THE POST-MERGER PERFORMANCE OF THE EUROPEAN M&AS: DOES PRE-MERGER EARNINGS MANAGEMENT MATTER?

Malek Alsharairi, Emma L. Black**, Christoph Hofer***, Radhi Al-Hamadeen*****

Abstract

This paper empirically examines the post-merger performance of a sample of 1,320 European mergers and acquisitions deals. Specifically, we investigate the impact of pre-merger earnings management of acquirers on both the short-term and long-term post-merger performance, for M&A deals completed between 2003-2012, considering both the form of payment and the target firm's listing status. The findings suggest that acquirers report higher abnormal accruals before those deals where they pay with their stock and the target firms are private. The reported evidence suggests that, as a consequence, investors correct for these efforts in the long-term post-merger period – usually within the first 12 months. Moreover, acquirers are likely to experience positive abnormal returns in case of bidding for private targets, whereas negative abnormal returns are documented in case of a publicly traded target, respectively.

Keywords: Mergers, Acquisitions, Earnings Management, Abnormal Accruals, Post-Merger Performance

* *School of Management and Logistics Sciences, German Jordanian University, 35247 Amman 11180, Jordan,*
***Newcastle University Business School, Newcastle University, 5 Barrack Road, Newcastle-Upon-Tyne, NE1 4SE, UK*
****Durham University Business School, Mill Hill Lane, Durham, DH1 3LB, UK*
*****King Talal Faculty of Business & Technology, Princess Sumaya University for Technology, Amman 11941, Jordan*

1 Introduction

Mergers and acquisitions can lead to an increased value generation for the firm, by enhancing revenues and generating cost efficiency. Numerous research investigate earnings management by acquirers in share-for-share deals concludes that acquirers engage in upward earnings management prior to the deal announcement (Erickson and Wang, 1999; Louis, 2004; Gong et al. 2008; Alsharairi, 2012).

Shares exchange ratio specifies the number of the acquirer shares exchanged for one of the target shares. The deal starts by determining the share purchase price, and then the shares exchange ratio is determined using the market price of the acquirer shares at the time of the deal. The acquiring firms would benefit more when its share price is high, because the target firm's shareholders would receive less number of the acquirer's shares, therefore, the acquirer benefits from a low shares exchange ratio, leading to a lower EPS dilution and lower acquisition costs. All of this might influence the acquirer to upward their earnings prior to the announcement in order to maximize their share price, leading them to engage in earnings management. Recent studies suggest that bidders manage earnings as an attempt to upward reported earnings, but that does not necessarily mean that this might influence investor's decisions. Therefore, by inflating reported earnings, within the legal boundaries and managerial discretion, acquiring firms try to lower the share-exchange-ratio by upward earnings to mitigate dilution effects and effective takeover cost.

A number of US sample-based studies, such as Loughran and Vijh, (1997), Louis (2004) and Moeller et al (2005) report evidence of a significant negative correlation between the pre-merger level of discretionary accruals and the stock-for-stock acquirers' long-run performance. This study aims at examining this long-term underperformance results in the European market for control. Unlike most M&A studies in the extant literature, which often focus on the US - the biggest market for control in the world, this study examines a sample of European M&A deals. Moreover, the sample employed in this study is segregated based on the deal's payment structure as well as based on the listing status of the target to investigate their effect on the aforementioned relationship. This empirical study contributes to the extant literature by providing a better understanding of

the consequences of earnings management, in the context of M&As, where investors can be considered well informed and sophisticated. Moreover, this paper enriches the literature of M&As by investigating the correlation between pre-merger earnings management and post-merger performance (both short-term and long-term) within a multi-country sample from Europe.

The study hypothesizes that, analogous to their US peers, those European acquirers engaging in earnings management prior to a deal announcement would more likely have a poor post-merger performance. Furthermore, due to the different levels of information asymmetry, pre-merger earnings management is expected to be more aggressive by acquirers of private targets as opposed to those acquiring publicly traded targets. Finally, the study reinforces the extant evidence by documenting that non-cash acquirers, which are believed to negotiate a share-for-share deal when they consider their own share as overvalued, do experience a negative post-merger performance since investors correct for the effects of earnings management.

2 Literature review

2.1 Pre-Merger Earnings Management

Acquirers normally have control over the timing of M&A and therefore have plenty of time to plan and perform their earnings management in order to manipulate their earnings (Alsharairi, 2012).There are several research papers in the extant literature investigate pre-merger earnings management. Erickson and Wang (1999) provide evidence that acquirers manage their earnings upward in the quarters prior to the planned merger. In a similar study, Botsari and Meeks (2008) provide consistent evidence that acquirers manage earnings in the year immediately prior to the acquisition offer announcement.

2.2.1 Short-run Performance

In a different study, Louis (2004) uses event study to analyze the market's efficiency in processing managed earnings in financial reports in an attempt to provide explanation for the post-merger share underperformance. Louis findings reveal strong evidence suggesting that acquirers engage in earnings management in order to inflate income in the quarter prior to the stock swap announcement.

Baik et al. (2007) use a sample of 1,507 publicly traded firms between 1990 and 1998 to analyze pre-merger earnings management. They find significant evidence of earnings management in the quarter just prior to merger announcement, suggesting an effort to inflate their stock price. Guo et al. (2008) findings suggest that acquiring firms tend to split their stocks prior to acquisition announcements in large M&A deals financed by stock, in an attempt to manipulate their equity valuation to lower the cost of acquisitions.

In a recent study, Alsharairi et al. (2015) use a sample of 1320 European mergers and acquisitions deals between 2003 and 2012, their findings suggest evidence of earnings management prior to the announcement, the evidence is more significant in private targets, where it is less significant in publicly listed targets. In their paper, Pungaliya and Vijh (2008) use a sample of 1,719 cash acquirers and 895 stock acquirers during 1989-2005 to study the possibility of earnings management. On the contrary of previous studies, they do not report evidence of earnings management by acquirers prior to the announcement of the acquisitions. Consistently, Heron and Lie (2002) support the findings of Pungaliya and Vijh (2008) results in their study, as they find no evidence of pre-merger earnings management by the acquiring firms.

In their study on the impact of debt on earnings management, Alsharairi and Salama (2012) find that earnings management prior to events such as M&A is significantly affected by the capital structure of the acquirer as they report significant pre-merger earnings management by the acquirers - in non-cash deals - unless they are highly leveraged firms.

In another study that explains the effects of pre-merger earnings management, Gleason et al. (2015) investigate a sample of publicly listed acquirers to find a positive relationship between the acquirers' pre-merger earnings management and acquisition premium in non-cash deals. Their findings suggest that the acquirers' efforts to use earnings management as a manipulation technique are not beneficial due to the targets' ability to detect the acquirers' endeavors to manager their earnings prior to the deal.

Overall, the evidence reported in the extant literature reveal that pre-merger earnings management is a controversial empirical question.

2.2 Post-Merger Performance of Acquiring Firms

Travlos (1987) examines the effect of payment method in takeovers on the returns of bidding firms at the time of the takeover announcement. His results suggest that, for stock swap takeovers, there is evidence of significant losses at the takeover announcement. However, the returns for cash financed takeovers are "normal" at the announcement. Travlos (1987) provides a foundation to explain the aforementioned findings to the signaling hypothesis. The signaling hypothesis implies that using share-for-share as a method of payment in takeovers sends a "negative" signal to the market, that the acquirer's share is overvalued. Masulis (1983) suggests similar findings.

Chang (1998) studies the acquirers' returns in the takeovers of privately held targets. His findings suggest that at the takeover announcement, acquirers experience a positive abnormal return in share-for-share takeovers. In the contrast, cash acquirers experience zero abnormal return. Furthermore, Chang (1998) suggests that the positive abnormal returns apply only to the acquisition of privately held targets, unlike the acquisition of publicly traded targets, where the acquirers experience a negative abnormal return at the announcement. Eckbo (2009) findings are in line with these results.

Fuller et al. (2002) investigate the returns of bidders acquiring more than five public, private, and/or subsidiary targets. Their results suggest that the returns depend on the listing status of the target. Moeller et al. (2004) report consistent results, and suggest that size does negatively affect the acquirer's announcement period excess return.

In another study, Louis (2004) finds that there is no evidence of any correlation between pre-merger earnings management and excess returns in a three-day window around share-for-share merger announcement. The research of Baik et al. (2007), which considers the target listing status, indicates that the acquirer's returns in the announcement period are a decreasing function of the acquirer's abnormal accruals magnitude.

2.2.1 Long-run Performance

Sloan (1996) studies the effect of information regarding future earnings contained in accrual and cash flow components of current earnings on stock prices. He uses a sample of 40,679 Firms over 30 years from 1962 to 1991. The findings Sloan's study suggest a negative relationship between accruals and the acquirers' stock returns.

Similarly, Louis (2004) finds a significant negative correlation between the discretionary accrual and the stock-for-stock acquirers' long-run performance. These findings support Sloan's results, but Louis even goes further to suggest that market reactions in the short run do not capture the pre-announcement earnings management effects. Loughran and Vijh, (1997) and Moeller et al (2005) show consistent evidence that support the long-term underperformance results.

On the contrary, Baik et al. (2007) evidence suggests that there is no correlation between abnormal accruals and the acquirers' stock returns in the long run after the merger announcement. They suggest that the investors are fully aware of the acquirers' earnings management at the time of the announcement.

Finally, Francoeur et al. (2012) study the relation between ownership structure, earnings management prior to mergers and acquisitions, and the acquiring firm's post-acquisition long-run market return. Their findings support the negative correlation between earnings management and the acquirer's abnormal returns over a three-year period following the acquisition announcement.

3 Hypothesis development

Since most of the previous studies, as indicated in the above section, document empirical evidence by focusing on US samples, this study considers the European M&As by examining the impact of pre-merger earnings management on the post-merger stock performance.

Since Alsharairi et al (2015) argue that the target firm and its advisors can be considered well-informed users of accounting information, and then target investors are expected to detect the bidders' earnings management strategies. Following the argument of Baik et al. (2007) and Gleason et al (2015), the bidder that manipulates its accruals prior to a M&A deal is expected to be detected and, hence, the market corrects for them at the announcement or in the time following a share-for-share transaction (Loughran and Vijh, 1997 and Moeller et al, 2005). The paper hypothesizes the following:

H1: The investors are unlikely to completely reverse earnings management at the announcement of the merger. The reversals of the pre-merger earnings management effects are expected to be completed in the time following the merger. Hence, there is a negative relation between the acquirers' pre-merger abnormal current accruals and post-merger long-term abnormal returns.

4 Methodology

Thomson ONE Banker (i.e. SDC) is the source of data related to European M&A transactions. For other supplementing information regarding accounting data in addition to share performance and volatility, DataStream or WorldScope are used.

Following Alsharairi et al (2015), the European acquiring firms sample is obtained according to specific criteria; first, the deals are announced between 01/06/2002 and 07/04/2012, only completed transactions are considered. The acquiring firms are from Germany, France, United Kingdom, Italy or Spain, and they are publicly listed companies. Financial sector firms which have SIC codes between 6000 and 6999 are not included in the sample. Deals with value exceeding $1 million are considered only. Acquiring firms must obtain a controlling ownership interest in the target firm. Finally, the deals must have data regarding acquisition premium on Thomson One Banker, as well as data of semi-annual earnings management on WorldScope.

Accruals are a straightforward and simple instrument for temporarily manipulating reported earnings around specific events because of their relative low cost, as opposed to the risk of reducing shareholder value as a consequence of sub-optimal operating decisions (Peasnell, 2000; Botsari and Meeks, 2008). However, identifying and measuring the portion of accruals arising from managerial discretion is among the major challenges to be faced when investigating this relationship.

Following Pungaliya and Vijh (2008), the current accruals for the following analyses are computed using the changes in the non-cash working capital:

Equation (1). Current Abnormal Accruals

$$CAC_i = \Delta CA_i - (\Delta CL_i - \Delta STD_i) - \Delta CASH_i$$

CAC: current accruals;
ΔCA: semi-annual change in current assets;
ΔCL: semi-annual change in current liabilities;
ΔSTD: semi-annual change in short-term liabilities included in current liabilities and current portion of long-term debt;
ΔCASH: semi-annual change in cash.

We use a cross-sectional industry-performance-matched accruals model similar to the research design of Louis (2004), Gong et al. (2008) and Alsharairi (2012). The following model is based on the Dechow et al. (1995) modified Jones (1991) model and considers Kothari et al.'s (2005) recommendation to use performance-based portfolios as a non-linear control in order to improve the reliability of the accrual regression model.

Following Kothari et al's (2005) recommendations, all firms within the same industry (based on their 2-digit SIC) are clustered by calendar years and semi-annual periods and subsequently ranked according to their efficiency – using the ROA of the same period in the previous year as proxy for performance – to form five quintiles.

We furthermore implement Gong et al's (2008) procedures for stronger robustness and reduced measurement errors.

Following the aforementioned procedure, the cross-sectional regression and estimation model for each portfolio is as follows:

Equation (2). Cross-sectional CAC Regression Model

$$\frac{CAC_{i,j}}{TA_{i,j-4}} = \sum_{q=0}^{3} \alpha_{1+q} Q_{1+q,i,j} + \alpha_5 \left(\frac{\left| \Delta REV_{1,j} - \Delta AR_{i,j} \right|}{TA_{i,j-4}} \right) + \alpha_6 \left(\frac{CAC_{i,j-1}}{TA_{i,j-4}} \right) + \alpha_7 \left(\frac{PPE_{i,j}}{TA_{i,j-4}} \right) + \varepsilon_i$$

Q_q: dummy variable to control for seasonality effects;
ΔREV: semi-annual changes in revenue;
ΔAR: semi-annual change in trade receivables;
PPE: denotes the net amount of property, plant and equipment in a semi-annual period;
TA_{j-4}: one year lagged total assets in the same semi-annual period;
α : coefficients' index
ε : represents the residual term of the regression model;
i: sampled company's index;
q: index of the semi-annual period.

The cumulative abnormal returns the acquirer (CAR_i), representing the proxy for short-run Post-merger performance, are benchmarked with the S&P Europe 350 stock market index (P_m).

Equation (3). Cumulative Abnormal Returns

$$CAR_i = \sum_{t-y}^{y} (\ln(\frac{P_{i,t}}{P_{i,t-1}} - \ln(\frac{P_{m,t}}{P_{m,t-1}}))$$

For the long-run post-merger performance ($BHAR_{i,t}$), this study does not follow the in recent publications for misspecification criticised approach of market-adjusted returns. (Cf. Barber and Lyon, 1997). The calculation of long-run post-merger performance is done by taking the difference between the buy-and-hold return of the bidder ($R_{i,t}$) and a matched firm ($R_{bm,t}$) with the closest market-to-book ratio and an equity value between 70% and 130% of the acquirer as applied in Louis (2004).

Equation (4). Buy-and-hold Abnormal Returns

$$BHAR_{i,t} = \prod_{t=0}^{T}[1 + R_{i,t}] - \prod_{t=0}^{T}[1 + R_{bm,t}]$$

In examining the hypothetical relationship between the short and long-run post-merger performance, and the acquirers' pre-merger earnings management, the proposed linear regression model is as follows:

Equation (5). Regression Model – Post-merger Performance

$$ABRET_i = \alpha_0 + \alpha_1 PR_i + \alpha_2 EM_{Ai} + \alpha_3 DIVERS_i + \alpha_4 CROSSB_i + \alpha_5 TOEHOLD_i + \alpha_6 ADVISOR_{Ai} + \alpha_7 CEOSHARE_{Ai} + \alpha_8 RUNUP_{Ai} + \alpha_9 DEALVALUE_i + \alpha_{10} RSIZE_i + \sum_{y=1}^{m=10} \alpha_{y+10} D_{y+2003} + \varepsilon_i$$

ABRET: CAR 3-days or 5-days around the transaction and BHAR 12-months, 24-months or 36 months after the transaction, respectively;
PR: acquisition premium in the M&A deal, based on the share's price index four weeks prior to the deal's announcement date;
EM_A: earnings management by the acquiring company as proxied by the aforementioned aggregate abnormal accruals over twosemi-annual reporting periods prior to the deal announcement;
DIVERS: dummy variable for diversifying deals – measured as the same first two digits of the SIC-code, 0 otherwise;
CROSSB: dummy variable, which indicates cross-boarder transactions, 0 otherwise;
TOEHOLD: acquirer's toehold ownership interest in the target firm prior to the deal;
ADVISOR: dummy variable capturing a top-tier investment bank advising the acquirer on the M&A transaction;
CEOSHARE: the percentage of the acquirer's common shares held by corporate insiders. Closely-held shares are used as a proxy;
RUNUP: acquirer's stock price run-up returns 21 days prior to the transaction announcement to measure leakage effects or over-reactions that could induce a reversal effect after completion of the deal (Louis, 2004);
DEALVALUE: size of the M&A deal, as proxied by the equity value acquired in the process;
RSIZE: revenue size of the target relative to the acquirer;
α : coefficients' index
ε : represents the residual term of the regression model;
i : sampled M&A deal's index

4 Results and analysis

The results in Table 4.0.1 document the relation between the abnormal returns and abnormal accruals of acquiring companies engaging in a share-for-share transaction. The descriptive statistics reveal that share-swap acquirers have significantly lower abnormal returns than the cash paying control group. However, the results obtained from the regression analysis are in sharp contrast and reveal no evidence of a significant inverse relation between the abnormal accrual measure and the cumulative abnormal return for acquirers engaging in stock swaps over the three days or five days around the merger announcements and 24 months or 36 months following this event.

Interestingly, the coefficient of acquirer's pre-merger earnings management (EM) is negative and significant at the 10 percent level for setup (2) on a 12-month post-merger window. The overall results of the regression model performed show two different, except for the 12 months post-merger performance, non-significant trends. Around the merger announcement as well as during 12 months succeeding a deal that uses equity as payment, the coefficient has a negative sign. Subsequently, the coefficient changes to near zero or a value that is positive in magnitude. As Louis (2004) argues, the significantly negative correlation between long-term performance and abnormal accruals, along with the non-significant but negative short-term performance of the non-cash acquirers, would strongly suggest that capital markets tend to partially correct for earnings management effects in the days leading to the transaction. Hence, the negative long-term return of non-cash acquirers is partly attributable to the reversal of the pre-merger earnings management efforts. The fact that significance is only found in the 12-month post-merger period suggests that the market reacts quickly to incorporate the effects of earnings management into the price or might even overreact and, therefore, does slightly correct for those effects in the long-run.

The coefficient estimate TOEHOLD indicates a negative and statistically significant association between the post-merger performance and the acquirer's pre-merger stake in the target company in setup (3) for 36-months post-merger period.

Table 4.0.1 also reports the results of the regressions of the post-merger stock performance measures on the percentage of CEO shares and a dummy variable measuring the presence of a top-tier deal advisor. The coefficient ADVISOR shows a negative but not significant sign for all models and only turns positive in the 36-month period. This cannot be explained easily and might underlie in the usual characteristic of deals that are structured by bulge-bracket banks.

Finally, the coefficient for (RSIZE), the size ratio of the acquirer firm to the target firm, which can be seen as a proxy for integration related risks as well as a greater motivational factor for an acquirer to manage its earnings upwards (Pungaliya and Vijh, 2008), shows negative coefficient estimates; only those in setup (3) for 5-days around the merger announcement and setup (3) for the 36-month post-merger period are statistically significant. This is entirely in line with literature since relative size increases the risk of integration due to issues ranging from operational risks over integration costs through to insufficient number of managers to run the newly integrated entity.

4.1 Concurrent Analysis for Cash Deals

Analogous to the previous concurrent analysis of pure cash deals, pre-merger earnings management would only have an impact on the post-merger performance if the M&A payment structure of the deal is a share-swap (i.e. equity is issued to pay for the transaction). In the alternative case of a 100% cash deal, it could be argued that the coefficient for the acquirer's pre-merger earning management is shown to be irrelevant to explain the post-merger performance (Erickson and Wang, 1999). The former section directly reports evidence of pre-merger earnings management for a non-cash sample.

Table 4.1.1 documents the ordinary-least-squares regression results of the models for a concurrent sample of cash deals. As expected, the coefficient of earnings management (EM) is insignificantly different from zero. The study documents a negative and insignificant coefficient in all different setups, which is in contrast to the results reported for the non-cash deals.

In summary, the analysis of cash-only deals does not indicate any significant relation between pre-merger earnings management of the acquiring firm and its post-merger performance around the deal announcement as well as in the long-term after the completion. The evidence documented in this section supports and furthermore adds greater robustness to the earlier findings regarding the documented significant relation in share-swap deals.

Table 4.0.1 Analysis of post-merger performance of non-cash deals

The following table presents the results of the ordinary least squares regression model for post-merger performance of non-cash deals. ABRET is the abnormal return calculated over the stated period around or after the merger announcement; EM is the acquirer's pre-merger earnings management coefficient, PR indicates the excess payment over the target's share price four weeks before the merger announcement; RSIZE is the ratio of the revenues of the target to the revenues of its acquirer, DIVERS is a dummy variable which takes 1 if the deal was within the first two SIC-code digits; CROSSB is a dummy variable which takes 1 if the is located outside the acquirers country, and 0 otherwise, TOEHOLD indicates the acquirer's pre-merger ownership interest in the target firm, ADVISOR indicates that a top-tier investment bank provided M&A advisory services for the acquiring firm, CEOSHARE is the number of the acquirer's shares holdby the CEO as proxied by closely-held shares, DEALVALUE indicates the natural logarithm of the target's equity value, RSIZE indicates the relative sales size of the target firm;

The symbols (*), (**) and (***) denote significance at 10, 5 and 1 percent level, respectively.

	CAR 3 days			CAR 5 days			BHAR 12 months			BHAR 24 months			BHAR 36 months		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
PR	0.000	0.000	0.001	-0.001	0.000	0.000	-0.003	-0.001	0.004	-0.006	-0.009	-0.003	-0.008	-0.014	0.007
(t-value)	(-0.13)	(-0.03)	(0.46)	(-0.74)	(0.12)	(0.21)	(-0.61)	(-0.23)	(0.43)	(-0.97)	(-1.17)	(-0.31)	(-0.88)	(-1.15)	(0.61)
EM	-0.083	-0.081	-0.046	-0.057	-0.078	-0.029	-0.367	-0.580	-0.613	0.133	0.101	0.239	0.492	0.871	0.398
(t-value)	(-1.64)	(-1.18)	(-0.41)	(-1.01)	(-1.03)	(-0.25)	(-1.44)	(-1.79)*	(-1.13)	(0.40)	(0.23)	(0.36)	(0.97)	(1.22)	(0.56)
DIVERS		-0.012	-0.042		-0.023	-0.057		-0.116	-0.052		0.092	-0.126		0.578	-0.179
(t-value)		(-0.30)	(-0.77)		(-0.54)	(-1.03)		(-0.63)	(-0.20)		(0.36)	(-0.39)		(1.41)	(-0.53)
CROSSB		0.025	-0.013		0.056	0.042		0.184	0.040		0.310	0.100		0.142	-0.411
(t-value)		(0.64)	(-0.23)		(1.30)	(0.72)		(1.00)	(0.15)		(1.21)	(0.30)		(0.35)	(-1.14)
TOEHOLD		-0.001	0.000		0.000	0.000		0.006	0.007		0.003	0.008		0.000	0.023
(t-value)		(-0.64)	(-0.25)		(-0.12)	(-0.06)		(0.90)	(0.80)		(0.32)	(0.68)		(0.01)	(1.84)*
ADVISOR		-0.060	-0.041		-0.051	-0.056		-0.262	-0.401		-0.206	-0.166		0.024	0.501
(t-value)		(-1.14)	(-0.55)		(-0.88)	(-0.75)		(-1.05)	(-1.14)		(-0.60)	(-0.38)		(0.04)	(1.09)
CEOSHARE		0.001	0.000		0.001	0.000		0.004	0.001		0.008	-0.003		0.016	-0.007
(t-value)		(1.65)	(-0.09)		(1.38)	(-0.22)		(1.21)	(0.13)		(1.59)	(-0.40)		(2.00)*	(-1.02)
RUNUP			-0.020			-0.099			-0.022			0.121			0.236
(t-value)			(-0.20)			(-1.01)			(-0.05)			(0.21)			(0.39)
DEALVALUE			0.006			0.009			0.080			0.075			0.059
(t-value)			(0.56)			(0.82)			(1.62)			(1.23)			(0.91)
RSIZE			-0.002			-0.002			-0.002			-0.005			-0.018
(t-value)			(-1.59)			(-1.73)*			(-0.42)			(-0.88)			(-2.77)**
(t-value)															
Constant	-0.006	-0.093	0.053	-0.043	-0.137	-0.032	-0.186	-0.467	-0.442	-0.345	-0.597	-0.161	-0.501	-1.873	0.625
(t-value)	(-0.13)	(-1.41)	(0.37)	(-0.85)	(-1.88)*	(-0.22)	(-0.81)	(-1.50)	(-0.65)	(-1.17)	(-1.39)	(-0.19)	(-1.11)	(-2.72)**	(0.70)
N	141	136	131	141	136	131	141	136	131	141	136	131	141	136	131
F-statistic	0.520	0.780	0.620	0.580	0.880	1.100	1.150	1.080	0.690	0.750	1.090	0.750	3.230	2.720	2.670
P-value	0.860	0.684	0.824	0.815	0.593	0.447	0.361	0.431	0.766	0.674	0.420	0.720	0.006***	0.019**	0.043**
R2	0.149	0.369	0.483	0.163	0.398	0.622	0.277	0.447	0.510	0.200	0.450	0.529	0.518	0.671	0.800
Adj. R2	-0.135	-0.104	-0.293	-0.117	-0.054	0.054	0.036	0.032	-0.226	-0.067	0.038	-0.178	0.358	0.425	0.500

Table 4.1.1Concurrent analysis of post-merger performance of pure cash deals

The following table presents the results of the ordinary least squares regression model for post-merger performance of pure cash deals. ABRET is the abnormal return calculated over the stated period around or after the merger announcement; EM is the acquirer's pre-merger abnormal current accruals, PR indicates the excess payment over the target's share price four weeks before the merger announcement; RSIZE is the ratio of the revenues of the target to the revenues of its acquirer, DIVERS is a dummy variable which takes 1 if the deal was within the first two SIC-code digits; CROSSB is a dummy variable which takes 1 if the is located outside the acquirers country, and 0 otherwise, TOEHOLD indicates the acquirer's pre-merger ownership interest in the target firm, ADVISOR indicates that a top-tier investment bank provided M&A advisory services for the acquiring firm, CEOSHARE is the number of the acquirer's shares hold by the CEO as proxied by closely-held shares, DEALVALUE indicates the natural logarithm of the target's equity value, RSIZE indicates the relative sales size of the target firm;

The symbols (*), (**) and (***) denote significance at 10, 5 and 1 percent level, respectively.

	CAR 3 days			CAR 5 days			BHAR 12 months			BHAR 24 months			BHAR 36 months		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
PR	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.002	0.002	0.001	0.002	0.002	-0.002
(t-value)	*(0.90)*	*(1.03)*	*(1.31)*	*(1.25)*	*(1.27)*	*(1.91)**	*(1.37)*	*(1.60)*	*(0.83)*	*(0.92)*	*(1.32)*	*(0.62)*	*(0.19)*	*(0.44)*	*(-0.41)*
EM	0.024	0.027	-0.027	0.036	0.037	-0.041	-0.021	-0.021	0.031	-0.157	0.039	-0.072	-1.064	0.065	0.191
(t-value)	*(1.18)*	*(1.30)*	*(-0.99)*	*(1.46)*	*(1.52)*	*(-1.40)*	*(-0.19)*	*(-0.21)*	*(0.22)*	*(-0.47)*	*(0.18)*	*(-0.27)*	*(-0.68)*	*(0.11)*	*(0.22)*
DIVERS		0.008	-0.003		0.017	0.000		-0.085	-0.090		-0.034	0.009		0.323	0.248
(t-value)		*(0.69)*	*(-0.25)*		*(1.30)*	*(-0.03)*		*(-1.58)*	*(-1.59)*		*(-0.28)*	*(0.08)*		*(1.00)*	*(0.73)*
CROSSB		-0.002	-0.002		0.003	0.000		-0.026	0.039		0.055	0.128		-0.140	0.130
(t-value)		*(-0.21)*	*(-0.15)*		*(0.25)*	*(0.01)*		*(-0.45)*	*(0.61)*		*(0.44)*	*(1.04)*		*(-0.41)*	*(0.34)*
TOEHOLD		0.000	0.000		0.000	0.000		0.003	0.002		0.000	0.000		-0.008	-0.012
(t-value)		*(-0.41)*	*(0.36)*		*(-0.61)*	*(0.44)*		*(1.14)*	*(0.73)*		*(-0.09)*	*(0.05)*		*(-0.58)*	*(-0.82)*
ADVISOR		-0.006	-0.017		-0.005	-0.014		0.045	0.063		0.345	0.237		0.783	0.911
(t-value)		*(-0.47)*	*(-1.36)*		*(-0.34)*	*(-1.07)*		*(0.78)*	*(0.98)*		*(2.72)*	*(1.94)**		*(2.26)*	*(2.36)***
CEOSHARE		0.000	0.000		0.000	0.000		0.000	-0.001		-0.001	-0.004		-0.010	-0.009
(t-value)		*(1.56)*	*(0.96)*		*(1.13)*	*(0.73)*		*(-0.29)*	*(-0.84)*		*(-0.44)*	*(-1.66)**		*(-1.48)*	*(-1.31)*
RUNUP			-0.039			-0.031			0.180			-0.020			-0.977
(t-value)			*(-0.84)*			*(-0.63)*			*(0.75)*			*(-0.04)*			*(-0.68)*
DEALVALUE			0.001			0.001			-0.021			-0.030			-0.141
(t-value)			*(0.44)*			*(0.34)*			*(-1.31)*			*(-0.98)*			*(-1.47)*
RSIZE			-0.001			-0.001			0.014			0.004			0.009
(t-value)			*(-0.86)*			*(-1.04)*			*(2.07)***			*(0.30)*			*(0.21)*
Constant	-0.010	-0.013	-0.012	-0.016	-0.059	-0.056	1.121	-0.071	0.016	7.818	-0.280	-0.065	41.068	-0.937	-0.039
(t-value)	*(-0.24)*	*(-0.32)*	*(-0.28)*	*(-0.32)*	*(-1.22)*	*(-1.26)*	*(5.11)****	*(-0.35)*	*(0.08)*	*(11.89)****	*(-0.63)*	*(-0.16)*	*(13.11)****	*(-0.78)*	*(-0.03)*
N	140	126	113	140	126	113	140	126	113	140	126	113	140	126	113
F-statistic	1.100	0.910	0.890	1.390	1.150	1.080	3.190	1.030	1.460	13.260	1.010	1.160	15.770	0.810	0.650
P-value	0.363	0.551	0.594	0.184	0.319	0.382	0.000***	0.432	0.123	0.000***	0.451	0.308	0.000***	0.669	0.851
R2	0.087	0.111	0.145	0.107	0.136	0.172	0.215	0.123	0.218	0.533	0.121	0.182	0.575	0.099	0.111
Adj. R2	0.008	-0.010	-0.018	0.030	0.018	0.013	0.148	0.003	0.069	0.492	0.001	0.026	0.539	-0.024	-0.060

Following Baik et al. (2007), we further divide the sample into a group of acquirers of public targets and a group of acquirers of private targets. Baik et al. (2007) argue that due to the greater valuation risk introduced by private targets in contrast to public ones, non-cash acquirers have greater incentives to manage earnings upwards before announcing a deal with a private target. This procedure reduces the number of shares to be issued by increasing the valuation of the bidder's shares and hence lowers the real acquisition price.

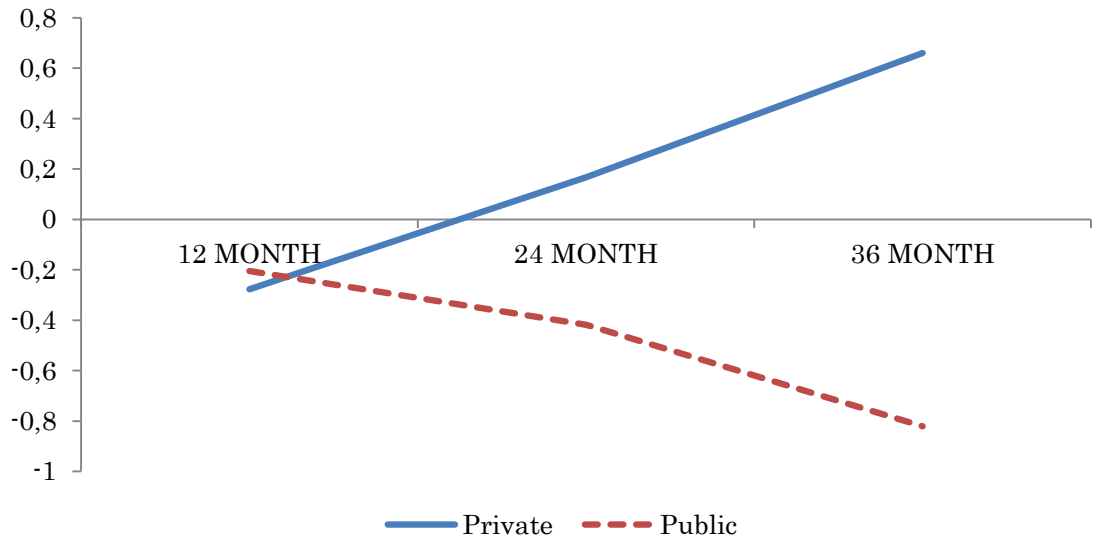
Table 4.1.2Earnings Management: Private and Public targets

C.EM is the cumulative earnings management figure for the two semi-annual periods preceding the deal announcement as proxied by the abnormal current accrual coefficient. EM (t-1) represents the abnormal current accruals one period before the deal announcement. The symbols (*), (**) and (***) denote significance at 10, 5 and 1 percent level, respectively.

	Total (N=141)			Private (N=84)			Public (N=57)		
	Mean	Med.	STD	Mean	Med.	STD	Mean	Med.	STD
C.EM	0.0831	0.0099	0.5080	0.0998	0.0017	0.6229	0.0586	0.0252	0.2631
(t-value)	*(1.96)*	**		*(1.47)*	*		*(1.68)*	**	
EM (t-1)	0.0581	0.0028	0.3629	0.1349	0.0001	1.4475	0.0017	-0.0134	0.1858
(t-value)	*(1.94)*	**		*(1.58)*	*		*(0.07)*		

Table 4.1.2 reveals strong evidence of relatively higher positive abnormal accruals for acquiring firms prior to the merger announcement period if they bid for a private company, suggesting that the acquirers inflate earnings within the scope of managerial discretion in an effort to increase the share price. This result further supports Baik et al.'s (2007) pricing-uncertainty hypothesis: by taking the relatively higher information asymmetry into account, the bidder engages more aggressively in upward earnings management to transfer parts of this risk to the target's shareholders.

Figure 4.1.1 Post-merger Performance: Private and Public targets



Further, it appears that the overall reaction of the market is substantially different for private and public targets. In both cases, investors correct for earnings management efforts prior to a merger announcement in the first twelve months preceding a merger. For acquirers of private targets, however, this reversal is fully incorporated into the price after that period. Acquirers of public targets continue to experience negative abnormal returns.

Table 4.1.3 Post-merger Performance: Private and Public targets

The table shows the post-merger performance of acquiring companies grouped in accordance with the listing status of the target.
The symbols (*), (**) and (***) denote significance at 10, 5 and 1 percent level, respectively.

	Private (N=84)			Public (N=57)			Difference	
	Mean	Med.	STD	Mean	Med.	STD	Mean	Med.
3 days	0.0286	0.0227	0.1180	-0.0145	-0.0135	0.0677	-0.0431	0.0362
(t-value)	*(2.22)*	***		*(-1.63)*	**		*(-2.51)*	**
5 days	0.0229	0.0181	0.1373	-0.0177	-0.0151	0.0854	-0.0406	0.0332
(t-value)	*(1.52)*	*		*(-1.58)*	***		*(-2.00)*	**
12 months	-0.2778	-0.3087	0.5531	-0.2055	-0.2253	0.4208	0.0723	-0.0833
(t-value)	*(-4.60)*	***		*(-3.71)*	***		*(0.84)*	
24 months	0.1675	-0.4816	6.3875	-0.4186	-0.3042	0.6681	-0.5861	-0.1774
(t-value)	*(0.24)*			*(-4.77)*	***		*(-2.69)*	***
36 months	0.6605	-0.6670	1.5342	-0.8212	-0.6234	1.2809	-1.4817	-0.0435
(t-value)	*(0.95)*			*(-4.88)*	***		*(-2.84)*	***

Regarding the market's reaction to the merger announcement, investors seem to factor the bidder's earnings management in their pricing of the bidder. Overall, the results suggest that bidders view the acquisition of privately held targets as information-sensitive investments and thus demand a premium for pricing uncertainty by engaging in aggressive earnings management. This means the market's assessment of the impending acquisition is furthermore conditioned on the bidder's accrual activity. These findings clearly contradict results by Baik et al. (2007), who claim that they do not find a relationship between an acquirer's abnormal accruals and its long-term post-merger performance. This study's findings support the results of Petmezas (2009) and Francoeur et al.(2011) by showing that a segregation of the sample in private and public targets leads to a significantly different trend between them.

Additionally, it appears that the reversal effects of prior earnings management at merger announcements are non-existent for private targets (or more pointed, they even exhibit positive announcement returns, which is in line with Chang (1998)) or only partial for public targets since the market corrects these efforts gradually during the first 12 months after the deal announcement. These findings are consistent with Louis (2004) and Eckbo (2009). The separate analysis of private and public target acquirers reveals that the former yield positive long-term abnormal returns whereas the latter continue to experience negative abnormal returns even after correcting for cumulative abnormal current accruals.

As Louis (2004) claims, the documented results could be of importance because, in efficient capital markets, returns are not supposed to be predictable. The documented results, especially the underperformance of the acquirers of public targets is still unexplained. Past literature suggests that the long-term underperformance of acquiring firms after the deal completion, reported in the extant literature, is partly attributable to the reversal of prior earnings management efforts. This, however, cannot be confirmed based on the results reported in this paper, because there is no reason why this reversal needs more time in the case of acquiring public targets than in the case of acquiring private ones.

5 Conclusion

In this paper we employ a sample of European bidders listed in Germany, France, Italy, the UK, and Spain to examine the association between bidders' earnings management prior to the M&A deals and their post-merger performance. This paper aims at explaining whether the pre-merger earnings management by acquirers in Europe, which is expected to increase the acquirers' pre-merger market valuation and hence lowers the real acquisition premium paid to the target firm's shareholders, affects the combined entities post-merger stock market performance

The results suggest that prior to the M&A deals announcement in Europe, upward earnings management (up to six months prior to the deal announcement) is reported for stock-for-stock acquirers. This is consistent with the literature focusing on the US. We find that the acquirers of private companies are significantly different than the acquirers of public listed companies. Aggressive positive earnings management is shown in the deals of private targets, which is caused by different levels of asymmetric information.

This paper contributes to the existing literature by documenting that the market shows a non-significant negative reaction trend in the short-term, a highly significant negative reaction during the first year after the announcement as well as a negative trend up to three years preceding the deal announcement for an average share-for-share acquirer. The reversal of the effects of pre-merger earnings management around the announcement of a non-cash deal is only partial. The study documents that the first

year after the deal announcement is the main driver of the acquirer's negative long-term performance. This implies that capital markets do not fully capture effects of pre-merger earnings management but they, indeed, require up to one year correcting this overpricing. Further analyses reveal that investors seem to factor the bidder's earnings management in their pricing of the bidder. After correcting the uncovered earnings management efforts, the negative effect of the acquirer's post-merger share price is more pronounced when the bidder acquires a publicly traded target. The results are important because in efficient markets, returns are not supposed to be predictable. The study at hand, however, documents that certain deal characteristics are highly significant and thus make it possible to predict certain market movements after a deal announcement.

Among the potential limitations of this study is the generalizability of its findings, Due to the heterogeneous corporate reporting standards throughout European countries. Moreover, there could be a lack of quarterly accounting data. Further studies regarding the connection between earnings management and acquirer characteristics are important, taking into consideration payment structure and target listing status.

Finally, the study does not offer any satisfactory answer to the post-merger performance puzzle (Agrawal and Jaffe, 2000). Gong et al. (2008) warn that acquirers, which engage in aggressive upward earnings management, are more likely to experience higher post-merger litigation costs and thus, experience negative post-merger stock market performance. Thus, further research is stimulated to examine this relationship after stratifying the M&As based on the listing status of the target firms

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