK*: 1 if the target is from the UK, 0 otherwise.<sup>4</sup>

When the dependent variable is *Perc.Seek.Acq*, we estimate an ordinary least squares (OLS) regression; and when *Minority.Deal* is the proxy of the ownership decision we perform a logistic regression.

## 4. Results

### 4.1. Descriptives

Table 1 provides descriptives of the research variables. On average, bidders aim to acquire 83 % of the target. Most deals are industry-related (59.8 %), have public acquirers (66.36 %), and are paid in cash (63.5 %). Deals are often cross-border (46 %), involve tender offers (49.2 %), do not aim to acquire high-tech targets (39 %), and do not involve multiple bidders (11.4 %). For targets, the mean (median) ROE is  $-4.8$  % (8.46 %), and the mean (median) MTB ratio is 2.6 (1.75). They are low leveraged, the mean (median) is 0.20 (0.18), and the mean (median) working capital is 15 % (13 %) of assets. Finally, the average GDP growth of the target's countries is 4.1 %.

### 4.2. Regression results

Columns (1) and (2) of Table 2 show the results of estimating model (4) using *Perc.Seek.Acq* and *Minority.Deal* as the dependent, respectively. In column (1), the coefficient of *EM\_DACC* is negative and statistically significant. Thus, the higher the target's DA the lower the ownership level the acquirer bids for. Similarly, in column (2), *EM\_DACC* is positively and significantly related to *Minority.Deal*, i.e., higher DA levels increase the odds of minority deals. This suggests that when the overpayment risk is high, acquirers ponder higher the net benefits of not controlling targets and proceed with minority deals. In turn, REM measures are not significantly related to the ownership decision, which matches prior research (Perafán-Peña et al., 2022) and suggests that either REM is more difficult to detect, or it is not as pervasive as AEM (Bagnoli and Watts, 2000; Cohen et al., 2008; Evans et al., 2015; Graham et al., 2005).

The results for the control variables are consistent in both estimations. In line with the evidence that minority deals reduce information asymmetries in foreign deals (Aintablian et al., 2017; Povel and Sertsios, 2014), the coefficient of *Cross.Border* is negative and significant. Thus, bidders acquire lower equity stakes in foreign than in local targets. As in Bessler et al. (2015), Betton and Eckbo (2000) and Bulow et al. (1999), the ownership level is higher the bigger the deal (*Size*), in competing deals (*Multibid*),<sup>5</sup> and in tender offers (*Tender*). Also, like Dang et al. (2018) and Andriosopoulos and Yang (2015), the coefficient of *Cash* is negative and significant, suggesting that not having a contingent share payment makes buyers more concerned about potential adverse selection problems, resorting to lower ownership levels to mitigate them. In turn, the results for *High.Tech* do not support the contracting motive, which states that bidders would prefer low equity stakes in targets with a high asset specificity and R&D expenditures (Liao, 2014). We find that acquirers buying targets in the High-Tech industry bid for higher ownership levels, suggesting that those interested in complex technologies weigh more the benefits of control. Finally, in column (1), we see that the percentage of ownership aimed at UK targets is higher than in others. In contrast, column (2) shows that minority deals are more likely for UK targets, in line with the greater propensity for minority acquisitions in common-law countries found by Kim (2012).

<sup>4</sup> UK targets represent almost 50% of the sample. Besides, the UK has significant institutional differences with continental Europe.

<sup>5</sup> In column (2), *Multibid* is omitted because when *Multibid* equals 1, *Minority.Deal* is always 0.

**Table 1**  
Descriptive statistics.

Variable	Mean	Median	Std. dev.	Min	Max
Dependent variables					
<i>Perc.Seek.Acq</i>	0.827	1.000	0.311	0.050	1.000
<i>Minority.Deal</i>	0.172	0.000	0.378	0.000	1.000
Interest variables					
<i>EM_DACC</i>	-0.005	-0.004	0.104	-0.469	0.580
<i>EM_SALES</i>	0.006	0.013	0.118	-0.475	0.358
<i>EM_PROD</i>	-0.016	-0.009	0.285	-1.119	0.921
Deal controls					
<i>Ind.Related</i>	0.598	1.000	0.491	0.000	1.000
<i>Cross.Border</i>	0.460	0.000	0.499	0.000	1.000
<i>Multibid</i>	0.114	0.000	0.318	0.000	1.000
<i>Cash</i>	0.635	1.000	0.482	0.000	1.000
<i>Tender</i>	0.492	0.000	0.500	0.000	1.000
<i>Size</i>	5.158	5.115	2.156	-4.135	11.910
<i>Public.Bidder</i>	0.664	1.000	0.473	0.000	1.000
Target controls					
<i>Leverage</i>	0.198	0.181	0.161	0.000	0.821
<i>ROE</i>	-0.048	0.085	0.587	-3.746	0.733
<i>MTB</i>	2.589	1.752	2.855	0.269	21.224
<i>Liquidity</i>	0.154	0.134	0.218	-0.589	0.785
<i>High.Tech</i>	0.394	0.000	0.489	0.000	1.000
Other controls					
<i>GDP.Growth</i>	0.041	0.049	0.086	-0.176	0.280
<i>UK</i>	0.483	0.000	0.500	0.000	1.000

#### 4.3. Robustness

Our findings are confirmed by the following additional analyses (non-tabulated): excluding deals with UK targets; excluding deals with non-EU acquirers, which are not bound to the same rules; excluding deals where targets' AEM estimation needs information from 2005–2006 to avoid the effect of IFRS adoption; including the anti-self-dealing index (*ASD.Index*) and the minority-shareholder-protection index (*MSP.Index*) as additional regressors;<sup>6</sup> including bid-premium as an additional regressor; using three alternative proxies for AEM based on Jones (1991), Dechow et al. (1995), and Teoh et al. (1998).

#### 5. Conclusion

We add the target's EM to the pool of non-controlling deal drivers (Drees et al., 2013; Liao, 2014; Povel and Sertsios, 2014; Soloveva et al., 2021). We find that buyers prefer to proceed cautiously and bid for small equity stakes and/or carry out non-controlling deals when they detect upward AEM in the target's financial statements. This provides new insights into the usefulness of financial statements in the due diligence of M&A to avoid potential negative consequences of the transaction. Considering AEM might help acquirers make better-informed ownership decisions when dealing with overvaluation. Our evidence is consistent with prior research suggesting that the firms involved in non-controlling deals create wealth by aligning incentives and improving the information flow (Drees et al., 2013).

Our evidence is consistent with prior research suggesting that the firms involved in non-controlling deals create wealth by aligning incentives and improving the information flow (Drees et al., 2013). Moreover, our results are in line with recent evidence that, despite its relatively scarcity in the past, toeholds are useful when performing difficult takeovers, such as is the case in hostile deals, tender offers, or multiple bidders contests (Dai et al., 2021). Our results are relevant considering that takeovers are sophisticated transactions which parties have many terms to negotiate. Moreover, our findings are more than timely for practitioners in the current context of M&A, plagued by uncertainty and the looming threat of a recession, since rather than avoiding value-driven deals due to the overvaluation risk, they may use minority acquisitions strategically to mitigate the risks. However, this also poses an interesting question. If acquirers have many tools to prevent the overpayment risk, why are there M&A that destroy value? Very and Schweiger (2001) claim that acquirers usually lose money in M&A because of problems concerning the reliability of the target's financial information and the integration process. Given our findings and those of other studies, showing that acquirers adjust the terms of the deal to mitigate the uncertainty derived from the target's financial statements, future research should delve deeper into the integration phase of M&A to cast light on this question.

#### Author statement

To whom it may concern,

<sup>6</sup> We do not initially include these variables because non-tabulated tests suggest multicollinearity issues.

**Table 2**  
Target's earnings management and ownership decisions.

Dependent variable	(1) <i>Perc.Seek.Acq</i>	(2) <i>Minority.Deal</i>
Regression type	OLS	Logistic
<i>EM_DACC</i>	-0.219 <sup>c</sup> [-2.608]	3.067 <sup>b</sup> [2.300]
<i>EM_SALES</i>	-0.071 [-0.924]	0.942 [0.789]
<i>EM_PROD</i>	-0.005 [-0.205]	-0.307 [-0.730]
<i>Ind.Related</i>	-0.002 [-0.161]	0.305 [1.217]
<i>Cross.Border</i>	-0.046 <sup>c</sup> [-2.930]	0.766 <sup>c</sup> [2.924]
<i>Multibid</i>	0.071 <sup>c</sup> [3.990]	
<i>Cash</i>	-0.117 <sup>c</sup> [-7.302]	1.952 <sup>c</sup> [4.977]
<i>Tender</i>	0.264 <sup>c</sup> [18.042]	-3.607 <sup>c</sup> [-9.576]
<i>Size</i>	0.048 <sup>c</sup> [11.000]	-0.584 <sup>c</sup> [-8.011]
<i>Public.Bidder</i>	-0.023 [-1.307]	0.343 [1.244]
<i>Leverage</i>	0.002 [0.031]	0.424 [0.504]
<i>ROE</i>	-0.026 <sup>a</sup> [-1.905]	0.481 <sup>a</sup> [1.757]
<i>MTB</i>	-0.003 [-0.922]	-0.016 [-0.278]
<i>Liquidity</i>	0.051 [1.371]	-0.281 [-0.470]
<i>High.Tech</i>	0.084 <sup>c</sup> [3.176]	-1.145 <sup>c</sup> [-2.626]
<i>UK</i>	0.157 <sup>c</sup> [10.570]	-1.565 <sup>c</sup> [-5.531]
<i>GDP.Growth</i>	0.077 [0.413]	0.490 [0.145]
Constant	0.368 <sup>c</sup> [4.372]	2.449 <sup>b</sup> [1.991]
Obs.	1097	957
R <sup>2</sup>	0.507	
Adjusted-R <sup>2</sup>	0.480	
Pseudo-R <sup>2</sup>		0.4936
Wald-chi <sup>2</sup>		272 <sup>c</sup>
Number of iterations		5

The figures in brackets represent *t* statistics. Standard errors are robust. a, b, and c denote statistical significance at 10 %, 5 %, and 1 %, respectively. Year and industry fixed effects are included (coefficients are omitted for brevity).

The authors confirm contribution to the paper entitled TARGETS' EARNINGS MANAGEMENT AND OWNERSHIP DECISIONS IN M&A: CAN LESS BE MORE? as follows:

- Conception and Design: Belen Gill-de-Albornoz, Héctor Fabio Perafán-Peña, and Begoña Giner;
- Data Collection: Belen Gill-de-Albornoz and Héctor Fabio Perafán-Peña;
- Analysis and Interpretation of Results: Belen Gill-de-Albornoz, Héctor Fabio Perafán-Peña, and Begoña Giner;
- Draft Manuscript Preparation: Belen Gill-de-Albornoz and Héctor Fabio Perafán-Peña;
- Final Approval: All authors reviewed the results and approved the final version of the manuscript.

#### CRedit authorship contribution statement

**Héctor Fabio Perafán-Peña:** Conceptualization, Data curation, Investigation, Methodology, Writing – original draft, Writing – review & editing. **Belén Gill-de-Albornoz Noguero:** Conceptualization, Formal analysis, Investigation, Methodology, Supervision, Writing – original draft, Writing – review & editing. **Begoña Giner:** Conceptualization, Methodology, Supervision, Writing – original draft, Writing – review & editing.

## Data availability

The authors do not have permission to share data.

## References

- Aintablian, S., El Khoury, W., M'Chirgui, Z., 2017. The role of toeholds on asymmetric information in mergers and acquisitions. *Stud. Econ. Financ.* 34 (2), 260–280. <https://doi.org/10.1108/SEF-04-2015-0113>.
- Anagnostopoulou, S.C., Tsekrekos, A.E., 2015. Earnings management in firms seeking to be acquired. *Br. Account. Rev.* 47 (4), 351–375. <https://doi.org/10.1016/j.bar.2014.07.001>.
- Bagnoli, M., Watts, S.G., 2000. The effect of relative performance evaluation on earnings management: a game-theoretic approach. *J. Account. Public Policy* 19 (December), 377–397. [https://doi.org/10.1016/S0278-4254\(00\)00005-3](https://doi.org/10.1016/S0278-4254(00)00005-3).
- Bessler, W., Schneck, C., Zimmermann, J., 2015. Bidder contests in international mergers and acquisitions: the impact of toeholds, pre-emptive bidding, and termination fees. *Int. Rev. Financ. Anal.* 42, 4–23. <https://doi.org/10.1016/j.irfa.2015.04.004>.
- Betton, S., Eckbo, B.E., 2000. Toeholds, bid jumps and expected payoffs in takeovers. *Rev. Financ. Stud.* 13, 841–882.
- Bulow, J., Huang, M., Klemperer, P., 1999. Toeholds and takeovers. *J. Political Econ.* 107 (3), 427–454. <https://www.jstor.org/stable/10.1086/250068>.
- Chen, S.-F.S., Hennart, J.F., 2004. A hostage theory of joint ventures: why do Japanese investors choose partial over full acquisitions to enter the United States? *J. Bus. Res.* 57 (10), 1126–1134. [https://doi.org/10.1016/S0148-2963\(03\)00041-9](https://doi.org/10.1016/S0148-2963(03)00041-9).
- Chen, S.S., Lin, W.C., Chang, S.C., Lin, C.Y., 2013. Information uncertainty, earnings management, and long-run stock performance following initial public offerings. *J. Bus. Financ. Acc.* 40 (9–10), 1126–1154. <https://doi.org/10.1111/jbfa.12046>.
- Chi, J.(D), Gupta, M., 2009. Overvaluation and earnings management. *J. Bank. Financ.* 33 (9), 1652–1663. <https://doi.org/10.1016/j.jbankfin.2009.03.014>.
- Choi, S.-Y., 2020. Industry volatility and economic uncertainty due to the COVID-19 pandemic: Evidence from wavelet coherence analysis. *Finance Research Letters* 37, 101783. <https://doi.org/10.1016/j.frl.2020.101783>.
- Cohen, D.A., Dey, A., Lys, T.Z., 2008. Real and accrual-based earnings management in the pre-and post-sarbanes-oxley periods. *Account. Rev.* 83 (3), 757–787. <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. *Int. Bus. Rev.* 23 (5), 931–941. <https://doi.org/10.1016/j.ibusrev.2014.02.005>.
- Cumming, D., Jindal, V., Kumar, S., Pandey, N., 2023. Mergers and acquisitions research in finance and accounting: Past, present, and future. *Eur. Financial Manag.* 29 (5), 1464–1504. <https://doi.org/10.1111/eufm.12417>.
- Dai, Y., Gryglewicz, S., Smit, H.T.J., 2021. Less Popular but More Effective Toeholds in Corporate Takeovers. *J. Financial Quant. Anal.* 56 (1), 283–312. <https://doi.org/10.1017/S0022109019001029>.
- 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. *J. Multinatl. Financ. Manag.* 44, 14–35. <https://doi.org/10.1016/j.mulfin.2018.01.001>.
- Dang, M., Henry, D., Thai, H.A., Vo, X.V., Mazur, M., 2022. Does policy uncertainty predict the death of M&A deals? *Finance Res. Lett.* 46, 102489. <https://doi.org/10.1016/j.frl.2021.102489>.
- Dechow, P.M., Ge, W., Schrand, C., 2010. Understanding earnings quality: a review of the proxies, their determinants, and their consequences. *J. Account. Econ.* 50 (2–3), 344–401. <https://doi.org/10.1016/j.jacceco.2010.09.001>.
- Dechow, P.M., Sloan, R.G., Sweeney, A.P., 1995. Detecting earnings management. *Account. Rev.* 70 (2), 193–225. <http://www.jstor.org/stable/248303>.
- Dos Santos, M.B., Errunza, V.R., Miller, D.P., 2008. Does corporate international diversification destroy value? Evidence from cross-border mergers and acquisitions. *J. Bank. Financ.* 32 (12), 2716–2724. <https://doi.org/10.1016/j.jbankfin.2008.07.010>.
- Drees, F., Mietzner, M., Schiereck, D., 2013. Effects of corporate equity ownership on firm value. *Rev. Manag. Sci.* 7 (3), 277–308. <https://doi.org/10.1007/s11846-012-0080-2>.
- DuCharme, L.L., Malatesta, P.H., Sefcik, S.E., 2004. Earnings management, stock issues, and shareholder lawsuits. *J. Financ. Econ.* 71, 27–49. [https://doi.org/10.1016/S0304-405X\(03\)00182-X](https://doi.org/10.1016/S0304-405X(03)00182-X).
- Eckbo, B.E., 2009. Bidding strategies and takeover premiums: A review. *J. Corp. Fin.* 15 (1), 149–178. <https://doi.org/10.1016/j.jcorpfin.2008.09.016>.
- Emmerich, A.O., Panovka, R., Wachtell, Lipton, R, K, 2023. Cross-Border M&A –2023 Checklist for Successful Acquisitions in the U.S. Harvard Law School Forum on Corporate Governance. <https://corpgov.law.harvard.edu/2023/01/07/cross-border-ma-2023-checklist-for-successful-acquisitions-in-the-u-s/>.
- 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. *Account. Rev.* 90 (5), 1969–1994. <https://doi.org/10.2308/accr-51008>.
- Graham, J.R., Harvey, C.R., Rajgopal, S., 2005. The economic implications of corporate financial reporting. *J. Account. Econ.* 40 (1–3), 3–73. <https://doi.org/10.1016/j.jacceco.2005.01.002>.
- Hribar, P., Collins, D.W., 2002. Errors in estimating accruals: implications for empirical research. *J. Account. Res.* 40 (1), 105–134. <https://doi.org/10.1111/1475-679X.00041>.
- Jones, J.J., 1991. Earnings management during import relief investigations. *J. Account. Res.* 29 (2), 193–228. <https://doi.org/10.2307/2491047>.
- Kenny, G., 2020. Don't Make This Common M&A Mistake. *Harvard Business Review*. <https://hbr.org/2020/03/dont-make-this-common-ma-mistake>.
- Kim, W., 2012. Investor protection and the mode of acquisition: implications for ownership dilution and formation of pyramids. *Financ. Manag.* 41 (1), 55–93. <https://doi.org/10.1111/j.1755-053X.2012.01178.x>.
- Kim, Y., Park, M.S., 2005. Pricing of seasoned equity offers and earnings management. *J. Financ. Quant. Anal.* 40 (2), 435–463. <https://doi.org/10.1017/S0022109000002374>.
- Kothari, S.P., Leone, A.J., Wasley, C.E., 2005. Performance matched discretionary accrual measures. *J. Account. Econ.* 39 (1), 163–197. <https://doi.org/10.1016/j.jacceco.2004.11.002>.
- Krikhaar, J., Loucks, J., Sguazzin, M., 2018. Mergers and acquisitions in tech, media and telecom charting a well-defined integration. Deloitte center for technology, media and telecommunications strategy. <https://www2.deloitte.com/us/en/pages/technology-media-and-telecommunications/articles/tech-media-telecom-mergers-acquisitions.html>.
- Lajoux, A.R., Elson, C.M., 2010. *The Art of MA Due Diligence: Navigating Critical Steps Uncovering Crucial Data*, 2nd ed. McGraw-Hill Education.
- Lee, H.-S., Degtereva, E.A., Zobov, A.M., 2021. The Impact of the COVID-19 Pandemic on Cross-Border Mergers and Acquisitions' Determinants: New Empirical Evidence from Quasi-Poisson and Negative Binomial Regression Models. *Economies* 9 (4). <https://doi.org/10.3390/economies9040184>.
- Liao, R.C., 2014. What drives corporate minority acquisitions around the world? The case for financial constraints. *J. Corp. Financ.* 26, 78–95. <https://doi.org/10.1016/j.jcorpfin.2014.02.007>.
- Macoris, L.S., Kabbach-de-castro, L.R., Kalatzis, A.E.G., Boeche, D.M., 2022. Cross-border and domestic minority acquisitions and financial constraints: reaping big benefits from small shareholders. *Corp. Gov. Int. Rev.* 1–24. <https://doi.org/10.1111/corg.12466>.
- Mantecon, T., 2009. Mitigating risks in cross-border acquisitions. *J. Bank. Financ.* 33 (4), 640–651. <https://doi.org/10.1016/j.jbankfin.2008.12.001>.
- Marquardt, C., Zur, E., 2015. The role of accounting quality in the M&A market. *Manag. Sci.* 61 (3), 604–623. <https://doi.org/10.1287/mnsc.2013.1873>.
- Nguyen, T.T.H., Ibrahim, S., Giannopoulos, G., 2023. Detecting earnings management: a comparison of accrual and real earnings manipulation models. *J. Appl. Account. Res.* 24 (2), 344–379.
- Ouimet, P.P., 2013. What motivates minority acquisitions? the trade-offs between a partial equity stake and complete integration. *Rev. Financ. Stud.* 26 (4), 1021–1047. <https://doi.org/10.1093/rfs/hhs125>.

- Perafán-Peña, H.F., Gill-de-Albornoz, B., Giner, B., 2022. Earnings management of target firms and deal premiums: the role of industry relatedness. *Br. Account. Rev.* 54 (2), 101038 <https://doi.org/10.1016/j.bar.2021.101038>.
- Pinelli, M., Cappa, F., Peruffo, E., Oriani, R., 2022. Acquisitions of non-controlling equity stakes: agency conflicts and profitability. *Strateg. Organ.* 20 (2), 341–367. <https://doi.org/10.1177/1476127020926672>.
- Povel, P., Sertsios, G., 2014. Getting to know each other: the role of toeholds in acquisitions. *J. Corp. Financ.* 26, 201–224. <https://doi.org/10.1016/j.jcorpfin.2014.04.001>.
- Raman, K., Shivakumar, L., Tamayo, A., 2013. Target's earnings quality and bidders' takeover decisions. *Rev. Account. Stud.* 18 (4), 1050–1087. <https://doi.org/10.1007/s11142-013-9224-0>.
- Reuer, J.J., 2005. Avoiding lemons in M&A deals. *MIT. Sloan. Manag. Rev.* 46 (3), 15–17.
- Roychowdhury, S., 2006. Earnings management through real activities manipulation. *J. Account. Econ.* 42 (3), 335–370. <https://doi.org/10.1016/j.jacceco.2006.01.002>.
- Shette, R., Kuntluru, S., Korivi, S.R., 2016. Opportunistic earnings management during initial public offerings: evidence from India. *Rev. Account. Financ.* 15 (3), 352–371. <https://doi.org/10.1108/RAF-03-2015-0048>.
- Skaife, H.A., Wangerin, D.D., 2013. Target financial reporting quality and M&A deals that go bust. *Contemp. Account. Res.* 30 (2), 719–749. <https://doi.org/10.1111/j.1911-3846.2012.01172.x>.
- Soloveva, D., Yamini, R., Wei, J., 2021. A merry host makes bolder guests: an analysis of cross-border investment choices of Chinese firms. *Thunderbird Int. Bus. Rev.* 63 (2), 175–190. <https://doi.org/10.1002/tie.22171>.
- Teoh, S.H., Welch, I., Wong, T.J., 1998. Earnings management and the long-run market performance of initial public offerings. *J. Financ.* 53 (6), 1935–1974.
- Tian, H., Wang, J., 2024. Navigating the storm: How the COVID-19 pandemic transformed the M&A landscape. *Finance Res. Lett.* 59, 104834. <https://doi.org/10.1016/j.frl.2023.104834>.
- 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. *J. World Bus.* 36 (1), 11–31. [https://doi.org/10.1016/S1090-9516\(00\)00052-3](https://doi.org/10.1016/S1090-9516(00)00052-3).
- Wangerin, D., 2019. M&A due diligence, post-acquisition performance, and financial reporting for business combinations. *Contemp. Account. Res.* 36 (4), 2344–2378. <https://doi.org/10.1111/1911-3846.12520>.
- Yang, M., 2015. Ownership participation of cross-border mergers and acquisitions by emerging market firms. *Manag. Decis.* 53 (1), 221–246. <https://doi.org/10.1108/MD-05-2014-0260>.