



# City Research Online

## City St George's, University of London

**Citation:** Tran, A. & Chbihi, R. (2018). Cross-Fertilising in Cross-sector Deals: The Value of Industry Experience of Target Firms' CEOs. (MARC Working Paper Series 2018).

This is the published version of the paper.

This version of the publication may differ from the final published version. To cite this item please consult the publisher's version.

**Permanent repository link:** <https://openaccess.city.ac.uk/id/eprint/20846/>

**Copyright and Reuse:** Copyright and Moral Rights remain with the author(s) and/or copyright holders. Copies of full items can be used for personal research or study, educational, or not-for-profit purposes without prior permission or charge, unless otherwise indicated, provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way. For full details of reuse please refer to [City Research Online policy](#).



# Cross-Fertilising in Cross-sector Deals: The Value of Industry Experience of Target Firms' CEOs

M&A Research Centre – MARC

September 2018



## **MARC – Mergers & Acquisitions Research Centre**

MARC is the Mergers and Acquisitions Research Centre at Cass Business School, City, University of London – the first research centre at a major business school to pursue focussed leading-edge research into the global mergers and acquisitions industry.

MARC blends the expertise of M&A accountants, bankers, lawyers, consultants and other key market participants with the academic excellence of Cass to provide fresh insights into the world of deal-making.

Corporations, regulators, professional services firms, exchanges and universities use MARC for swift access to research and practical ideas. From deal origination to closing, from financing to integration, from the hottest emerging markets to the board rooms of the biggest corporations, MARC researches the wide spectrum of mergers, acquisitions and corporate restructurings.

# Overview

One of the most notable features of acquisitions is the way managers, employees, and even other stakeholders closely observe to see who turns out to be on the top team. This attention signifies much more than curiosity in the human drama that's unfolding. The appointments send strong signals about the new company's direction and, more fundamentally, about how committed it is to its proclaimed strategy. Acquisitions require leadership from the top as that is arguably the most effective way to initiate change throughout an organisation. And it is not just in the final phases that leadership matters, it is crucial in other aspects of the deal such as negotiation.

With this report we explore the value of top management, specifically CEOs, in a novel setting as we examine the role of the target company's CEO in diversifying acquisitions. In a world where industries are constantly changing, firms may increasingly try to capture growth in a different industry than their own. One of the most challenging decisions for a company is whether to diversify in an unrelated industry. Such a strategy can lead to superior rewards but can also entail high risks. CEO industry expertise can be an important asset in connecting the two different worlds. Indeed, the fact that most of the M&A literature highlights the poor performance of unrelated acquisitions leads us to think that it is the absence of industry-specific experience and knowledge that is driving these results. Therefore, this report sets to explore whether the industry-specific skills and knowledge held by the target firm's CEO can impact acquisition success.

Our focus is on deals where the retained CEOs from the target firms have work experience in the industry of the acquirer as these cases have received the least attention from prior studies. We examine the impact of these CEO's on M&A negotiation, integration and value-generation.

## *What we find and what it means*

CEOs from the target with industry experience are able to capture more value through harder bargaining and revised offer premiums. Retaining these CEOs post-acquisition is associated with an average of 8.05% higher premiums and 1.74% higher bid revisions.

Industry experience also has a positive effect on the long-term operating performance of the combined firm. Retaining experienced CEOs can lead to 3.8% higher operating performance on average. In our view, better operating performance means more successful post-acquisition integration. CEOs with experience in the industries of both the acquirer and the target have a much more intricate understanding of the differences between the two industries, particularly when these are unrelated. Such understanding is crucial in negotiating better terms for shareholders as well as developing a successful integration strategy. We recommend that:

- When making a bid, realise that you may have to pay more or up the bid to get a manager with rare cross-sector skills: scarcity has a value.
- Once you have announced the deal, be ready to make clear who's staying on post-deal. Our results show the market will often react negatively if the target has a CEO who is so experienced he may well choose to leave.
- In the integration phase, if you have kept them on board, you now have an asset who talks the same language as you but can also translate the language of his or her sector. Our analysis shows that this can provide real operational synergies. The industry experience can be used by acquirers to prevent culture clashes and, more broadly, any kind of tension that could arise between the acquiring firm's employees and the retained target staff.

# What we know

At the heart of this study are three different but closely related areas of research: 1) the role of CEOs in the M&A process, 2) industry-relatedness and M&A and 3) the role of knowledge and experience in the M&A process. We discuss each of these areas below.

## The role of CEOs

The majority of past studies of the role of CEOs in the acquisition process have focused on the intrinsic conflicts of interest between shareholders and managers. These studies typically conclude that CEOs' drive to fulfil their personal goals leads them to perform value destroying acquisitions.<sup>1</sup>

Acquisitions can be preferred to organic growth since they present a quicker route to increasing the size of the firm. And given that firm size is a good predictor of a CEO's compensation, it is not surprising that managers can be tempted to build their own empires in order to beef up their compensation packages. Additionally, studies show that CEOs are more likely to announce an acquisition when they anticipate a high post-acquisition compensation and when competition is fierce, CEOs preserve their control with size-enhancing acquisitions to lower the probability of becoming a target.<sup>2</sup>

Personal CEO traits can also exert a negative effect on how successful acquisition strategies can be. *Hubris* refers to the overconfidence of managers which can lead them to underestimate the risks associated with an acquisition, and overestimate their ability to realise synergistic gains. Studies have demonstrated a direct link between CEO narcissism and the speed of the negotiation process and the probability of deal completion.<sup>3</sup>

## Company-relatedness and acquisitions

The effect of diversification in unrelated industries has been the subject of study by M&A scholars for decades. Studies highlight the importance of relatedness between the acquirer and the target as it allows for the complementarity of resources, which can contribute to integration success.<sup>4</sup> Similarity between the target and the bidder can lead to higher value creation since the resources of the two businesses can be combined more easily. Studies also show that similarity between the two firms can benefit the integration process. The majority of the M&A literature highlights the inferior performance of unrelated mergers compared to related ones. Studies also highlight the importance of the organisational fit between the target and the bidder.<sup>5</sup>

However, there may also be company-specific factors that can come into play in the integration phase such as organisational culture, resources and knowledge. For example, corporate culture can constitute an important impediment to the successful integration of firms. The majority of studies in this area suggest that organisational culture exerts a negative effect on the integration process.<sup>6</sup> In particular, cultural attributes such as managerial styles can have a harmful effect on knowledge transfer between the two firms and therefore limit their absorptive capacity. Not surprisingly, the evidence suggest that similarity in the organisational culture between the target and the acquirer can facilitate the integration process. Similarity in management styles can also be a key success factor for the realisation of synergies. Some studies suggest that stress and frictions can arise when the norms and values of the two firms differ substantially.<sup>7</sup>

<sup>1</sup> As an example see Harford, J. and Li, K., *Journal of Finance*, 2007.

<sup>2</sup> See Yim, S., *Journal of Financial Economics*, 2013 and Gorton, G., Kahl, M., and Rosen, R., *Federal Reserve Bank of Chicago Working Paper Series*, 2006.

<sup>3</sup> Malmendier U., and Tate, G., *Journal of Financial Economics*, 2008.

<sup>4</sup> Larsson, R. and Finkelstein, S., *Management Science*, 1999.

<sup>5</sup> See Datta, D., *Strategic Management Journal*, 1991.

<sup>6</sup> *Ibid.*

<sup>7</sup> Yildiz, H., *Journal of Corporate Finance*, 2014.

While there is an abundance of studies which demonstrate that a higher degree of relatedness between the acquiring firm and the target is positively associated with merger performance, some studies suggest the opposite.<sup>8</sup>

### *The role of knowledge and experience*

Research has focused on different types of experience to determine acquisition performance. One type of experience is the experience of performing acquisitions. Many studies use the framework of organisational learning to show that past M&A experience is a predictor of superior performance. Specifically, studies in the area suggest that experienced acquirers are better at getting the timing of acquisitions right. Experienced acquirers are also better at using the support of external resources such as legal and financial advisors. Finally, experienced acquirers are more effective at integrating their targets and learning from their past acquisitions.<sup>9</sup>

One study in this area makes an important contribution by drawing on the field of psychology. The authors argue that acquisition performance initially drops with experience as no two acquisitions are exactly the same, but this trend later shifts to a superior ability to differentiate acquisitions and effectively applying general concepts.<sup>10</sup>

Conversely, another body of research finds a U-shaped relationship between acquisition experience and performance. In addition to superior acquisition performance, acquisition experience can lead to improvements in negotiation outcomes. Specifically, negotiation performance improves with experience since the learning from one negotiation are transferable to another.<sup>11</sup>

The integration phase of acquisitions is often viewed as one of the most challenging areas of the M&A process. Some studies show that the

retention of qualified management drives higher merger performance, while others suggest that acquirers do not benefit from the retention of the target CEO neither in terms of merger announcement returns nor long-term operating performance.<sup>12</sup> On the acquiring side, the CEO and its management are responsible for creating an atmosphere that facilitates knowledge transfer, collaboration and learning. Studies have found that an environment that supports knowledge transfer between the acquirer and the target is critical to M&A success.<sup>13</sup> Knowledge transfer is a gradual process within the organisation. Top management can be central to the successful transmission of knowledge which is an essential part of organisational success. Overlooking the importance of knowledge transfer is frequently pointed out as one of the main reasons for M&A failure. Therefore, the CEO and its management team are crucial in laying out the preconditions for a successful merger integration.<sup>14</sup>

---

<sup>8</sup> Finkelstein, S. and Haleblian, J., *Organization Science*, 2002.

<sup>9</sup> Bauer, F., Matzler, K. and Wolf, S., *International Business Review*, 2016.

<sup>10</sup> Haleblian, J. and Finkelstein, S., *Journal of Corporate Finance*, 1999.

<sup>11</sup> Thomson, N., *Strategic Management Journal*, 1990.

<sup>12</sup> Fich, E., Officer, M., and Nguyen, T., Working Paper, 2016.

<sup>13</sup> Lee, S.-J., Kim, J. and Park, B.I., *Management Journal*, 2015.

<sup>14</sup> As an example, see Hankir, Y., Rauch, C. and Ueber, M., *Journal of Banking & Finance*, 2011.

## How we link the three areas of research

CEOs can have a critical impact on merger performance. Ranging from personality traits to political ideology, several factors can come into play and affect the way a manager perceives corporate acquisitions. Different types of experience and knowledge as well as the degree of company-relatedness can also be important drivers of acquisition success. With this analysis we link CEO experience and diversifying acquisitions, as it is our view that in this particular context, industry expertise can be a determinant of success for the risky and unpredictable unrelated M&A endeavors.

One could expect an industry-expert CEO to possess unique skills that can be beneficial for shareholders during the negotiation process. Additionally, when the CEO is retained following the acquisition, they can play a central role in the successful integration of the combined firm. It is not only the industry expertise that matters in such cases but also the fact that target CEOs can base their reasoning on two different perspectives (the bidder and the target's), which could lead to the successful realisation of synergistic gains.

Surprisingly, the value of target CEO retention and their industry expertise has received little attention from scholars who have tended to focus on the fate of the CEO on the acquiring side.

Our research question therefore focuses on the value of the target CEO's expertise in the industry of its acquirer. We attempt to determine this value by assessing the effect of industry expertise in different stages of the merger process.

- As a first step, we examine the short-term market reaction to acquisition announcements. We use the reaction of the market to the merger as a proxy for the

expected synergistic gains. Our focus is on distinguishing between cases where the target's CEO possesses industry expertise and cases where they don't.

- We then examine the acquisition negotiation process through analysis of the size of premiums paid, the division of acquisition gains between the target and the bidder and the frequency of bid revisions associated with the presence of CEOs with and without experience in the industry of the acquirer.
- Finally, we attempt to determine the value of the industry expertise of the target's CEO in the integration phase. By looking at the long-term operating performance and the combined firm cumulative abnormal returns, we assess the value of the retained industry-expert CEO in managing and realising expected synergistic gains.

The key variable of interest in our study is the experience of the target company's CEO in the industry of the acquirer. Following other studies in the area, we refine this measure of experience by only considering top-management roles as relevant.<sup>15</sup> The reason for this is that lower-level roles may not provide the opportunity for an individual to gain exposure to industry-specific knowledge nor gain industry-specific skills. Therefore, the considered positions include chief executive positions such as Chief Executive Officer (CEO), Chief Financial Officer (CFO), and Chief Operating Officer (COO), Chairman, President, top management roles at the divisional level and top management roles at the regional level. In this way we ensure that our measure of experience captures industry-specific skills and knowledge of the acquirer's industry.

---

<sup>15</sup> Zhou, Xianming. The Canadian Journal of Economics, 2000.

## Our findings

As a first step towards answering our questions we examine the differences in terms of post-M&A performance, size of premiums and premium revisions between the diversifying deals where experienced CEOs from the target are retained and the cases where these CEOs are let go.

First, we consider the short-term announcement returns around the deals in our study. The results are presented in Figure 1. The average CAR in our sample of diversifying deals is equal to -1.40%. On average, diversifying deals are linked to reduced gains for the acquirer's shareholders. This finding is in line with the majority of past studies in this area and reinforces the idea that lack of expertise in the newly-acquired unrelated business can be costly for shareholders. Interestingly, our analysis also shows that the industry expertise of the target's CEO is associated with an average reduction of -2.40% in acquirer gains over the three-day window surrounding the acquisition announcement. Controlling for general managerial skills and talent measures does not change our results. In our view, this result shows the market will often react negatively if the target has a CEO who is so experienced he may well choose to leave.

Figure 1: Analysis of average cumulative abnormal returns (CAR) to acquirer firms

Type of acquirer	CAR
All diversifying deals	-1.40%
Diversifying deals with Experienced CEO from the target	-2.40%
Diversifying deals without Experienced CEO from the target	-0.50%

Source: Cass Business School

We then look at the average premiums paid in our sample of diversifying deals. Figure 2 shows our results. The average premium across all diversifying deals amounts to 42.30%. We observe a notable difference in the offered premiums between diversifying deals with and without experienced CEO from the target. Experienced CEOs from the target who become part of the acquirer's management team are able to negotiate premiums that average to approximately 62%. This value is almost twice the average premiums that are

negotiated between the other companies in our sample. These findings show that experienced CEOs are able to capture superior value for their shareholders through higher negotiated premiums.

Figure 2: Analysis of average premiums

Type of acquirer	Premium
All diversifying deals	42.30%
Diversifying deals with Experienced CEO from the target	61.80%
Diversifying deals without Experienced CEO from the target	36.10%

Source: Cass Business School

Finally, we examine the average change in the three-year ROA of the combined firm in Figure 3. Retaining experienced CEOs from the target firm leads to an average increase in operating performance of 7.50% compared to an average increase of 4.19% for deals without the involvement of experienced CEOs from the target.

Figure 3: Analysis of average change in the three-year ROA of the combined firm

Type of acquirer	3-year ROA
All diversifying deals	5.00%
Diversifying deals with Experienced CEO from the target	7.50%
Diversifying deals without Experienced CEO from the target	4.19%

Source: Cass Business School

### Multivariate Analysis

#### a) Impact on premiums

To gain a better understanding of the impact of industry experience on the size of the premiums paid by bidders, we perform multivariate analysis. The results are presented in Figure 4. We find a positive effect of the industry experience of the target's CEO on takeover premiums. The effect is strongly significant and amounts to 8.05%, i.e. on average, retaining the target's CEO when they possess industry experience leads to 8.05% higher premiums compared to other cases. This finding confirms that experienced CEOs have better bargaining ability.

Figure 4: Multivariate analysis of acquisition premiums

Acquisition premium		
	Size of impact	Significance
Diversifying	0.76%	No
Diversifying deals with Experienced CEO from the target	8.05%	Strong
Acquirer characteristics included		
Target characteristics included		
Deal characteristics included		

Source: Cass Business School

### b) Impact on relative gains

The second part of our multivariate analysis consists of measuring the effect of industry experience on the relative gains of the target versus the acquirer. We measure the relative gains as the difference in dollar gains which accrue to the target and the bidder normalised by the combined market capitalisation of the two firms as of fifty trading days before the deal announcement. We expect that the relative target gains will be higher when the CEO from the target has experience in the industry of the acquirer. The results are presented in Figure 5.

The association between the industry experience of the target's CEO and the relative gains which accrue to the target firm is statistically insignificant. While we find that experienced CEOs are able to capture more value through harder bargaining, we find no link with the size of relative gains versus the acquirer.

Figure 5: Multivariate analysis of relative gains

Variable	Relative gains of target to bidder	
	Size of impact	Significance
Diversifying	2.60%	Insignificant
Diversifying deals with Experienced CEO from the target	3.64%	Insignificant
Acquirer characteristics included		
Target characteristics included		
Deal characteristics included		

Source: Cass Business School

### c) Impact on price revisions

After having identified industry experience as a determinant for higher premiums, we investigate its effect on the merger negotiation process in greater depth. If industry experience is associated with greater value for the

shareholders of target firms, we would expect it to lead to more favourable negotiated terms for the target. Particularly, we want to determine whether value is captured through superior negotiation skills. To test this, we create a *Price Revision* variable, which we calculate in the following way: (final offered price - initial price)/ initial price.

Figure 6 reports the results of the analysis. We find that the industry-specific experience of the target's CEO is associated with an average of 1.74% higher premium revisions compared to a value close to 0% for all diversifying acquisitions (i.e. the value corresponding to our total sample of diversifying deals). This finding reinforces the idea that it is the better negotiation skills associated with industry experience that can partly explain the superior premiums received by these targets.

Figure 6: Multivariate analysis of price revisions

Variable	Price Revision
Diversifying	0.001%
Diversifying deals with Experienced CEO from the target	1.74%
Acquirer characteristics included	
Target characteristics included	
Deal characteristics included	

Source: Cass Business School

Overall, the battery of tests presented above indicate that industry experience is driving higher premiums and can be beneficial for the bargaining position of the target's CEO and their ability to achieve upward offer revisions.

### d) Impact on post-merger integration

To study the effect of the CEO's industry experience on post-merger integration, we restrict our analysis to the cases where the CEO from the target is retained by the acquirer and is still holding a position within the combined firm one year after the completion of the deal. We use two different variables to capture the relative success of post-merger integration.

First, we estimate synergies by the combined firm CAR during the period of three years after deal completion. Figure 7 reports the results. We find a positive relation between the presence of experienced CEO from the target

and our proxy for synergies. Although the coefficient is not statistically significant, it is superior by 1.2 percentage points to the performance of retained CEOs from the target with no industry expertise.

Figure 7: Multivariate analysis of long-term CAR

Variable	Long-term CAR	
	Size of impact	Sig.
Diversifying deals with Experienced CEO from the target	1.20%	No
All diversifying firms	0.001%	No
Acquirer characteristics included		
Target characteristics included		
Deal characteristics included		

Source: Cass Business School

Second, we measure long-term operating performance by the change of the combined firm's return on assets (ROA) three years after the deal completion compared to the weighted average ROA of the acquirer and the target one year before the deal announcement. The results are presented in Figure 8.

Figure 8: Multivariate analysis of long-term operating performance

Variable	Change in three-year ROA	
	Size of impact	Sig.
Diversifying deals with Experienced CEO from the target	3.80%	Weak
All diversifying firms	0.30%	Weak
Acquirer characteristics included		
Target characteristics included		
Deal characteristics included		

Source: Cass Business School

We find a positive and statistically significant effect of industry experience on the long-term operating performance of the combined firm. The average operating performance for the firms where experienced CEOs are retained is 3.8% higher than cases where the CEOs are without such experience. Our results indicate

that CEOs with industry experience are able to create superior value by having a positive effect on the profitability of the combined firm.

We note that one related study finds a negative association between industry experience on the acquiring side and profitability based on an analysis of 1,675 acquisitions.<sup>16</sup> The positive impact of industry experience coming from the target's side which we observe could be explained by the fact that these CEOs are better at implementing change in the combined organisation. Several studies suggest that the perceived superiority of the acquirer can lead to defensiveness and resistance to change in the target firm.<sup>17</sup> However, experienced CEOs from the target firm could be better at encouraging such change through their understanding of the different organisational cultures and management style across the two industries of the target and the bidder. For example, the integration process could be facilitated by convincing target employees of the need of change and communicating the rationale for such change in accordance with the target-specific organisational culture. As a result, experienced CEOs can be better able to mitigate some of the pitfalls of merger integration by facilitating the transfer of knowledge in the combined firm.

Overall, the analysis presented above is consistent with the view that target firms' CEOs with experience in the industry of the acquirer have the advantage of specialised knowledge of "both worlds", i.e. the industries of the target and bidder firms. This expert knowledge provides them with a much more intricate understanding of the differences between the two industries. Such knowledge might be crucial in negotiating better terms for shareholders as well as developing successful integration strategies.

<sup>16</sup> Custodió, C. and Metzger, D., Working Paper, 2013.

<sup>17</sup> Haspeslagh, P. and Jemison, D., Journal of International Management, 1991.

## Conclusions and implications

This report demonstrates significant implications on the central role of industry experience at the management level in the acquisition negotiation and integration phase. We find that CEOs with industry experience are better bargainers than other CEOs without such experience. Moreover, industry experience appears to be particularly beneficial in facilitating learning and knowledge transfer between the newly merged firms. In particular, we provide evidence of the benefit of retaining managers with industry experience on the realisation of the potential synergies of the acquisition.

This research provides evidence of the importance of industry experience in terms of its impact on announcement returns, bargaining power and post-M&A operating performance. We demonstrate that industry experience can exert a material impact on the degree of M&A success from the perspective of the shareholders of both the bidder and target. Specifically, we show that industry experience can be particularly important in diversifying acquisitions where the experienced CEOs can deploy their superior bargaining skills to capture higher acquisition premiums and higher price revisions. Our results also indicate that CEOs with industry experience are able to create superior value through more efficient post-merger integration.

While we find statistically significant evidence relating to our key research question, it is our view that the analysis presented in this report could be extended by performing similar tests but on the basis of an acquisition sample which consists of smaller deals. Additionally, the inclusion of acquisitions of private targets could provide interesting insights relating to additional factors that may affect the degree to which industry experience can contribute to value generation from acquisitions. Private targets

may be associated with lower availability of information which could make the industry experience of their CEOs even more relevant.

### *Lessons learnt*

We demonstrate that working in the industry of the target and bidder can expand management's knowledge relating to how to best combine resources and capabilities from the two. This is particularly the case when the two industries are not related. Such knowledge can relate to better understanding of the competitive environment, suppliers, customers, dominant cultures and management styles of these different industries. In addition to being a source of superior bargaining ability, such knowledge can provide the advantage of facilitating the post-merger integration process. As a result, our findings show that acquirers in unrelated industries need to take particular care of the management and transfer of industry-specific knowledge within the newly combined firm. The industry experience and knowledge can be used by acquirers to prevent culture clashes and, more broadly, any kind of tension that could arise between the acquiring firm's employees and the retained staff from the target.

### *Additional implications*

Overall, our research adds to the existing body of knowledge on the role of the CEO in the acquisition process and particularly on the value of industry expertise in the integration phase of M&A. Our findings also speak to the existing debate of generalist versus specialist management skills by suggesting that, in some situations, industry-specific knowledge coming from the target company's management can be instrumental in the development and retention of new competitive advantages.

# Appendix

## Deal sample and variables

We start with a sample of 985 deals, which we further restrict to include only deals that are diversifying. We classify a given deal as diversifying if the acquirer and the target differ in their Fama French 12-Industries (FF12) classification. The code provided by Van Alfen (2017) allows the conversion of the companies' Standard Industry Classification (SIC) codes to their corresponding FF12 industry classification. The FF12 classification allows us to ensure that the industries of the target and the bidder are unrelated and distinctive in nature. This yields 195 diversifying deals. Deals without the necessary CEO data are removed from our sample. The sample of M&A transactions comes from the Securities Data Company's (SDC) US Mergers and Acquisitions database. It consists of all announced deals between 2005 and 2015 and involves acquisitions of U.S targets by U.S bidders. The sample construction procedure is consistent with that in Custodió and Metzger (2013) who apply the following criteria: (1) spinoffs, recapitalisations, repurchases, exchange offers, privatizations self-tenders and acquisitions of remaining or partial interest, are excluded; (2) the deal must represent a transfer of control, meaning that the share of the acquirer before the deal must be below 50%, and increase above 50% after the transaction is completed; (3) the value of the deal must be at least \$50 million; (4) stock and accounting information must be available from the Centre for Research in Security Prices (CRSP) and Compustat for both the acquiring and target firms. This procedure yields a sample of 170 deals.

To determine the value created from acquisitions and the market reaction to acquisition announcements, we measure the abnormal announcement returns which accrue to the acquirer company's shareholders. To calculate the cumulated abnormal returns (CAR) we use the event study methodology. The acquirer companies' CAR are measured over a three-day window around the announcement of the merger and adjusted to the S&P 500 index. We capture the realisation of synergistic gains by examining the three-year industry-adjusted ROA of the combined firm. We also adopt a short-term measure of the synergistic gains associated with the acquisition calculated as the CARs of the combined firm over a three-day window surrounding the acquisition announcement. The combined CAR are weighted by the market capitalisations of the target and the bidder as of 40 days prior to deal announcement.

The negotiation phase of the acquisition is examined through the analysis of the final offer premium (variable name *Acquisition Premium*) and the target's gains relative to the gains of the acquirer (variable name *Relative Gains*). The *Acquisition Premium* is calculated by dividing the offer price by the target's stock price as of four weeks before the M&A announcement date. The *Relative Gains* are calculated as in Ahern (2012) and represent the relative gain of the target compared to the acquirer for each dollar of total market value. Specifically, to measure the *Relative Gains* we use the following formula:

$$\frac{CAR \text{ of target } \times MV \text{ of target} - CAR \text{ of acquirer } \times MV \text{ of acquirer}}{MV \text{ of target} + MV \text{ of acquirer}}$$

where MV is the market capitalisation as of 50 days prior to deal announcement.

Figure 9 presents the distribution of our sample of deals over time. We notice that the percentage of diversifying deals remains relatively stable throughout the years and averages around 20% the total sample. Figure 10, reports the distribution of our sample per industry. The majority of firms constituting our sample come from the business equipment and finance industries. We can see that the level of diversification of companies from the non-durable, healthcare and manufacturing sectors is quite low.

Figure 11 reports the average values for our main variables where the sample is divided into two groups which are determined on the basis of the industry experience of the target firm's CEO. We can see that

CEO characteristics are similar across the two groups. Regarding the characteristics of the acquiring firms, CEOs with industry experience tend to deal with larger acquirers. This could be explained by the fact that CEOs with industry experience tend to work for larger targets. In addition, CEOs with industry experience tend to work for targets with higher previous M&A experience. Indeed, the average number of acquisitions completed by the firms managed by CEOs with industry experience in the previous three years averages 0.25, nearly twice as much as CEOs with no industry experience. The latter statistic shows the need to control for the firm's M&A experience as it may be correlated with the value of industry-expertise.

Figure 9: Descriptive Statistics of deals according to major division of operations

Year	Deals	Diversifying	Percentage Diversifying	Non-diversifying	Percentage Non-diversifying
2005	110	13	12%	97	88%
2006	132	25	19%	107	81%
2007	115	22	19%	93	81%
2008	81	12	15%	69	85%
2009	59	12	20%	47	80%
2010	77	16	21%	61	79%
2011	54	9	17%	45	83%
2012	71	13	18%	58	82%
2013	73	8	11%	65	89%
2014	97	17	18%	80	82%
2015	116	23	20%	93	80%
<b>Full sample</b>	<b>985</b>	<b>170</b>	<b>17%</b>	<b>815</b>	<b>83%</b>

Source: Cass Business School

Figure 10: Descriptive Statistics of deals according to major division of operations

Fama-French Industry Category	Deals	Diversifying	Percentage Diversifying	Non-diversifying	Percentage Non-diversifying
<b>Consumer</b>	<b>22</b>	<b>1</b>	<b>5%</b>	<b>21</b>	<b>95%</b>
Consumer durables	13	8	62%	5	38%
<b>Manufacturing</b>	<b>68</b>	<b>29</b>	<b>43%</b>	<b>39</b>	<b>57%</b>
Energy	34	5	15%	29	85%
Chemical products	20	9	45%	11	55%
Business equipment	253	39	15%	214	85%
Telecom	50	15	30%	35	70%
Utilities	32	5	16%	27	84%
Wholesale and retail	58	13	22%	45	78%
Healthcare	127	11	9%	116	91%
Finance	243	14	6%	229	94%
Other	65	21	32%	44	68%
<b>Full sample</b>	<b>985</b>	<b>170</b>	<b>17%</b>	<b>815</b>	<b>83%</b>

Source: Cass Business School

Figure 11: Descriptive Statistics of deals according to major division of operations

	Full sample	Industry Experience	No industry experience
<b>Panel A: CEO-related characteristics</b>			
Finance experience	0.19	0.15	0.2
Ivy League	0.23	0.17	0.24
Number of companies	2.55	2.5	2.54
Number of industries	2.51	2.4	2.49
Tenure	10.27	10.3	10.2
Cases where the target's CEO is retained	0.32	0.4	0.3
<b>Panel B: Acquirer characteristics</b>			
Acquirer size	52087	63148	48684
Operational cash flow	0.10	0.11	0.10
Acquirer's growth opportunities	1.95	2.3	1.8
Acquirer leverage	0.35	0.34	0.35
ROA	0.14	0.15	0.14
Number of past deals	0.53	0.61	0.5
<b>Panel C: Target characteristics</b>			
Target size	3232	4659	2792
Operational cash flow	0.05	-0.01	0.07
Target's growth opportunities	1.86	2.04	1.8
ROA	0.12	0.09	0.13
Number of past deals	0.17	0.25	0.14
<b>Panel C: Deal characteristics</b>			
All cash deal	0.55	0.6	0.56
Stock deal	0.11	0.02	0.10
Deals with competing bidders	0.07	0.07	0.06
Relative deal size	0.44	0.34	0.46
Deal value	1925.09	2360.15	1652.14

Source: Cass Business School

---

## Notes on Authors

**Rachid Chbihi**, BSc student on the Business Studies programme 2015-2018.

**Anh Tran**, MARC Academic Director. His research and teaching at Cass focus on M&A, executive compensation, capital structure and corporate governance, amongst others.

**Scott Moeller**, Director of MARC and Professor in the Practice of Finance. His research and teaching focuses on the full range of mergers and acquisitions activities.

**Contact:** [cassmarc@city.ac.uk](mailto:cassmarc@city.ac.uk)

---

*Notes*

M&A Research Centre

**Cass Business School**

106 Bunhill Row

London EC1Y 8TZ

T: +44 (0)20 7040 5146

E: [CassMARC@city.ac.uk](mailto:CassMARC@city.ac.uk)

[www.cass.city.ac.uk/marc](http://www.cass.city.ac.uk/marc)



**Cass Business School**

In 2002, City University's Business School was renamed Sir John Cass Business School following a generous donation towards the development of its new building in Bunhill Row. The School's name is usually abbreviated to Cass Business School.

**Sir John Cass's Foundation**

Sir John Cass's Foundation has supported education in London since the 18th century and takes its name from its founder, Sir John Cass, who established a school in Aldgate in 1710. Born in the City of London in 1661, Sir John served as an MP for the City and was knighted in 1713.