



Trois essais sur les fusions-acquisitions transfrontalières

Xuehua Gu

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TROIS ESSAIS SUR LES FUSIONS- ACQUISITIONS TRANSFRONTALIÈRES

(France - Europe - Pays Emergents)

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Résumé

Par comparaison avec la littérature sur les fusions-acquisitions nationales, celles sur les fusions-acquisitions transfrontalières (Cross-Border Mergers & Acquisitions, CBM&A) est relativement récente. En particulier, nous avons encore très peu d'études sur les fusions-acquisitions entre les entreprises des pays développés et émergents. Cette thèse considère trois questions rarement abordées jusqu'à présent. 1) Est-ce que la diversification industrielle peut expliquer les fusions-acquisitions entre les entreprises européennes et des marchés émergents? 2) Est-ce que le marché valorise plus dans ces opérations les actions de diversification industrielle? 3) Quelles sont les modalités de paiement préférées dans ce type d'opérations ? Parallèlement, nous avons comparé ces opérations de fusions-acquisitions à celles ayant lieu en France et à l'intérieur de l'Union Européenne. Fondés sur 2406 fusions-acquisitions en France, 7628 à l'intérieur de l'Union Européenne et 1857 entre des entreprises européennes et des marchés émergents sur la période 1992(1998)-2012, nos résultats sont les suivants. Premièrement, conformément à ce qui est observé dans les fusions-acquisitions entre des entreprises des pays développés mais contrairement à ce que laisse entendre la littérature théorique sur les investissements dans les marchés émergents, les fusions-acquisitions entre les entreprises européennes et de pays émergents sont plutôt des opérations de spécialisation industrielle. Nous constatons également que la relation entre la diversification internationale et la diversification industrielle est négative. Deuxièmement, les effets d'annonce des CBM&A entre les pays de l'Union Européenne et les marchés émergents se traduisent par une augmentation de richesse des actionnaires des entreprises européennes acquéreuses. Cependant, par rapport aux fusions et acquisitions réalisées entièrement à l'intérieur de l'Union Européenne et en France, les effets d'annonces sont beaucoup moins positifs. Troisièmement, les marchés financiers sous-évaluent les entreprises européennes lors des fusions-acquisitions avec des entreprises de pays émergents. Nos résultats démontrent que les entreprises acquéreuses payent moins en espèces dans les fusions-acquisitions avec des entreprises des marchés émergents qu'avec d'autres entreprises européennes. En revanche, les primes payées ne sont pas significativement différentes. Nos résultats suggèrent aussi que les dirigeants des entreprises Européennes ne jouent pas sur le « *market timing* » lors de leurs décisions de paiement. Cette thèse a des implications importantes pour des futurs acquéreurs d'entreprises de pays émergents. Compte tenu des résultats obtenus sur la fin de notre période d'analyse, elle révèle que la diversification industrielle dans les fusions et acquisitions d'entreprises de pays industrialisés avec des entreprises de marchés émergents est plus importante ces dernières années, et qu'elle a un impact positif. Nous pensons que les résultats peuvent être attribuables soit à la crise financière soit à une meilleure intégration des marchés émergents dans l'économie mondiale. Elle met aussi en évidence qu'il existe des conflits d'intérêts clairs entre les investisseurs et les dirigeants lors de fusions-acquisitions entre des entreprises européennes et de pays émergents.

Mots clés: fusion-acquisition transfrontalière, Union Européenne, marché émergent, diversification industrielle, spécialisation industrielle, effet d'annonce, mauvaise évaluation du marché, modalité de paiement, prime de paiement

Résumé en détails en Français

La globalisation des entreprises n'est pas un phénomène nouveau mais elle influence le comportement des entreprises modernes partout dans le monde (Nirmala & Shaju, 2014). Comme l'une des deux formes principales d'investissements directs à l'étranger (IDE)¹, les fusions-acquisitions transfrontalières (CBM&A) sont devenues la principale force de l'économie mondiale. Par rapport à une autre forme d'investissements directs à l'étranger (IDE), elles présentent des avantages distinctifs. Par exemple, elles permettent à des entreprises d'accéder aux réseaux locaux de fournisseurs, aux circuits de commercialisation et à d'autres ressources sur les marchés internationaux plus rapidement et plus facilement (Chan, Chan, & Lakonishok, 2006). Elles sont également utilisées par les entreprises pour accéder aux nouveaux marchés de produit et étendre leurs secteurs d'activités actuels (Martin, Michelle, & Swaminathan, 1998). Enfin, les fusions-acquisitions transfrontalières permettent aux entreprises de réaliser des opérations de diversification géographique et industrielle. Elles offrent aussi la possibilité de profiter de synergies et d'améliorer leur efficacité opérationnelle.

Depuis le 21ème siècle, les marchés émergents sont devenus des acteurs importants de l'économie mondiale. En particulier, plusieurs économies émergentes telles que le Brésil, la Russie, la Chine, l'Inde et l'Afrique du Sud (BRICS) connaissent un fort essor économique car elles attirent les investisseurs internationaux. Selon la CNUCED, les fusions-acquisitions dans et hors des pays émergents ont connu une croissance rapide. Au contraire, les fusions-acquisitions entre les pays développés stagnent.

Les études sur les fusions-acquisitions impliquant des entreprises des marchés émergents peuvent se classer en trois catégories. Les premières portent uniquement sur les activités de fusions-acquisitions d'entreprises des pays émergents (Li & Qian, 2013; Rahahleh & Wei, 2012). Les secondes concernent les fusions-acquisitions des entreprises des pays émergents vers les pays industrialisés (Peng, 2012). Les dernières et les plus rares s'intéressent aux fusions-acquisitions des entreprises des pays développés vers celles des pays émergents (Chari et al, 2010; Liao & William, 2008; Karels et. al., 2011; et Aybar & Ficici 2009)². Ce travail se situe dans la lignée des derniers travaux cités. Il est plus particulièrement consacré aux fusions-

¹ L'autre forme d'IDI est les investissements dans des installations entièrement nouvelles.

² Il y a seulement 11 (onze) études traçables selon Lebedev, Peng, Xie, et Stevens (2015).

acquisitions des entreprises de l'Union Européenne avec des entreprises de pays émergents.

Cette thèse se décompose en trois essais. Le premier analyse si ces fusions et acquisitions sont justifiées par le souhait des entreprises acquéreuses de se diversifier non seulement internationalement mais aussi industriellement. Le second est d'étudier si les marchés financiers réagissent positivement aux annonces de ces fusions-acquisitions transfrontalières, et en particulier pour celles se traduisant par des opérations de diversification industrielle. Le dernier a pour objet d'examiner quelles sont les modalités de paiement des entreprises cibles et les prises de décision des dirigeants des entreprises européennes impliquées dans ces opérations en période de mauvaise évaluation des entreprises acquéreuses par les marchés.

Tout d'abord, contrairement à d'autres auteurs, Khanna & Palepu (2000) font valoir que la diversification industrielle dans les pays émergents peut se justifier. Leurs explications sont simples: les marchés des produits sont moins développés dans les marchés émergents que dans les pays développés, c'est-à-dire, certains produits considérés comme «vieux» dans le marché développé peuvent être jugés «nouveau» dans les marchés émergents. De plus, en raison du problème d'asymétrie de l'information au niveau international, les entreprises qui acquièrent des entreprises dans les pays émergents peuvent exploiter l'avantage de la diversification industrielle dans le marché émergent, sachant que les ressources dans les marchés émergents sont beaucoup moins chères que celles des pays développés. En outre, la question est très peu abordée dans la littérature, nous avons étudié si les entreprises des pays développés adoptent effectivement des opérations industriellement diversifiées dans les pays émergents.

La question suivante est soulevée dans le premier essai. La diversification industrielle peut-elle expliquer les fusions-acquisitions transfrontalières de l'Union Européenne vers les pays émergents ?

Ensuite, les investisseurs faisant face à plus de risques lors d'investissements dans des pays étrangers que dans leurs pays à cause de différences potentielles dans le comportement des consommateurs, des pratiques commerciales et des environnements juridiques et institutionnels (House et al. 2002; Shimizu, 2004), a nous nous intéressons à la réaction des marchés aux annonces de ces fusions-acquisitions mais aussi à leur réaction dans le cas où elles se traduisent par de la diversification industrielle. En conséquence, dans le deuxième essai, nous abordons la question suivante: les marchés apprécient-ils la diversification industrielle ou non lors de fusions-acquisitions entre les entreprises de l'Union Européenne et les pays émergents?

Enfin, la décision de la modalité de paiement est considérée comme l'un des sujets les plus importants dans la littérature sur les fusions-acquisitions car elle reflète les conflits entre les investisseurs et les dirigeants (Dutta & Zhu, 2013). La littérature existante indique que le paiement en liquide est préférable à celui par actions lors d'une fusion-acquisition transfrontalière (Faccio & Masulis, 2005). Toutefois, aucun consensus n'existe sur la raison pour laquelle les entreprises acquéreuses dans ce contexte préfèrent les paiements en liquide. A notre connaissance, aucune étude sur les modalités de paiement lors de fusions-acquisitions transfrontalières de pays développés vers des pays émergents n'existe. Inspiré par Shleifer & Vishny (2003) et Rhodes-Kropf & Viswanathan (2004), la dernière question de recherche abordée dans cette thèse concerne les modalités de paiement dans ce contexte.

Comme nous l'avons déjà indiqué, la littérature antérieure suggère que la diversification industrielle est importante dans les pays émergents. Le premier article indique que les fusions-acquisitions d'entreprises Européennes vers les pays émergents sont plutôt des opérations de spécialisation industrielle que de diversification industrielle. En revanche, les fusions-acquisitions en France et en Europe sont plutôt des opérations de diversification industrielle. Nos résultats confirment ceux de Denis, Denis, & Yost (2002), Bowen & Wiersema (2007) et Buckley & Hashai (2009). Plus précisément, nous constatons que la relation entre la diversification internationale et la diversification industrielle est négative.

Conformément à la littérature antérieure sur les effets d'annonce des CBM&A entre des entreprises de pays développés et celles de pays émergents, tels que Chari, Quimet, & Tesar (2010), Gubbi, Aulakh, Ray, Sarkar, & Chittoor, (2010) et Barbopoulos et al. (2014), nous constatons que les annonces des fusions-acquisitions transfrontalières des pays Européens vers les pays émergents augmentent significativement la richesse des actionnaires. Cette forme de diversification internationale via les marchés émergents a un impact positif. Cependant, par rapport aux fusions et acquisitions réalisées entièrement en Europe et en France, les effets d'annonces sont beaucoup moins positifs.

Les résultats des deux premières études suggèrent qu'il existe des conflits d'intérêts entre les actionnaires et les gestionnaires dans les fusions-acquisitions transfrontalières de l'Union Européenne vers les pays émergents. Plus précisément, soit le marché s'attend à ce que les gestionnaires prennent des risques et exploitent les avantages de la diversification industrielle dans les pays émergents ; soit, les gestionnaires sont plutôt averses au risque et adoptent une

stratégie spécialisée industriellement vers les pays émergents.

À la lumière de l'hypothèse dite de «mauvaise évaluation du marché» de Shleifer & Vishny (2003) et Rhodes-Kropf & Viswanathan (2004), le dernier chapitre de cette thèse indique que comparativement avec les fusions-acquisitions au sein de l'Europe, les entreprises acquéreuses sont généralement sous-évaluées par le marché. Par ailleurs, ces entreprises sont très réticentes pour payer en espèces. Enfin, la mauvaise évaluation par le marché ne semble pas avoir d'influence sur le montant de la prime versée. Nos résultats suggèrent donc que les dirigeants ne profitent pas du «*market timing*» pour prendre leur décision. Nos tests supplémentaires indiquent que l'hypothèse d'enracinement des actionnaires explique ces résultats ; en l'occurrence que les managers sont réticents à payer en espèces lors des fusions et acquisitions avec des entreprises de pays émergents

Les contributions de cette thèse sont principalement empiriques. Mais elle contient aussi des implications managériales significatives, en particulier du côté de pays développés. Les résultats dans les trois chapitres de cette thèse mettent en évidence progressivement des couts d'agence lors des fusions-acquisitions transfrontalières d'entreprises européennes vers les pays émergents. Premièrement, les résultats du premier chapitre impliquent que les entreprises européennes peuvent être en partie conservatrices lors de l'examen des investissements dans les pays émergents. Ceux du second chapitre montrent encore qu'il existe une relation négative entre les opérations industriellement spécialisées et les rentabilités anormales. Bien que très intéressants, ces résultats ne sont pas cohérents avec le fait que la diversification industrielle devrait avoir des répercussions négatives sur la valeur d'entreprise dans les pays développés (Berger & Ofek, 1995; Lang & Stulz 1994). Par contre, ces résultats concordent avec les études antérieures qui soutiennent que la diversification industrielle est importante dans les pays émergents (Khanna & Palepu 1997, 2000). Le troisième chapitre finalise et complète les deux premières études en suggérant qu'il existe des conflits d'intérêts entre les actionnaires et les gestionnaires dans ces fusions acquisitions transfrontalières. A notre connaissance, cette recherche est la première tentative empirique à avoir exploré les stratégies de diversification industrielle dans le cadre de ce type de fusions-acquisitions.

Dernier point mais non des moindres, cette thèse peut se prolonger de plusieurs manières.

Premièrement, il serait intéressant d'analyser si en période de crise financière, les fusions acquisitions même transfrontalières devraient être plus diversifiées industriellement pour faire

face à une augmentation du risque (Mody & Negishi, 2001).

Deuxièmement, analyser si la performance à long terme des entreprises investissant à travers les fusions-acquisitions dans les pays émergents serait utile.

Troisièmement, étudier les fusions et acquisitions transfrontalières des pays émergents vers les pays développés³ serait instructif.

Enfin, la première partie de cette thèse indique que les entreprises des pays développés ont tendance récemment à se diversifier industriellement dans les marchés émergents via les fusions-acquisitions transfrontalières. Cette nouvelle tendance peut s'expliquer peut-être par des périodes récentes de risque élevé mais aussi par une plus forte intégration de l'économie mondiale et une amélioration de la gouvernance et de l'environnement juridique et institutionnel dans les pays émergents. En effet, des études récentes indiquent que les conditions d'investissement dans les pays émergents se sont améliorées. Il y a également eu des réformes concernant la réglementation des échanges d'actions dans les pays émergents en vue d'améliorer la responsabilisation et la transparence de la divulgation d'informations. Par exemple, Tsui & Shieh (2002) font valoir que les réformes dans de nombreuses juridictions dans les pays émergents ont renforcé les capacités de protection des sociétés investisseuses. Hoskisson Filatotchev & Peng (2012) montre que les réformes de gouvernance des entreprises dans certains grands pays émergents comme la Chine, la Malaisie et le Brésil ont permis de converger vers les normes comptables internationales. Mieux comprendre cette tendance et l'analyser une autre piste de recherche.

³ Les fusions-acquisitions transfrontalières sortant des pays émergents de la région Asie-Pacifique ont maintenu une tendance de développement à la hausse depuis longtemps. Par exemple, selon « Deal Street Asia », les fusions et acquisitions transfrontalières ont réalisés un niveau record en 2015 dans la région Asie-Pacifique. La région a enregistré 2353 offres (entrants et sortants), évalués à 523,5 milliards US\$. La région continue d'être le moteur de la croissance du PIB mondial en 2015.

Abstract

Compared to domestic M&A, the literature of cross-border M&A is relatively fewer. Most of the current research is based on US studies. We also have much less knowledge about the cross-border M&A from developed countries to emerging countries. Motivated by the general research background, the thesis conducted three distinctive papers regarding cross-border M&As from European Union (EU) to emerging countries. We propose three research questions that are seldom addressed in previous literatures: 1) Does industrial diversification explain the cross-border M&A from the European Union to emerging countries? 2) Do market value industrial specialization or diversification in CBM&A with emerging countries? 3) Do acquiring managers take advantage of the market timing in payment decisions in CBM&A with emerging countries? Concurrently, we compared the CBM&As with those of domestic France as well as the CBM&As inside the European Union. Based on 2406 fusions-acquisitions in France, 7628 CBM&As inside the European Union, and 1857 CBM&As between European firms and the emerging markets during 1992 (1998) -2012, we find the following results. First, consistent with what is observed in prior M&As literatures between companies in developed countries but contrary to what is suggested in the theoretical arguments in earlier literatures about emerging countries, we show CBM&As from the European Union to emerging countries are industrially specialized rather than industrially diversified. We find that there is a negative relationship between international diversification and industrial diversification. Second, we found that the announcement effects for CBM&As between the E.U. and emerging market are positive, but compared to CBM&As conducted wholly inside the E.U. and domestic M&As in France, they are significantly less positive due to the focus on industrial diversification versus specialization. Third, we found the market undervalues the acquiring firms in CBM&A from the European Union to emerging countries. Our results show the acquiring firms do not incline to pay cash in CBM&A to emerging countries but rather in CBM&A inside European Union. In the meanwhile, we find the premium paid by the acquiring firms are not different from CBM&As inside the European Union. The results suggest that acquiring managers do not take the advantage of the market timing when making their payment decisions. The thesis contributes to the current M&A empirical literatures and it has provided important research implications. It implies that industrial diversification in CBM&As with emerging countries can be useful. It highlights also that there are clear conflicts of interests between investors and managers in the cross-border from the European Union to emerging countries. The thesis also opens new perspectives for the future research. For example, we observed that industrial diversification has an increasing trend in recent years, and it is valued positively by the market. We believe the results may be attributable to either the financial crisis or the better integration of emerging markets into the world economy.

Key Words: cross-border M&As, European Union, Emerging Countries, Industrial Diversification, Industrial Specialization, Announcement Returns, Market Misevaluation, Payment Methods, the Premiums

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To my family,

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List of Figures

Figure GI-1: Numbers of CBM&As Developed Countries 1990-2014.....	19
Figure GI-2: Numbers of CBM&As Developing Countries 1990-2014	20
Figure GI-3: Transaction Values CBM&A Developed Countries 1990-2014	21
Figure GI-4: Transaction Values CBM&As Developing Countries 1990-2014	22
Figure 1. 1: Industrially Related Vs Industrially Unrelated M&A inside France	56
Figure 1. 2: Industrially Related Vs Industrially Unrelated CBM&As inside European Union	57
Figure 1. 3: Industrially Related Vs Industrially Unrelated CBM&As EU to Emerging Countries	58
Figure 1. 4: Industrially Related Vs Industrially Unrelated M&As France to Emerging Countries	59
Figure 2. 1: Announcement Effects Domestic M&As of France.....	111
Figure 2. 2: Announcement Effects CBM&As inside the European Union	112
Figure 2. 3: Announcement Effects CBM&As EU to Emerging Countries	113
Figure 2. 4: Comparisons of Markets Reactions in M&As Announcements.....	114
Figure 3. 1: Average Yearly Premium Paid in CBM&As from EU to Emerging Countries.	154
Figure 3. 2: Average Yearly Premium Paid in CBM&As inside EU 1998-2012	155

List of Tables

Table GI-1: Summary of key liteatures in M&As Annoucement Effect	31
Table 1. 1: M&As Samples.....	49
Table 1. 2: Descriptive Statistics.....	52
Table 1. 3: Descriptive Statistics.....	55
Table 1. 4 Descriptive Statistics-Industrial Concentration.....	60
Table 1. 5: Descriptive Statistics - acquiring Firm Characteristics.....	62
Table 1. 6: Descriptive Statistics-Country Characteristics.....	64
Table 1. 7: Univariate Analyses - Industrial Diversification.....	68
Table 1. 8: Univariate Analyses by Fama and French Industries.....	70
Table 1. 9: Pearson Correlation Matrix.....	72
Table 1. 10: Multivariate Regression Analyses.....	74
Table 1. 11: Robustness Checks.....	76
Table 2. 1: M&A Samples Distributions	98
Table 2. 2: Descriptive Statistics- Firm-level and Deal-level Characteristics	105
Table 2. 3: Descriptive Statistics - the EU to emerging countries.....	106
Table 2. 4: Univariate Analyses-Industrial Specialization Changes	108
Table 2. 5: Univariate Analyses-Cumulative Abnormal Returns.....	109
Table 2. 6: Pearson Correlations Matrix.....	117

Table 2. 7: Multivariate Analyses	118
Table 2. 8: Multivariate Analyses - Benchmark Analyses.....	120
Table 2. 9: Robustness Univariate Test	122
Table 2. 10: Robustness Checks.....	124
Table 3. 1: Summary Statistics	152
Table 3. 2: Univariate Analyses - Acquirers' Misvaluation.....	157
Table 3. 3: Pearson Correlation Matrix	158
Table 3. 4: Tobit Estimation.....	159
Table 3. 5: Ordered Probit	161
Table 3. 6: OLS Estimations	162
Table 3. 7: Robustness Checks - Probit Estimations	164
Table 3. 8: Robustness Checks - OLS Estimations	165
Table 3. 9: CARs analyses by Payment Methods.....	168
Table 3. 10: CARs Analyses- Frequent Acquirers Vs Non-frequent Acquirers	169
Table 3. 11: Cross-Sectional Regressions	171
Table 3. 12: Logit Estimation - Industrially Diversified M&As	172

Table of Contents

Résumé	1
Résumé en détailles en Français.....	2
Abstract	7
Acknowledgement.....	8
List of Figures	10
List of Tables.....	11
Table of Contents	13
General Introduction	17
Research Background and Objectives.....	17
Research Framework.....	24
Summary of Findings	27
Bibliography.....	30
Appendix-GI.....	35
Chapter 1.....	36
Cross-border M&A from European Union to Emerging Countries: Industrial Diversification versus Specialization?	36
Acknowledgement.....	36
Abstract	37
1.1 Introduction	38

1.2 Related Literatures and Hypothesis.....	41
1.3 Research Design.....	44
1.3.1 Methodology	44
1.3.2 Samples Selections.....	47
1.3.3 Variables.....	50
1.3.3.1 Dependent Variable.....	50
1.3.3.2 Independent Variable	50
1.4 Empirical Results	51
1.4.1 Descriptive Statistics	51
1.4.2 Univariate Results	67
1.4.3 Multivariate Results	71
1.5 Robustness Checks.....	75
1.6 Conclusion.....	77
Bibliography.....	78
Appendix 1-1	85
Chapter 2.....	87
Do Markets Prefer Industrial Diversification or Specialization in Cross-border M&As with Emerging Countries?.....	87
Acknowledgement.....	87
2.1 Introduction	89

2.2 Development of Hypotheses	91
2.2.1 Announcement Effects	91
2.2.2 Industrial Specialization (Diversification)	94
2.3 Samples and Methodology	96
2.3.1 Sample Collection	96
2.3.2 Methodology	99
2.4 Empirical Results	104
2.4.1 Descriptive Statistics	104
2.4.2 Univariate Results	107
2.4.3 Cross-sectional regressions results	115
2.4.4 Discussions and Implications	121
2.5 Robustness Checks	122
2.6 Conclusion	125
Bibliography	127
Appendix 2-1	135
Chapter 3	137
Payment Method, Premium and the Perceived Misvaluation: Evidence from Cross-border M&As with Emerging Countries.	137
Acknowledgement	137
Abstract	138

3.1 Introduction	139
3.2 Hypotheses Development.....	142
3.3 Sample and Methodology.....	144
3.3.1 Sample.....	144
3.3.2 Methodology	145
3.3.3 The Perceived Misvaluation.....	149
3.4 Results	151
3.4.1 Statistics Summary.....	151
3.4.2 Results and Discussions	156
3.4.3 Robustness Checks.....	163
3.5 Additional Tests	166
3.6 Conclusion.....	173
Bibliography.....	175
Appendix 3-1	181
General Conclusion	183
Bibliography.....	189
Complete bibliography	191

General Introduction

Research Background and Objectives

One of the most important corporate strategies available to companies is mergers and acquisitions (M&A) and it has been well adopted by modern enterprises. Academic research on M&A is also well established in finance literature. M&A can be either domestic or international. The former includes an acquirer and a targeted firm operating in the same country; while the latter (i.e., cross-border M&A, hereafter termed as CBM&A) involves transactions whereby the acquirer and target firm are located in two different countries (UNCTAD, 2000). Although CBM&A has gained immense popularity by modern enterprises in recent years, relatively speaking, little academic attention has been paid to it compared to that which has been conducted domestically (Child, Faulkner, & Pitkethly, 2001).⁴

Globalization is not new but it has profoundly influenced modern firms around the world (Nirmala & Shaju, 2014). As one of the two main forms of foreign direct investment (FDI)⁵, CBM&A has become the most important driving force in the world economy. Compared to the other form of FDI, CBM&A has distinctive advantages as it allows firms to obtain faster access to local networks of suppliers, marketing channels, and other resources in the international markets (target countries) (Chan, Chan, & Lakonishok, 2006). CBM&A is also used by modern firms to obtain access to new markets as well as extend their current product segments (Martin, Michelle, & Swaminathan, 1998). Lastly, CBM&A endows firms with diversification opportunities (geographically as well as industrially), realize synergies and regain their operational efficiency.

⁴ Since 1990s, breakthroughs in technology and the increasing effects of globalization has made cross-border M&As more popular.

⁵ There is also another form of FDI, the green field investment, in which a parent company starts a new firm in a foreign country by constructing completely new operational facilities.

Still, while there has been extensive research devoted to M&A, current literature is mainly limited to developed countries. This is mainly due to M&A activities being a feature of developed countries. Among such studies, most research endeavors have focused on the US and the UK. Studies related to the other parts of developed countries have been relatively few.

Entering the 21st century, emerging markets have become integral players in the world economy. In particular, several emerging economies such as the BRICS (Brazil, Russia, China, India and South Africa) are experiencing strong economic booming. Without doubt, emerging countries have attracted the interest of global investors. According to the UNCTAD, CBM&A in and out of emerging countries have both been experiencing rapid growth. Contrarily, CBM&A between developed countries has been relatively stagnant.

Figure GI-I, GI-II, GI-III and GI-IV below demonstrate the development trend of CBM&A in developed countries as well as in developing countries between 1990 and 2014⁶. These figures clearly show that, as a whole, CBM&A between developed countries still dominates the total world M&A transactions. Concurrently, it is visible that the CBM&A in and out of emerging countries has been growing rapidly. Despite there being few but growing bodies of studies synthesizing M&A literature relating to emerging countries, as Achim (2015) has commented, studies relating to emerging countries still constitutes a major research gap and a deficiency in the current M&A literature.

⁶ The definitions for “developed countries” and “developing countries” can be found on the UNCTAD website.

Figure GI-1**Numbers of CBM&As Developed Countries 1990-2014**

The figure illustrates the general development trend numbers of inbound and outbound cross-border M&As of developing countries over 1990-2014. According to the definitions of UNCTAD, the developed countries include most of the countries in the Europe, US, Canada, Australia, Japan, New Zealand. For more information, please refer to the statistics datasets accessible on the website <http://unctad.org/en/Pages/Statistics.aspx>.

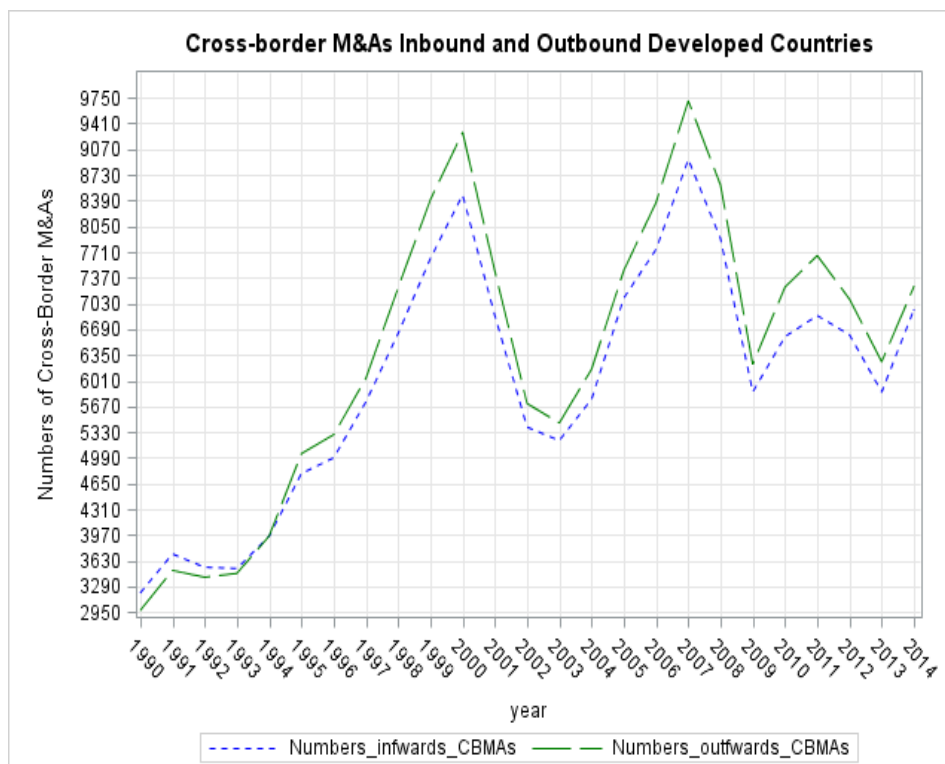


Figure GI-2**Numbers of CBM&As Developing Countries 1990-2014**

The figure illustrates the general development trend of numbers of inbound and outbound cross-border M&As of the developing countries. The definitions of the developing countries cover most of the countries in Asia, Africa and Latin America. For more details, please refer to the statistics datasets accessible on the website of <http://unctad.org/en/Pages/Statistics.aspx>.

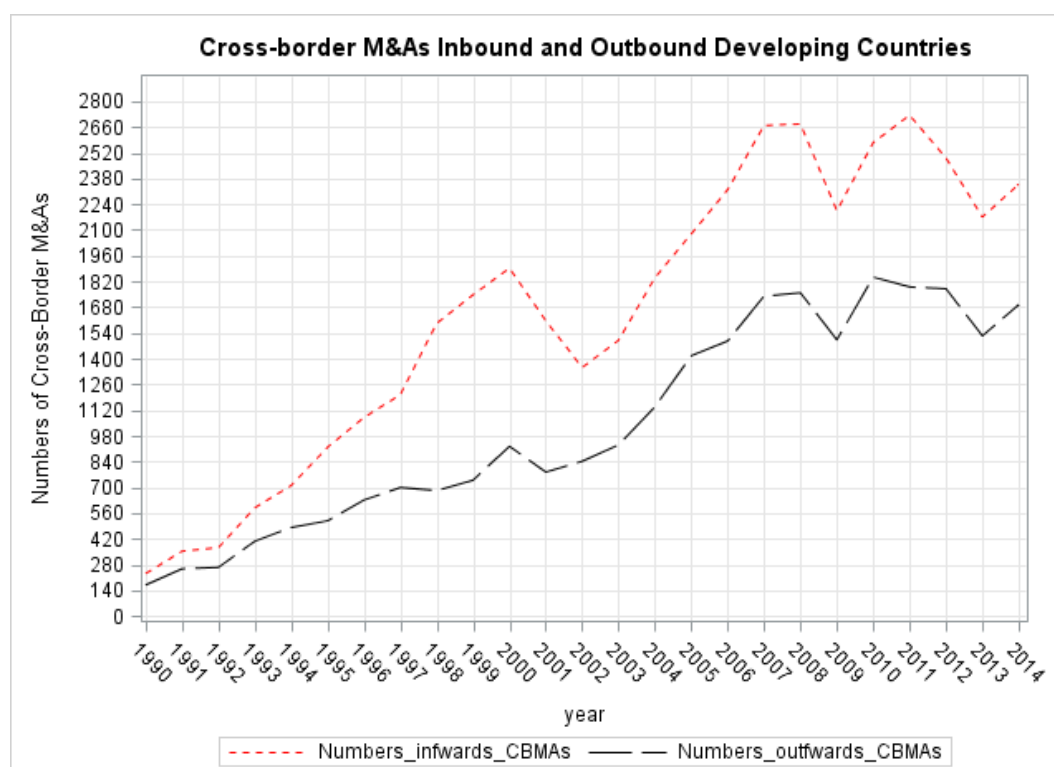


Figure GI-3**Transaction Values CBM&As Developed Countries 1990-2014**

The figure illustrates the general development trend numbers of inbound and outbound cross-border M&As of developed countries over 1990-2014. According to the definitions of UNCTAD, the developed countries include most of the countries in the Europe, US, Canada, Australia, Japan, New Zealand. For more information, please refer to the statistics datasets accessible on the website <http://unctad.org/en/Pages/Statistics.aspx>.

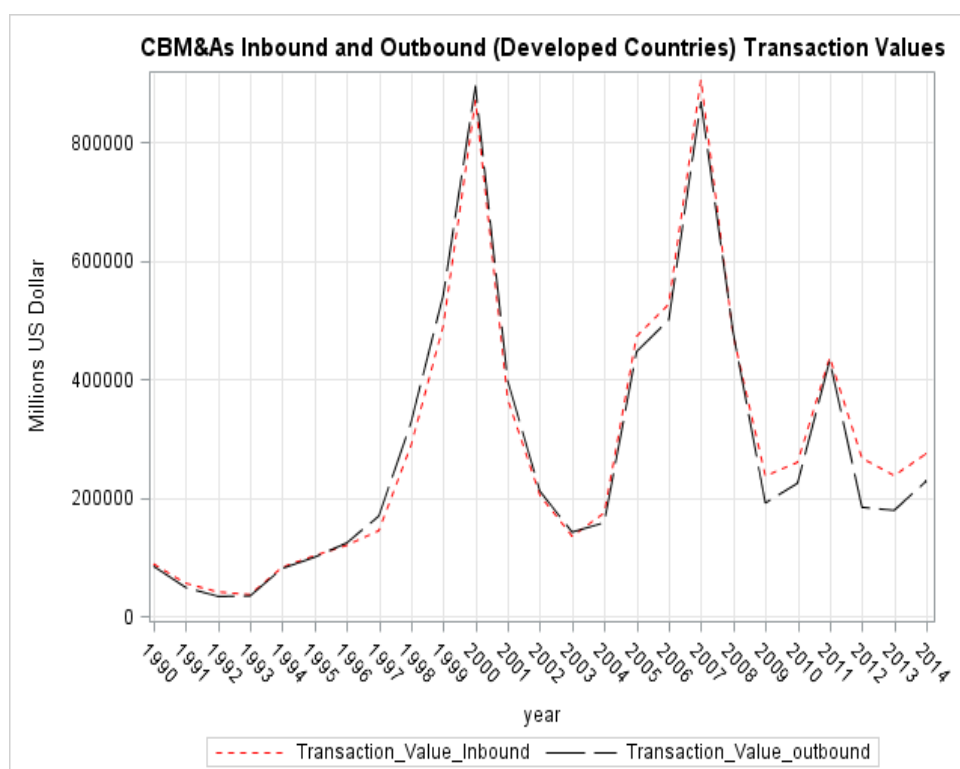
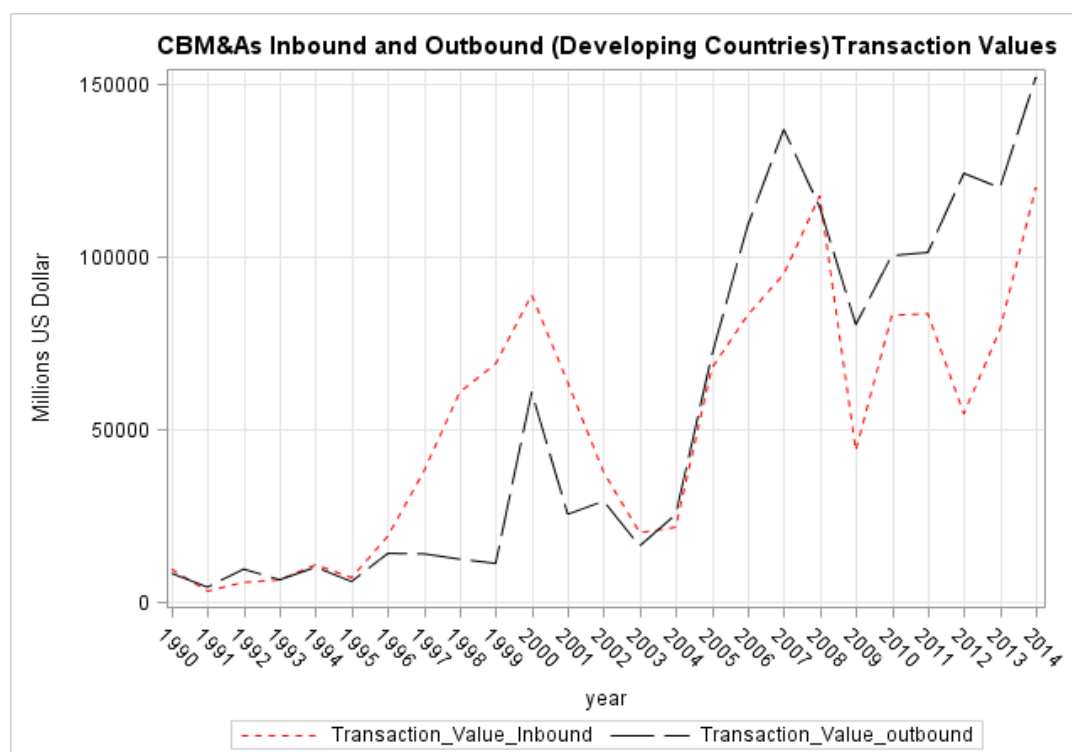


Figure GI-4**Transaction Value CBM&As Developing Countries 1990-2014**

The figure illustrates the general development trend of transaction value of the inbound and outbound cross-border M&As of the developing countries. The developing countries cover most of the countries in Asia, Africa and Latin America. For more details, please refer to the statistics datasets accessible on the website of <http://unctad.org/en/Pages/Statistics.aspx>.



Nevertheless, investment opportunities in emerging markets are exciting, although entailing more risks. Emerging markets have more of an imperfect degree of products and capital markets. They also have a more serious problem of information asymmetry, poorer legal, institutional and governance over business environments. Therefore, there are many “hidden” investment risks in those emerging markets. For example, “the biggest risks faced by foreign investors are in developing countries with immature or volatile political systems” (Henisz & Zelner, 2010). Corruption is another factor for business in many emerging countries. These non-financial and non-economic risks can cause big problems and add extra costs to global investors. Besides, traditional risks-hedging techniques such as insurance and financial hedging provide very limited value against such investment risks. Therefore, investment into emerging countries may not be as positively as initially thought.

Current M&A literature relating to emerging countries mainly composes of three strands. First, there are studies focusing on the M&A activities of emerging countries (Li & Qian 2013; Rahahleh & Wei, 2012). Second, there are studies that stress the CBM&As from emerging countries to developed countries (Peng, 2012). Third, there are studies focusing on the CBM&As from developed countries to emerging countries (Chari et al., 2010; Liao & William, 2008; Karels et al., 2011; and Aybar & Ficici 2009). Within these literatures, the third strand of studies is particularly small⁷, and there are significant research gaps waiting to be closed.

Moreover, the diversity of the board structures inside the European Union has made M&A activities within the EU extremely interesting. Typically, there are three levels of M&A activities within the European Union: domestic M&A inside each member country; the CBM&A inside the E.U., and CBM&A from the E.U. to the rest of the world.

Furthermore, the European Union is the largest economic entity in the world. It is also the world’s largest trader of manufactured goods and services. The E.U. leads the world investment in terms of recipient of foreign investment as well as the biggest aid donor⁸. Further to this, the European Union also has a very active trading relationship with emerging countries. Currently,

⁷ There are merely 11 traceable studies according to Lebedev, Peng, Xie, & Stevens (2015).

⁸ For example, the adjusted GDP of the EU-28 is bigger than both China and US and accounts for 23.7% share of the world’s GDP in 2014. For more information, please refer to the World Bank website.

the EU is adopting a free-trade policy towards some of the major emerging market economies such as the BRICS⁹.

In the context of the general research background stated above, we intend to conduct in-depth research by focusing on the CBM&A announced by the EU into emerging countries. Our general research objective is to add and contribute to the very small body of empirical literature on CBM&A from developed countries to emerging countries. Three papers make up this thesis. The first paper aims to understand whether industrial diversification can explain the reasons behind these CBM&As. In the second paper, we shift the research curiosity onto how the European markets are reacting to the M&As in emerging markets especially on those industrially diversified M&As. In the third paper, our main empirical conjecture lies in how the European acquiring managers will make payment decisions in the CBM&As with emerging countries in light of market mis-valuation.

In short, the first and the third paper aim to fill the current empirical gaps while the second paper adds to the small body of literature relating to the CBM&As with emerging countries. In the next section, we will introduce how we formulize our research questions in the thesis.

Research Framework

Our initial research motivations began by looking at the characteristics of those emerging markets. Emerging markets, also known as emerging economies or developing countries, are undergoing rapid developments and reforms. For example, they are experiencing fast economic growth. However, emerging markets also have other weaknesses. For example, their capital markets are less mature and their governance systems are fragile and lack transparency. Emerging markets also have poorer legal and institutional environments, ineffective security regulations and poorer infrastructure. In addition, governments in emerging markets often interfere with the business decisions of firms. These characteristics make investment in emerging countries very risky.

⁹ For more information, please refer to the Economic Report of the European Commission. The report can be accessed at <http://europa.eu>.

Khanna & Palepu's (2000) research initially piqued my interest in this field and subsequently this thesis. Different to most industrial diversification discount literature, Khanna & Palepu (2000) argue that the focused or specialized business strategy may be wrong for western investors when going into emerging markets. Their reasons are simple: in emerging markets, product markets are less developed owing to the problem of information asymmetry at the international level. As such, acquiring firms may exploit the benefits of industrial diversification in emerging markets. Furthermore, resources in emerging markets are much cheaper than in developed ones. The cost of industrial diversification may not outweigh the benefits of conducting industrial diversification in emerging markets.

Further research in corporate finance is worthy of attention as well. This strand of empirical literature examines the relationship between industrial diversification and international diversification. It is observable that there are few studies currently being conducted on the relationship between the two types of diversification and therefore there are many areas still open to debate. Although cross-border M&A from developed countries to emerging countries provides us with an excellent research opportunity, studies relating to emerging economies are extremely rare.

Cross-border M&A not only gives firms the opportunity to diversify into new geographic markets, but also enforces their transaction parties to face more investment risks because of diversification at the international level. Acquiring firms may consider industrial diversification in CBM&As. With the research motivation stated above, we raise the first question of the first paper: Can industrial diversification explain cross-border M&A from the European Union to emerging countries?

In CBM&As, investors will have to face more investment risks than domestic M&As, because CBM&As involve different customer preferences, different business practices, different institutional environments and different geographic operations (House et al., 2002; Shimizu, 2004). In CBM&A from developed countries to emerging countries, investors have to face even higher investment risks. To our best knowledge, fewer academic efforts have chosen to focus on the announcements effects of CBM&As between developed countries and emerging countries. Given the fact that there are limited studies on outward M&As from developed countries to emerging countries, our research curiosity arises on how developed markets will react to the announcement of M&As to emerging countries.

Moreover, due to our interest in how markets react to the announcement of cross-border M&As from the European Union, further research curiosities are formulated. We also want to know the market's attitude to industrial diversification in announcements of CBM&As to emerging countries. As a result, we propose the following research question: Do markets prefer industrial diversification or specialization in cross-border M&As from the European Union to emerging countries?

M&A payment decision is one of the most important topics in M&A literature and it vividly portrays common agent-principal conflicts (Dutta & Zhu, 2013). Prior literature in general shows that cash is more preferable than stock in CBM&As (Faccio & Masulis, 2005). However, no research consensus has been reached regarding why those cross-border acquirers prefer cash to stock payment. Current empirical interpretations are generally mixed. Studies relating to the CBM&As with emerging countries, to the best of our knowledge, is none. With these research gaps in mind, the third paper is carried out with the premise of finding out how managers make a payment decision in the CBM&As from the European Union to emerging countries.

Two theories that use market mis-valuation to shed light on the payment methods in M&A have been well formulated in the literature. They are Shleifer & Vishny (2003) and Rhodes-Kropf & Viswanathan (2004). They stipulate that managers pay stock when they believe their firms are overvalued by the markets. Alternatively, they prefer cash when they believe firms are undervalued by the markets. Empirical interpretations suggest that the overvaluation of the acquiring firms' share prices provides incentives for acquiring managers to use stock because stock at that particular time is a cheaper source of finance (Shleifer & Vishny, 2003). Using cash at such times sends a signal to the markets that firms are not financially constrained and managers tend to avoid negative price reactions in the market (Myers & Majluf, 1984). In addition, there is a growing body of literature that focuses on the premium with market misevaluation (Dong, Hirshleifer, Richardson, & Teoh, 2006; Symonян, 2014). However, no relevant study has been made relating to the CBM&A within emerging markets.

Again, compared with the CBM&A between developed countries, the CBM&A from developed countries in emerging countries entail larger information asymmetry (Netter, Fuller, & Stegemoller, 2002). Acquiring managers are more privileged and therefore they possess more 'private' information about their investment projects. Consequently, investors are much less informed about the true value of targeted firms in emerging countries. With this research

curiosity in mind, we propose the following research question: Do acquiring firms take advantage of market timing when making payment decisions about CBM&A with emerging countries?

In the next section, we summarize the main findings of the thesis and describe the synthesis of the thesis.

Summary of Findings

Considering the unique border structure of the European Union, in the first paper, we include the following M&A samples: CBM&As deals from the European Union to emerging markets; the CBM&As deals announced inside the European Union, the M&A announced in domestic France; the CBM&A deals announced from France to the European Union; and the CBM&A deals announced from France to emerging markets. In general, the first paper produces fruitful findings. Overall, we find the European firms opt for industrial specialization instead of diversifying industrially into emerging countries via CBM&As. It is concluded that French firms prioritize industrial diversification in domestic M&As and then consider it inside the European Union. Similarly, European firms on the whole do not increase industrial diversification with emerging countries via CBM&As. The results suggest that European firms want to exploit the benefits for international diversification rather than for industrial diversification via CBM&As with emerging countries.

The paper also finds direct and complementary evidence to prior literature such as Denis, Denis, & Yost (2002), Bowen & Wiersema (2007) and Buckley & Hashai (2009). More specifically, we find that the relationship between international diversification and industrial diversification is substitutive in CBM&As from the European Union to emerging countries. For the first time, the paper provides empirical evidence that firms in developed countries follow industrial specialization instead of industrial diversification into emerging markets via CBM&As.

Concurrently, we find the main motives of the European firms' CBM&As into emerging countries are to seek efficiency gains, realize synergy gains and improve their financial performances. We also find that European firms increase industrial diversification over 2008-2012, which is also consistent with two recent papers by Kuppuswamy & Villalonga (2015) and Rudolph & Schwetzler (2013). Both find that US firms raised the level of industrial

diversification during the financial recession period over 2009 – 2011.

In the second paper, we examine the market prices reactions on these CBM&As from the European Union to emerging countries. Consistent with the small body of prior literature regarding the announcement effects of CBM&As from developed countries to emerging countries, such as Chari, Quimet, & Tesar (2010), Gubbi, Aulakh, Ray, Sarkar, & Chittoor, (2010) and Barbopoulos et al. (2014), we find that announcements of the CBM&A significantly increase acquiring shareholders' wealth. The results indicate that international diversification to emerging markets benefit acquiring shareholders' wealth. However, we also find industrial specialization to emerging countries via CBM&As received significant and negative markets' reactions. The results allude to the idea that industrially diversified M&As to emerging countries via CBM&As can be valuable.

Furthermore, consistent with the evidence in prior literature concerning the CBM&As between developed countries, it is observable that deals with the characteristics suggesting smaller firms with lower cash reserves, private targets obtain better market price reactions. Different to the previous literature (e.g., Feito-Ruiz & Menendez-Requejo, 2011), those emerging markets with stronger creditor rights protection do not show a positive reaction to the European markets. One plausible explanation could be that overly strong creditor rights protection may force creditors in emerging markets to penalize the managers if firms get into financial difficulties. In all, these findings provide practical guidelines for those firms in developed countries who want to propose M&A to emerging countries in the future.

Motivated by two important theoretical literatures, that of Shleifer & Vishny (2003) and Rhodes-Kropf & Viswanathan (2004), we shift the focus of the third study in payment decisions toward the CBM&As announced in the European Union to emerging countries between 1998 and 2012. The paper also generates fruitful and constructive results. First, compared with the CBM&As conducted inside the European Union, we find that acquiring firms in CBM&As with emerging countries are generally undervalued by the markets. However, different to the prior literature in M&A payment method (Faccio & Masulis, 2005), we find European acquiring firms do not prefer cash to pay the CBM&As with emerging countries. In fact, we find that they are very reluctant to use cash in these CBM&As. In terms of the premium paid, the market misvaluation does not have an influence on the decision. Our results suggest that managers do not take advantage of the market timing to make a payment decision in the CBM&As. Therefore,

the two theories of Shleifer & Vishny (2003) and Rhodes-Kropf & Viswannathan (2004) do not therefore explain payment decisions in the context of CBM&As involving emerging countries. Our additional tests allude to the idea that managerial entrenchment problems explain the reasons for this.

To summarize, this thesis has achieved its pre-set objectives. It adds and contributes to the current M&As empirical literature. Specifically, the thesis adds to the prior literature relating to the issues of industrial diversification, M&A announcement effects, and M&A payment decisions. More specifically, the thesis adds to Berger & Ofek, (1995); Lang & Stulz, (1994); Khanna & Palepu, (2000); Denis et al. (2002); Doukas & Lang (2003); Kostova & Zaheer, (1999); Hou & Robinson, (2006); Bowen & Wiersema, (2007); Lin & Serveas, (2002); Buckley & Hashai (2009); Krenz & Gerhard, (2010); Liao & Williams (2008); Brouthers & Dikova (2010); Chari et al. (2010); Estrin & Meyers (2011); Poghosyan & De Haan, (2010); Rabbiaosi et al. (2012); Shleifer & Vishny, (2003); Rhodes-Kropf & Viswannathan, (2004); Faccio & Masulis, (2005).

The organization of the thesis is as follows. In Chapter 1, we detail how we explore and carry out tests on the relationship between industrial and international diversification in the context of cross-border M&A from the European Union to emerging countries. In Chapter 2, we detail our analyses processes on how the market reacts to the announcement of these CBM&As. In Chapter 3, we continue to conduct empirical tests on how firms in developed countries (European Union) decide to pay M&As with emerging countries in light of market valuations. Finally, the last part of thesis is the general conclusion, in which we discuss research implications, contributions and future research directions of the thesis.

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Appendix-GI

Table GI-1

Literatures Summary of M&A Announcement

Authors	Sample	Country	CARS Results
Asquith et al (1983)	1955-1979	US	Positive
Doukas et al (1988)	1975-1983	US	Positive
Fatemi et al (1988)	1976-1984	US	Negative
Healy et al (1990)	1978-1983	US	Positive
Markides et al (1993)	1978-1983	US	Negative
Dewenter (1995)	1970s -80s	US	No differences between related and unrelated M&As.
Markides et al (1998)	1975-1988	US	Positive and negative based on countries.
Ecko et al (2000)	1945-1983	U.S./ Canada	Positive
Moeller et (2005)	1985-1995	US	Lower CARs for CBAs
Francis et al (2008)	1990-2003	US	DMAs higher CARs than CBM&As
Dutta et (2013)	1993-2002	Canada/U.S.	CBM&As has higher positive CARs than DMAs*
Aw et al (2000)	1991-1996	U.K. /E.U.	CBM&As has lower CARs
Gergen et al (2003)	1984-1998	UK	CBM&As has lower CARs than DMAs.
Martinova et al (2006)	1993-2001	Europe	CBM&As has lower CARs than DMAs.
Conne et al (2005)	1983-1998	UK	CBM&As result in lower CARs than DMAs.
Feito et al (2011)	2002-2006	UK	CBM&As has higher CARS than DMAs.
Danbold et al (2012)	1980-2008	U.K. /E.U.	CBM&As has higher CARs than DMAs.
Krel et al (2011)	1995-2007	U.S. /India	Significantly negative.
Barbopoulos (2013)	1993-2008	UK	Significantly positive.
MSV (1990)	1975-1987	US	Diversifications reduce shareholder wealth.
Marsusaka (1993)	1960s- 1970s	US	Diversifications benefits bidders' shareholder.
Comment et al (1995)	1978-1989	US	Diversifications reduce shareholder wealth.
Berger and Ofek (1995)	1986-1991	US	Diversifications reduce shareholder wealth
Sundarsanam (1996)	1980-1990	UK	No differences between related and unrelated M&As.
Hubbard et al (1999)	1960-1970	US	Diversifications increase shareholder wealth
Hyland et al (2002)	1980-1990	US	Positive abnormal returns for diversified M&As.
Kiyamaz et al (2003)	1989-2000	US	Diversification increases shareholder wealth.
Goergen et al (2004)	1993-2000	Europe	Diversifications reduce shareholder wealth.
Doukas et al (2004)	1991-1997	US	Diversifications reduce shareholder wealth.
Cai et al (2004)	1993-2003	EMs	No differences on diversifications.
Aybar et al(2009)	1991-2004	EMs	Related M&As reduces shareholder wealth.
Chari et al (2010)	1986-2006	EMS	Positive CARs after controlling ownership
Bris and Cabolis (2008)	1989-2002	DEs	No significant returns to acquiring firms shareholders
Burns and Liebenberg (2009)	1988-2004	DEs	Acquirers experience significantly positive returns.
Bhagat et al (2011)	1991-2008	EMs	Diversified M&As have more positive market reactions.

Chapter 1

Cross-border M&A from European Union to Emerging Countries: Industrial Diversification versus Specialization?

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Abstract

This paper addresses the question whether CBM&As from European Union to emerging countries are industrial specialization or diversification. We construct unique datasets of CBM&As from the 15 most developed countries in European Union to 18 emerging countries over 1992-2012. Benchmarked with M&As of French firms and M&As conducted inside European Union, our results show CBM&As from the European Union to emerging countries are industrially specialized rather than industrially diversified. Another contribution of the paper is we find direct evidence that there is a negative relationship between international diversification and industrial diversification.

Key Words: Industrial diversification, international diversification, cross-border mergers and acquisitions, emerging countries

JEL Classification: G34, L25

1.1 Introduction

Globalization is not new but it continues to widely affect all business sectors around the world and nourishes firms via their internationalization processes. From the early 1990s to the first decade of 21st century, cross-border mergers and acquisitions ('CBM&As') became the most important driving force for the world economy, the global FDI grew by 36% in 2015, which is largely attributed to CBM&As: the transaction values of CBM&As rose from 98 billion US dollars in 1990 to 399 billion US dollars in 2014. It is worth of mentioning, the intra-European Union CBM&A has risen phenomenally in 2014 accounting for nearly 35% of the global total (the OECD report, 2015). CBM&As from developed countries to emerging countries have been a particular standout, rising 19% between 2002 and 2009 (four times faster than M&As conducted solely within developed countries) (A.T. Kearney, 2009)¹⁰.

Despite the attractiveness of emerging markets to international investors, it should be not forgotten that operations and investments in emerging markets are risky: poorer legal and institutional environments, ineffective security regulations, poorer infrastructure, and governmental interference are all common in such markets. Economic growth in emerging markets is also not as stable as initially appears, and the inflation rate in emerging markets often runs close to or above official targets (even in the major emerging economies of the BRICS countries -Brazil, Russia, China and South Africa). Our initial research curiosity, therefore, lies in the fact whether firms should choose to diversify industrially into emerging countries or not.

Unlike that done between developed countries in the rest of the world, M&A by members of the E.U. are more complicated because there are more levels of possible M&As transactions: the domestic M&A in each member country, the M&A inside E.U. and the 'more internationalized' M&As out of E.U. region. Inspired by the classical (Myers & Majulf, 1984), we wonder if there is an ordered pattern present with the industrial diversification of E.U firms' M&A activities. Namely whether firms diversify industrially in domestic M&As, then move to pan-EU versions for international diversification and less for industrial diversification, and

¹⁰The World Investment Reports can be assessed and downloaded from:

<http://unctad.org/en/Pages/DIAE/World%20Investment%20Report/Annex-Tables.aspx>;

The OECD reports can be downloaded from <http://data.oecd.org>; The A.T. Kearney report can be accessed at

<https://www.atkearney.com/gbpc/global-services-location-index/past-report>.

finally partake in M&As outside of the EU region for mainly international diversification and not for industrial diversification. We are waiting for a negative relationship between international diversification and industrial diversification.

The conclusions regarding the costs and benefits of industrial diversification remain unclear (Lin & Su, 2008). On the one side, some literatures argue industrial diversification allows firms to obtain new growth opportunities that reduces firms' unsystematic risks (Lewellen, 1971), while industrial diversification also overcomes the constraint of having one single business segment which permits firms to establish their financing strengths based on multi-business segments. On the other side, counterclaims exist stating that the unrelated resources are costly to firms because the utilizations of such resources are time-consuming, and the utilization process of the unrelated resources involves the 'co-ordination costs' (Kostova & Zaheer, 1999). Furthermore, industrial diversification creates new risks to firms due to the increased level unfamiliarity in new product markets (Rajan & Zingales, 1995).

Nevertheless, industrial diversification can be urgently needed inside the E.U. because the industry structures inside the E.U. have been over concentrated. Literature shows industries structures are highly saturated in the E.U., which in turn seriously affects the efficiencies of European firms (Hou & Robinson, 2006; Krenz & Gerhard, 2010). The over-concentrated industries structures in E.U. may have left firms no space but to force them to either diversify industrially via M&A inside EU or diversify internationally by M&A outside EU for obtaining more growth opportunities and improving efficiencies. Literature has argued international diversification across industries provide greater level of risks reductions (Brooks & Del Negro, 2004) and industrial diversification can defend against the cyclical industrial shocks in reducing business risks and breaking financing and growth constraints (Bharath & Wu, 2005). We believe industrial diversification can be adopted more often by the firms in their M&A inside the European Union., because they are familiar with the business environments 'there' better.

Emerging markets are different as they have a more imperfect degree of product development and a less mature legal and institutional environment. Although theoretical literatures have suggested the benefits of industrial diversification may overweigh its costs in emerging markets (Khanna & Palepu, 2000), literatures show industrial diversification is less likely to create wealth for shareholders (Lang & Stulz, 1994; Berger & Ofek, 1995). On the top of this, managers are risk averse and will avoid choosing to conduct businesses in unfamiliar businesses

in emerging countries. We think, rather than choose to diversify industrially; European firms are more likely to stick to their core industries into emerging countries.

In addition to this, the relationship between international diversification and industrial diversification has not been well solved among the current literatures. Most of previous studies examine the relationship between international diversification and industrial diversification through firms' performances indirectly. Yet very small numbers of studies examined the relationship between the two types of diversifications directly (Bowen & Wiersema, 2007). Buckley & Hashai (2009) argue a firm's international diversification affects the degree and scope of their product diversification, and vice versa. Denis et al. (2002) conjecture that the relationship between the two types of diversification can be either complementary or substituted, whilst they find a positive correlation. Doukas & Lang (2003) find the relationship is substitutive or trade-off.

In a nutshell, the paper bears two main research objectives. First, we aim to investigate what drives CBM&A from the E.U. to emerging countries by focusing on the role of industrial diversification. Second, we attempt to find out direct evidence of the relationship between industrial diversification and international diversification. With these two principal objectives in mind, our research question is: cross-border M&As from the European Union to emerging countries: industrial specialization or diversification?

This paper fills up the research gaps among M&As literatures in several manners. First, despite CBM&As from developed countries to emerging economies have become phenomenal, studies on the CBM&As are fewer ¹¹. Secondly, current European literatures mainly concentrate on the UK whereas the role of European continental countries such as France has been largely ignored, we fill up the research gap by using the M&As of French firms and CBM&As conducted inside the E.U., from which we evidence the possibility that there is an ordered industrial diversification pattern of M&As in the European Union. Thirdly, although industrial diversification is closely connected with firm characteristics (Lang & Stulz, 1996; Campa &

¹¹ According to Lebedev et al. (2015), there are merely 11 papers in the current M&As literatures.

Kedia 2002), current studies have not all linked them to international diversification to explore the motives behind. This paper directly evidence the relationship between industrial diversification and international diversification, which is a trade-off relationship, and provide evidence of motives of conducting CBM&As from the E.U. to emerging countries. We are, to the best of our knowledge, the first paper ever to examine the role of industrial diversification in CBM&As with emerging countries.

The remaining of the paper is structured as follows. In section 2 we review literature and propose hypotheses. In section 3, we present our research designs. In section 4, we report and discuss our empirical results. In section 5, we report the robustness checks and section 6 concludes the paper.

1.2 Related Literatures and Hypothesis

Generally speaking, three main reasons motivate companies to look towards to (CB)M&A activities: 1) improving current efficiency and achieving synergy; 2) managers' personal interests, i.e. the agency problem; 3) achieving diversifications.

Seeking synergies and efficiency gains are probably one of the most common motives in (CB)M&A activities. Morck & Yeung (2002) define synergy as the efficiency gains that arise from having cost advantages. Brealey & Myers (2003), meanwhile, identify it as the capability to make a combined firm more profitable than that of the two individual firms. M&A allows firms to improve their debt capacities and gain access to better growth prospects. The co-insurance effect of Lewellen (1971) states that combined firms with imperfectly correlated cash flows provide an opportunity to reduce firms' operating risks and therefore enhance corporate debt capacities. As well as this, synergies may be generated from the corporate potential to transfer intangible assets (Porter, 1991). The 'Internalization Hypothesis' of earlier studies such as Caves (1971) and Dunning (1977) state, if a firm possesses know-how that can be used and shared in markets where the sale or lease of such know-how is inherently 'inefficient', then the firm can exploit the synergies within these new markets.

The 'Agency Hypothesis' suggests that managers are in favor of maximizing their private benefits in M&A activities (Seth et al., 2002). The 'Free Cash Flow Hypothesis' argues that firms bearing excessive free cash flow opt to undertake industrial diversification even if the

forecasted net present value of the projects are negative (Campa & Kedia, 2002). Managers in larger firms may be particularly motivated to build their own empires (Amihud & Lev, 1981) or to enhance their job securities (Andrade et al. 2004). Studies also show managerial motives exist as herding behavior, or be termed as the 'Hubris Hypothesis'. Graham (1999) claims managers with lower abilities herd, as do managers with a high reputation who seek to protect that reputation inside the industry.

Further to all this, finance literature says that M&A motives are also related to diversifications. Diversification is a common strategy for firms to use in an effort to break down current growth 'bottle neck'. Higher industrial structural concentrations restrains firms' growth opportunities, insulate them from un-diversifiable distress risk as well as decrease firms' risk-defending abilities. Firms are more likely to engage in less innovation-based activities (Knott & Hart, 2003) if their industrial structures are concentrated.

Literature shows international diversification can create value for firms. Vernon (1971) shows that international diversification is positively related with firms' financial performance. Tallman & Li (1996) and Contractor et al. (2007) prove a firm's profitability is positively related with its international diversification. Brock et al. (2006) find a positive U-form relationship between international diversification and profitability. Economists also suggest industrial diversification can also create values for firms. The Resource-Based View (RBV) argues industrial diversification helps companies to create Economy of Scale and improve their efficiency in the use of their corporate resources. The Transaction-Cost-Economics (TCE) view supports that, proclaiming that due to the divisibility problem of corporate resources, substitutability and complementarities between resources can produce benefits and costs. The Risk Reduction View (RR) claims industrial diversification reduces firms' unsystematic risks because firms can re-allocate their corporate assets into different business lines (Lewellen, 1971).

In cross-border M&A, the location choice of multinational firms can depend on the macroeconomic and governance factors within target countries (Shimizu et al., 2004; Chan et al. 2006; and Bhagat et al. 2011). Di Giovanni (2005) finds the development of capital markets in a target country has a strong positive correlation to M&A occurrence. Fung et al. (2006) find the 'Market Size of Host Country' matters. Globerlman et al. (2005) suggest that the economic growth rate of a target country is one of the most important driving forces, whilst other factors

- such as labour costs, infrastructure strength, trade openness, and culture relatedness - also all have important implications for the decision of where to go (Kyrkilis & Pantelis, 2003; Evenett, 2003).

Rossi & Volpin (2004) argue waves of CBM&As can be facilitated by an improvement in the legal and governance systems inside a host country. On a similar theme, Feito-Ruiz & Menendez-Requejo (2011) claim better legal and institutional environments in the target countries can produce a more positive effect on acquiring shareholders' wealth. La Porta et al. (2000) argue that although creditor protection in home countries cannot be transferred to host countries, better creditor right protection can ensure the safety of newly merged or acquired assets for acquiring firms.

Emerging countries are attracted to international investors because they have higher GDP growth rate, larger market size and more investment opportunities. Companies from the developed countries can also explore the cheaper labour resources, lower tax, and more competitive purchase prices for raw materials in emerging countries. However, emerging markets also come with higher investment risks as they are endowed with poorer and weaker legal, institutional and governance environments. Emerging markets have also more information asymmetry. International diversification to emerging markets can therefore become less valuable (Gande et al., 2009).

Diversification decisions should be inherently influenced by the prevailing industrial and markets environments. Firms' current industrial concentration influences the risk behavior of firms (Hou & Robinson, 2006). Literature suggests European firms have problems of industrial structural over-concentrations, which has seriously affected their efficiencies (Krenz & Gerhard, 2010). Diversifications strategies therefore provide them with good opportunities to access to new business growth opportunities.

Different to emerging countries, the state members inside the European Union are more familiar with each other business environments, each state member country shares some more common culture backgrounds. Besides, there are many economic reforms inside the European Union to boost economic integrations and cooperation between the member states. For example, the adoption of the European Single Market and the creation of the EMU (Economic and Monetary Union) within the European Union have also attracted many attentions from scholars. Studies

show these economic reforms have enhanced the regional economic integrations, and some of the major obstacles of the regional economic activities (e.g. cross-border M&As) between the member states are largely removed (Allen & Song, 2005).

Moreover, fewer studies have directly examined the relationship between the international diversification and industrial diversification (Bowen & Wiersema 2007). The argument regarding the relationship between international and industrial diversification has not yet to be solved (Muzyrya, 2009). Hashai (2009) argue firms' international diversification affects the degree and scope of their industrial diversification. Morck & Yeung (2002) show international diversification is more popular than industrial diversification due to the strong competition and fast technological developments present in the world. Denis et al. (2002) conjecture the relationship between the two diversifications can be either complementary or substituted. However, Doukas and Lang (2003) and Thomas (2004) find their relationship is negative, or substitutive, or trade-off. Finally, at our best knowledge, no relevant study has been made relating to CBM&As with emerging countries.

Although there are debates and supports from prior literature that industrial focus or specialization strategy is wrong for emerging markets (Khanna & Palepu (2000), it will be wiser for the European firms to achieve industrial diversification inside the European Union rather than in the emerging countries via CBM&As. In this paper, we hypothesize that European firms are mainly motivated for achieving international diversification (not industrial diversification) in CBM&As to emerging markets. Therefore, we expect that the relationship between international diversification and industrial diversification is negative - i.e. a trade-off relationship - in these CBM&As.

1.3 Research Design

1.3.1 Methodology

Our methodology follows two main steps. First, using univariate approaches, considering the changes of $Ind_div_{i,t}$, we analyze if European acquiring firms have reduced the level of industry diversification significantly in the M&As to emerging countries. In the second step, we use multivariate analyses to test if the relationship between ΔInd_div and ΔInt_div is negative.

The objective of univariate analyses is to show whether $\Delta\text{Ind_div}_{i,t}$ is significantly reduced after the completions of the M&As to emerging countries. To capture the statistical significance of $\Delta\text{Ind_div}_{i,t}$, we perform the standard T tests and Wilcoxon Signed Rank test. We perform normality tests for testing normal distribution status¹² of $\Delta\text{Ind_div}_{i,t}$. If $\Delta\text{Ind_div}_{i,t}$ is normally distributed, we use mean changes; if not, we will rely on the median value.

To minimize the influences by the longer completion periods involving some M&As and avoid estimation bias, we focus on those M&As deals announced and completed within the same year, which lead to the reductions of samples numbers. Moreover, as empirical literatures show the M&As diversifications premiums or discounts depend on different sample period, we split our samples into several sub-sample periods. Specifically, we divide our samples into two major sample periods 1992-2002 and 2003-2012, and we further partition the samples into smaller samples period for detecting if there are any specific statistical differences. The subsamples periods include: 1992-2002; 2003-2012; 1992-1996; 1997-2002; 2003-2007; 2008-2012. Moreover, we analyze the industrial diversification development trend by industrial divisions.

The objective of multivariate analyses is to reveal whether $\Delta\text{Ind_div}_{i,t}$ explains firms' $\Delta\text{Int_div}_{i,t}$ in CBM&As from EU to emerging countries. Specifically, we test if the univariate results are held under the multivariate contexts. If $\Delta\text{Ind_div}_{i,t}$ is negatively and statistically significantly associated with $\Delta\text{Int_div}_{i,t}$ then we will evidence European firms trade off industrial diversification in CBM&As to emerging countries. We model the $\Delta\text{Int_div}_{i,t}$ as a function of a vector of control variables and $\Delta\text{Ind_div}_{i,t}$. The models of multivariate analyses can be expressed by the following equation:

$$\Delta\text{Int_Div}_{i,t} = f(\sum_{i=1}^N X_i, \Delta\text{Ind_div}_{i,t}) \quad (1-1)$$

We control and compute the variations of firm-level factors to proxy for the motives of the M&A. Specifically we control acquiring firms' size computed as natural logarithm of total assets (Moeller et al. 2004). We expect them to be positively related because larger firms have a greater capacities to diversify. We control acquiring firms' financial leverage through

¹² More specifically, we perform three sets of normality: Kolmogorov-Smirnov test; Cramer-von Mises Test, and Anderson-Darling Test.

computation of their total debt divided by total assets (Chang & Wang, 2007). It should be noted that higher level of debt prevent a company's management involving itself in diversifications activities, but diversification also strengthen its internal capital market and therefore improve a firm's operation efficiency and make it less prone to asymmetric information (Shleifer & Vishy, 1992). Consequently, we expect firms' debt level to be either positive or negatively related with international diversification changes. We measure the Tobin Q value as the sum of a firm's total market capitalization and total book debt divided by the total book assets to proxy for the firm's performance. We expect the Q to be positively related because firms with better past performance tend to diversify more, a reflection of their willingness to further enhance their performance. Further to this, we use the ratio of earnings before interest and tax to total sales to proxy for a firm's profitability. We also use the market-to-book ratio (MTB) to proxy for a company's growth opportunities. We expect both variables to be negatively related to $\Delta Int_{i,t}$ because poorly performing firms with less growing opportunities are more likely to diversify. Following Lehn & Poulsen (1989), we compute the cash ratio as the division of a firm's free cash flow against its total assets. We follow Denis et al. (2002), Moeller & Schlingemann (2005), to compute the changes as the level one year after the completion of the M&A minus the level one year prior to the announcement of the M&A.

Next, the 'Market Size' of a targeted country matters because it is a crucial factor in market-seeking FDI activities (Rossi & Volpin, 2004). We measure this market size as a natural logarithmic value per person GDP (Globerman & Shapiro, 2005). We expect a positive relationship between the market size and $\Delta Int_{i,t}$ because a larger market size creates a wider chance of economies of scale. We control the economic growth of target countries because a growing economy attracts international investors. We measure the economic growth of targets countries by computing the log value of its GDP growth rate.

In addition, we control various country governance factors. We use the revised anti-director index and anti-self-dealing index developed by Djankov et al. (2008) to measure the Shareholder Rights Protection and Minority Shareholders Protection. We use the Ownership Concentration Index and Creditor Rights Protection Index developed by La Porta et al. (2000, 2006). We expect the Shareholder Protection Index and the Creditor Right Protection index to both be positively related with international diversification changes.

We use the generalized linear least square regression with fixed effects to estimate the relationship between $\Delta Int_{i,t}$ and $\Delta Ind_{i,t}$. The regression allows us to directly examine the relationship. Econometrically, due to the strict requirements on the variances across all the variables in linear least square regression, we apply heteroscedasticity-consistent standard errors to estimate the statistical significance of all independent variables in order to avoid any estimation bias. The regression equation is expressed as follows:

$$\begin{aligned} \Delta Int_{div_{i,t}} = & \alpha_0 + \alpha_1 \Delta Size_{i,t} + \alpha_2 \Delta LEV_{i,t} + \alpha_3 \Delta CASH_{i,t} + \alpha_4 \Delta MTB_{i,t} + \alpha_5 \Delta PROF_{i,t} + \\ & \alpha_6 \Delta Tobin_{i,t} + \beta_1 Market_Size_{t-1} + \beta_2 C_Growth_{t-1} + \beta_3 Shareholder + \beta_4 Creditor + \\ & \beta_5 Minority + \beta_6 Owner + \alpha_7 \Delta Ind_{div_{i,t}} + fix\ Effects + \varepsilon_{i,t} \end{aligned} \quad (1-2)$$

All the definitions of the variables can be found at the appendix at the end of the paper.

1.3.2 Samples Selections

We construct M&A deals samples using the SDC. The variables selected include: the announcement date; the completion date; the target name; primary industry group by the four-digit SIC code; acquirers name, deal values; Thomson ticker and SDC CUSIP 6 digits code; target and acquirer four industrial primary SIC code; target and acquiring nation and country code; target and acquiring firms public status; target and acquiring firms public status. The earliest deals for European firms to emerging markets can be traced back to 1982. We decide to fix our sampled period between 1992 and 2012 due to most deals are recorded from the year 1992. We do it as we want to minimize the potential problems brought out by the time-effects.

The European Union is a politico-economic union which currently has 28 member states¹³. The states within the E.U. have different economic developments. Generally speaking, the older members within the E.U., such as UK, France and Germany, have stronger and more mature economic foundations. This paper focuses on those “oldest” member states: the EU-15¹⁴. The EU-15 comprises the following 15 countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and

¹³ For detailed information, please refer to the website of http://europa.eu/index_en.htm.

¹⁴ Per definition of the OECD, the EU-15 refers to the 15 Member States of the European Union as of December 31, 2003.

United Kingdom¹⁵. For selection of the targeted countries of emerging countries, we follow the various definitions of emerging economies from several international organizations such as FTSE, MSCI, the Dow & Jones, and IMF. After making comparisons of the countries defined as emerging markets by these international institutions, 18 emerging countries are included in our paper: Argentina, Brazil, Chile, China, Colombia, Egypt, Hungary, India, Indonesia, Malaysia, Mexico, Morocco, Peru, Philippines, Russia, South Africa, Thailand, and Turkey.

We construct M&A deal samples based on several filtering criterions. First, considering the availabilities of financial data, we focus on those public limited acquiring firms in European Union. Second, following Denis et al. (2002), we exclude acquiring companies in finance industries (SIC from 6000 to 6999) and energy and utilities related industries (SIC from 4000 to 4999) because firms in such industries can generate research bias (Dos Santos et al., 2008): the power and utility industry is often highly regulated and with government involvement in pricing operation and financial industry has different recording and interpretations in their financial data, which can contaminate in our empirical results.

Moreover, the unique border structure within the European Union has made our samples selections very diverse. In our study, there are mainly ‘three levels’ of M&A activities conducted by the European firms: 1) the domestic M&A inside each member country, 2) the CBM&As between each member country inside the E.U., and 3) the CBM&A from the E.U. to emerging markets. The domestic M&A concerns industrial diversification only while the ‘intra M&As-inside E.U.’ and the CBM&As from the E.U. to emerging countries concern both international and industrial diversification.

To differentiate from previous papers which mostly focus on UK, we select French firms in the study. Little study has been made solely for France (Lowinski et al. 2004; Wang, 2009) and France is one of the most active countries that trade with emerging countries. The M&A samples of this paper include: domestic M&As in France; the CBM&A from France to the E.U.; the CBM&A from France to emerging countries; the CBM&As between the E.U. countries members; and the CBM&A from the E.U. to emerging markets. We expect that industrial

¹⁵ It is worthy of noticing, in 2013, Greece was downgraded and taken off the list of developed countries by MSCI.

diversification to be gradually reduced from the domestic M&A (France), the CBM&A from France to E.U. (the CBM&A inside the E.U.), to the CBM&A to emerging countries, whereas, for the changes of international diversification, our expectation is opposite.

Finally, the dynamic changes of firms have created difficulties to construct M&As samples. Some European acquiring firms cannot be identified for many reasons: firms may be delisted, changed their trading names, or even acquired by another companies. We manually check acquiring firms' identification code, and the corporate news concerning their M&As announcement by using the databases such as Factiva, LexisNexis and Google Finance. Excluding those non-identifiable firms and those announced but uncompleted deals, our sample contains 1,857 M&As deals from E.U. to emerging markets by 745 firms, 7,628 deals of CBM&A inside E.U. by 2053 firms, 2406 deals in domestic France M&As by 660 French firms, 1,144 deals in M&As of French to E.U corresponding by 308 French firms and 520 deals from France to emerging markets by 125 French firms. Table 1.1 describes our sampling procedures.

Table 1.1 M&As Samples

The table describes the M&As sampling process and selection criterions. The deals are obtained from Thomson Security Data Corporation (SDC) database. The samples deals include: Domestic France Mergers and Acquisitions, Cross-border Mergers and Acquisitions from France to European Union, Cross-border M&A from France to Emerging Markets, Intra M&As of European Union and CBM&As from the European Union to emerging countries.

Sampling Criterions	M&As Domestic France	CBM&As France to E.U.	CBM&As France to EM-18	CBM&As Inside E.U.15	CBM&As EU-15 to EMs-18
All M&As announced by public limited firms over 1992 – 2012.	16383	2100	960	14299	4698
Excluding firms in Financial & Energy sector (SIC code from 6000 to 6999) (SIC code from 4000 to 4999).	3441	584	796	9615	3331
Deals announced must be completed.	3327	1445	560	8498	2135
Excluding firms that that do not exist or cannot be traded.	2613	1236	553	7899	2117
Excluding those M&A deals that are completed more than 1 years	(207)	(92)	(33)	(271)	(260)
Final Numbers of M&As deals	2406	1144	520	7628	1857
Numbers of Companies	660	308	125	2053	745

1.3.3 Variables

1.3.3.1 Dependent Variable: $\Delta Int_div_{i,t}$

We use $\Delta Int_div_{i,t}$ as the dependent variable because CBM&A increase the degree of international diversification of the acquiring firms. The foreign sale ratio is probably most commonly adopted measurement in empirical studies (Denis et al. 2002), and the measurement is also regarded as the most valid and reliable for corporate international diversification (Bowen & Wiersema, 2007). A firm's international diversification can be computed as:

$$Int_div_{i,t} = International_Sale_{i,t} / Total_Sale_{i,t} \quad (1-3)$$

Accordingly, we calculate $\Delta Int_div_{i,t}$ as :

$$\Delta Int_div_{i,t} = (Int_div_{i,t+1} - Int_div_{i,t-1}) / Int_div_{i,t-1} \quad (1-4)$$

Where: t is the time t of M&A event, t-1 represents year end before announcement of M&As, and t+1 represents years end after completion of M&As

1.3.3.2 Independent Variable: $\Delta Ind_div_{i,t}$

The standard industry code approaches show the products closeness among corporate product segments depends on if companies share the same two, three and four SIC codes (Cave, 1971). There are two measurement approaches: a broad-spectrum diversification (BSD) approach measure product relatedness using first 2-digits SIC codes, and mean narrow spectrum diversification (MNSD) approach measures product relatedness using 4-digits SIC codes. Studies such as Berger & Ofek (1995), Campa & Kedia (2002) use BSD approach whereas other studies such as Morck et al. (1990) use MNSD approach to label M&As transactions.

SIC codes based measurement has problems because the actual product relatedness cannot be directly detected as the system does not represent an underlying relatedness scale, so we also use continuous measurement for product diversification: we compute the product segments-sales based *Berry's Herfindhal Index* (BHHI) to measure a firm's industrial diversification (Montgomery, 1982). The BHHI index has a spectrum of value between 0 and 1. Firms' industrial diversification is greater when the index is close to 1. The following formula shows

the calculation process:

$$Ind_Div_{i,t,j} = 1 - (\sum_j p_{i,j,t}^2) / (\sum_j p_{i,j,t})^2 \quad (1-5)$$

Where: $P_{i,j}$ is the sale portion of segment j to i th firm's total sale

Similarly, to detect the development trend of industry diversification, we compute the changes of industry diversification ($\Delta Ind_div_{i,t}$). The calculation process can be written as follows:

$$\Delta Ind_div_{i,t} = (Ind_div_{i,t+1} - Ind_div_{i,t-1}) / Ind_{i,t-1} \quad (1-6)$$

Where: $Ind_div_{i,t+1}$ is the degree of industry diversification after completion of the M&As events; $Ind_div_{i,t-1}$ is the degree of firms' industrial diversification before announcement of the M&As events.

1.4 Empirical Results

1.4.1 Descriptive Statistics

To capture the industry characteristics of the sampled firms in more depth, we conduct a comprehensive work of descriptive statistics. Firstly, we classify acquiring firms and targeted firms into different industries to know the exact industry distributions. Secondly, we use BSD approach to define the M&As deal industrial relatedness between acquiring firms and targets firms. Finally, we compute the industrial HHI index to proxy for the industrial concentration for each M&A sample and make comparisons between the samples.

Table 1.2 displays the industry distributions of the acquiring and targeted firms. Unsurprisingly, the most frequently targeted industries in EU-to-EM CBM&As are clustered in the manufacturing industries. We observe that 60.88% of M&A deals are targeted at manufacturing industries in EU-to-EM CBM&As, with the most frequently targeted industries in emerging countries being: Chemical and Allied Products (9.16%); Food and kindred Products (8.26%); and Electrical and Electronic Equipment (5.18%). Interestingly, we also observe M&As in services industries are quite active inside the EU: 40.70% and 38.66% of M&A deals are made in services industries in domestic French M&As and CBM&As from France to the rest of the EU respectively, while 32% of M&As are announced in this sector in EU-only CBM&As.

However, service industries-based M&As are not so actively announced and targeted towards emerging countries, which numbers down at only 24.33% and 22.88% in these cases. We believe the M&A's industry distributions are closely connected with the differences in industry development levels between the EU and emerging countries. Industry distribution also reveals European acquiring firms want to explore the benefits of their comparative advantages in improving industry-wide manufacture efficiencies and synergies in emerging markets.

Table 1. 2: Descriptive Statistics: Industrial Characteristics

The table describes industry distributions between acquiring and target firms. We use Fama and French 38 industries to identify the industry belongings of acquiring and targeted firms. We count the percentage of acquiring and target industries in each M&As samples including the domestic M&As in France, cross-border M&As France to European Union, CBM&As France to Emerging Markets, CBM&AS inside EU-15 and CBM&As from EU-15 to emerging markets.

Acquiring Industries	Acquiring Industries				
	M&As Inside France	CBM&As France E.U.	CBM&As France E.Ms	CBM&As Inside E.U.	CBM&As E.U. Ems.
Agriculture, forestry, and fishing	0,34%	0,35%	1,25%	0,16%	1,16%
Almost Nothing	0,22%	0,79%	0,72%	2,27%	1,61%
Apparel and other Textile Products	1,92%	0,79%	0,54%	0,58%	0,49%
Chemicals and Allied Products	6,14%	8,88%	7,34%	9,10%	9,47%
Construction	4,78%	1,49%	1,97%	2,29%	2,46%
Electrical and Electronic Equipment	5,18%	6,15%	8,77	5,48%	7,02%
Fabricated Metal Products	1,52%	1,23%	0,89%	2,42%	1,61%
Food and Kindred Products	6,36%	6,42%	12,34%	4,94%	9,56%
Furniture and Fixtures	0,12%	-	-	0,82%	0,13%
Instruments and Related Products	1,49%	1,32%	3,76%	2,99%	3,08%
Leather and Leather Products	0,06%	0,09%	-	0,23%	0,09%
Lumber and Wood Products	0,62%	0,18%	-	0,41%	0,58%
Machinery, Except Electrical	4,50%	2,99%	1,79%	6,41%	4,65%
Mining	0,40%	0,44%	1,61%	0,44%	5,23%
Miscellaneous Manufacturing Industry	1,15%	1,23%	0,72	0,49%	0,54%
Nonmetallic Minerals Except Fuels	-	-	-	0,25%	0,72%
Oil and Gas Extraction	-	3,08%	3,58%	0,04%	1,88%
Paper and Allied Products	1,64%	0,62%	-	1,13%	0,63%
Petroleum and Coal Products	-	-	-	0,22%	0,58%
Primary Metal Industries	1,18%	2,11%	1,61%	3,04%	3,22%
Printing and Publishing	2,95%	0,44%	0,18%	3,19%	2,37%
Public Administration	0,03%	0,18%	0,36%	0,07%	0,27%
Retail Stores	7,57%	8,00%	7,69%	4,08%	3,08%
Rubber and Miscellaneous Plastics	0,31%	0,97%	0,72%	2,00%	1,70%
Services	40,70%	39,10%	26,30%	32,47%	22,30%
Stone, Clay and Glass Products	1,71%	7,21%	12,70%	4,75%	7,06%
Textile Mill Products	0,53%	0,18%	-	0,86%	0,58%
Tobacco Products	-	-	-	0,40%	1,16%
Transportation Equipment	4,40%	3,60%	0,54%	5,29%	1,92%
Wholesale	4,19%	2,20%	0,54%	5,29%	1,92%

Target Industries					
Target Industries	M&As Inside France	CBM&As France E.U.	CBM&As France E.Ms	CBM&As Inside E.U.	CBM&As E.U. EMs.
Agriculture, forestry, and fishing	0,65%	0,26%	1,25%	0,47%	1,25%
Almost Nothing	0,37%	0,79%	0,72%	1,40%	1,12%
Apparel and other Textile Products	1,71%	0,88%	0,36%	0,60%	0,31%
Chemicals and Allied Products	3,88%	6,77%	7,34%	7,02%	9,16%
Construction	3,81%	1,76%	1,07%	2,41%	1,92%
Electric, Gas, and Water Supply	0,19%	1,32%	1,97%	0,38%	1,07%
Electrical and Electronic Equipment	4,12%	4,04%	6,44%	4,25%	5,18%
Fabricated Metal Products	1,27%	1,76%	1,97%	2,64%	2,06%
Finance, Insurance, and Real Estate	3,01%	2,20%	1,43%	2,15%	1,43%
Food and Kindred Products	4,87%	4,66%	10,73%	4,33%	8,27%
Furniture and Fixtures	0,56%	0,35%	-	0,72%	0,13%
Instruments and Related Products	2,17%	1,58%	2,15%	2,82%	1,61%
Leather and Leather Products	0,19%	2,02%	-	0,41%	0,05%
Lumber and Wood Products	0,56%	0,35%	-	0,46%	0,49%
Machinery, Except Electrical	4,12%	3,34%	1,97%	5,66%	4,33%
Mining	0,12%	0,09%	1,43%	0,34%	5,59%
Miscellaneous Manufacturing Industry	1,30%	1,32%	0,54%	0,71%	0,80%
Nonmetallic Minerals Except Fuels	0,09%	0,18%	0,36%	0,38%	0,98%
Oil and Gas Extraction	0,06%	1,23%	0,54%	0,20%	0,22%
Paper and Allied Products	0,50%	0,44%	0,18%	1,60%	0,94%
Petroleum and Coal Products	0,03%	0,53%	0,36%	0,17%	0,54%
Primary Metal Industries	1,30%	1,85%	2,33%	2,14%	2,86%
Printing and Publishing	3,35%	0,79%	0,18%	2,64%	0,94%
Public Administration	0,12%	0,09%	-	0,13%	0,05%
Radio and Television Broadcasting	0,81%	0,79%	0,18%	0,47%	0,49%
Retail Stores	6,51%	5,45%	7,51%	3,73%	3,84%
Rubber and Miscellaneous Plastics	0,93%	1,41%	1,25%	2,00%	1,88%
Sanitary Services	0,16%	0,09%	-	0,22%	0,09%
Services	40,11%	38,66%	24,33%	31,33%	22,88%
Steam Supply	-	-	-	0,04%	0,05%
Stone, Clay and Glass Products	1,30%	3,78%	10,02%	2,89%	5,90%
Telephone and Telegraph Communication	1,02%	0,79%	1,25%	0,80%	0,67%
Textile Mill Products	0,56%	0,35%	%	0,96%	0,89%
Tobacco Products	0,06%	-	-	0,26%	0,94%
Transportation	1,21%	1,14%	0,89%	1,15%	1,03%
Transportation Equipment	3,10%	2,11%	4,65%	2,16%	4,47%
Wholesale	5,89%	6,85%	6,62%	9,95	5,59%

Table 1.3 shows the M&A industrial deal relatedness between acquiring firms and target firms in French domestic M&As, France-to-EU CBM&As, general EU-only CBM&As, France-to-EM CBM&As, and EU-to-EM CBM&As. Generally speaking, most French firms conduct M&As in related industries, indicating industrially unrelated deals are not a popular choice for them. Similarly, despite the percentages of the unrelated deals being higher in EU-only CBM&As, European firms still favor industrially related deals overall. For M&As to emerging countries, we observe only 37.88% of France-to-EM deals are announced in unrelated industries, and a similar situation is observed in EU-to-EM CBM&As (only 37.18% of the M&As deals are made between unrelated industries).

In a nutshell, industrial related deals dominate M&As announced by European acquiring firms. This is evidenced in Figures 1.1-1.4 below, which each illustrate that industrially related M&A deals are a much more “popular” choice than industrially unrelated M&A.

Table 1. 3: Descriptive Statistics: Industrial Relatedness

This table describes the percentage of related M&As and unrelated M&As in: domestic M&As in France, CBM&As France to EU, CBM&As France to emerging markets, CBM&As inside EU-15 and CBM&As from EU-15 to emerging markets. We compute the percentage of industry related and the percentage of unrelated M&As at end of each year between 1992 and 2012. More specifically, if the first two digits of acquirers SIC codes are matched with the targets firms’ first two digits SIC codes, the deals will be treated as related otherwise the deals are treated as unrelated.

Year	Domestic M&As In France			CBM&As France to E.U.			CBM&As France to EMs		
	Related	Unrelated	N	Related	Unrelated	N	Related	Unrelated	N
1992	44.88%	55.12%	127	36.84%	63.16%	53	37.50%	62.50%	8
1993	47.76%	52.24%	105	28.30%	71.70%	39	83.33%	16.67%	6
1994	43.36%	56.64%	113	33.33%	66.67%	61	63.64%	36.36%	11
1995	35.29%	64.71%	119	45.90%	54.10%	70	94.12%	5.88%	17
1996	47.93%	52.07%	121	52.86%	47.14%	64	71.43%	28.57%	21
1997	51.85%	48.15%	108	56.25%	43.75%	69	58.97%	41.03%	39
1998	63.33%	36.67%	120	52.17%	47.83%	88	79.41%	20.59%	34
1999	75%	25%	300	52.27%	47.73%	166	44.12%	55.88%	34
2000	58.53%	41.47%	340	46.39%	53.61%	120	75.00%	25.00%	24
2001	56.92%	43.08%	195	37.50%	62.50%	73	75.00%	25.00%	20
2002	56.56%	43.44%	122	32.88%	67.12%	50	81.82%	18.18%	11
2003	63.81%	36.19%	105	44.00%	56.00%	41	83.33%	16.67%	12
2004	62.83%	37.17%	113	46.34%	53.66%	58	75.00%	25.00%	24
2005	61.59%	38.41%	138	41.38%	58.62%	66	53.57%	46.43%	28
2006	55.44%	44.56%	193	34.85%	65.15%	97	56.10%	43.90%	41
2007	60.73%	39.27%	219	42.27%	57.73%	65	64.29%	35.71%	28
2008	55.69%	44.31%	167	53.85%	46.15%	39	48.39%	51.61%	31
2009	53.13%	46.87%	96	41.03%	58.97%	54	72.22%	27.78%	36
2010	58.14%	41.86%	129	50.00%	50.00%	61	58.97%	41.03%	39
2011	52.67%	47.33%	131	47.54%	52.46%	54	75.51%	24.49%	49
2012	59.43%	40.57%	106	42.59%	57.41%	57	14.29%	85.71%	7
Mean	55.33%	44.67%		43.74%	56.26%		62.12%	37.88%	

Continued

Continued						
Year	CBM&As inside E.U.			CBM&As E.U. to Emerging Countries		
	Related	Unrelated	N	Related	Unrelated	N
1992	50,38%	49,62%	262	56,25%	43,75%	32
1993	53,57%	46,43%	308	68,18%	31,82%	44
1994	45,01%	54,99%	411	44,23%	55,77%	52
1995	47,30%	52,70%	389	68,49%	31,51%	73
1996	47,25%	52,75%	510	58,89%	41,11%	90
1997	53,71%	46,29%	579	57,26%	42,74%	117
1998	57,60%	42,40%	658	59,66%	40,34%	119
1999	56,05%	43,95%	860	62,87%	37,13%	167
2000	52,12%	47,88%	589	65,22%	34,78%	115
2001	59,08%	40,92%	369	78,38%	21,62%	74
2002	58,13%	41,88%	320	63,08%	36,92%	65
2003	61,22%	38,78%	263	72,04%	27,96%	93
2004	54,71%	45,29%	382	67,24%	32,76%	116
2005	56,07%	43,93%	453	60,87%	39,13%	138
2006	52,89%	47,11%	537	62,50%	37,50%	152
2007	46,03%	53,97%	378	59,63%	40,37%	161
2008	54,37%	45,63%	206	60,61%	39,39%	99
2009	52,55%	47,45%	274	62,90%	37,10%	124
2010	53,52%	46,48%	284	56,74%	43,26%	141
2011	56,65%	43,35%	203	71,83%	28,17%	142
2012	47,53%	52,47%	263	47,62%	52,38%	21
Mean	53.13%	46.87%		62.12%	37.18%	

Figure 1. 1**Industrially Related Vs Industrially Unrelated M&A inside France**

The figure below shows the comparisons between the industrially related deals Vs industrially unrelated deals for France domestic M&As from 1992-2012. The industry relatedness is determined by using the first two digits of firms' SIC codes (see Berger & Ofek, 1995 etc.). If the first two digits SIC codes match between acquiring firms and target firms, the deals are treated related. Otherwise, the deals are treated as non-related.

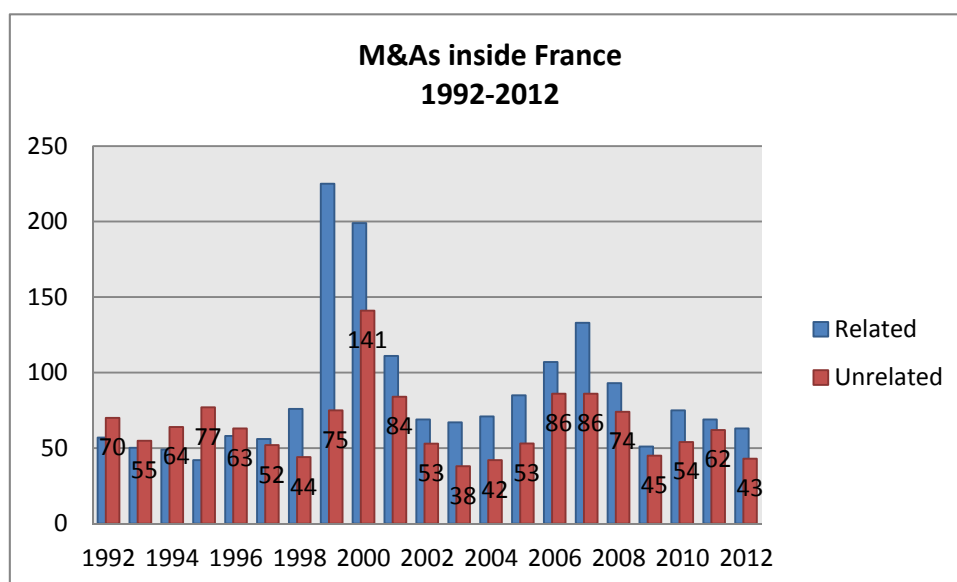


Figure 1. 2**Industrially Related Vs Industrially Unrelated CBM&As inside European Union**

The figure below shows the comparisons between the industrially related deals Vs industrially unrelated deals for CBM&As inside the European Union from 1992-2012. The industry relatedness is determined by using the first two digits of firms' SIC codes (see Berger & Ofek, 1995 etc.). If the first two digits SIC codes match between acquiring firms and target firms, the deals are treated related. Otherwise, the deals are treated as non-related.

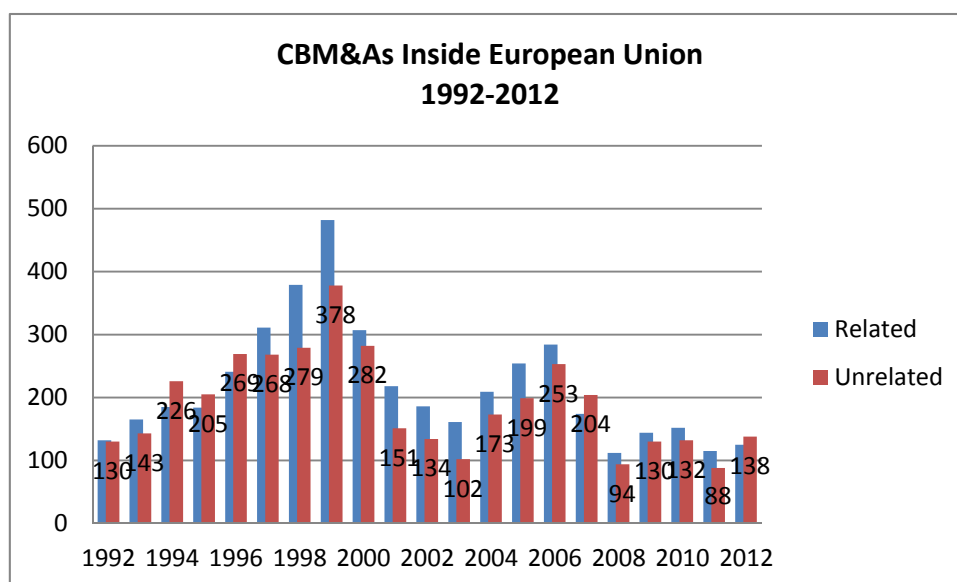


Figure 1.3**Industrially Related Vs Industrially Unrelated CBM&As EU to Emerging Countries**

The figure below shows the comparisons between the industrially related deals Vs industrially unrelated deals for CBM&As from the European Union to emerging countries during 1992-2012. The industry relatedness is determined by using the first two digits of firms' SIC codes (see Berger & Ofek, 1995 etc.) If the first two digits SIC codes match between acquiring firms and target firms, the deals are treated related. Otherwise, the deals are treated as non-related.

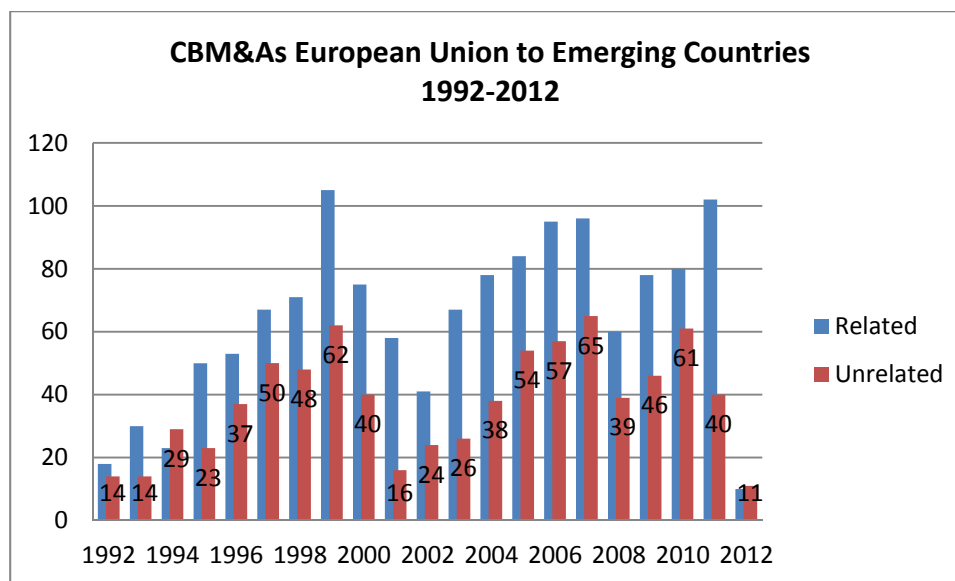


Figure 1. 4**Industrially Related Vs Industrially Unrelated M&As France to Emerging Countries**

The figure below shows the comparisons between the industrially related deals Vs industrially unrelated deals of the CBM&As from France to emerging countries during 1992-2012. The industry relatedness is determined by using the first two digits of firms' SIC codes (see Berger & Ofek, 1995 etc.). If the first two digits SIC codes match between acquiring firms and target firms, the deals are treated related. Otherwise, the deals are treated as non-related.

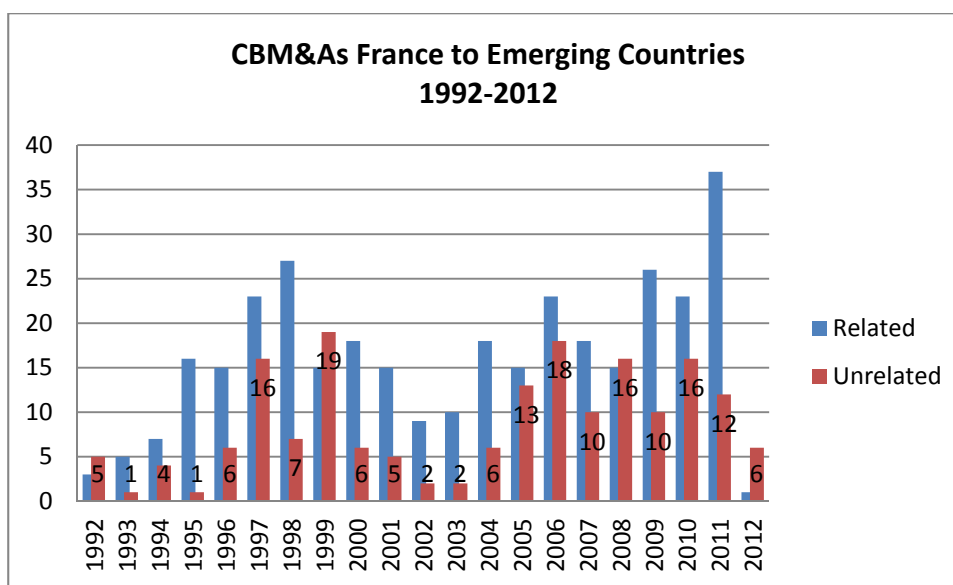


Table 1.4 below describes the industrial concentration statistics of the acquiring firms in each M&A sample. It summarizes the statistics of industrial concentration for French domestic M&As, France-to-EU CBM&As, France-to-EM CBM&As, EU-only CBM&As, and France-to-EM CBM&As respectively. The statistics show interesting results, as there is an ordered concentration pattern across our sampled firms - namely that we find industry structures are more concentrated in French domestic M&As, followed by France-to-EU CBM&As, and finally in M&As to emerging countries. Similarly, industries are more concentrated in intra-EU M&As than in those sampled firms conducting M&As to emerging countries. The initial statistics are consistent with empirical literature such as Hou and Robinson (2006).

Table 1. 4: Descriptive Statistics-Industrial Concentration

HHI	Domestic M&As France			CBM&As France to E.U.			Two Sample tests	
Industry Divisions	Mean	Median	N	Mean	Median	N	Mean	Median
Agriculture, Forestry, Fishing	0.713	0.672	31	0.733	0.779	32	-0.021	P=0.805
Mining	0.365	0.350	46	0.357	0.341	23	0.008	P=0.884
Construction	0.520	0.446	266	0.401	0.373	134	0.118***	P<0.01
Manufacture	0.567	0.528	3784	0.555	0.504	2018	0.012*	P=0.111
Wholesale Trade	0.587	0.573	398	0.556	0.454	103	0.032	P=0.099
Retail Trade	0.655	0.645	411	0.599	0.556	219	0.562***	P<0.01
Services	0.586	0.541	3130	0.585	0.539	1906	0.053***	P<0.01
Public Administration	-	-	-	0.348	0.347	15	-	-
HHI	Domestic M&As France			CBM&As France to E.Ms			Two Sample tests	
Industry Divisions	Mean	Median	N	Mean	Median	N	Mean	Median
Agriculture, Forestry, Fishing	0.713	0.672	31	0.712	0.204	31	0.000	0.000
Mining	0.365	0.350	46	0.447	0.414	92	-0.082***	P<0.01
Construction	0.520	0.446	266	0.440	0.325	132	0.118***	P<0.01
Manufacture	0.567	0.528	3784	0.477	0.425	1104	0.089***	P<0.01
Wholesale Trade	0.587	0.573	398	0.802	0.914	41	-0.214***	P<0.01
Retail Trade	0.655	0.645	411	0.555	0.619	70	0.099***	P<0.01
Services	0.586	0.541	3130	0.531	0.481	484	0.055***	P<0.021
Public Administration	-	-	-	0.283	0.271	15	-	-
HHI	CBM&As France to E.U			CBM&As France to E.Ms			Two Sample tests	
Industry Divisions	Mean	Median	N	Mean	Median	N	Mean	Median
Agriculture, Forestry, Fishing	0.733	0.779	32	0.712	0.204	31	-0.020	P=0.065
Mining	0.357	0.341	23	0.447	0.414	92	-0.089***	P<0.01
Construction	0.401	0.373	134	0.440	0.325	132	-0.039***	P=0.212
Manufacture	0.555	0.504	2018	0.477	0.425	1104	0.077***	P<0.01
Wholesale Trade	0.556	0.454	103	0.802	0.914	41	-0.246***	P<0.01
Retail Trade	0.599	0.556	219	0.555	0.619	70	0.043	P=0.519
Services	0.585	0.539	1906	0.531	0.481	484	0.053***	P<0.01
Public Administration	0.348	0.347	15	0.283	0.271	15	0.063***	P<0.01
HHI	CBM&As Inside E.U.			CBM&As E.U. EMs..			Two Sample tests	
Industry Divisions	Mean	Median	N	Mean	Median	N	Mean	Median
Agriculture, Forestry, Fishing	31	0.742	0.923	0.625	0.526	254	0.038	P=0.526
Mining	92	0.575	0.501	0.651	0.649	1332	0.001	p=0.475
Construction	132	0.513	0.215	0.523	0.431	493	0.002	P=0.104
Manufacture	1104	0.582	0.513	0.521	0.485	6840	0.073***	P<0.01
Wholesale Trade	41	0.673	0.622	0.782	0.861	355	-0.015	P=0.643
Retail Trade	70	0.669	0.617	0.656	0.645	339	-0.011	P=0.333
Services	484	0.645	0.574	0.605	0.525	2286	0.057***	P<0.01
Public Administration	15	0.366	0.359	0.344	0.344	55	0.028***	P<0.01

NOTE: The table describes the industrial concentrations for domestic M&As in France, CBM&As France to European Union, CBM&As France to emerging markets, CBM&As inside EU-15 and CBM&As from EU-15 to emerging markets. We compute HHI index to proxy for industry concentration of the sampled firms. We classify firms into 8 categories of industry according the SIC manual specified by the United States Department of Labour. Standard two-sample statistics tests are performed between the samples. . *, ** and *** represent significance at the 10%, 5% and 1% respectively.

Table 1.5 below summarizes the descriptive statistics of firm size, financial leverage, free cash flows, the Q, profitability, growth opportunity, long term debt ratio, and industrial diversification. We perform two-sample T tests and the Signed Rank Test to capture the statistical differences between our sampled firms. Columns 1-5 show the sample firms' characteristics of French domestic M&As, CBM&As from France to the E.U., CBM&As from France to emerging countries, CBM&As inside the E.U., and CBM&As from the E.U. to emerging countries respectively. Columns 6-9 present the two sample statistic tests results between these sampled firms.

Compared to French firms conducting M&A domestic or to the E.U., the firms with emerging countries are significantly larger and bear a higher level of financial leverage. However, these firms have fewer growth opportunities and higher profitability. We also observe French firms in France-to-EM have more free cash flow and higher Tobin Q values. In regards to industrial diversification, French firms in France-to-EM CBM&As are the most industrially diversified (statistically significant at 1% confidence level).

There are also substantial differences between European firms doing “internal” M&As and European firms working in M&As to emerging countries. Similar to French firms heading to emerging countries, European firms interacting with emerging markets are, in general, substantially larger (0.976 larger in firm size significant at 0.01 levels) and hold a significantly higher level of financial leverage (1.7% higher financial leverage significant at 0.01) and have more (long-term) debt (0.9% significant at 1% level). Moreover, firms for M&As to emerging markets seem to suffer from being less profitable (1.9% less profitable, significant at 1% level by focusing on the median value), albeit they possess higher growth opportunities. Finally, European firms in CBM&As with emerging countries are more industrially diversified than firms conducting “internal” M&As inside the European Union.

Table 1. 5

Descriptive Statistics of Acquiring Firm Characteristics

This table describes firms' characteristics in domestic M&As in France, CBM&As from France to EU, CBM&As from France to Emerging Markets, CBM&As inside EU-15 and CBM&As from EU-15 to emerging markets. Firm size is measured as log value of total assets in million US dollars, firm leverage is measured as the percentage of total debt to total asset, free cash flow ratio is the total free cash flow divided by total assets, Tobin value is computed as the difference of market capitalization and total debt divided by total book value of asset, profitability is measured by using ratio of EBIT to total sales, market-to-book ratio is used to proxy firms growth opportunity, industry diversification is computed as product segment sales based HHI index. To detect the statistical differences of firm characteristics between the two deals samples, we perform the standard two samples parameter and non-parameters tests. ** Significance at the 5% level.), *, ** and *** represent significance at the 10%, 5% and 1% respectively.

Firm Characteristics	<u>M&As inside France</u> (1)		<u>CBM&As France to EU</u> (2)		<u>CBM&As France to Ems</u> (3)		<u>CBM&As inside EU</u> (4)		<u>CBM&As EU to Emerging Markets</u> (5)	
	<u>Mean</u>	<u>Median</u>	<u>Mean</u>	<u>Median</u>	<u>Mean</u>	<u>Median</u>	<u>Mean</u>	<u>Median</u>	<u>Mean</u>	<u>Median</u>
Firm Size	19.068	18.740	19.923	19.794	21.423	21.619	19.607	19.477	20.584	20.680
Firm Leverage	0.233	0.203	0.232	0.212	0.251	0.245	0.231	0.210	0.247	0.230
Free Cash Flow Ratio	-0.005	0.017	0.191	0.022	0.014	0.022	0.051	0.019	-0.020	0.020
Tobin Q	1.608	0.893	1.609	0.949	2.180	0.938	2.039	0.975	1.514	0.826
Profitability	-0.844	0.044	-0.330	0.067	0.069	0.072	-0.527	0.066	-0.547	0.078
Growth Opportunity	7.633	0.515	12.942	0.486	0.635	0.072	11.102	0.513	43.14	0.4707
Long-term debt ratio	0.1455	0.102	0.142	0.111	0.154	0.135	0.142	0.105	0.151	0.127
Industrial I Diversification	0.421	0.464	0.435	0.484	0.501	0.560	0.394	0.466	0.459	0.507

Firm Characteristics	<u>Two-Sample Tests</u> (1)-(2) (6)		<u>Two-Sample Test</u> (1)-(3) (7)		<u>Two-Samples Test</u> (2)-(3) (8)		<u>Two-Sample Tests</u> (4) - (5) (9)	
	<u>Mean</u>	<u>Median</u>	<u>Mean</u>	<u>Median</u>	<u>Mean</u>	<u>Median</u>	<u>Mean</u>	<u>Median</u>
Firm Size	-0.855***	P<0.01	-2.358***	P<0.01	-1.504***	P<0.01	-0.976***	P<0.01
Firm Leverage	-0.000	P<0.01	-0.019***	P<0.01	-0.019***	P<0.01	-0.017***	P<0.01
Free Cash Flow	-0.195**	P<0.01	-0.018***	P<0.01	0.746*	p=0.777	0.071***	P<0.01
Tobin Q	0.026	P<0.01	-0.544	P<0.01	-0.570	P=0.759	-35.224	P<0.01
Profitability	0.316	P<0.01	-0.0840	P<0.01	-0.399	P<0.01	0.019	P<0.01
Growth Opportunity	-5.308***	P=0.072	6.997***	p=0.011	12.306***	P=0.367	-32.04***	P<0.01
Long-term debt	-0.006**	P<0.01	-0.019***	P<0.01	-0.013***	P<0.01	-0.009***	P<0.01
Industrial Diversification	-0.013***	P<0.01	-0.079***	P<0.01	-0.066***	P<0.01	-0.065***	P<0.01

Table 1.6 summarizes the target country characteristics of EU-15 and EM-18 members. Panel A shows the EU-15 members have higher scores of shareholder right protection and creditor right protection, and that the market sizes of the EU-15 are bigger. On the other hand, and not surprisingly, we see the emerging countries have a much higher economic growth rate than their EU counterparts. Simultaneously, we observe that the emerging countries have heavier ownership but higher scores in minority shareholder protection than the EU-15, which may suggest emerging countries emphasize the importance of minority shareholders protection. We compute the median values of the country-level variables to consider a target country with a stronger (weaker) legal and institutional environment when the values of these variables are above (below) the median of the samples (see Panel B). If the value of a country variable is above the median value of the sampled country's portfolio, the country is classified as “+”. If the value of a country is below the median value computed for the country's portfolio, it is classified as “-”. If the variable values of a target country are equal to the median value computed, it is classified as “=”.

Panel C further reveals European acquiring firms prefer to bid in targeted emerging countries with larger market sizes and faster economic growth (with countries such as BRICS). Another interesting finding is that European acquirers more frequently target emerging countries with stronger minority shareholder protection. For the general pan-EU CBM&As, the statistics suggest that target countries with more stable economic growth and larger market size are more like to attract investors, whereas the country-level governance factors seem not to matter as much. Germany, the UK, France and the Netherlands are the top 4 targeted countries in EU-only CBM&As.

Table 1. 6: Descriptive Statistics-Country Characteristics

Panel A displays the data of the country countries, which include their Shareholder Rights Index, Creditor Rights Protection Index, Minority Shareholders Protection Index and Country Level Ownership Concentration. These data are extracted from La Porta et al. (2006) and Djankov et al. (2008) These data can be found and download from the website of <http://faculty.tuck.dartmouth.edu/rafael-laporta/research-publications>. The country-level economic data is extracted from the World Bank. The detailed definitions of these variables are presented in the appendix of the paper.

Panel A													
EU-15	Shareholder Rights	Creditor Protection	Minority Protection	Ownership Concentration	Market Size	Economic Growth	EMs-18	Shareholder Rights	Creditor Protection	Minority Protection	Ownership Concentration	Market Size	Economic Growth
Austria	2.50	3.00	0.21	0.58	10.37	0.83	Argentina	3.00	1.00	0.44	0.53	9.11	2.08
Belgium	2.00	2.00	0.54	0.54	10.12	0.69	Brazil	5.00	1.00	0.29	0.57	8.56	1.21
Denmark	4.00	3.00	0.47	0.45	10.39	0.89	Chile	4.00	2.00	0.63	0.45	9.14	1.71
Finland	3.50	1.00	0.46	0.37	10.16	1.36	China	1.00	2.00	0.78	.	7.693	2.30
France	3.00	0.00	0.38	0.34	10.10	0.73	Colombia	3.00	0.00	0.58	0.63	8.12	1.38
Germany	4.00	3.00	0.28	0.48	10.28	0.62	Egypt, Arab Rep.	3.50	2.00	0.49	0.62	7.19	1.49
Greece	2.50	1.00	0.23	0.67	9.93	1.26	Hungary	4.00	1.00	0.20	.	8.44	1.21
Ireland	4.00	1.00	0.79	0.39	10.21	1.73	India	2.50	2.00	0.55	0.40	6.72	1.89
Italy	2.50	2.00	0.39	0.58	10.01	0.45	Indonesia	4.00	2.00	0.68	0.58	7.53	1.76
Luxembourg	4.00	.	0.25	.	11.14	1.41	Malaysia	3.50	3.00	0.95	0.54	8.50	1.84
Netherlands	3.00	3.00	0.21	0.39	10.20	0.94	Mexico	3.00	0.00	0.18	0.64	8.83	1.39
Portugal	2.50	1.00	0.49	0.52	9.40	0.65	Morocco	2.00	1.00	0.57	.	7.41	1.56
Spain	5.00	2.00	0.37	0.51	9.65	1.15	Peru	2.50	0.00	0.41	0.56	8.19	1.78
Sweden	3.50	1.00	0.34	0.28	10.28	1.30	Philippines	4.00	1.00	0.24	0.57	6.99	1.51
United Kingdom	5.00	4.00	0.93	0.19	10.16	0.97	Russian Federation	5.00	2.00	0.48	.	9.06	1.75
							South Africa	5.00	3.00	0.81	0.52	8.44	1.17
							Thailand	4.00	2.00	0.85	0.47	8.38	1.72
							Turkey	2.00	2.00	0.43	0.59	7.59	1.93

Panel B displays the qualitative summary statistics of the countries variables for the country sample the EU-15 as well as the EMs-18. Specifically, we compute median values in the sample to consider if a country is with stronger (poorer) legal and institutional environment when the values of these variables are above (below) the median of the samples. To simplify the qualitative identification process, the sign “+” indicates the country is stronger, “-” indicates the country is weaker, and the sign “=” indicates the country has a “faire” status in the sampled group.

Panel B: Target Country Characteristics												
EU-15	Shareholder	Creditor	Minority	Ownership	Market	Economic	Ems-18	Shareholder	Creditor	Minority	Market	Economic
	Rights	Protection	Protection	Concentration	Size	Growth		Rights	Protection	Protection	Size	Growth
Austria	-	=	-	+	+	+	Argentina	-	-	-	+	+
Belgium	-	-	+	+	-	+	Brazil	+	-	-	+	-
Denmark	=	=	+	+	+	+	Chile	+	=	+	+	+
Finland	-	-	+	-	-	+	China	-	=	+	-	-
France	-	-	=	-	-	+	Colombia	-	-	+	-	-
Germany	=	=	-	+	+	-	Egypt, Arab	=	=	+	-	-
Greece	-	-	-	+	-	+	Hungary	+	-	-	+	-
Ireland	=	-	-	-	+	+	India	-	=	+	-	+
Italy	-	-	+	+	-	-	Indonesia	+	=	+	-	+
Luxembourg	=	.	-	.	+	+	Malaysia	=	+	+	+	+
Netherlands	-	=	-	-	+	+	Mexico	-	-	-	+	-
Portugal	-	-	+	+	-	+	Morocco	-	-	+	-	+
Spain	+	-	-	+	-	+	Peru	-	-	-	-	+
Sweden	-	-	-	-	+	+	Philippines	+	-	-	-	-
UK	+	+	+	-	-	-	Russian	+	=	+	+	+
							South Africa	+	+	+	+	-
							Thailand	+	=	+	-	-
							Turkey	-	=	-	-	+

Panel C ranks the frequency (%) for the acquiring nations as well as the targeted nation in cross-border M&As inside the European Union as well as cross-border M&As from the European Union to emerging countries.

Panel C							
Cross-border M&As inside European Union				Cross-border M&As from the European Union to Emerging Countries			
Acquiring Nation	Frequency	Target Nation	Frequency	Acquiring Nation	Frequency	Target Nation	Frequency
United Kingdom	40.57%	Germany	17.42%	France	24.88%	Brazil	16.57%
Sweden	10.18%	France	16.45%	United Kingdom	23.11%	China	12.36%
France	9.19%	United Kingdom	16.11%	Germany	10.58%	India	10.69%
Ireland	7.05%	Netherlands	9.77%	Sweden	7.64%	South Africa	9.53%
Germany	6.09%	Spain	7.19%	Netherlands	7.64%	Russia	9.09%
Italy	5.71%	Sweden	6.91%	Spain	6.09%	Turkey	7.98%
Netherlands	4.85%	Italy	6.23%	Italy	4.26%	Argentina	6.65%
Finland	4.57%	Denmark	4.33%	Finland	3.82%	Mexico	5.70%
Belgium	3.20%	Belgium	4.13%	Belgium	2.77%	Hungry	5.70%
Spain	2.96%	Ireland	3.54%	Austria	1.94%	Chile	3.49%
Denmark	2.23%	Finland	3.33%	Ireland	1.88%	Thailand	2.32%
Austria	1.23%	Portugal	1.75%	Denmark	1.71%	Malaysia	2.10%
Portugal	1.03%	Austria	1.72%	Greece	1.61%	Colombia	1.94%
Greece	0.72%	Luxembourg	0.68%	Portugal	1.05%	Morocco	1.77%
Luxembourg	0.34%	Greece	0.37%	Luxembourg	0.94%	Indonesia	1.66%
						Philippines	1.05%
						Peru	1.05%
						Egypt, Arab Rep	0.66%

1.4.2 Univariate Results

Table 1.7 presents the univariate results of $\Delta Ind_div_{i,t}$: Columns 1-5 present the univariate results for French domestic M&As, CBM&As from France-to-E.U., CBM&As France-to-EM, EU-only CBM&As, and EU-to-EM CBM&As respectively. Columns 6-9 present two-sample statistical results.

On average, French firms significantly increase industrial diversification in the domestic M&As as well as in M&As-to-E.U., and the two-sample tests show the $\Delta Ind_div_{i,t}$ is significantly higher in domestic M&As - that is to say, when conducting domestic M&As, the French firms prioritize industrial diversification (column 7). However, the normality tests show $\Delta Ind_div_{i,t}$ follow non-normal distribution, telling us to rely on the median values to judge the development trends of $\Delta Ind_div_{i,t}$. The median $\Delta Ind_div_{i,t}$ are negative and statistically significant, suggesting most French firms reduce industrial diversification in CBM&As to emerging countries (columns 1 and 2).

Moreover, we find there is no statistical difference on $\Delta Ind_div_{i,t}$ between M&As from France-to-EU and M&As-to-EM (column 8). Finally, we find $\Delta Ind_div_{i,t}$ are significant and positive in French domestic M&As over 2008 -2012 (column 1). In a similar way, the univariate tests on $\Delta Ind_div_{i,t}$ in EU-only CBM&As, the median values suggest most European acquiring firms reduce industrial diversifications (Column 4).

Contrary to this, the $\Delta Ind_div_{i,t}$ in CBM&As with emerging countries are more evident and obvious: the mean $\Delta Ind_div_{i,t}$ barely show any statistical significances, whereas the median $\Delta Ind_div_{i,t}$ are almost all negative and statistically significant, a fact that indicates the majority of European acquiring firms reduce Ind_div in emerging countries (column 5). Furthermore, we find industrial diversification was increased significantly over 2008 -2012. Two-sample test shows a significant difference on $\Delta Ind_div_{i,t}$ between EU-only CBM&As, and CBM&As EU-to-EM: Ind_div is increased significantly more in M&As inside the E.U. than in M&As with emerging countries (see results in column 9).

Table 1. 7

Univariate Analyses - Industrial Diversification

This table reports the univariate results of ΔInd_div . Column 1, 2, 3, 4 and 5 reports univariate results for France Domestic M&As, CBM&As from France to EU and CBM&As from France to emerging countries respectively. We perform univariate tests in the following subsample periods: 1992-2002; 2003-2012; 1992-1996; 1997-2002; 2003-2007; 2008-2012. We use segments sales based Berry-HHI index to measure firms' industry diversification, we use the standard T test to test the mean value significance and we use the signed rank test to capture the median value significance of changes of diversifications measures, and we use two sample statistical tests to detect the differences between samples - Column 6, 7, 8, and 9 report the two sample statistical tests results. *, ** and *** indicate the statistical significances at the 10%, 5% and 1% respectively.

Sample Period	Domestic M&As France			CBM&As France to EU			CBM&As France to Ems			CBM&A inside EU			CBM&As EU to Ems		
	(1)			(2)			(3)			(4)			(5)		
	ΔInd_div			ΔInd_div			ΔInd_div			ΔInd_div			ΔInd_div		
	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	Median	N
1992-2012	1.095***	-0.000	1566	0.076**	-0.015***	843	0.087	-0.004	345	0.303***	-0.006***	4921	0.097	-0.002*	1265
1992-2002	0.850*	-0.003	860	0.055	-0.018***	480	0.050	-0.011*	153	0.473**	-0.007***	2708	0.050	-0.002*	543
2003-2012	1.395***	0.002	706	0.105**	-0.003	363	0.118	-0.000	192	0.095***	-0.048***	2213	-0.002	-0.002	722
1992-1996	0.055	0.000	283	-0.002	-0.019***	148	-0.019	-0.003	34	0.018	-0.005*	866	0.003	-0.001	150
1997-2002	1.234	-0.003	577	0.080	-0.018***	332	0.070	-0.011	119	0.687**	-0.008***	1842	0.068	-0.005*	393
2003-2007	1.675**	-0.002**	441	0.099	-0.015	207	0.118	-0.000	192	0.037*	-0.006***	1274	-0.014	-0.017***	296
2008-2012	0.927***	0.007**	265	0.112	0.000	156	0.113	0.003	110	0.172	-0.003*	939	0.235***	0.003**	426
Normality Test															
Kolmogorov-Smirnov Test P<0.01															
Cramer-von Mises Test P<0.005															
Anderson-Darling Test P<0.005															
Two Sample Tests															
6=(1)-(2)			7=(1)-(3)				8=(2)-(3)				9=(4)-(5)				
Sample Period	Mean	Median		Mean	Median		Mean	Median			Mean	Median			
1992-2012	1.019***		P=0.082	1.008***		P=0.933	-0.011		P=0.185		0.205*		P=0.459		
1992-2002	0.795		P=0.051	0.814***		P=0.898	0.050		P=0.302		0.429**		P=0.892		
2003-2012	1.289***		P=0.742	1.277***		P=0.791	-0.012		P=0.630		-0.038		P=0.399		
1992-1996	0.068		P=0.274	0.086		P=0.726	0.018		P=0.708		0.014		P=0.882		
1997-2002	1.155		P=0.098	1.165		P=0.893	0.009		P=0.306		0.619**		P=0.869		
2003-2007	1.576**		P=0.537	1.552**		P=0.823	-0.024		P=0.448		0.052		P=0.065		
2008-2012	0.815**		P=0.127	0.814**		P=0.898	-0.001		P=0.244		-0.063		P=0.004		

Moreover, we classify acquiring firms under the SIC system to capture the characteristics of $\Delta Ind_div_{i,t}$ across different sectors. Panel A of Table 1.8 shows ΔInd_div is significantly increased in manufacturing and services industries in French domestic M&As. French firms decrease Ind_div in CBM&As to the E.U. but not in significant levels, and French acquiring firms reduce Ind_div significantly in M&As with emerging countries (column 1, 2 and 3). In a similar way, the E.U. acquiring firms increase Ind_div in CBM&As inside the E.U. but reduce it with emerging countries (columns 4 and 5). Last, we find ΔInd_div are positive and statistically significant in services industries in CBM&As from the E.U. with emerging countries (column 5).

Furthermore, we classify acquiring firms into more detailed industries of Fama & French 38 industries. Panel B of the Table 1.8 shows Ind_div is increased in industries such as food manufacturing, apparel and textile manufacturing, print and publishing industries, construction industries and the retail industry. In CBM&As from the E.U. with emerging countries, almost all industries have shown negative ΔInd_div , which suggest European acquiring firms reduce the level of Ind_div with emerging countries

To sum up, consistent with our hypothesis, univariate results show European firms are prone to specialize industries when conducting M&As with emerging countries, nevertheless, European firms increase industrial diversification with emerging countries during 2008-2012, which correspond to two recent papers, Kuppuswamy & Villalonga (2015) and Rudolph & Schwetzler (2013), which state US firms raised the level of industrial diversification during the financial crisis period 2009–2011. Finally, the univariate tests show industrial diversification is increased within the services firms in CBM&As with emerging countries.

Table 1. 8: Univariate Analyses by Fama and French Industries

Panel A presents the univariate analyses on ΔInd_div using the standard industrial classification system. Panel B presents the univariate analyses according to more detailed Fama and French 38 classifications. For more details SIC manual, please refer to the website https://www.osha.gov/pls/imis/sic_manual.html. The industry definitions of the Fama and French can be found on the website of http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/Data_Library/det_38_ind_port.html. Column 1 -3 relate to M&As conducted by French firms. Column 4 presents the results of CBM&As inside the European Union. Column 5 presents the univariate results in CBM&As from the EU to EMs.

ΔInd_div	M&As Inside France (1)			CBM&As France to EU (2)			CBM&As France to EMs (3)			CBM&As inside EU (4)			CBM&As EU to EMs (5)		
Panel A															
Agriculture, Forestry, Fishing	-	-	2	0.596	0.596	1	0.021	0.060	4	-0.057	-0.002	3	-0.016***	-0.002***	15
Mining	0.014	0.003	7	-0.025	-0.025	2	0.135*	0.037	16	0.260	0.000	11	-0.016	-0.030***	56
Construction	0.078	0.011	98	0.043	-0.001	19	-0.311*	-0.040	11	0.039	-0.005	124	-0.086	0.017	39
Manufacture	0.521***	0.000	644	0.031	-0.018***	425	-0.039*	-0.016***	211	0.091***	-0.006***	2956	0.010	-0.007***	84
Wholesale Trade	0.121	-0.032	63	-0.104	-0.021**	1	0.003	0.066	3	0.026	-0.000	159	-0.289***	-0.059***	31
Retail Trade	0.158*	0.042**	90	0.226**	0.014**	37	0.227*	-0.011	21	0.073	0.002	166	0.077	-0.006	38
Services	1.199*	-0.015**	638	0.078**	-0.014	338	0.282	-0.004	77	0.820**	-0.005	1381	0.353***	0.016***	237
Public Administration	-	-	-	0.050	0.050	2	0.0458	0.046	2	0.005	-0.015	8	0.081	0.047	5
Panel B															
Agriculture	-	-	2	0.596	0.596	1	0.058	0.060	4	-0.006	-0.002	3	-0.015***	-0.003***	15
Mines	0.013	0.003	7	-0.025	-0.025	2	-0.072	-0.114	6	0.038	0.000	9	0.027	-0.001**	28
Nonmetallic Minerals Ex. Fuels	0.074	0.005	14	-	-	-	-0.009	-0.005	4	-0.069	-0.007	13	0.011	0.017	28
Construction	1.644*	0.011	101	0.036	0.002	21	-0.311*	-0.040	11	0.107**	-0.005	145	-0.036	0.0165	39
Food products	0.048**	0.006*	113	-0.062**	0.013	60	-0.047***	-0.058***	52	-0.021	-0.003**	248	-0.008**	-0.019***	125
Tobacco Products	-0.533	-0.533	1	-	-	-	-	-	-	-0.255	-0.097*	4	-0.028	0.000	24
Textile Mill Products	0.354	0.304	4	-	-	-	-	-	-	0.019	0.028*	19	-0.095	-0.095	2
Apparel and Textile	0.551	0.068*	16	0.006	-0.010	5	-0.238	-0.238	2	-0.013	0.000	29	-0.031*	-0.036**	6
Wood and Lumber	-0.047	-0.014	6	0.062	0.062	1	-	-	-	-0.077	-0.026	19	0.0153	0.000	2
Furniture and Fixtures	0.397	0.436	4	-	-	-	-	-	-	-0.038	0.000	24	-0.120	-0.010	3
Fabricated Metal Products	0.003	0.023	11	-0.028*	-0.032	3	-0.066	-0.066	2	0.021	-0.009	127	-0.065*	-0.053**	17
Paper and Allied Products	-	-	1	0.014	0.006	8	-	-	-	-0.055	0.029***	67	-0.102	-0.102	12
Print and Publishing	0.088**	-0.002	58	-0.144	-0.101	6	-0.067	-0.067	1	0.022*	-0.011	181	0.037	0.015	37
Chemical products	0.006	-0.017	90	-0.110**	-0.032**	77	-0.078	-0.004	23	-0.014***	-0.010***	501	-0.008	-0.005	144
Rubber Products	0.890	0.317	3	0.310	0.010	6	-0.141	-0.141	3	0.028	0.002	121	0.019	0.060	20
Glass, stones products	-0.036	0.002	46	-0.042**	-0.025***	97	-0.005	-0.008	53	-0.103	-0.014***	32	0.005	-0.011*	103
Primary Metal Industries	0.074	0.005	14	-0.093	-0.025***	15	-0.066**	-0.066	2	-0.000	-0.005	151	0.0163	0.000	23
Fabricated Metal products	0.002	0.023	11	-0.028*	-0.033	3	-	-	-	-0.015*	-0.002*	71	-0.005	-0.004	15
Machinery	-0.011	-0.007	52	-0.011	0.009	21	-0.053***	-0.0755**	8	-0.022**	-0.001***	279	-0.003	-0.005***	53
Electrical products	0.005	0.003	69	-0.019	0.008		0.055	0.025	32	0.049*	0.007	300	0.022	0.007	108
Transportation	-0.161	-0.012	76	-0.084**	-0.020**	42	-0.223***	-0.211**	15	0.013	0.000	216	-0.053	-0.008	53
Instrument	0.036	0.009	16	-0.185	0.011	11	0.105	0.241	9	-0.093*	-0.016***	160	0.025	0.001	43
Other manufacture	0.281	-0.035	10	-0.099*	-0.116	5	0.049	0.049	2	-0.029	-0.025	15	0.010	0.002	5
Wholesale	0.121	-0.032	63	-0.105	-0.025*	8	0.003	0.0664	3	-0.010	-0.007	238	-0.443*	-0.058*	16
Retail	0.157*	0.042**	106	0.204*	0.013	44	0.227*	-0.011	21	0.015***	-0.001	174	0.040**	-0.060	39
Services	1.199*	-0.014**	638	0.078**	-0.014	338	0.017	-0.004	77	0.011**	-0.005	1381	0.353***	0.016***	237
Public management	-	-	-	0.050	0.050	2	-	-	2	0.006	-0.009	5	0.027	0.047	5
Leather and Leather products	0.010	0.007	14	0.062	0.062	1	-	-	-	0.000	-0.001	15	0.035	0.035	2
Other	-	-	1	-0.077	-0.038	4	-	-	-	-0.073**	-0.032***	79	-0.081*	-0.038**	23

1.4.3 Multivariate Results

Before performing multivariate regression analysis, we conduct Pearson correlation analysis among all the independent variables. Table 1.9 presents the Pearson Correlation Matrix from the CBM&A of EU-to-EMs. The correlation analysis shows the majority of correlations between the variables are less than 0.4 and most variables are significantly correlated with the dependent variable international diversification changes (this suggests the reasonable explaining powers of these variables). In order to ensure multivariate results are not affected by the multi-collinearity problem, we compute variance inflation factors (VIFs). We pool all variables together to construct trial models. According to VIF values, we manage to keep all the variables in the models since all VIFs scores are very low and the collinearity does not appear to be a problem.

We then construct 6 empirical models to test the relationship between $\Delta Int_div_{i,t}$ and $\Delta Ind_div_{i,t}$. In model 1, we regress the firm-level control variables. In model 2, we add target country specific variables into regression. In model 3, we add the dummy variable *Unrelatedness*, which takes the value of 1 if the first two digits of SIC codes are matched between acquiring and target firms, otherwise the variable is given the value of 0. In model 4, we replace the dummy variable with the continuous variable $\Delta Ind_div_{i,t}$. In model 5, we narrow the testing sample to the services industry¹⁶ and replicate the regressions in model 3. In model 6, we focus on the sample period 2008 to 2012, and repeat the regression procedure of the model 3.

The statistics shown at the bottom of Table 1.10 are industry-effects, time-effects, the F tests and the adjusted-R square of the 9 models. We apply industry fixed and time effects to the testing models but we did not apply industry effect in model 5 since the sample is in services industries. The adjusted-R square and F tests are used to measure the goodness-of-fit of the estimated models. The results show all our empirical models are fit and therefore the null hypothesis that our constructed models do not have explanatory power can be rejected

¹⁶ 'Services industry' is defined as the industries possessing the SIC codes 7000 to 8999.

Table 1. 9**Pearson Correlation Matrix**

This table presents the results of the Pearson Correlation Matrix between all the variables in CBM&As to emerging countries. Firms' size is measured as log value of total assets in million US dollars, firm leverage is measured as the percentage of total debt to total asset, free cash flow ratio is the total free cash flow divided by total assets, Tobin Q is computed as the difference of market capitalization and total debt divided by total book value of asset. Profitability is measured by using ratio of EBIT to total sales, market-to-book ratio is used to proxy firms growth opportunity, industry diversification is computed as product segment sales based HHI index. All firm-level variables take the values of the variations before and after the M&As events. Country level governance variables include Shareholder Rights Index, Credit Rights Protection Index, Minority Shareholders Protection Index and Country Level Ownership Concentration. The definitions of all these variables can be found at Appendix II at the end of the paper. *, ** and *** represent significance at the 10%, 5% and 1% respectively.

Cross-border M&As from EU to Emerging Countries												
Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. ΔINT	1											
2 $\Delta SIZE$	0,10	1										
3 ΔLEV	0,09	-0,03	1									
4 $\Delta CASH$	-0,05	0,47	-0,18	1								
5 $\Delta TOBIN$	-0,10	-0,51	0,00	-0,63	1							
6 $\Delta PROF$	0,01	0,05	0,02	0,25	0,03	1						
7 ΔMTB	0,05	0,13	-0,04	-0,08	-0,03	-0,08	1					
8 $MARKET_SIZE$	0,03	0,04	-0,03	0,03	0,02	-0,03	0,01	1				
9 C_GROWTH	-0,02	-0,03	-0,12	0,02	-0,03	0,00	0,03	-0,19	1			
10 $SHAREHOLDER$	0,02	0,04	0,05	-0,01	0,05	0,02	-0,01	0,38	-0,42	1		
11 $CREDITOR$	-0,01	0,00	-0,03	0,03	-0,01	0,02	-0,01	-0,24	0,24	0,01	1	
12 $MINORITY$	0,02	0,00	-0,03	0,03	-0,03	0,00	-0,01	-0,34	0,31	-0,27	0,79	1

Model 1 of Table 1.10 below shows a firm's financial leverage and Tobin have a significant impact on $\Delta Int_div_{i,t}$ in CBM&As with emerging countries, indicating improving efficiency and performance can be the two important motives in M&As with emerging countries. The two variables keep statistically significant in model 2. The positive relationship between Lev and $\Delta Int_div_{i,t}$ suggests European firms consider to improve debt capacities in M&As to emerging countries (consistent with Cheng et al. 1997; Ghosh et al. 2000). Consistent with Campa & Kedia (2002) and Doukas & Lang (2003), the positive relationship between Tobin and $\Delta Int_div_{i,t}$ implies that the European acquiring firms were motivated to improve their markets performances. In model 3, there is no dramatic change when we add the variable *unrelatedness* into regression, the maintained results indicate the persistence of the motives of improving efficiency and performance in EU-to-EM CBM&As, and we find the coefficient of the variable stays negative but not statistically significant, suggesting there can be a negative relationship between $\Delta Int_div_{i,t}$ and $\Delta Ind_div_{i,t}$.

In model 4, we add the continuous variable $\Delta Ind_div_{i,t}$ into regression, the adjusted R^2 and the F value are improved, which suggest the improvement of the explanatory power of the model. The regression results show there is a significantly negative relationship between $\Delta Int_div_{i,t}$ and $\Delta Ind_div_{i,t}$ (significant at 5%). The negative relationship suggests acquiring firms reduce industrial diversification by 3.7% or, alternatively speaking, increase industrial specialization by 3.7% for every 1% of increase in international diversification. The result indicates European acquiring firms substitute industrial diversifications in CBM&A with emerging countries. Models 5 and 6 display the results for the sampled firms in services industries and the sample period over 2008-2012. Financial leverage, firms' growth opportunities, and Tobin are found to be positively related with $\Delta Int_div_{i,t}$. More importantly, we find the $\Delta Ind_div_{i,t}$ is negative and statistically significant with $\Delta Int_div_{i,t}$. Results show European acquiring firms substitute or trade industrial diversification for international diversification in CBM&As with emerging countries.

Overall, the multivariate regressions results are consistent with the univariate results in stating that acquiring firms reduce industrial diversification in CBM&As with emerging countries. We interpret the negative relationship between industry diversification and the international diversification as the fact that European acquiring firms chose to focus their product (industrial) segments in cross-border M&As with emerging countries.

To summarize, multivariate analysis shows industrial specialization drives the M&As in EU-to-EMs. The results complement univariate analysis, yielding solid empirical evidence to support our hypothesis: firms in the European Union stick to industrial specialization in M&As to emerging countries. The finding, however, is against the conjectures or suggestions from previous theatrical literature that suggests firms should diversify industrially in emerging countries (Khanna & Palepu, 2000). Last but not least, the results suggest that the European acquiring firms have stronger motives to seek efficiency gains and realize synergies through the form of M&As to emerging countries.

Table 1. 10**Multivariate Regression Analyses**

This table presents the multivariate linear regression results for CBM&As of EU-to-emerging countries. The dependent variable is ΔInt_div . Firm characteristics include firm size, financial leverage, growth opportunities, free cash flows, profitability. Target country characteristics include target country economic growth, minority shareholder protections, ownership concentration, target country market size, shareholder protection and creditor right protections. We use the heteroskedasticity adjusted standard errors estimate the statistical significances of all variables. The regressions include year and industry fixed effects. Estimated coefficients are presented and T statistics are in parentheses. *, ** and *** represent the significance at the levels of 10%, 5% and 1% respectively.

Model	1	2	3	4	5	6
$\Delta SIZE$	0.631 [0.27]	-0.926 [-0.42]	-0.945 [-0.43]	-1.038 [-0.47]	-0.219 [-0.89]	2.281 [0.93]
ΔLEV	0.051*** [54.43]	0.052*** [49.89]	0.051*** [51.19]	0.052*** [49.8]	0.483*** [9.47]	0.025 [0.67]
$\Delta Tobin$	0.079* [1.88]	0.087*** [2.31]	0.086** [2.30]	0.123** [2.21]	0.302* [1.76]	0.034 [0.52]
ΔMTB	-0.000 [-0.26]	0.001 [0.48]	0.004 [0.48]	0.003 [1.27]	0.009 [1.21]	-0.015** [-2.45]
$\Delta CASH$	-0.000 [-0.69]	-0.000 [-0.85]	-0.000 [-0.78]	-0.002 [-0.65]	0.006 [0.25]	0.001 [0.46]
$\Delta PROF$	-0.000 [-0.17]	-0.001 [-0.31]	-0.000 [-0.28]	0.001 [0.15]	0.007 [0.35]	-0.000 [-0.07]
MARKET SIZE		0.014 [0.77]	0.025 [0.77]	0.016 [0.88]	-0.072 [-1.33]	0.017 [0.54]
C_Growth		-0.004 [-0.20]	-0.005 [-0.24]	-0.003 [-0.15]	-0.171 [-1.20]	0.005 [0.10]
SHAREHOLDER		0.007 [0.45]	0.007 [0.45]	0.007 [0.46]	0.042 [0.74]	0.002 [0.10]
CREDITOR		-0.016 [-0.43]	-0.016 [-0.41]	-0.015 [-0.39]	-0.100 [-0.68]	-0.145 [-1.51]
MINORITY		-0.005 [-0.04]	-0.006 [-0.05]	-0.009 [-0.07]	0.210 [0.46]	0.360 [1.23]
Unrelated-ness			-0.145 [-1.73]			
ΔInd_div				-0.041** [-2.58]	-0.045** [-2.59]	-0.034* [-1.74]
Industries Dummies	Yes	Yes	Yes	Yes	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes
F Value	7.08***	9.69***	9.54***	9.61***	8.52***	2.13***
Adjusted R^2	0.306	0.427	0.428	0.431	0.597	0.155
Observation Numbers	825	753	753	753	128	250

1.5 Robustness Checks

In this section, we conduct a battery of robustness checks. We follow several procedures to complete the robustness checks. Firstly, we redefine the $\Delta Int_div_{i,t}$ as the absolute changes on the year before and after completion of the M&A events and, correspondingly, we re-compute the changes of industrial diversification. Following Moeller & Schlingemann (2005) we take the nature log value of the HHI index to compute the absolute differences. The computations can be described as follows:

$$\Delta Int_div_{i,t} = Int_div_{i,t+1} - Int_div_{i,t-1} \quad (1-7)$$

$$\Delta Ind_div_{i,t} = Ln(Ind_div_{i,t+1}) - ln(Ind_div_{i,t-1}) \quad (1-8)$$

Next, we replace the dependent variable $\Delta Int_div_{i,t}$ with the firms' degree of international diversification on the year after completion of the M&As Int_div_{t+1} (we regress all of the control variables and $\Delta Ind_div_{i,t}$). Thirdly, we perform regressions by controlling and using lagged values of the firm-level variables $Size_{t-1}$, Lev_{t-1} , $Tobin_{t-1}$, MTB_{t-1} , $Cash_{t-1}$, and $Profit_{t-1}$. Finally, we replicate the original tests by using alternative measurements for industrial diversification: *the entropy index*. The computation process of entropy index can be written as follows:

$$EI_{i,t} = \sum_j^n p_{i,j} \ln(1/p_{i,j}) \quad (1-9)$$

Where: $p_{i,j}$ is the sale portion of segment j to i th firm's total sale. We calculate ΔEI as:

$$\Delta EI_{i,t} = (EI_{i,t+1} - EI_{i,t-1})/EI_{i,t-1} \quad (1-10)$$

Where: $EI_{i,t+1}$ represents the degree of industrial diversification after the completion of the M&As. $EI_{i,t-1}$ represents the degree of industrial diversification one year prior to the announcement of the M&As

Table 1.11 reports the robustness results. We created 12 models in the robustness checks. Model 1, 2 and 3 correspond to the first robustness procedure; Model 4, 5 and 6 match with the second robust procedure; Model 7 8, and 9 match with the third robustness check, and finally model 10, 11 and 12 replicate the robustness procedures by including the alternative industrial diversification measurement of the entropy index. In using the entropy index, the results are qualitatively similar to the original tests using the HHI index, the $\Delta Ind_div_{i,t}$ shows a negative relationship with $\Delta Int_div_{i,t}$.

Table 1. 11

Robustness Checks

First, we use the absolute ΔInt_div and ΔInd_div (see model 1, 2 and 3). Second, we replace ΔInt_div with Int_div_{t+1} (see model 4, 5, and 6). Using the Int_div_{t+1} as dependent variable, we regress with control variables with $Size_{t-1}$, Lev_{t-1} , $Tobin_{t-1}$, MTB_{t-1} , $Cash_{t-1}$; $Prof_{t-1}$ and ΔInd_div (see model 7, 8, and 9). Model 10, 11 and 12 replicate the robust procedures by including the alternative industrial diversification measurement of entropy index. Model 1, 4, 7 and 10 are regressions of full sample; Model 2, 5, 8 and 11 are regressions narrowed down to services industries. Model 3, 6, 9 and 12 are regressions restricted to the sample period 2008-2012. *, ** and *** represent significance at the 10%, 5% and 1% respectively.

	1	2	3	4	5	6	7	8	9	10	11	12
(Δ) SIZE	-0.009 [-0.28]	-0.219*** [-2.75]	0.014 [0.29]	0.024 [0.64]	-0.165** [-2.07]	-0.089 [1.22]	0.0265*** [5.88]	0.017*** [2.56]	0.017*** [2.98]	0.056* [1.72]	-0.035 [0.80]	2.058 [0.88]
(Δ) LEV	0.036 [0.56]	0.483*** [3.00]	-0.146 [-1.59]	0.029 [0.34]	0.197 [1.36]	0.087 [0.62]	-0.002 [-0.03]	0.283 [1.62]	-0.053 [-0.66]	-0.005 [-0.08]	1.182* [1.65]	-0.089 [-0.39]
(Δ) Tobin	-0.008 [-0.73]	-0.008 [-0.54]	0.088** [2.24]	-0.012 [-1.01]	-0.038 [-1.18]	-0.009 [-0.25]	0.024*** [2.76]	0.023* [1.62]	0.042*** [2.64]	-0.007 [-0.90]	-0.038 [-0.28]	-0.008 [0.69]
(Δ) MTB	0.008 [1.27]	1.126** [2.00]	-0.003 [-0.31]	-0.005 [-0.94]	0.008 [0.26]	-0.022 [-1.46]	0.000*** [3.64]	0.110** [2.05]	0.000* [1.83]	-0.006 [-0.88]	-0.008 [-0.88]	-0.017** [-2.36]
(Δ) CASH	-0.326*** [-4.02]	-1.126*** [-4.09]	-0.658*** [-3.42]	0.096 [1.35]	-0.138 [-0.36]	0.048 [1.39]	0.240 [1.25]	0.491 [1.23]	-0.346 [-1.30]	-0.295*** [-3.86]	-0.194*** [-4.79]	0.001 [0.56]
(Δ) PROF	0.131*** [3.73]	0.746*** [3.40]	0.144*** [3.22]	0.001 [0.05]	0.192 [0.69]	-0.033 [-0.39]	0.047 [0.40]	-0.056 [-0.20]	-0.137 [-1.15]	0.098*** [2.76]	-0.194*** [-4.79]	0.000 [0.11]
MARKET SIZE	0.004 [0.51]	-0.018 [-0.78]	0.025 [1.63]	-0.028** [-2.54]	0.008 [0.28]	-0.022 [-1.11]	-0.018** [-2.10]	-0.004 [-0.20]	-0.009 [-1.30]	-0.002 [-0.25]	-0.035 [-0.46]	0.021 [0.66]
C_GROWTH	-0.007 [-0.91]	-0.071** [-1.82]	-0.004 [-0.35]	-0.017 [-1.51]	-0.010 [-0.29]	-0.022 [-1.16]	-0.002** [-2.12]	-0.024 [-1.40]	-0.036 [-0.83]	-0.009 [-1.15]	-0.285* [-1.85]	-0.006 [-0.13]
SHAREHOLDER	-0.000 [-0.01]	-0.000 [-0.05]	-0.005 [-0.59]	-0.022*** [-3.16]	-0.010 [-0.51]	-0.025** [-2.08]	-0.011*** [-3.13]	-0.021 [-1.03]	-0.014 [-0.37]	0.000 [0.06]	-0.044 [-0.60]	-0.002 [-0.08]
CREDITOR	-0.019* [-1.62]	-0.054 [-1.61]	-0.046 [-0.68]	-0.015 [-0.88]	-0.015 [-0.40]	0.030 [0.99]	-0.010 [-0.63]	-0.029 [-0.81]	0.007 [0.25]	-0.020 [-1.64]	-0.045 [-0.26]	-0.141 [-1.45]
MINORITY	0.085* [2.18]	0.209* [1.77]	0.095 [1.01]	0.014 [0.21]	-0.142 [-0.90]	-0.105 [-0.79]	0.018 [0.28]	-0.022 [-0.15]	-0.028 [-0.25]	0.076 [1.54]	-0.045 [-0.26]	0.360 [1.22]
ΔInd_div	-0.037* [-1.69]	-0.072** [-1.96]	-0.022 [-0.55]	-0.065** [-2.39]	-0.066** [-2.07]	-0.048 [-1.46]	-0.054*** [-2.67]	-0.025 [-0.89]	-0.043* [-1.73]	-0.223* [1.60]	-0.496*** [-3.12]	-0.127* [-1.60]
Industry Dummies	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
F Value	3.08***	Yes	3.30***	2.82***	1.56*	2.22***	4.18***	2.08***	3.10***	3.17***	2.77***	2.03***
Adjusted R ²	0.076	0.038	0.122	0.065	0.094	0.067	0.100	0.146	0.088	0.0534	0.061	0.158
Observations	753	131	249	775	136	256	872	165	347	747	811	248

1.6 Conclusion

Despite industrial diversification is one of the key motives in mergers and acquisitions, current studies have shown international diversification is more popular and a more commonly adopted choice by multinational firms. However, the relationship between international diversification and industry diversification remained opaque, no universally-accepted formula exists for assessing the benefits and costs of industrial diversification, especially those investments going into emerging countries. Emerging countries have certainly become “hot” markets attracting international investments recently, yet investing in them is risky. Literature has shown international diversification across industries provides a greater level of risk reduction than conducting international diversification alone.

By focusing on non-financial and non-utilities companies among the 15 most developed countries in the European Union, we looked at the CBM&As from E.U.-15 to 18 emerging countries during 1992-2012. Our empirical results show European acquiring firms reduce their industry diversification significantly in EU-to-EM CBM&As. Compared to the intra-E.U. M&As and M&As made by French companies, we show there is the possibility of having an ‘ordered’ pattern of industrial diversification within the European firms: Industrial diversification for MA inside France or Europa versus industrial specialization for CB MA to emerging countries. The relationship between industrial diversification and international diversification is negative. But we believe if we consider the last years that with the on-going further integrations of the World Economy, alongside the further development of economies and improvement of the legal and institutional environments in emerging countries, it is reasonable to infer that industry diversification behavior will be varied.

This paper can be extended in many perspectives. Firstly, since we only focused on public limited firms in 15 developed countries in the European Union, and the study can be extended to the other developed countries in Europe and even the United States. Secondly, and consistent with two recent American studies, our results show there was increasing industry diversification in European Union in the time 2008-2012, a fact we think corresponds to the recent financial crisis in that area. However, we did not step further forward to examine how this industry diversification was associated with the events of the financial crisis. We leave it for future study.

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Appendix 1-1

Variables Definitions

Symbols	Variables	Definition and Data Sources
SIZE	Firm' Size	Size of acquiring firm is measured by logarithm value of total assets. The change of size is measured as the level one year after the completion of the M&A minus the level one year prior to the announcement of the M&A. Data source: the World-scope Financial.
LEV	Financial Leverage	Financial leverage of acquiring companies is computed as total debts dived by total assets. The change of leverage is measured as the level one year after the completion of the M&A minus the level one year prior to the announcement of the M&A. Data source: the World-Scope Financial.
TOBIN	Tobin Q	Market value of equity plus book value of total debt divided by the book value of total assets. The change of Tobin Q is measured as the level one year after the completion of the M&A minus the level one year prior to the announcement of the M&A. Data: The World-Scope Financial.
CASH	Free Cash Flow	Operating before interest and tax minus total cash paid on dividend, minus total income taxes, minus interests expenses on debt normalized by total asset. The change of cash is computed as the level one year after the completion of the M&A minus the level of one year prior to the announcement of the M&A. Data source: World-Scope Financial.
PROF	Profitability	Earnings before interest and tax (EBIT) divided by total assets. The changed level of PROF is computed as the level one year after completion of the M&A minus the level of one year prior to the announcement of the M&A. Data source: the World-Scope Financial.
MTB	Market-to-book	Ratio of book equity and market equity in the fiscal year prior to the M&As. The changes level of MTB is computed as the level one year after completion of the M&A minus the level of one year prior to the announcement of the M&A. Data source: World-Scope Financial
INT_DIV	International Diversification	Foreign sale to total sale ratio. We compute the changes of international diversification as the level of one year after completion of the M&As minus the level of one year prior to the announcement of the M&A. Data source: World-Scope
IND_DIV	Industrial Diversification	Herfindal Index based measurement. The change of industrial diversification is computed as the level one year after completion of the M&A minus the level of one year prior to the announcement of the M&A. Data source: World-Scope.
EI	Entropy Index	Entropy Index based measurement of firms' industrial diversification. The computation process of the changes of it is the same stated as above.
Unrelated-ness	Dummy Variable	M&A deal is treated as industrially unrelated if the first two digits of standard industry code of acquirers match with the first two digits of SIC code of the targeted firms.

C_GROWTH	Target GDP growth Rate	Logarithmic value of GDP growth rate, 1992-2012. Source: IMF, World Economic Outlook
MARKET SIZE	Target GDP	Natural log value of the ratio of GPD per capita of EU-15 and emerging markets Data source: The World Bank Development Indicator.
SHAREHOLDER	Target Shareholder Protection	Shareholder right protection index developed in La Porta et al. (2006)) and revised by Djankov et al. (2008).
CREDITOR	Target Creditors Protections	Creditor right protection index developed by La Porta et al. (2006) revised by and Djankov et al. (2008)
MINORITY	Target Minority Shareholders Protection	Minority Shareholder Protection index developed by La Porta et al. (2006) and revised by Djankov et al. (2008)
OWNER	Target Country Level Ownership concentration	Ownership concentration is extracted from La Porta et al. (2006) What works in securities laws. Journal of Finance, 61 (1), 1-32.

Chapter 2

Do Markets Prefer Industrial Diversification or Specialization in Cross- border M&As with Emerging Countries?

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ABSTRACT

Using a unique sample containing 1,732 cross-border mergers and acquisitions (CBM&As), with acquiring firms from the 15 most-developed countries in the European Union (E.U.-15) and targeted firms from 18 emerging countries, we find that in such cases the markets have negative reaction to industrial specialization. This result contradicts the industrial diversification discount literature concerning M&As in developed countries alone. Compared to CBM&As conducted wholly inside the E.U.-15, we found the announcement effects for CBM&As between the E.U.-15 and an emerging market to be significantly less positive due to the focus on industrial diversification versus specialization. Our findings allude to the idea that pursuing industrially diversified M&As with emerging countries should become an immediate priority for acquiring firms in developed countries.

Keywords: Cross-border Mergers and Acquisitions, Emerging Markets, Shareholder Wealth Effects, Industrial Diversification, Industrial Specialization

JEL Classification: G31; G32; G34

2.1 Introduction

Mergers and acquisitions (M&As), being among the most critical corporate strategic decisions, have been extensively studied in the corporate finance literature. Cross-border M&As (CBM&As), while relatively new, have inspired many empirical studies as well. However, a consensus concerning announcement effects, particularly from the viewpoint of the acquiring shareholders, is far from having been reached (Machiraju 2003; Bhagat et al. 2011). Rather, the announcement period abnormal returns in CBM&As provoke on-going debates among academics. In this paper, we study the announcement effects on acquiring shareholders from CBM&As between the European Union and emerging markets.

M&A activity comes in waves, and there have been five such waves up to the present time (Burksaitiene, 2010). The first wave of M&As started in the late 19th century and continued until the beginning of the 20th century (1888-1908) in the United States. This wave featured the consolidation of industrial production (Lamoreaux, 1985), as did the second wave of M&As, from 1916 to 1929. The third wave occurred from the late 1960s to 1970 and was known, instead, for industrially diversified M&As. The fourth wave, occurring between 1980 and 1989, was characterized by hostile takeovers and going-private transactions (Martynova & Renneboog 2005). The fifth wave overlapped the fourth, starting in the mid-1980s; a very distinctive feature of this still-ongoing wave is its international nature.

Entering the 21st century, we have witnessed the fast development and further integration of high technology and globalization. CBM&As between developed and developing (emerging) countries have been increasing rapidly. Emerging countries attract international investors with their larger markets and their increased consumer demand, particularly in industries such as the electronics, high-technology, telecommunications, and electrical industries, according to a 2011 report of the *European Business Review*. The International Monetary Fund (IMF) has estimated that after 2015, 90% of future economic growth will be driven by the economic activities of emerging countries. According to a 2011 OECD report and the 2012 World Investment Report, CBM&As between developed and emerging countries have been growing at a rate of 19% since 2002. A 2012 survey by *The Economist Intelligence Unit* shows that 56% of firms from industrialized countries chose emerging countries for CBM&As, while only 22% of firms chose

developed countries. The foreign direct investment claimed by large emerging countries such as Brazil, Russia, India, and China have doubled since 2008, according to a 2013 report in *The Wall Street Journal*. A more recent survey by the Chartered Financial Analyst Program further shows that four out of the five countries in BRICS, together with the United States, are viewed as the top five countries with the best investment opportunities¹⁷. The E.U., the single largest economic entity and the world's largest trader of manufactured goods and services, for example, has very active trading relationships with emerging countries. For the E.U., emerging countries have overtaken the position of the US in terms of external trades (Guillaume et al., 2008).

Very few studies, however, have examined how the markets react to announcements of CBM&As with emerging countries (Moeller & Schlingemann, 2005; Chang, 2007). Among these studies, furthermore, the selection of acquiring country is mainly limited to the US, while the target countries are mostly restricted to a few emerging economies, such as India, China, and Russia (Francis et al., 2008; Chari et al., 2010; and Karels et al., 2011).

We should remember that investing in emerging countries is very risky: emerging countries do not have well-established legal and institutional environments, they do not have sound and effective securities regulations, and they generally have poorer basic infrastructures. For these reasons, some earlier studies have argued that firms from developed countries should raise the level of industry diversification when conducting M&As in emerging markets (Khanna & Palepu, 2000; Lins & Servaes, 2002). Whether firms should stick to a focused strategy without considering industrial diversification is debatable. To the best of our knowledge, no prior studies have examined whether acquiring firms follow industrial specialization or diversification strategies when engaging in CBM&As in emerging countries or how the markets may react to announcements of these industrially specialized (or diversified) CBM&As.

In this paper, we construct a unique dataset of 1,732 CBM&As completed between 1992 and 2012 by public firms from the 15 most-developed EU countries (E.U.-15) and 18 emerging countries (EMs-18). We investigate the effects of the announcements of these mergers and

¹⁷ These professional economic reports on M&As can be accessed and downloaded from the official sites of the United National Conference on Trade and Development (UNCTAD), the OECD, the International Monetary Fund, *The Economist Intelligence*, *The Wall Street Journal*, and the Chartered Financial Analyst Program.

examine how industry specialization can influence the announcement period abnormal returns for the acquiring shareholders. We compare the stock market abnormal returns of domestic M&As in France, CBM&As inside the E.U.-15, and CBM&As between the E.U.-15 and EMs-18 countries. The paper makes several contributions: First, we fill the research gap and contribute to the empirical literature on price reactions to announcements of CBM&As in emerging markets as they affect the acquiring shareholders' wealth. Second, compared to the few prior studies concerning CBM&As and emerging countries, our empirical results are stronger and more generalizable. Third, we demonstrate that the announcements of CBM&As in emerging countries had significantly lower announcement abnormal returns; this may be due to the choice between industrial specialization and industrial diversification, as we find that industrial specialization has a negative impact on the announcement abnormal returns in CBM&As in emerging countries. Our empirical results differ from the industrial diversification discount effects reported in the extant M&A literature within the context of developed countries; our results rather suggest that firms from developed countries should raise the level of industrial diversification in CBM&As with emerging countries, as this industrial diversification will benefit their shareholders.

The rest of the paper is structured as follows. In section 2, we develop our research hypotheses. In section 3, we discuss how we collect our data and describe our methodologies. In section 4, we summarize the descriptive statistics, and report and discuss our empirical results. In section 5, we present the results of our robustness checks. In section 6, we draw our conclusions and formulate the research implications of our study.

2.2 Development of Hypotheses

2.2.1 Announcement Effects

Because US firms account for the largest volume of M&As, most current studies concentrate on the US. Studies of European M&As are relatively fewer, and those referencing CBM&As with emerging countries are fewer still. Yet even when restricted to US firms, the extant literature on the effects of M&A announcements on the acquiring shareholders' wealth remain inconclusive, unclear, and unconfirmed (Bhagat et al., 2011). Asquith et al. (1983) find that

acquiring shareholders obtained significant and positive abnormal returns following M&A announcements from 1955 to 1979; US acquiring shareholders experienced a significant increase of 2.8% excess returns. Markides & Ittner (1994), however, find US domestic M&As do not benefit acquiring shareholders. Doukas et al. (1988) find positive abnormal returns for acquiring shareholders of M&As announced between 1975 and 1983. However, Fatemi & Furtato (1988) find small but statistically insignificant negative returns for US acquiring firms. Healy et al. (1990) find a strong improvement of stock performances by using the largest 50 M&As announced by public limited firms in the US from 1978 to 1983.

Since the beginning of the 21st century, a growing number of studies in the US examine the announcement effects of CBM&As. In general, these studies show that CBM&As do not always create wealth for the acquiring shareholders. For example, Markides & Oyon (1998) find M&As between the US and the UK or Canada did not create wealth for the acquiring shareholders, whereas US acquisitions into Continental Europe created significant value. Eckbo & Thornburn (2000) study M&As announced in Canada by US firms. They compare these deals with Canadian domestic M&As and find that the domestic acquirers realized significantly positive announcement abnormal returns, whereas the U.S. acquirers in Canada obtained statistically insignificant abnormal returns. More recently, based on 4,430 M&A announcements from 1985 to 1995, Moeller & Schlingemann (2005) show that CBM&As differ significantly from domestic M&As in announcement abnormal returns. They find that CBM&A acquirers, as opposed to domestic acquirers in the US, obtained significantly lower announcement abnormal returns. Francis et al. (2008) claim that both types of M&As created significant and positive abnormal returns for the acquiring shareholders, but that domestic M&As surpassed CBM&As. Dutta et al. (2013) focused on 1,300 completed deals by Canadian firms from 1993 to 2002; they find stock performances of CBM&As surpass domestic M&As in Canada.

CBM&As only became popular in Europe in the 1990s and at that time the total transactions of CBM&As reached the equivalent volume to the M&As announced in the US during the 1990s. Among the European M&A studies, the largest are on deals announced by UK firms. Aw & Chatterjee (2004) examine the stock performance differences between CBM&As and domestic M&As and find that UK cross-border acquiring shareholders obtained lower announcement

abnormal returns than did shareholders following domestic M&As. Georgen & Renneboog (2003) have similar findings, although not for M&As announced between the UK and France. Conn et al. (2005) examine 4,334 M&As announced from 1984 to 1989 and find that CBM&As experienced lower abnormal returns than domestic M&As. However, these UK studies are criticized for ignoring some of the important economies in Europe, such as France.

The E.U. single Market Act has brought its member countries great benefits,¹⁸ as it not only imposes resource-sharing between European firms but also facilitates an upsurge of CBM&As inside the E.U. Generally we infer that CBM&As inside the E.U. should be viewed as value-creation activities by the markets. In fact, many empirical studies show that the announcement period abnormal returns for CBM&As inside the E.U. surpass the market price reactions for domestic M&As. Feito-Ruiz & Menendez-Requejo (2011) find that European stock markets react more positively to the announcement of CBM&As. Danbolt & Maciver (2012) find that UK cross-border acquirers realized significantly higher announcement abnormal returns in CBM&As between 1980 and 2008 than did the UK domestic acquirers.

Despite a growing number of studies, those concerning CBM&As between developed countries and emerging countries are still very limited (Barbopoulos et al., 2014). Lebedev et al. (2015) show there to be 11 traceable studies overall. Generally speaking, these studies show that CBM&As announced from developed countries to emerging countries increased wealth for the acquiring shareholders. For example, Chari et al. (2010) show that the acquiring shareholders in developed countries obtained positive and significant announcement abnormal returns. Barbopoulos et al. (2014) provide evidence that UK acquiring firms obtained higher and significant wealth gains from the announcement of M&As with emerging countries between 1993 and 2008. There are also studies focusing on the announcement effects of M&As in some individual emerging countries, such as India, Russia, China, and Turkey, but the empirical results of these studies are mixed (Karels et al., 2011; Aybar & Ficici, 2009).

¹⁸ Please refer to the website of the European Commission, http://ec.europa.eu/index_en.htm.

In summary, a multinational company's choice of location depends on its prior experience of international investments (Berry, 2006). Although emerging countries show faster economic growth than developed countries, investing in emerging countries is more risky. Markets may view the announcement of M&As with emerging countries less positively than M&As conducted in the home countries of the acquiring firms. More specifically, we assume that markets will view the announcement of CBM&As within the E.U.-15, or of domestic M&As in a single member country such as France, more positively than they do the announcement of CBM&As between the E.U.-15 and emerging countries. Relying on the current empirical evidence concerning announcement effects of CBM&As with emerging countries, we propose the following hypothesis:

Hypothesis 1: Acquiring shareholders will obtain positive and significant abnormal returns in CBM&As announced between the E.U.-15 and emerging countries. However, the announcement effects will be significantly smaller than those of CBM&As announced inside the E.U.-15 or of domestic M&As in France.

2.2.2 Industrial Specialization (Diversification)

A majority of empirical studies show that industrially diversified M&As reduce the wealth of the acquiring shareholders. Industrially diversified M&As increase the level of unfamiliarity between different product segments (Kumar, 2009), which may slow production and increase production costs (Kostova & Zaheer, 1999). Morck et al. (1990) find that market reactions to industrially diversified firms are significantly lower than to non-diversified firms. Berger & Ofek (1995) find that industry diversification significantly reduces acquiring shareholders' wealth. Comment & Jarrel (1995) find a trend toward industry specialization, instead of diversification, among American public firms since the 1980s.

Empirical studies of industrially diversified M&As are relatively fewer in the E.U., but those that exist show the same evidence as their American counterparts that industrially diversified M&As do not create wealth for the acquiring shareholders. Goergen & Renneboog (2004) find that announcement period abnormal returns are significantly higher in industrially related M&As than in industrially unrelated M&As in the E.U. Doukas & Kan (2004) find that the acquiring firms in unrelated acquisitions experience larger excess cash flow declines and suffer

greater value discounts. Moreover, industry diversification is often found to be associated with the agency problem, as diversification often involves the self-interest of managers (Jensen & Meckling, 1976). We conjecture that industrially diversified M&As should be viewed as less favorable than industry specialized M&As in the E.U., thus:

Hypothesis 2: Industrially related M&As inside the E.U.-15 (regardless of whether they are domestic or cross-border M&As) will obtain positive reactions in the stock market, whereas industrially unrelated M&As will obtain negative market price reactions.

Hypothesis 2A: Industrially related cross-border M&As inside the E.U.-15 and domestic M&As in France will obtain higher announcement returns than the comparable industrially unrelated M&As.

No study has provided evidence regarding how markets may react to industrially diversified M&As in emerging countries. However, CBM&As involve a process of corporate international diversification which can impose further geographic dispersion on acquiring firms. Landier et al. (2006) indicate that firms' geographic dispersion affects their decision-making, because managers in more internationally diversified firms are more difficult to monitor, and that this factor explains why CBM&As hold more investment risk than domestic M&As.

A few studies have examined the joint effects of the two types of diversification, international and industrial. Wiersema & Bowen (2008) find a negative relationship between industry diversification and international diversification. Doukas & Lang (2003) claim that acquiring firms trade industrial diversification for international diversification. Flavin (2004) also supports the idea that the relationship between international and industrial diversification is a trade-off. Other studies focus on how the joint effects of the two types of diversification may affect firms' financial performance. For example, some studies show that the joint effect positively influences a firm's financial performance (Sambharya, 1995; Hitt et al. 1997; Chang & Wang, 2007). In contrast, others show that the joint effect negatively influences a firm's financial performance (Chang, 2007). In addition, the majority of existing empirical studies show that markets do not favor industrially diversified M&As and that most acquiring firms conduct industrially specialized deals in CBM&As. This result also explains why international diversification is usually accompanied by a decrease in industrial diversification.

Ceteris paribus, if acquiring firms in developed countries choose to increase their industrial diversification through CBM&As in emerging countries, their shareholders will be less likely to accept the deal, because they will face higher investment risks and lose more control of the acquiring firm. With no prior studies to rely on, we intuitively conjecture that acquiring firms from the E.U.-15 should prefer industrial specialization when planning CBM&As with emerging countries, and that markets should react positively to industrially specialized deals in CBM&As with emerging countries, thus:

Hypothesis 3: Industrial specialization should be positively associated with abnormal announcement returns in the stock market in CBM&As from the E.U.-15 to emerging countries.

2.3 Samples and Methodology

2.3.1 Sample Collection

We collect M&A deals announced by the Securities Data Company (SDC), focusing on acquiring countries in the E.U.-15, as we want to minimize the influence of cross-country factors. As defined by the OECD, the term E.U.-15¹⁹ refers to the 15 Member States of the European Union as of December 31, 2003; it is comprised of the following 15 countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom. To select our targeted emerging countries, we review the various definitions of emerging markets from several international financial organizations, such as FTSE, MSCI, Bloomberg, Standard and Poor's, Dow Jones, and the IMF. We select 18 emerging countries (EMs-18) commonly recognized by these international financial institutions, including: Argentina, Brazil, Chile, China, Colombia, Egypt, Hungary, India, Indonesia, Malaysia, Mexico, Morocco, Peru, the Philippines, Russia, South Africa, Thailand, and Turkey.

¹⁹ We refer to the OECD definition of EU-15 available at [http:// stats.oecd.org/glossary/detail.asp?ID=6805](http://stats.oecd.org/glossary/detail.asp?ID=6805)

The dynamics of real business life can make the construction of M&A sample sets difficult. For many reasons, some E.U.-15 acquiring firms cannot be identified: firms may have been delisted, changed their trading names, or even been acquired by other companies. Another problem is caused by errors in the SDC database. The database only supplies six digits of the corporate CUSIP codes and Thomson Ticker symbols; we find that often these corporate identification codes do not match the corporate codes shown on the firms' websites. To solve this problem, we manually check each acquiring firm's corporate identification code, as well as the corporate news concerning their M&A announcement, by using databases such as Factiva, LexisNexis, and Google Finance. We obtain the daily stock return data and country-based market portfolio returns (including dividends) from EUROFIDAI. The variables we extract include: the standard industrial classification (SIC code), the daily closing price, the exchange code, the quotation date, the holding return with dividends and the market returns (generally value-weighted index), the EUROFIDAI benchmark indices of EU-16 countries in dollars, and the EUROFIDAI benchmark indices of EU-27 countries in dollars.

We construct our sample set in the following way. First, we restrict our samples to M&As completed by public non-financial and non-energy or utility firms in the E.U.-15 with firms in EMs-18 countries between 1992 and 2012. We focus on non-financial and non-energy or utility firms because there is the likelihood of government involvement and a different treatment of accounting data in such industries, which may skew our research. Second, we exclude acquiring events with major concurrent M&As within the prior 15 trading days to avoid any "compounding effects" on the price returns. Third, we exclude M&As announced during the closure of the stock markets. Fourth, in order to have a sufficient period in which to estimate the firms' "normal" returns, we require all acquiring firms to have at least 250 stock trading days prior to the 20 trading days²⁰ of the M&A events. Using this method, we identify 1,732 CBM&As between E.U.-15 and EMs-18 countries, corresponding to 607 firms. We identify a further 5,646 CBM&As inside the E.U.-15, relating to 1,607 firms, and 1,862 M&As in domestic France, involving 525 French firms. Table 2.1 presents statistics on M&A distribution by acquiring country and by year.

²⁰ We follow Savickas (2003) and others in using the (-250, -20) interval as our "estimation window."

Table 2. 1

M&A Samples Distributions

This table describes the sample distributions of CBM&As within the E.U.-15, CBM&As between E.U.-15 and EMs-18 countries, and domestic M&As in France from 1992 to 2012. Panel A presents acquiring countries' distribution and target countries' distribution of CBM&As. Panel B presents the yearly frequency of CBM&As within the E.U.-15, CBM&As between E.U.-15 and EMs-18 countries, and domestic M&As in France.

Panel A											
CBM&As E.U.-15 to EMs-18						CBM&As Inside E.U.-15					
Acquiring Country	Number	%	Target Country	Number	%	Acquiring Country	Number	%	Target Country	Number	%
Austria	32	1,85	Argentina	104	6,00	Austria	148	2,62	Austria	169	2,99
Belgium	48	2,77	Brazil	282	16,28	Belgium	260	4,61	Belgium	310	5,49
Denmark	23	1,33	Chile	54	3,12	Denmark	227	4,02	Denmark	248	4,39
Finland	70	4,04	China	224	12,93	Finland	292	5,17	Finland	247	4,37
France	441	25,46	Colombia	34	1,96	France	964	17,07	France	790	13,99
Germany	183	10,57	Egypt	23	1,33	Germany	710	12,58	Germany	1047	18,54
Greece	25	1,44	Hungary	82	4,73	Greece	52	0,92	Greece	23	0,41
Ireland	5	0,29	India	190	10,97	Ireland	65	1,15	Ireland	129	2,28
Italy	58	3,35	Indonesia	35	2,02	Italy	201	3,56	Italy	415	7,35
Luxem.	14	0,81	Malaysia	45	2,60	Luxem.	11	0,19	Luxem.	36	0,64
Netherlands	93	5,37	Mexico	81	4,68	Netherlands	582	10,31	Netherlands	477	8,45
Portugal	23	1,33	Morocco	33	1,91	Portugal	45	0,80	Portugal	91	1,61
Spain	100	5,77	Peru	17	0,98	Spain	137	2,43	Spain	459	8,13
Sweden	145	8,37	Philippines	27	1,56	Sweden	667	11,81	Sweden	399	7,07
UK	472	27,25	Russian	168	9,70	UK	1285	22,76	UK	806	14,28
			S. Africa	168	9,70						
			Thailand	38	2,19						
			Turkey	127	7,33						
Final Numbers of Deals							5,646				
Final Numbers of Firms				607			1607				

Panel B						
CBM&As Inside E.U.-15			CBM&As E.U.-15 to Ems-18		Domestic France M&As	
Year	Number	%	Number	%	Number	%
1992	82	1,45	12	0,69	69	3,71
1993	84	1,49	18	1,04	52	2,79
1994	135	2,39	27	1,56	64	3,44
1995	200	3,54	36	2,08	43	2,31
1996	214	3,79	55	3,18	56	3,01
1997	278	4,92	65	3,75	58	3,12
1998	357	6,32	99	5,72	61	3,28
1999	430	7,62	88	5,08	127	6,82
2000	589	10,43	127	7,33	202	10,85
2001	433	7,67	104	6,00	128	6,88
2002	273	4,84	64	3,70	75	4,03
2003	225	3,99	56	3,23	59	3,17
2004	198	3,51	73	4,21	65	3,49
2005	298	5,28	103	5,95	105	5,64
2006	345	6,11	117	6,76	124	6,66
2007	422	7,47	129	7,45	146	7,85
2008	309	5,47	138	7,97	94	5,05
2009	153	2,71	88	5,08	72	3,87
2010	219	3,88	101	5,83	88	4,73
2011	239	4,23	120	6,93	88	4,73
2012	163	2,89	112	6,47	85	4,57
Total	5646	100%	1732	100%	1861	100%

2.3.2 Methodology

We use the market adjusted model to compute cumulative abnormal returns (CARs). For our robustness and sensitivity tests, we use the Fama and French three factors model (Fama and French, 1992) to compute CARs, choosing alternative benchmark indices and re-estimating the CARs using shorter and longer estimation windows.²¹ We follow Ning et al. (2014) to compute CARs around the event windows (0,+1), (-1,+1), (-2,+2), (-3,+3), (-4,+4), and (-5,+5), and obtain CAR0, CAR1, CAR2, CAR3, CAR4, and CAR5, respectively. We regress the market risk premiums with the holding period of return on individual stock to estimate the risk factor, β_i , as follows:

$$R_{it} = \alpha_i + \hat{\beta}_i R_{mt} + \varepsilon_{it}. \quad (2-1)$$

By assuming that the event day ($t=0$) is the announcement day, we compute the abnormal return, AR , as:

$$M_AR_{it} = R_{it} - (\alpha_i + \beta_i R_{mt}) \quad (2-2)$$

We then aggregate over the event window to calculate CARs:

$$CAR_\tau = \frac{1}{N} \sum_{i=1}^N CAR_{i,\tau} = \frac{1}{N} \sum_{i=1}^N \sum_{t=t_1}^{t_2} M_AR_{i,t}, \quad (2-3)$$

Where: M_AR_{it} is the market adjusted abnormal return, β_i are the predicted coefficients computed through the ordinary least squares regression in Equation (1), and R_{mt} is the return on a market portfolio.

²¹ For the Fama and French three factors model, we extract data from EUROFIDAI. We use EUROFIDAI benchmarked indices of the EU-27 countries. Specifically, we use EUROFIDAI EU-16 countries' benchmarked Size Factors and Growth Factors. We regress those factors with the holding period of return on individual stock to estimate the risk factors and obtain the predicted β_1 , β_2 , and β_3 , expressed as follows: $R_{it} = \alpha_i + \hat{\beta}_1 R_{mt} + \hat{\beta}_2 SMB_{it} + \hat{\beta}_3 HML_{it} + \varepsilon_{it}$ and $FF_AR_{it} = R_{it} - (\alpha_i + \beta_1 R_{mt} + \beta_2 SMB_{it} + \beta_3 HML_{it})$.

To test our hypotheses, we conduct two steps of univariate analysis. First, we capture the statistical significance of industry specialization ($\Delta INS_{i,t}$) in M&A events. We partition our samples by time periods, 1992-1992, 1998-2002, 2003-2007, and 2008-2012, to capture any special changes over these sample periods. We compute the Herfindhal Index (HHI) to measure the firms' industry specialization. The HHI value lies on a spectrum from 0 to 1, with a firm's degree of industrial specialization being greater the closer the value is to 1. Finally, we follow Moeller & Schlingemann (2005) in measuring changes in industry specialization as the difference between the natural logarithms of the HHI index over the fiscal year after the completion date of the M&A and the HHI index over the fiscal year prior to the M&A announcement date. The process can be expressed as follows:

$$HHI_{i,t} = \sum_j p_{i,j}^2 / (\sum_j p_{i,j})^2 \quad (2-4)$$

$$\Delta INS_{i,t} = \ln(HHI_{i,t+1}) - \ln(HHI_{i,t-1}) \quad (2-5)$$

Where: $P_{i,j}$ is the sale portion of segment j to i th of the firm's total sale, $HHI_{i,t+1}$ is the degree of industry specialization after completion of the M&A, and $HHI_{i,t-1}$ is the degree of industry diversification before announcement of the M&A.

Second, we analyze our computed CARs and partition them into industrially related and industrially unrelated. If these CARs are positive and statistically significant, it indicates that the M&As create value for the shareholders. Insignificant or significant but negative CARs imply no evident increase or decrease, or a destructive effect on the acquiring shareholders' wealth. In order to avoid any estimation bias, we use both parameter and non-parameter tests. Specifically, we employ the standard two (one) sample parameters and non-parameters statistical tests. The portfolio parameter's t statistics can be calculated as:

$$T_{student-t} = \frac{CAR_{-t,t}}{\sqrt{\sum_t^t S_t^2 / n}}, \quad (2-6)$$

Where $\sqrt{\sum_t^t S_t^2 / n}$ is an estimator for the standard deviation of CARs over the event window $(-t, t)$ for the sample of n securities.

The sample portfolio non-parameters test is calculated as follows:

$$Z_{rank} = \frac{1}{N} \sum_{i=1}^N \frac{K_{i,H0} - 0.5(L+1)}{\hat{\sigma}(K)}, \quad (2-7)$$

Where: L is the number of observations of securities in the estimation window $(-t, t)$, and $\hat{\sigma}(K)$ is the standard deviation estimated using the entire sample of securities and times series of ARs .

We conduct multivariate regression analyses to see whether these univariate results relating to CARs hold when controlling the other variables. Specifically, we aim to find a relationship between the experimental variable $\Delta INS_{i,t}$ and the dependent variable CARs. We model the acquiring firms' announcement cumulative abnormal returns (CAR_i) as a function of $\Delta INS_{i,t}$ and the other control variables:

$$CAR_{i,t} = f(\text{Control Variables}, \Delta INS_{i,t}) \quad (2-8)$$

The variables controlled are those commonly addressed in the M&A literature, including: the acquiring firm's characteristics, the deal characteristics, and the target country's characteristics.

Among the acquiring firm's characteristics, firm size is the traditional factor to control (Ang et al., 2000; Mitchell & Stafford, 2000; Denis et al., 2002; Bae & Jo, 2002; Schlingemann, et al., 2002; and Moeller et al., 2004). A firm's size is found to be negatively associated with price adjustments, indicating that smaller firms obtain higher abnormal returns. The acquiring firm's size can also be positively associated with announcement abnormal returns, because larger firms may enlarge their market power through CBM&As, reflecting an "empire-building" motive. Financial leverage can have a positive, as well as a negative, influence on abnormal returns. A higher level of debt can restrict managerial discretion in making value-destroying investment decisions (Bae et al. 2008); thus the level of debt can be positively viewed by the markets and can hold a positive relationship with announcement period abnormal returns. Markets may worry about the increase of total debt in the combined firms after completion of the M&A, and thus react negatively to a high level of debt in an acquiring firm (Gregory & Wang, 2013). Empirical studies also show that the free cash flow of acquiring firms has a close relationship with announcement period abnormal returns. The "free-cash-flow" hypothesis

argues that managers are likely to take lower value M&As when firms possess larger excessive cash flows. If a firm processed more free cash flows before the announcement of the M&A, then the markets may react negatively to the announcement of the M&A event (Doukas, 1995; Lang et al., 1991).

Some studies argue that the existing growth opportunities of an acquiring firm influence the market price reaction. Among these, Lang et.al. (1989) and Louis (2004) document a positive relationship between a firm's growth opportunities and abnormal returns, while others Rau & Vermaelen (1998), Sudarsanam & Mahate (2003), show evidence of a negative relationship between a firm's existing growth opportunities and market price reactions. Moreover, a firm's past performance and market valuations can determine the stock market reaction. Tallman and Li (1996) find firms' past profitability has a positive linear relationship with firms' international diversification. Brock et al. (2006) find a positive U-form relationship between firms' international diversification and their profitability. Fama & French (2008) find firms with better past performance can earn higher abnormal returns in the markets. We use the market-to-book ratio to proxy firms' growth opportunities, and Tobin Q to proxy for firms' market performance (Lopez-Duarte & Garcia-Canal, 2007).

The characteristics of the deal itself must also be controlled. Neither too "large" nor too "small" deals, relative to the acquiring firm's own size, can benefit the acquiring shareholders. Bidding attitudes may also have an influence on the stock market price reaction. Hostile M&As are defined as announced deals lacking the willingness of management (Morck et al., 1988); disciplinary motives are often related to hostile deals. Cosh & Guest (2001) find hostile acquisitions result in improved profitability and managerial efficiency. However, Schwert (2000) and Gregory (1997) find that hostile M&As lead to overpayment for the target firms and therefore can have a negative reaction in the markets. Friendly M&As are often connected to synergistic motives, reflecting the willingness of management to seek improvements in efficiency. Stock markets are more likely to react positively if the targeted firms are private firms or subsidiaries. Chang (1998) finds that acquisitions of private firms generate significant and positive abnormal returns for the acquiring shareholders. Faccio et al. (2006) find these positive effects are held regardless of whether the M&As are domestic or cross-border. Finally, the means of payment has an important impact on the announcement abnormal returns.

CBM&As are more complex in the choice of payment than are domestic M&As, due to the higher level of information asymmetry between the acquirers and the targeted firms (Netter et al. 2002). Studies show that cash-bided deals are reacted to more positively in CBM&As (Fuller et al., 2002; Moeller et al., 2004). Faccio & Masulis (2005) also show that European acquiring firms generally prefer to use cash to pay for M&As.

Finally, the target country's characteristics need to be taken into consideration. Kochhar et al. (1995) find that the target country's market size and economic growth play key roles in international investments. Mottaleb & Kalirajan (2010) show that emerging countries with large GDPs and higher GDP growth rates attract international investors. Neto et al. (2010) suggest that economic growth is the key factor in driving foreign capital flow. Bhagat et al. (2011) suggest that country-level governance has a significant impact on shareholders' announcement returns. La Porta et al. (1998, 2000, 2002, and 2006) suggest that the ideal country-level governance should be characterized by better protection for shareholders and creditors, a lower level of ownership concentration, and a lower level of managers' private benefits. La Porta et al. (2000) also suggest that acquiring shareholders' gains will be higher if the target countries have lower or weaker governances. La Porta et al. (2002) show that the target country's protection of investors is positively associated with the market valuations of M&A announcements, while La Porta et al. (2000) point out that creditor rights protection in the home countries cannot be transferred to the host countries. Rossi & Volpin (2004) find that targeted countries are normally poorer in shareholder protection, and Martynova & Renneboog (2008) show that there are positive spillover effects in CBM&As between countries with stronger governance and countries with weaker governance. With these factors in mind, we conduct multivariate regression analyses and benchmarking regression analyses, creating a dummy variable, *CBEC* (*CB Emerging Countries*), as well as an interactive term, $CBEC \times \Delta INS$, and run the following baseline regressions:

$$\begin{aligned}
 CAR_t = & \beta_0 + \beta_1 Size_{i,t-1} + \beta_2 Lev_{i,t-1} + \beta_3 Tobin_{i,t-1} + \beta_3 Cash_{i,t-1} + \beta_4 MTB_{i,t-1} + \\
 & \beta_5 PROF_{i,t-1} + \beta_6 Public_i + \beta_8 Private_i + \beta_9 Sub_i + \beta_{10} Hostile_i + \beta_{11} Pure_Cash_i + \\
 & \beta_{12} Pure_Share_i + \beta_{13} RELATED_i + \beta_{14} Hostile_i + \beta_{15} T_MS + \beta_{16} T_Growth_{i,t-1} + \\
 & \beta_{17} T_Share + \beta_{18} T_Creditor_c + \beta_{19} T_Minority_c + Fixed\ effect
 \end{aligned}
 \tag{2-9}$$

Where: CAR represents the cumulative abnormal returns. All definitions of the control variables can be found in the appendix at the end of the chapter. Year and industry dummies are created for the fixed effects. We use the White (1980) heteroscedasticity-adjusted standard error²² to estimate the statistical significance for each of the variables estimated.

Specifically, we run the regression equations described as follows:

$$CAR_{i,t} = \alpha_{i,t} + \beta_{i,t} \sum_{i=1}^n Control_{i,t} + \beta_{1,t} \Delta INS_{i,t} + \varepsilon_{i,t} \quad (2-10)$$

$$CAR_{i,t} = \alpha_{i,t} + \beta_{i,t} \sum_{i=1}^n Control_{i,t} + \beta_{2,t} CBEC + \varepsilon_{i,t} \quad (2-11)$$

$$CAR_{i,t} = \alpha_{i,t} + \beta_{i,t} \sum_{i=1}^n Control_{i,t} + \beta_{3,t} CBEC \times \Delta INS + \varepsilon_{i,t} . \quad (2-12)$$

We expect coefficient $\beta_{1,t}$ to be positive, and $\beta_{2,t}$ and $\beta_{3,t}$ to be positive as well.

2.4 Empirical Results

2.4.1 Descriptive Statistics

In Table 2.2, columns 1, 2, and 3 of Panel A report the characteristics of acquiring firms in M&As in domestic France, CBM&As inside the E.U.-15, and CBM&As between the E.U.-15 and EMs-18, respectively. Correspondingly, columns 4, 5, and 6 report the results of standard two-sample statistical tests. We observe that the acquiring E.U.-15 firms of CBM&As in EMs-18 countries are characterized by being substantially larger, bearing a lower level of financial leverage, having lower profitability, and being more internationally diversified. We also observe that these E.U.-15 firms have reduced free cash flows, but that they possess a significantly higher level of growth opportunities than do firms involved in CBM&As wholly within the E.U.-15. Panel B presents the sampled deals' characteristics. The characteristics of CBM&As between the E.U.-15 and EMs-18 differ significantly from those of CBM&As wholly

²² Following Moeller et al. (2005) and Bae et al. (2010), we model the standard error according to the following specification: $\varepsilon_i^2 = \gamma_0 + \sum_{k=1}^{k-1} \gamma_{i,k} X_{i,k} + \gamma_k s^2 + \mu_i$, where ε_i is the error term from the cross-sectional regression, k is the number of regressors in the cross-sectional analyses, s^2 is the market model residual variance, X is the vector of regressors, and γ_k equals 1 under homoscedasticity.

within the E.U.-15. First, we see an even higher percentage of industrially related deals in the CBM&As with emerging countries. Second, the acquiring firms in these CBM&As are more likely to bid for public firms, whereas the percentage of private firms and subsidiaries targeted in emerging countries are both lower. Third, the bidding attitudes in these CBM&As are less hostile.

Table 2. 2: Descriptive Statistics- Firm-level and Deal-level Characteristics

Panel A						
Firm Characteristics	Domestic M&As France (1)		CBM&As Inside EU (2)		CBM&As EU to EMs (3)	
	Mean	Median	Mean	Median	Mean	Median
Size	19.053	18.765	19.307	19.216	20.534	20.594
Leverage	0.230	0.202	181.875	0.2526	69.427	0.236
Free Cash Flow	-0.005	0.017	7.061	0.0189	5.834	0.014
Tobin Q	7.415	0.722	636.81	1.378	280.38	0.948
Profitability	0.035	0.055	-0.349	0.063	-0.146	0.078
MTB	46.031	0.658	10.043	0.492	54.122	0.531
Long term debt	0.119	0.073	41.087	0.077	0.149	0.066
Intl. Diversification	0.396	0.384	0.459	0.470	0.456	0.304
Two Samples Statistics Tests						
	[4]=[1]-[2]		[5]=[1]-[3]		[6]=[2]-[3]	
	Mean	Median	Mean	Median	Mean	Median
Size	-0.025***	P<0.01	-1.482***	P<0.01	-1.227***	P<0.01
Leverage	-181.6***	P<0.01	-69.19***	P<0.01	112.4*	P<0.01
Free Cash Flow Ratio	-7.066	P<0.01	-5.839**	P<0.01	1.227	P<0.01
Tobin Q	-629.4***	P<0.01	-273.0***	P<0.01	356.4*	P<0.01
Profitability	0.385***	P<0.01	0.182	P<0.01	-0.202	P<0.01
MTB	35.98***	P<0.01	-8.091	P<0.01	-44.078***	P<0.01
Long term debt	-40.96**	P<0.01	-0.030***	P<0.01	20.076	P<0.01
Intl. Diversification	-0.063***	P<0.01	-0.176***	P<0.01	-0.125***	P<0.01
Panel B						
Deal Characteristics	M&As in France (1)	CBM&As in E.U.-15 (2)	CBM&As from E.U.-15 to EMs-18 (3)	Two-Samples Tests		
				(4)	(5)	(6)
				= [1]-[2]	=(2)-(3)	=(1)-(3)
RELATED (%)	53.14% n=989	54.16% N=3058	62.99% n=1091	-0.011 [p=0.38]	-0.08*** [p<0.01]	-0.098*** [p<0.01]
PUBLIC (%)	12.20% n=227	6.96% N=393	11.43% N=198	0.052*** [p<0.01]	-0.04*** [p<0.01]	0.007 [p=0.47]
PRIVATE (%)	58.57% n=1090	55.26% N=3120	46.18% N=800	0.033** [p=0.01]	0.091*** [p<0.01]	0.123*** [p<0.01]
SUB (%)	27.40% n=510	35.62% N=2011	29.50% N=511	-0.08*** [p<0.01]	0.061*** [p<0.01]	-0.021 [p=0.166]
HOSTILE (%)	6.72% n=125	4.11% N=1797	5.66% N=98	0.025*** [p<0.01]	-0.015** [p<0.01]	0.011 [p=0.189]
PURE_CASH (%)	21.76% n=405	31.83% N=1797	39.09% N=677	-0.102** [P<0.01]	-0.07*** [p<0.01]	-0.173*** [p<0.01]
PURE_SHARE	2.20% n=41	2.13% N=120	2.37% N=41	0.000 [p=0.86]	-0.002 [p=0.56]	-0.001 [p=0.74]

Note: The table presents firm characteristics and deal characteristics of Domestic M&As France (Column 1), CBM&As within the E.U.-15 (Column 2), and CM&As between the E.U.-15 and EMs-18 (Column 3) All definitions for firm-level and deal-level characteristics can be found at the appendix at the end of the chapter

Table 2.3 summarizes the country-level characteristics of the E.U.-15 and EMs-18. Panel A shows that the E.U.-15 have stronger protection of shareholders' and creditors' rights. We see that the emerging countries, however, have higher economic growth than the E.U.-15 countries. The emerging countries have heavier ownership concentrations, as well as better scores for minority shareholder protection. Panel B classifies the countries based on the median scores computed for each country's portfolio. Countries are classified as "Strong," "High," "Big," or "Concen" (Concentrated) if the value for that country is above the median value of all the sampled countries. If its value falls below the median value, the country is classified as "Weak," "Low," "Small," or "LessCon" (Less Concentrated). If the value equals the median value computed, the country is classified as "Fair." Panel C shows that acquiring firms in E.U.-15 countries prefer to target firms in countries with larger market sizes and faster economic growth. Another common characteristic of these targeted emerging countries is that they have stronger protection for minority shareholders.

Table 2. 3
Descriptive Statistics - Country Characteristics

Panel A						
E.U.-15	Shareholder	Creditor	Minority	Ownership	Market	Economic
Austria	Weak	Fair	Weak	Concen	Big	High
Belgium	Weak	Weak	Strong	Concen	Small	High
Denmark	Fair	Fair	Strong	Concen	Big	High
Finland	Weak	Weak	Strong	Lesscon	Small	High
France	Weak	Weak	Fair	Lesscon	Small	High
Germany	Fair	Fair	Weak	Concen	Big	Low
Greece	Weak	Weak	Weak	Concen	Small	High
Ireland	Fair	Weak	Weak	Lesscon	Big	High
Italy	Weak	Weak	Strong	Concen	Small	Low
Luxembourg	Fair	-	Weak	-	Big	High
Netherlands	Weak	Fair	Weak	Lesscon	Big	High
Portugal	Weak	Weak	Strong	Concen	Small	High
Spain	Strong	Weak	Weak	Concen	Small	High
Sweden	Weak	Weak	Weak	Lesscon	Big	High
UK	Strong	Strong	Strong	Lesscon	Small	Low
Panel B						
Ems-18	Shareholder	Creditor	Minority	Market	Economic	
Argentina	Weak	Weak	Weak	Big	High	
Brazil	Strong	Weak	Weak	Big	Low	
Chile	Strong	Fair	Strong	Big	High	
China	Weak	Fair	Strong	Small	High	
Colombia	Weak	Weak	Strong	Small	Low	
Egypt, Arab	Fair	Fair	Strong	Small	Low	
Hungary	Strong	Weak	Weak	Big	Low	
India	Weak	Fair	Strong	Small	High	
Indonesia	Strong	Fair	Strong	Small	High	
Malaysia	Fair	Strong	Strong	Big	High	
Mexico	Weak	Weak	Weak	Big	Low	
Morocco	Weak	Weak	Strong	Small	High	
Peru	Weak	Weak	Weak	Small	High	
Philippines	Strong	Weak	Weak	Small	Low	

Russian	Strong	Fair	Strong	Big	High
South Africa	Strong	Strong	Strong	Big	Low
Thailand	Strong	Fair	Strong	Small	Low
Turkey	Weak	Fair	Weak	Small	High

Panel C					
Cross-border M&A within E.U.-15			Cross-border M&As from E.U.-15 to EMs-18		
Target Countries	Number	Percentage	Target Countries	Number	Percentage
Germany	1426	18.69	Brazil	317	17.07
United Kingdom	1151	15.09	China	227	12.22
France	1110	14.55	India	188	10.12
Netherlands	667	8.74	South Africa	186	10.02
Spain	617	8.09	Russian Fed	167	8.99
Italy	532	6.97	Turkey	139	7.49
Sweden	501	6.57	Argentina	129	6.95
Belgium	400	5.24	Hungary	102	5.49
Denmark	320	4.20	Mexico	101	5.44
Finland	308	4.04	Chile	60	3.23
Austria	219	2.87	Thailand	44	2.37
Ireland-Rep	174	2.28	Malaysia	40	2.15
Portugal	122	1.60	Colombia	34	1.83
Luxembourg	52	0.68	Indonesia	34	1.83
Greece	29	0.38	Morocco	27	1.45
			Philippines	27	1.45
			Peru	19	1.02
			Egypt	16	0.86
Total	7628	100%	Total	1857	100%

Note: Panel A and B categorizes the acquiring countries and the target countries. A country is classified as “Strong,” “High,” “Big,” or “Concen” if the country’s value is above the median value of the sampled countries’ portfolio; if the value is below the median, the country is classified as “Weak,” “Low,” “Small,” or “LessCon”; if the country’s value equals the median value, it is classified as “Fair. Panel C ranks the bidding frequencies in CBM&As within EU-15 as well as CBM&A form the EU to emerging countries.

2.4.2 Univariate Results

Table 2.4 below reports the univariate results of ΔINS . The normality tests show that ΔINS does not follow normal distributions, so we rely on the median ΔINS to judge developmental trends (see Panel A). Most median ΔINS show positive values, suggesting that industries become further specialized in CBM&As within the E.U.-15, as well as in CBM&As between the E.U.-15 and emerging countries. However, most median ΔINS are negative for French domestic M&As, indicating a decreased level of industrial specialization in domestic France. Moreover, we find that ΔINS are negative and significant (at 1%) for CBM&As between the E.U.-15 and emerging countries, as well as for domestic M&As in France, over the period from 2008 to 2012 (see Panel B). These results are also found for service-sector CBM&As within the E.U.-15, as well as for CBM&As between the E.U.-15 and emerging countries (see Panel C). Intuitively, we think it is necessary to control for industry and the period 2008-2012 in later stage multivariate regression analyses.

Table 2. 4**Univariate Analyses-Industrial Specialization Changes**

The table reports the univariate results on firms' industry specialization changes (Δ INS) in CBM&As within the E.U.-15, CBM&As between the E.U.-15 and EMs countries, and domestic M&As in France. Before conducting our univariate analyses, we test the normality of the Δ INS by performing the Anderson-Darling Test, the Cramer-von Mises Test, and the Kolmogorov-Smirnov Test. We conduct univariate tests over the following sample periods: 1992-2002, 2003-2012, 1992-1996, 1997-2002, 2003-2007, and 2008-2012. We use the standard industry classifications to categorize firms into industrial divisions. We use the standard t test and the signed rank test to capture the statistical significance of changes in industrial specialization. Panel A presents the results of the normality tests. Panel B presents the univariate results of changes in industrial specialization. Panel C presents the univariate results of industrial specialization by classifying firms into different industrial divisions. *Significance at the 10% level. **Significance at the 5% level. ***Significance at the 1% level. “-” represents missing values.

CBM&As in E.U.-15				CBM&As E.U.-15 to EMs-18			Domestic M&As France		
Panel A									
Normality Tests									
Kolmogorov Test		P<0.01		P<0.01			P<0.01		
Cramer-von Mises Test		P<0.005		P<0.005			P<0.005		
Anderson-Darling Test		P<0.005		P<0.005			P<0.005		
Panel B									
ΔINS				ΔINS			ΔINS		
Period	Mean	Median	N	Mean	Median	N	Mean	Median	N
1992-2012	0.021	0.002	3745	-0.015	0.002*	1022	-0.043	-0.006	1033
1992-2002	-0.002	0.003*	1776	0.029***	0.009***	430	-0.007	-0.002	513
2003-2012	0.019	0.001	1670	-0.044*	0.000	592	-0.005	-0.009	520
1992-1996	0.024	0.000	492	0.044	0.008	99	-0.067	-0.007	153
1997-2002	0.001	0.006**	1284	0.005***	0.005**	247	0.039	0.000	360
2003-2007	0.001	0.001	946	0.003	0.008	220	-0.042	-0.009	288
2008-2012	0.044	0.006	724	-0.09***	-0.003***	345	-0.13***	-0.001***	232
Panel C									
ΔINS				ΔINS			ΔINS		
Industries	Mean	Median	N	Mean	Median	N	Mean	Median	N
Construction	-0.054	-0.005	114	0.030	-0.020	39	-0.125	-0.013	82
Retail	-0.050	-0.005	135	-0.148	-0.006	30	-0.158**	-0.048**	76
Services	-0.069**	-0.003**	1076	-0.108***	-0.015***	213	0.007	0.000	411
Agriculture	-0.187	-0.005	3	0.052	0.002	9	-	-	2
Manufac.	0.019**	0.006***	2243	0.006***	0.007***	852	-0.066**	-0.002	444
Mining	-0.216	-0.015	16	-0.092*	0.005	68	-0.022	-0.013	6
Wholesale	-0.031	-0.016*	158	0.278**	0.062	17	-0.022	-0.013	6

Table 2.5, Panel A reports that CARs are positive and statistically significant in M&As announced in domestic France and within the E.U.-15; more importantly, CARs are positive and significant in CBM&As with emerging countries (see columns 1, 2, and 3). These results suggest that the acquiring shareholders obtain significant positive announcement returns from CBM&As with firms in emerging countries. Two sample tests further show that domestic M&As in France and CBM&As within the E.U.-15 obtain significantly higher abnormal returns than do CBM&As between the E.U.-15 and emerging countries (see columns 4, 5, and 6). Consistent with previous studies, such as Barbopoulos et al. (2014), the univariate results support Hypothesis 1.

Although we find, as expected, that the related CARs are positive and significant, we do not find, however, any statistical differences between the related CARs and the unrelated CARs in CBM&As within the E.U.-15 and M&As in domestic France (see Panels B and C). We therefore reject both Hypothesis 2 and Hypothesis 2A. In CBM&As between the E.U.-15 and emerging countries (see Panel D), the related deals are positive and significant. Contrary to our expectations, the unrelated CAR0 is also positive and significant. The unrelated CAR2 and CAR3 are also positive but insignificant. These results suggest that industrially diversified CBM&As with emerging countries do not, at least, reduce the acquiring shareholders' wealth. In addition, the two-sample tests show that the abnormal returns are significantly higher for related M&As than for unrelated M&As.

Table 2. 5

Univariate Analyses-Cumulative Abnormal Returns

This table presents the univariate results of CARs in Domestic M&As in France, CBM&As within the E.U.-15, and CBM&As between E.U.-15 and EMs-18 countries. We use the market adjusted model to calculate the CARs around the announcement date of the M&As. Abnormal returns are estimated using a market adjusted model, $AR_i = R_i - R_M$. We use daily stock return data and European countries-based benchmark indices extracted from EUROFIDAI to perform estimations based on the market model. We perform one sample t test and signed rank to capture the statistical significance of CARs. We subdivide the computed CARs into related and unrelated CARs in accordance with a match of two-digits of the SIC codes between the acquiring companies and the target companies. We perform the standard two-sample statistical tests to compare the differences. *Significance at the 10% level. **Significance at the 5% level. ***Significance at the 1% level.

Panel A						
	Domestic France M&As	CBM&As in E.U.-15	CBM&As E.U.-15 to EMs-18	(4)	(5)	(6)
	(1)	(2)	(3)	=(1)-(2)	=(2)-(3)	=(1)-(3)
CAR0	0.094*** [0.002]*** n=1802	0.007*** [0.003]*** N=5526	0.005*** [0.024]*** n=1691	0.02 [P=0.513]	0.003* [p=0.105]	0.004*** [p=0.069]
CAR1	0.010*** [0.003]*** n=1809	0.008*** [0.003]*** N=5526	0.005*** [0.002]*** N=1695	0.003 [P=0.191]	0.002* [p=0.057]	0.005*** [p=0.011]
CAR2	0.011*** [0.004]*** N=1814	0.009*** [0.004]*** N=5526	0.005*** [0.002]*** N=1697	0.002 [P=0.655]	0.004** [p=0.015]	0.006*** [0.028]
CAR3	0.012*** [0.003]*** N=1818	0.009*** [0.004]*** n=5526	0.004** [0.002]*** N=1697	0.002 [P=0.748]	0.005*** [p=0.0449]	0.007*** [P=0.076]
CAR4	0.011*** [0.002]*** N=1819	0.009*** 0.004*** N=5526	0.003** [0.001]** N=1702	0.001 [P=0.563]	0.006*** [P=0.033]	0.008** [p=0.241]
CAR5	0.008*** [0.001]* N=1826	0.008*** [0.004]*** N=5526	0.003 [0.000] N=1702	0.000 [0.235]	0.005** [P=0.049]	0.005 [0.654]

Panel B: Domestic France M&As								
	Related CARs			Unrelated CARs			Parameter	Non-Parameters
	Mean	Median	N	Mean	Median	N		
CAR0	0.009***	0.002***	955	0.009***	0.002***	847	0.000	P=0.943
CAR1	0.011***	0.003***	960	0.010***	0.003***	849	0.001	P=0.355
CAR2	0.012***	0.005***	962	0.011***	0.003***	852	0.002	P=0.435
CAR3	0.012***	0.003***	963	0.011***	0.003***	855	0.001	P=0.772
CAR4	0.012***	0.003***	964	0.009***	0.000***	855	0.002	P=0.425
CAR5	0.008**	0.001	969	0.007*	-0.067	857	0.001	P=0.854

Panel C: CBM&As in E.U.-15								
	Related CARs			Unrelated CARs			Parameter	Non-Parameters
	Mean	Median	N	Mean	Median	N		
CAR0	0.008***	0.002***	2988	0.007***	0.003***	2538	0.001	P=0.694
CAR1	0.008***	0.003***	2988	0.007***	0.004***	2538	0.001	P=0.664
CAR2	0.010***	0.004***	2988	0.008***	0.005***	2538	0.002	P=0.838
CAR3	0.011***	0.004***	2988	0.007***	0.005***	2538	0.004*	P=0.257
CAR4	0.012***	0.004***	2988	0.007***	0.004***	2538	0.005*	P=0.214
CAR5	0.009***	0.005***	2988	0.006***	0.003***	2538	0.003	P=0.138

Panel D: CBM&As E.U.-15 to EMs-18								
	Related CARs			Unrelated CARs			Parameter	Non-Parameters
	Mean	Median	N	Mean	Median	N		
CAR0	0.006***	0.003***	1065	0.003***	0.002***	626	0.004*	P=0.374
CAR1	0.007***	0.002***	1067	0.002	0.002	628	0.005**	P=0.327
CAR2	0.007***	0.003***	1069	0.001	0.000	628	0.006***	P=0.475
CAR3	0.007***	0.002***	1069	-0.000	0.00	628	0.007**	P=0.141
CAR4	0.008***	0.005***	1071	-0.004	-0.003	631	0.001***	P<0.01
CAR5	0.007***	0.004*	1071	-0.004	-0.005	631	0.011***	P<0.01

To give a clearer and more direct picture of our finding that European financial markets react favorably to CBM&As with emerging countries²³, we graph the CARs around the announcement days for domestic M&As in France, CBM&As within the E.U.-15, and CBM&As between the E.U.-15 and emerging countries (see Figures 2.1, 2.2, and 2.3 respectively). Figure 2.4 compares market prices reactions by integrating Figure 2.1- 2.3

²³ We conduct several robustness checks on the univariate analyses, and the results turn out to be qualitatively similar. For brevity, these robustness checks are not presented here; they are available upon request.

Figure 2. 1**Announcement Effects Domestic M&As of France**

This figure shows the market reaction to the announcement of domestic M&A transactions for bidding firms in France, as well as the CARs before and after the event (day 0). The benchmark used in the market model is the EUROFIDAI France Index Returns. The model parameters are estimated over 250 days, starting 20 days prior to the M&A announcement.

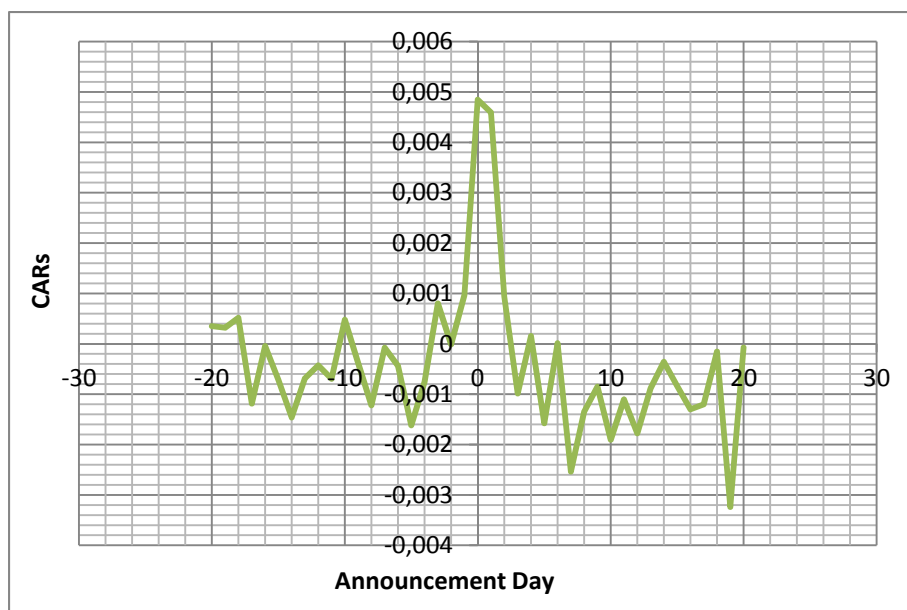


Figure 2. 2**Announcement Effects CBM&As inside the European Union**

This figure shows the market reaction to the announcement of M&A transactions for bidding firms as well as the CAARs before and after the event (day 0). The benchmark used in the market model is the EUROFIDAI Index Returns. The model parameters are estimated over 250 days starting 20 days prior to the M&As announcement.

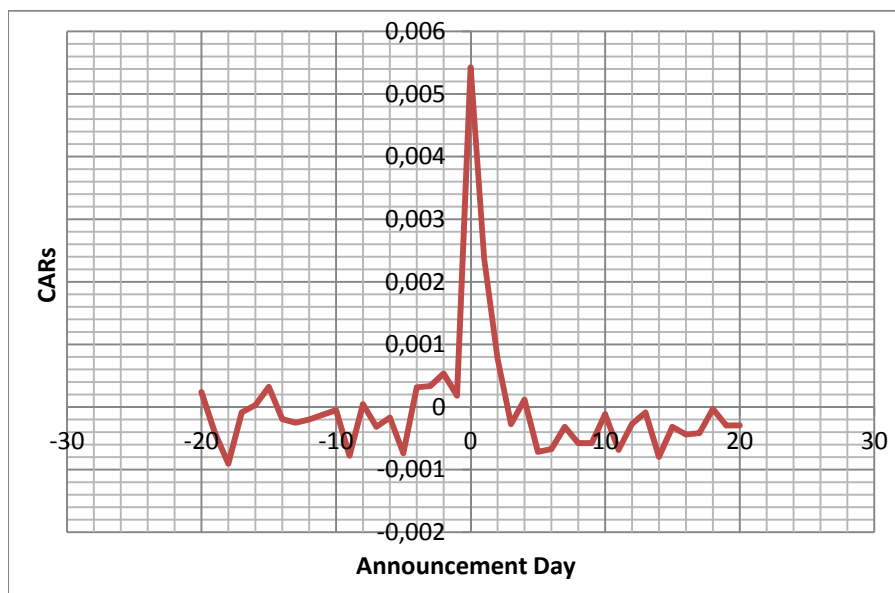


Figure 2. 3**Announcement Effects CBM&As EU to Emerging Countries**

This figure shows the market reaction to the announcement of CBM&A transactions for bidding firms in the E.U.-15 with target firms in the EMs-18 countries, as well as the CARs before and after the event (day 0). The benchmark used in the market model is the EUROFIDAI Index Returns. The model parameters are estimated over 250 days, starting 20 days prior to the M&A announcement.

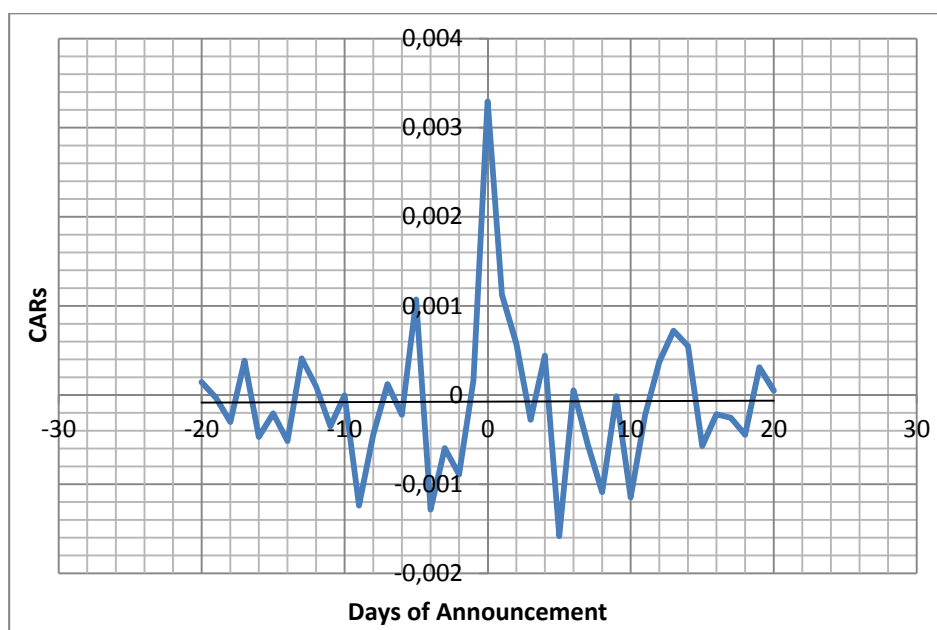
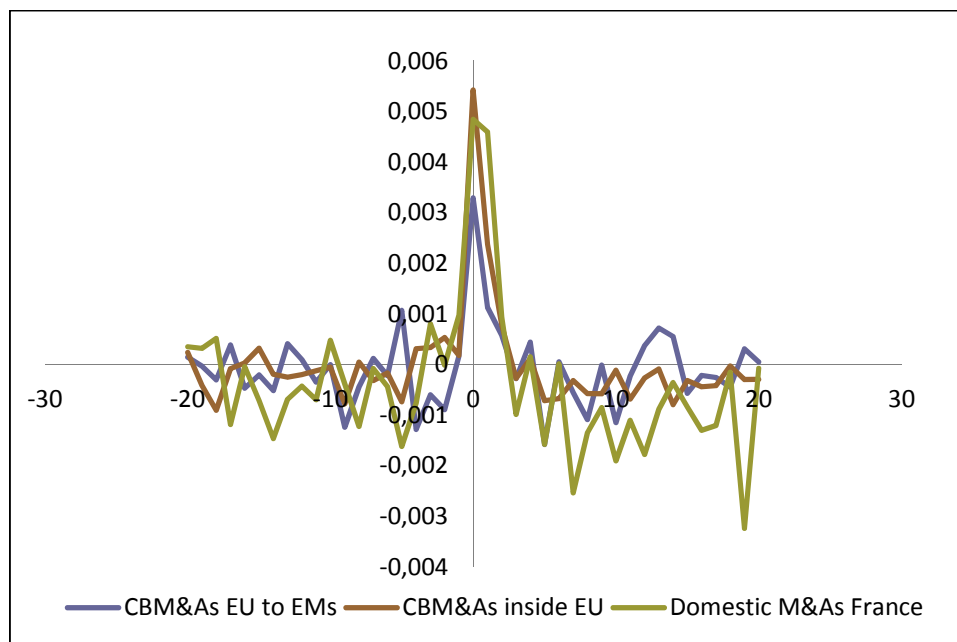


Figure 2. 4**Comparisons of Markets Reactions in M&As Announcements**

This figure shows the market reactions to the announcement of M&A transactions for all bidding firms in the sample, as well as the CARs before and after the event (day 0). The benchmark used in the market model is the EUROFIDAI Index Returns. The model parameters are estimated over 250 days, starting 20 days prior to the M&A announcement.



2.4.3 Cross-sectional regressions results

Before running the regressions, we conduct Pearson correlation tests on all independent variables. These correlation analyses show that the correlation coefficients of the majority variables in our testing samples are low. Specifically, the majority of correlations between the variables are less than 0.4, and most variables have significant correlations with the dependent variable *CAR1*, suggesting the strong explanatory power of these variables. We pool all variables together to construct trial models and compute VIF values. Since all VIF scores are very low, and collinearity does not appear to be a problem, we keep all the variables in the models. As a consequence, we construct a total of nine models for the testing sample of CBM&As between the E.U.-15 and emerging countries. Table 2.6 shows the results of the correlation analyses.

In the meanwhile, Table 2.7 presents the regression results. Model 1 regresses all the control variables. In Model 2, we repeat the regression procedure of Model 1 by adding the dummy variable *Related*. In Model 3, we replace the dummy variable by adding the continuous variable ΔINS into the regression. Then, we narrow down our test sample to the services industries, since ΔINS appears negative and statistically significant during univariate analyses (see Models 4 and 5). Models 6 and 7 are the regression analyses of acquiring firms in manufacturing industries. Finally, we construct Models 8 and 9 from the regression analyses for the sample period 2008-2012.

The adjusted R^2 and model F tests, shown at the bottom of the table, are used to measure the goodness-of-fit of the estimated models. The statistical results show that all of our empirical models are fit (e.g., the F tests are all statistically significant above a 0.05 confidence level), and therefore the null hypothesis that our constructed models do not have explanatory power is rejected.

Model 1 of Table 2.7 shows that Tobin Q and free-cash flow are important factors, which indicates that acquiring firms with lower free cash flows can obtain positive price returns in CBM&As with emerging countries. Focusing on deal characteristics and target country characteristics, we see that hostile deals receive positive market reactions (though with weak statistical significance), while the target country's creditor rights protection level is negatively

associated with the market price reaction. In Model 2, we find that industrially related deals are positively, but insignificantly, related to CARs. Model 3 presents the main results of the regression analyses. After adding the continuous variable ΔINS into the regression, we see that firm size continues to play an important role, while the target country's creditor rights protection and the minority shareholder rights protection of the emerging countries maintain their significance. The coefficient of ΔINS is negative and (strongly) significantly associated with the market's reaction. Specifically, this result shows that a 1 percentage point increase in industrial specialization in CBM&As with emerging countries will lead to a significant decrease in the current announcement return, of 1.3% basis points in the stock market. Hence, this result leads us to reject Hypothesis 3.

Models 4 through 7 present the regression results in the services and manufacturing industries. The results also show that market-to-book ratio, profitability, private and subsidiary targets, target country market size, and target creditor rights protection are the important factors. The coefficient of ΔINS is again negative and significant (at 1%) in the services industries, and the coefficient of ΔINS is positive but statistically insignificant in manufacturing industries. These results imply that a 1 percentage point increase in ΔINS in CBM&As with firms in the services industries in emerging countries reduces the CARs significantly, by 3.4%. These results also suggest that markets are indifferent to industrial specialization in manufacturing industries in CBM&As with emerging countries.

Models 8 and 9 present the cross-sectional regression results over the period 2008-2012. Similarly, the analyses show the coefficient of industrial specialization to be negative and statistically significant (at the 5% level), suggesting that industrial specialization significantly reduces the acquiring shareholders' wealth in CBM&As with emerging countries over the period 2008-2012.

Table 2. 6

Pearson Correlations Matrix

This table presents the Pearson correlations between all the variables. Firm size is measured as the log value of total assets in million US dollars; financial leverage is the percentage of total debt to total assets; Tobin Q value is the difference between market capitalization and total debt, divided by total book value of assets; free cash flow ratio is the total free cash flow divided by total assets; market-to-book ratio is used to proxy firms' growth opportunity; profitability is measured using the ratio of EBIT to total sales. Country-level governance variables include: shareholder rights index, credit rights protection index, minority shareholders protection index, and country level ownership concentration; these data are extracted from La Porta et al. (2006) and Djankov et al. (2008). Ownership concentration is missing for China, Hungary, Morocco, and Russia. Country-level macro-economic data is extracted from the World Bank. The correlation analyses show that the correlation coefficients of the majority of the variables are less than 0.4. To ensure that the regression analyses will not be affected by the problem of multi-colinearity, we compute variance inflation factors (VIFs) for each testing sample. The VIFs show that the variables of Financial Leverage, Tobin Q, Subsidiary Target, and Target Market Size have higher VIF values in testing samples from CBM&As between the E.U.-15 and EMs-18 countries. We therefore remove these variables from our regression analyses.

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
1	CAR1 (-1, 1)	1																	
2	Firm Size	-0.09	1																
3	Leverage	0.01	0.23	1															
4	Tobin Q	-0.03	-0.19	-0.09	1														
5	Free Cash Flow	0.01	0.30	-0.08	-0.23	1													
6	Market –to-book	0.01	0.03	-0.05	-0.05	-0.05	1												
7	Profitability	0.01	0.14	0.09	-0.03	0.26	0.02	1											
8	Public Targets	-0.03	0.14	0.07	-0.02	-0.07	0.01	0.02	1										
9	Private Targets	-0.01	-0.20	-0.05	0.05	0.04	-0.03	0.02	-0.33	1									
10	Subsidiary Targets	0.03	0.04	0.00	-0.03	0.02	0.00	-0.04	-0.23	-0.60	1								
11	Hostile	0.05	0.07	0.01	-0.01	0.02	0.01	0.00	0.08	-0.09	0.04	1							
12	Cash Payment	-0.01	0.07	0.03	-0.04	0.02	-0.03	0.03	0.23	-0.20	0.07	0.05	1						
13	Share Payment	0.02	-0.23	-0.09	0.01	-0.26	0.10	-0.13	0.02	0.00	0.01	-0.02	-0.12	1					
14	Market Size	0.02	-0.04	0.02	0.02	-0.02	0.02	-0.01	-0.18	0.14	0.04	-0.03	-0.07	0.02	1				
15	Economic Growth	0.02	0.03	0.07	0.00	0.03	-0.02	-0.01	-0.01	0.01	-0.03	0.01	0.00	0.00	-0.18	1			
16	Shareholder Rights	0.01	-0.08	-0.05	0.01	-0.06	0.00	-0.01	0.02	0.05	0.01	0.01	-0.02	0.09	0.39	-0.41	1		
17	Creditor Rights	-0.03	-0.08	-0.04	-0.05	-0.09	0.04	0.00	0.06	0.01	-0.02	0.07	0.04	0.07	-0.23	0.24	0.00	1	
18	Minority Shareholder	-0.03	-0.01	-0.01	-0.03	-0.09	0.03	0.00	0.05	-0.05	0.00	0.03	0.06	0.04	-0.33	0.31	-0.29	0.78	1

Table 2. 7: Multivariate Analyses

Model 1 is a regression analysis of all the control variables; Model 2 adds the categorical variable *Related* into the regression analysis; and Model 3 is a regression analysis using the continuous variable ΔINS . Models 4 and 5 analyze the services industry. Models 6 and 7 concern the manufacturing industries. Models 8 and 9 analyze the sample period 2008-2012. The dependent variable is CAR1. The independent variables include: firm size, measured as the natural log value of book value of total assets; firm financial leverage, measured as total debt divided by total assets; firms' free cash flow, measured as total free cash flows divided by total assets; firms' market-to-book ratio; and firms' profitability, measured as earnings before interest and taxes, divided by total sales. All the firm-specific variables are one-year-lagged values before the announcement date of the M&As. Deal characteristic variables are all dummies variables, for which the definitions come from the SDC database. Public status is based on whether the target is a private or public company or a subsidiary. We treat deals as hostile if reported as non-friendly in the SDC. Pure_Cash is a dummy variable classified as paid by cash only, as reported in SDC. Pure_Share is a dummy variable classified as a new ordinary share or ordinary share in the SDC. We include six target country variables: market size is computed as the log value of GDP per capital from 1992 to 2012; country investment opportunity is the natural logarithm value of the GDP growth rate; target country shareholder protection index, creditor protection index, ownership concentration, and minority shareholder protection index are extracted from La Porta et al. (1998, 2006) and Djankov et al. (2008). Statistical significance is based on White's (1980) heteroscedasticity adjusted standard errors. *Significance at the 10% level. **Significance at the 5% level. ***Significance at the 1% level.

Models	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		Full Sample		Services		Manufacturing		2008-2012	
Size	-0.003 [-2.96]	-0.003*** [-2.96]	-0.002** [-2.34]	-0.000 [-0.20]	0.003 [1.09]	-0.003*** [-2.93]	-0.003*** [-3.14]	-0.000** [-1.97]	-0.003* [-1.81]
Lev.	0.008 [0.69]	0.008 [0.69]	0.015 [1.47]	0.015 [0.89]	0.023 [0.87]	0.004 [0.28]	0.011 [0.81]	0.013 [0.77]	0.021 [1.20]
Tobin	-0.002** [2.76]	-0.002*** [-2.76]	-0.001 [-1.05]	-0.001 [-0.48]	-0.000 [-0.15]	0.002 [1.31]	0.001 [1.02]	-0.002 [-2.46]	-0.006* [-1.66]
Cash	-0.074*** [-2.76]	-0.074*** [2.79]	0.003 [0.11]	-0.066* [-1.91]	0.026 [0.38]	-0.053 [-1.55]	-0.008 [-0.29]	-0.071** [-2.35]	0.0008 [0.22]
MTB	-0.002 [-0.88]	-0.016 [-0.88]	-0.000 [-0.48]	-0.005 [-0.45]	0.017* [1.69]	0.008* [1.68]	0.005 [0.92]	-0.003 [-1.31]	-0.005 [-1.51]
Prof.	0.004 [0.83]	0.004 [0.83]	0.009 [0.51]	-0.009 [-1.39]	-0.12*** [-2.63]	0.012 [0.39]	0.006 [0.25]	-0.021*** [-7.77]	0.011 [0.40]
Public	-0.002 [-0.26]	-0.002 [-0.26]	-0.000 [-0.05]	0.037 [1.28]	0.046 [1.46]	-0.003 [-0.56]	-0.000 [-0.21]	0.006 [0.29]	0.007 [0.42]
Private	-0.006 [-1.03]	-0.006 [-1.03]	-0.001 [-0.27]	0.064** [2.15]	0.067** [2.31]	-0.011*** [-2.18]	-0.007** [-1.99]	-0.006 [-0.43]	0.013 [1.45]
Sub.	-0.003 [-0.05]	-0.000 [-0.05]	0.002 [0.29]	0.080*** [2.65]	0.075** [2.57]	-0.007 [-1.54]	-0.006 [-1.12]	0.008 [1.06]	0.019 [1.45]
Hostile	0.010* [1.69]	0.010* [1.70]	0.003 [0.61]	-0.003 [-0.34]	-0.002 [0.20]	0.002 [0.41]	0.003 [0.53]	0.009 [0.00]	0.007 [0.79]
Pure_Cash	-0.001 [-0.51]	-0.001 [-0.51]	0.00 [0.15]	0.004 [0.74]	0.007 [1.06]	-0.004 [-1.22]	-0.002 [-0.25]	-0.002 [-0.40]	0.000 [0.02]
Pure_Share	-0.002 [-0.09]	-0.002 [-0.09]	0.015 [0.15]	-0.064** [-2.19]	-0.021 [-0.66]	0.052* [1.70]	0.054 [1.46]	0.066 [1.57]	0.066 [0.98]
Market Size	-0.000 [-0.15]	-0.000 [-0.15]	0.000 [0.00]	-0.005 [-1.08]	-0.013** [-2.33]	0.000 [0.20]	0.006 [0.30]	0.000 [0.00]	0.001 [0.04]
C_Growth	0.001 [0.73]	0.001 [0.73]	0.001 [0.62]	-0.003 [-0.65]	-0.006 [-1.12]	0.002 [1.03]	0.002 [0.89]	-0.004 [-1.40]	-0.003 [-1.12]
Shareholder	0.000 [0.33]	0.000 [0.33]	0.002 [1.25]	0.000 [0.12]	0.003 [0.82]	0.000 [0.41]	0.002 [1.52]	-0.002 [-1.94]	-0.001 [-0.65]
Creditor	-0.006** [-2.22]	-0.006*** [-2.22]	-0.010*** [-3.66]	-0.002 [-0.42]	-0.003 [-0.69]	-0.005 [1.55]	-0.009*** [-2.83]	-0.004 [-0.87]	-0.007 [-1.52]
Minority	-0.001 [-0.12]	-0.001 [-0.12]	0.020* [1.81]	-0.043** [-1.99]	-0.035 [-1.58]	0.011 [0.81]	0.030** [2.42]	-0.028 [-1.53]	-0.000 [-0.04]
Related		0.002 [0.75]		-0.003 [-0.54]		-0.001 [-0.44]		0.000 [0.05]	
ΔINS			-0.013*** [-2.64]		-0.034*** [-4.67]		0.006 [0.36]		-0.024** [-2.59]
F value	1.66***	1.65***	1.65***	3.11***	5.35***	1.83***	1.67***	2.20***	2.87***
Year Dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ind. Dummy	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Observations	1136	1136	912	236	154	744	635	444	356
Adjusted R 2	0.0430	0.043	0.052	0.228	0.475	0.038	0.036	0.125	0.114

Table 2.8 presents the benchmarking analysis results. Compared to CBM&As within the E.U.-15, industrial specialization in CBM&As between the E.U.-15 and emerging countries reduces the wealth of the acquiring shareholders by 0.3% (significant at 1%, Model 2). Specifically, the acquiring shareholders receive significantly less (1.3% less) in announcement returns on industrially specialized deals with emerging countries than they do when conducting the same transactions inside the E.U.-15 (significant at 5%, Model 3). Acquiring shareholders in CBM&As with emerging countries, on average, receive significantly less (3% less) in announcement returns than do the acquiring shareholders in CBM&As within the E.U.-15 (Models 1, 2, and 3).

Compared to CBM&As between France and the E.U.-15, the industrial specialization discount effect is even larger: industrial specialization reduces these acquiring shareholders' wealth by 1.1% (significant at 1%, Model 5). More specifically, the acquiring shareholders will receive significantly less (1.4% less) in announcement returns (significant at 1%, see Model 6) in the stock market for every 1 percentage point of increase in industrial specialization in the CBM&As with emerging countries.

In addition, the dummy variable *CBEC* is always negatively associated with CAR, that is, when compared to CBM&As from France to the E.U.-15 or CBM&As within the E.U.-15, the acquiring shareholders in CBM&As between the E.U.-15 and emerging countries obtain significantly less (on average 3.4% less) in abnormal returns.

Table 2. 8: Multivariate Analyses - Benchmark Analyses

Models 1, 2, and 3 are benchmark regression analyses of CBM&As announced within the E.U.-15. Models 4, 5, and 6 are regression analyses benchmarked with CBM&As from France to the E.U.-15. The dependent variable is CAR1. The independent variables include: firm size (measured as nature log value of book value of total assets), firm financial leverage (measured as total debt divided by total assets), firms' free cash flow (measured as total free cash flows divided by total assets), firms' market-to-book, profitability (measured as earnings before interest and taxes, divided by total sales). All the firm-specific variables are one year lagged values before the announcement date of the M&As. Deal characteristic variables are all dummies, for which the definitions come from the SDC database. The target public status is based on whether the target is a private or public company or a subsidiary. We treat deals as hostile if reported as non-friendly in SDC. Pure Cash is a dummy variable classified as paid by Cash only, as reported in SDC. Pure Share is a dummy variable classified as New Ordinary Share or Ordinary Share in SDC. We include six target country variables: Market size is computed as log value of GDP per capital over 1992 -2012. Country investment opportunity is calculated as the natural logarithm value of the GDP growth rate. Target country Shareholder Protection Index, Creditor Protection Index, Ownership Concentration, and Minority Shareholders Protection Index are extracted from La Porta et al. (1998) and Djankov et al. (2008). Statistical significance is based on White's (1980) heteroscedasticity adjusted standard errors. *Significance at the 10% level. **Significance at the 5% level. ***Significance at the 1% level.

Models	1	2	3	4	5	6
SIZE	-0.002*** [-4.89]	-0.003*** [-4.51]	-0.002*** [-4.08]	-0.003*** [-3.3]	-0.002** [-2.06]	-0.002** [-2.20]
LEV.	0.000* [1.84]	-0.000 [-0.34]	-0.000 [-0.38]	0.000 [0.35]	0.000 [0.33]	0.000 [0.37]
TOBIN	0.000 [0.85]	-0.000 [-0.85]	-0.000 [-1.03]	-0.000 [-1.25]	-0.000 [-0.86]	-0.000 [-0.58]
CASH	-0.000 [-1.02]	-0.000 [-0.02]	0.000 [0.10]	-0.000 [-0.75]	0.000 [0.10]	0.000 [0.61]
MTB	0.000 [0.54]	0.000 [0.55]	0.003 [0.63]	0.000 [0.09]	-0.002** [-1.99]	-0.002 [-1.29]
PROF.	-0.000 [-0.46]	0.003 [0.36]	0.003 [0.45]	0.000 [0.01]	-0.002 [-0.13]	0.002 [0.14]
PUBLIC	-0.000 [-0.12]	0.002 [0.39]	0.003 [0.57]	-0.006 [0.93]	-0.002 [-0.35]	-0.0001 [-0.11]
PRIVATE	-0.006 [-1.22]	-0.005 [-0.93]	-0.005 [-0.85]	-0.010 [-1.41]	-0.005 [-0.83]	-0.005 [-0.11]
SUB.	-0.002 [-0.29]	0.000 [0.02]	0.000 [0.11]	-0.006 [-0.95]	-0.000 [-0.08]	-0.005 [-0.79]
HOSTILE	0.002 [0.82]	0.002 [0.63]	0.002 [0.51]	0.008* [1.71]	0.005 [1.27]	0.005 [1.26]
PURE_CASH	0.002 [0.90]	0.001 [0.58]	0.001 [0.62]	-0.001 [-0.56]	-0.001 [-0.41]	-0.001 [-0.33]
PURE_SHARE	-0.003 [-0.34]	-0.000 [-0.05]	-0.000 [-0.05]	-0.005 [-0.23]	0.019 [0.81]	0.021 [0.89]
MARKET_SIZE	-0.000 [-0.11]	0.000 [0.61]	0.001 [0.40]	0.000 [0.50]	0.002 [0.39]	0.002 [0.95]
C_GROWTH	0.000 [0.30]	-0.001 [-0.61]	-0.001 [-0.63]	0.0001 [0.36]	0.000 [0.28]	0.001 [0.21]
SHAREHOLDER	0.000 [0.64]	0.001 [0.82]	0.0001 [0.74]	-0.000 [-0.09]	0.000 [0.22]	0.000 [0.16]
CREDITOR	-0.001 [-0.11]	-0.002** [-2.12]	-0.002** [-2.04]	-0.003 [-1.51]	-0.003* [-1.62]	-0.003* [-1.60]
MINORITY	-0.003 [-0.58]	0.000 [0.07]	0.000 [0.10]	0.003 [0.03]	-0.000 [-0.003]	0.000 [0.01]
RELATED	0.002 [1.45]			0.003 [1.29]		
ΔINS		-0.003** [-2.35]			-0.011*** [-2.98]	
CBEC	-0.032*** [-1.49]	-0.030*** [-3.87]	-0.031*** [-4.00]	-0.044*** [-3.99]	-0.028** [-2.51]	-0.030** [-2.40]
CB EC X ΔINS			-0.013** [-2.54]			-0.014*** [-2.65]
F value	1.53***	1.58***	1.73***	1.37**	1.49***	1.42***
Year Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Ind. Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3635	2870	2870	1700	1353	1226
Adjusted R 2	0.012	0.017	0.021	0.158	0.025	0.027

2.4.4 Discussions and Implications

The most important result of our empirical analysis is that we find industrial diversification to be beneficial in CBM&As with emerging markets, in that our univariate results show industrial diversification to be beneficial to shareholders' wealth. Our multivariate regression results show that the acquiring firms' stock markets react negatively when these firms aim to specialize their industries in emerging countries via CBM&As. Our results imply that industrial diversification is viewed more positively than industrial specialization by the European markets. Therefore our results contradict the prevailing consensus in the contemporary literature regarding the value discount effects of industrially diversified M&As in developed countries (Comment & Jarrel, 1995; Doukas & Kan, 2004; Zollo & Ruer, 2010).

Our other empirical results also deserve comment. We find a negative coefficient on the acquiring firms' size, suggesting that smaller firms obtain better market price reactions (consistent with Moeller & Schlingemann, 2005; Schlingemann et al., 2002). We find a negative coefficient on the free-cash-flow ratios, indicating that acquiring firms with less free cash flows before the announcement of an M&A involving an emerging country obtain positive market price reactions (these results are consistent with Harford, 1999). Looking at deal-level factors, we find that acquiring E.U.-15 firms targeting subsidiaries or private firms in emerging countries obtain positive price valuations (consistent with Chang, 1998 and Faccio et al., 2006 etc.). In our target-country-level analyses, we find that the level of creditor rights protection in the emerging countries is one of the most important factors evaluated by the markets. We find a negative coefficient on creditor rights protection, contradicting the findings in La Porta et al. (2000) and Gande et al. (2009). One plausible explanation could be that overly strong creditor rights protection may commit the creditors in emerging markets to penalizing managers if firms get into financial straits.

To summarize, our analyses suggest that acquiring firms should choose private firms or subsidiaries as their targets in emerging countries and that they should pay for these M&As with less cash. Acquiring firms should target those emerging countries with lower levels of creditor rights protection and higher levels of minority shareholder rights protection. Finally, and most importantly, our analyses recommend that E.U.-15 acquiring firms increase their level

of industrial diversification when engaging in CBM&As with emerging countries.

2.5 Robustness Checks

First we verify industry specialization (diversification) development trends in CBM&As with emerging countries by using an alternative measure for industrial specialization ($\Delta INS_{i,t}$). Specifically, we redefine a firm's industrial specialization as the inverse function of the entropy index.²⁴ Second, we use five-day CARs around the event window (-2, +2) as the dependent variable in robust regression analyses. Third, due to the international nature of CBM&As, as Bodnar (2004) argued, the value impact of international diversification is sensitive to the measurement of firm size. In order to check the sensitivity of our size control, following Nicholson and Salaber (2013) we use market value of assets as an alternative size variable. Table 2.9 presents the univariate results of the newly computed firms' product diversification using the entropy index.

Table 2. 9

Robustness Univariate Analyses and Correlation Tests of Δ Entropy _{it}			
Panel A: Normality Tests			
Kolmogorov-Smirnov Test			P <0.01
Cramer-von Mises Test			P <0.005
Anderson-Darling Test			P <0.005
Panel B: Univariate analyses			
Mean	Median	N	Sample Period
-0.007	-0.000	1288	1992-2012
-0.013	0.001	539	1992-2002
-0.002	-0.000	749	2003-2012
-0.057	-0.001	122	1992-1996
-0.000	0.003	417	1997-2002
0.075***	0.009***	319	2003-2007
-0.061***	-0.005***	430	2008-2012
-0.058***	-0.016***	232	Services Industries
0.012***	0.005***	882	Manufacture Industries
Panel C: Correlations Tests			
Entropy Vs Herfindhal Index		0.968***	
Δ Entropy _{it} Vs Δ HHI _{it}		0.636***	

²⁴ Similar in popularity to the Herfindhal index, the entropy index is commonly used to measure firms' product concentration (diversification) in the literature (see Jacquemin & Berry 1979)

Note: the table shows the univariate analysis of the robustness tests of industrial specialization. We use the inverse function of the well-known entropy index developed by Jacquemin and Berry (1979) to measure industrial specialization. We compute the changes in industry specialization as the inverse function of the entropy index level for the year after the completion of the M&As, minus the level of the year before the announcement ($\Delta Entropy_{i,t}$). We subdivide our sample period into seven different periods. To compare the reliability and consistency between the HHI index and the entropy index, we perform correlation tests. *Significance at the 10% level. **Significance at the 5% level. ***Significance at the 1% level.

The results from Table 2.9 are broadly similar to our original univariate analyses. Again the normality tests show that $\Delta INS_{i,t}$ does not follow a normal distribution, so we focus on the median value to judge its developmental trend. Differing slightly from our original tests, industrial specialization now shows negative changes that are statistically insignificant. Similarly, industrial specialization is negative and statistically significant over the period 2008-2012 and for service industries. Manufacturing industries stay statistically significant and positive in the robustness checks.

Table 2.10 presents the robustness check results of our cross-sectional regressions. We construct 12 models to verify our multivariate regression empirical results. Models 1, 4, and 7 are the robustness regression tests for the full sample. Models 2, 5, and 8 concentrate on the service industries. Models 3, 6, and 9 focus on the sample period of 2008-2012. More precisely, Models 1, 2, and 3 are cross-sectional regression robustness checks by using CAR2 (-2, +2). In Models 4, 5, and 6, to alternatively control firm size we replace the book value of assets with the market value of assets. In Models 7, 8, and 9, we use the entropy index to measure changes in industrial specialization. Finally, Models 10, 11, and 12 concentrate on the manufacturing industries.

Table 2. 10 Robustness Checks

This table displays the robustness test results for CBM&As between the E.U.-15 and EMs-18. We use an alternative abnormal cumulative returns (CAR2) as the dependent variable (shown in Models 1, 2, 3, and 10); we use market-value-based assets as an alternative measure of firm size (Models 4, 5, 6, and 11); and we compute the Entropy Index as an alternative measure of industrial specialization (Models 7, 8, 9, and 12). Models 1, 4, and 7 are the robustness regression tests for the full sample; Models 2, 5, and 8 concentrate on the services industries; Models 3, 6, and 9 focus on the sample period of 2008-2012; Models 10, 11, and 12 are robustness checks for the manufacturing industries. *Significance at the 10% level. **Significance at the 5% level. ***Significance at the 1% level

Model	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
SIZE	-0.001	0.007	-0.002	-0.003**	0.005*	-0.003	-0.002**	0.007***	-0.003*	-0.003*	-0.003*	-0.002*
	[-1.08]	[1.63]	[-1.10]	[-2.36]	[1.78]	[-1.55]	[-2.18]	[2.84]	[-1.72]	[-1.90]	[-1.87]	[-1.77]
LEV	0.014	0.058	0.010	0.006	-0.026	0.004	0.011	-0.056**	0.011	0.008	0.006	0.006
	[0.99]	[1.14]	[0.45]	[0.56]	[-0.88]	[0.27]	[1.00]	[-2.04]	[0.60]	[0.44]	[0.29]	[0.35]
TOBIN	-0.002	-0.008	-0.009***	-0.002*	0.000	-0.002**	-0.000	-0.002	-0.003*	0.000	0.000	0.000
	[0.75]	[-1.19]	[-2.73]	[-1.70]	[0.30]	[-2.53]	[-0.37]	[-0.76]	[-1.71]	[0.26]	[0.30]	[0.40]
CASH	0.037	0.275***	0.063	-0.029	0.103	-0.004	0.011	0.057	0.014	-0.015	-0.015	-0.019
	[1.03]	[3.08]	[1.13]	[-1.48]	[1.62]	[-0.12]	[0.38]	[0.97]	[0.36]	[-0.44]	[-0.47]	[-0.60]
MTB	0.001	0.066***	-0.003	-0.001	-0.011	-0.005*	-0.001	0.009	-0.004	0.003	0.004	0.003
	[0.44]	[3.71]	[-0.57]	[-0.70]	[0.445]	[-1.70]	[-0.69]	[0.87]	[-1.54]	[0.52]	[0.61]	[0.63]
PROF	-0.003	0.000	0.024	0.033**	-0.132***	0.002	0.000	-0.069	0.000	0.011	0.011	0.021
	[-0.11]	[0.00]	[0.47]	[2.23]	[-3.29]	[0.21]	[0.01]	[-1.46]	[0.03]	[0.52]	[0.32]	[0.58]
PUBLIC	-0.008	-0.015	-0.041	0.000	0.052*	-0.015	-0.000	0.084***	-0.010	-0.010	-0.010	-0.008
	[-1.14]	[-0.42]	[-1.06]	[0.05]	[1.81]	[-1.14]	[-0.04]	[2.68]	[-0.75]	[-1.36]	[-1.39]	[-1.20]
PRIVATE	-0.003	0.059*	-0.009	-0.003	0.075***	0.004	-0.004	0.101***	0.006	-0.009	-0.009	-0.008
	[-0.38]	[1385]	[-0.67]	[-0.50]	[2.77]	[0.41]	[-0.55]	[3.44]	[0.52]	[-1.49]	[-1.53]	[-1.44]
SUB	-0.003	0.034	-0.007	-0.009	0.084***	0.011	0.000	0.113***	0.015	-0.008	-0.008	-0.007
	[-0.45]	[1.11]	[-0.45]	[-0.16]	[3.07]	[1.10]	[0.03]	[3.81]	[1.23]	[-1.34]	[-1.34]	[-1.25]
HOSTILE	0.006	-0.002	0.006	0.011	0.004	0.014**	0.005	-0.008	0.006	0.006	0.006	0.005
	[1.01]	[-0.08]	[0.58]	[1.51]	[0.27]	[2.25]	[1.18]	[-0.60]	[0.67]	[1.17]	[1.18]	[0.94]
PURE CASH	0.021	-0.006	0.008	0.00	-0.003	0.002	0.002	0.007	0.004	0.049	-0.000	-0.002
	[0.69]	[-0.29]	[1.43]	[0.29]	[-0.48]	[0.47]	[0.82]	[1.08]	[0.77]	[1.19]	[-0.00]	[-0.50]
PURE SHARE	0.021	0.039**	0.072	-0.005	-0.069*	0.075	0.023	0.040***	0.065	0.049	0.049	-0.001
	[0.69]	[2.80]	[1.29]	[0.15]	[-1.80]	[1.19]	[0.80]	[2.73]	[1.01]	[1.19]	[1.19]	[-0.50]
MARKET_SIZE	0.002	-0.011	-0.001	0.002	-0.001	0.000	0.001	-0.009*	0.000	0.002	0.002	0.050
	[0.93]	[-0.80]	[-0.48]	[0.89]	[-0.26]	[0.08]	[0.81]	[-1.77]	[0.24]	[0.64]	[0.72]	[1.21]
C_GROWTH	0.008**	0.046***	0.002	0.003	-0.009*	-0.001	0.003	-0.015***	-0.002	0.009**	0.009**	0.002**
	[2.30]	[4.26]	[0.30]	[1.38]	[-1.69]	[-0.76]	[1.43]	[-3.16]	[-1.01]	[2.16]	[2.18]	[2.09]
SHAREHOLDER	0.003*	0.002	0.000	0.002	0.001	0.00	0.002*	-0.002	0.000	0.003*	0.049	0.002
	[1.61]	[0.25]	[0.33]	[1.38]	[0.27]	[0.15]	[1.67]	[-0.71]	[0.21]	[1.66]	[1.19]	[1.01]
CREDITOR	-0.013***	-0.026**	-0.009	-0.010***	-0.003	-0.007*	-0.010***	-0.003	-0.007	-0.013**	-0.013***	-0.011***
	[-3.46]	[-2.15]	[-1.54]	[-3.51]	[-0.76]	[-1.70]	[-3.59]	[-0.83]	[-1.43]	[-2.46]	[3.06]	[-2.67]
MINORITY	0.027*	0.104**	0.009	0.022*	-0.029	0.002	0.024**	-0.019	0.005	0.041**	0.042**	0.010
	[1.83]	[2.67]	[0.39]	[1.92]	[-1.31]	[0.11]	[2.08]	[-0.93]	[0.26]	[2.46]	[2.48]	[1.15]
AINS	-0.007	-0.043***	-0.015*	-0.021***	-0.030***	-0.051***	-0.015**	-0.035***	-0.024**	0.008	0.008	0.010
	[-1.39]	[-4.61]	[-1.73]	[-3.44]	[-2.67]	[-5.41]	[-2.54]	[-4.80]	[-2.55]	[1.20]	[1.24]	[1.15]
F value	1.78***	2.11**	1.78**	2.07***	4.33**	3.36***	1.84***	6.40***	2.95***	1.68***	1.68***	1.61***
Year Dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	910	151	356	950	160	362	813	145	345	634	634	656
Adjusted R 2	0.028	0.398	0.049	0.044	0.39	0.131	0.037	0.503	0.115	0.037	0.038	0.033

The various robustness tests described above generate qualitatively similar results to our original results. Models 2 and 3 are robust, as they show that the value discount effect of industrial specialization persists when using *CAR2* as the dependent variable. Models 4, 5, and 6 are robust, as they demonstrate that the value discount effect of industrial specialization persists when an alternative control of firm size, market value assets, is used. Models 7, 8, and 9 are robust, as they demonstrate that the value discount effect of industrial specialization persists when an alternative measure of industry specialization is used. Similarly, for manufacturing industries (Models 10, 11, and 12), the robustness checks yield almost the same results as in the original regressions. In short, our robustness tests once again show that industrial specialization in CBM&As with emerging countries is negatively and (strongly) statistically significantly associated with market price reactions. Therefore, our robustness results reinforce evidence of the negative valuation effect of industrial specialization in CBM&As between the E.U.-15 and emerging countries.

2.6 Conclusion

The rapid growth of CBM&As from developed countries to emerging countries has become an economic phenomenon, but our knowledge is still very limited concerning the announcement effects of these activities. In this paper, we attempt to examine the impact of industrial specialization on the stock price reaction, based on a self-constructed dataset of 1,732 M&As completed between 1992 and 2012 and involving non-financial and non-energy or utility firms, for which the acquiring firm is from 15 of the European Union countries and the targeted firm from 18 emerging countries.

Consistent with earlier studies concerning the price reaction to M&As between developed countries and emerging countries, we find that the stock markets have overall positive reactions. We confirm their results that the announcement of M&As with emerging countries increases wealth for the acquiring shareholders. However, when we compare CBM&As between the E.U.-15 and emerging countries with CBM&As within the E.U.-15 or with domestic M&As (in France), we find evidence that the announcement abnormal returns are significantly lower for CBM&As between the E.U.-15 and emerging countries. We further explore the cause of such announcement effects by focusing on industrial specialization. After controlling for a range of variables, we find that there is a significant and negative relationship between announcement period abnormal returns and industrial specialization. Compared to CBM&As announced

within the E.U.-15, industrially specialized CBM&As announced between the EU=15 and emerging countries are not preferred by the markets. Our results also reveal why the announcement returns are smaller in these CBM&As: the acquiring shareholders suffer more losses when firms specialize through industrial structure or product segments in CBM&As with emerging countries.

Our research has important implications, not only for the corporate diversification literature, but also for business and finance practitioners. We demonstrate how industrial specialization or diversification decisions affect shareholder wealth through investment activities in emerging countries via CBM&As. Overall, our results suggest that the choice of industrial diversification or specialization is an essential component of corporate decisions concerning mergers and acquisitions between developed countries and emerging countries. Despite the fact that a majority of the existing M&A studies emphasize the benefits of industrial specialization, we show that this conclusion, based on research in developed countries, is not valid when applied to the context of emerging countries. Instead, pursuing more industrially diversified M&As with emerging countries should be highly recommended.

To conclude, this study only begins to reveal what motivates firms in the developed countries to diversify industrially into emerging countries. With the further integration of the world economy, alongside improvements in the legal and institutional environments in the emerging countries, continuing research is warranted into the choice of industrial specialization or diversification via CBM&As by multinational firms in developed countries wishing to expand into emerging countries. This paper can be extended in many directions: for example, we could examine the long-term performance of CBM&As with emerging countries, we could examine the short-term wealth effects from the point-of-view of shareholders of the targeted firms in emerging countries, and we could also explore the industrial diversification behavior of acquiring firms during the economic recession period in Europe. We leave these ideas open for future studies.

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Appendix 2

Description of Variables

This table describes all the variables used in the paper. Firm-level data items are computed on an annual basis at the year-end prior to the deal announcement date. Deal-level items are measured according to the definitions of the SDC. Country-level data are measured on an annual basis.

Abbreviations	Definitions	Measurement and Source
Panel A: Firm-level Characteristics		
SIZE	Acquiring Firm Size	Size of acquiring firm is measured by value of total assets. Source: World-Scope Financial.
LEV	Financial Leverage	Financial leverage of acquiring companies is computed as total long term debts divided by total assets. Source: World-Scope Financial.
TOBIN	Firms' Tobin Q ratio	Market value of equity plus book value of total debt, divided by book value of total assets. Source: World-Scope Financial.
CASH	Free Cash Flow Ratio	Operating cash before interest and taxes, minus total cash paid on dividend, minus total income taxes, minus interest expense on debt, normalized by total assets. Source: World-Scope Financial.
PROF	Profitability	Earnings before interest and taxes (EBIT), divided by total assets. Source: World-Scope Financial.
MTB	Market-to-book Ratio	Ratio of book equity and market equity in the fiscal year prior to the M&As. Source: World-Scope Financial.
Panel B: Deal-level Characteristics		
PUBLIC	Public Target	Target firm for which the status is indicated as "public." Source: SDC.
PRIVATE	Private Target	Target firm for which the status is indicated as "private." Source: SDC.
SUB	Subsidiary Target	Target firm for which the status is indicated as "subsidiary." Source: SDC.
PURE_CASH	Cash paid M&A	Cash only deal, i.e., a deal paid for 100% with cash. Source: SDC.
PURE_SHARE	Share paid M&A	Ordinary share or new issued share deal, i.e., a deal paid for 100% with shares. Source: SDC.
HOSTILE	Hostilely bidden M&A	Deal defined as non-friendly. Source: SDC.

Panel C: Target Country-level Characteristics		
T_GROWTH	Target Countries' Economic Growth	Logarithmic value of GDP growth rate, 1992-2012. Source: The World Bank Development Indicator.
T_MS	Target Countries' Market Size	Natural log value of the ratio of GDP per capita of E.U.-15 and EMs-18 countries. Source: The World Bank Development Indicator.
T_SHARE	Target Countries' Shareholder Rights Protection	Shareholder rights protection index. Source: La Porta et al. (1998) and Djankov et al. (2008).
T_CREDITOR	Target Countries' Creditor Rights Protection	Creditor rights protection index. Source: La Porta et al. (1998, 2006) and Djankov et al. (2008).
T_MINORITY	Target Countries' Minority Shareholder Rights Protection	Minority shareholder protection index. Source: La Porta et al. (1998, 2006) and Djankov et al. (2008).
OWNER	Target Countries' Ownership Concentration	Source: La Porta et al. (2006).
Panel D: Explanatory Variables		
Δ INS	Δ Industry Specialization Changes	Continuous variable measuring the variation in industry specialization before and after M&As events. Source: World-Scope Financial.
CBEC	CB Emerging Countries	Dummy variable which for CBM&As between E.U.-15 and EMs-18 countries takes the value of 1, otherwise the variable takes the value of 0.
$CBEC \times \Delta$ INS	CBEC X Δ INS	Interactive variable.
RELATED	Industrially related M&As	Dummy variable. Target firms are in the same industry as their acquirers if the first two digits of the SIC code of any line of business of the target firm is the same as the first two digits of the acquiring firm's SIC.

Chapter 3

Payment Method, Premium and the Perceived Misvaluation: Evidence from Cross-border M&As with Emerging Countries.

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Abstract

This paper explores how the perceived market mis-valuations impact the payment methods (cash vs. stock) and the premium paid in cross-border M&A (CBM&As) from the European Union (EU) to emerging countries. Based on a CBM&A sample from 15 European Union countries (EU-15) to 18 emerging countries during 1998-2012, we find the acquiring firms are undervalued by the market. Our results show the acquiring firms in CBM&A to emerging countries do not incline to pay cash but in CBM&A inside European Union. The premium paid by the acquiring firms are not different from those of paid in CBM&A inside the European Union. Our analyses evidence acquiring firms are reluctant to pay cash in CBM&As with emerging countries. The findings suggest that it is the agency problem rather than the market timing that explains the payment decisions in the CBM&As from the E.U. to emerging countries.

Key words: Payment Method, Premium, Cross-border M&A, Emerging Markets, Market Timing, Agency Cost

JEL: G34, G14

3.1 Introduction

Since Baker & Wurgler (2002) the theory of 'market timing' has been extrapolated upon within the field of empirical finance literature. Yet, numerous debates on the subject remain. Similarly, research regarding whether and how managers time markets has also been a contested topic in finance research (Dittmar & Field, 2015). Moreover, in M&A-specific literature, many empirical studies have been conducted and the payment decision is one of the most frequently researched issues (Dutta & Zhu, 2013, p. 91). In this paper, we investigate the scope and effect of market timing of managers on payment methods and premiums paid to emerging countries in cross-border mergers and acquisitions ('CBM&As').

In a perfectly efficient capital market, market prices should quickly adjust according to announced corporate events, and stock price fluctuations ought to purely reflect the markets' expectations towards a firms' future business prospects. However, wide-scale empirical research has suggested that market mispricing exists, which in turn has formed the foundation and support of the 'inefficient capital market' hypothesis. Baker & Wurgler (2002) argue that a firms' equity issuance decision not only depends on the firms' future investment and growth prospects, but also upon its market timing. Baker (2009) also argues firms' securities prices can be distorted within capital markets due to high transaction costs, with the knock-on effect of requiring time to adjust the stock prices back to their intrinsic values. On top of these "systematic" valuation errors resulting from the inefficiencies of stock markets, the mis-valuation effect can also be triggered by information asymmetry between "insider" managers and "outsider" investors, an asymmetry that influences firms' investment decisions and creates financial constraints (Fazzari et al. 1998). To put this in other terms: market mis-valuation arises when investors and managers have different perceptions of a firms' intrinsic values (Moeller & Schlingemann, 2005).

Once managers make the decision of going ahead with a proposed M&A, they need to decide how to pay for their targeted firm: cash, stock, or a mixt of payments, and to decide the 'price' of paying the targets. The price paid by acquiring firms to targeted firms not only involves the latter's value but also a premium, acquiring managers also face the decision of how to approach this matter.

A survey by the Chartered Financial Analyst (CFA) shows four of the five BRICS nations are viewed in the five countries with the best investment opportunities (the United States being the other), a clear sign that emerging markets have become hot prospects for M&As. Petmezas (2009) argues that when market optimism arises acquiring managers can time their market involvement and take advantage of uptrends. We conjecture that market mis-valuation is likely to be overwhelming in many cases and managers may subsequently time action accordingly, thus affecting their payment decision. In the paper, we address our research curiosities by focusing on the role of the perceived market mis-valuation by acquirers on the choice of payment method and premium decision in CBM&As from the European Union to emerging countries (after refer to as 'EU-to-emerging countries CBM&As').

EU-to-emerging countries CBM&As provide us a unique research context, as these CBM&As contains higher information asymmetry than CBM&A between developed countries. This is because whilst there is a relative maturity in national and corporate governance in the latter, poorer governance systems and heterogeneous levels of market inefficiency plague the former (Lagoarde-Segot & Lucey, 2008). To our best knowledge, there has been no relevant study focusing on the payment decision in CBM&A from developed countries to emerging countries.

This paper focuses on the European Union (EU-15), the single largest economic entity in the world (larger than US), which has very active trading relationship with emerging countries and whose diversity and unique internal border structure allow for greater generalizing of empirical results. “The European context is an interesting empiric field to analyze M&A transactions” (De la Bruslerie, 2013).

This paper mainly aims to explore whether acquiring managers take advantage of the perceived misevaluations from markets in CBM&As of EU-to-emerging countries via their payment decisions. More specifically, we intend to find how the perceived market mis-valuations impacts acquiring managers' payment methods (cash vs. stock) and the paid premiums. Additionally, the paper has the intention to explore whether agency theory explains the payment decisions in those CBM&As of EU-to-emerging countries (i.e. whether there exists conflicts of interests between managers and shareholders).

Compared to industry-and-size matched firms of these CBM&As conducted wholly inside the EU (hereafter refer to as 'EU-only CBM&As'), we find meaningful managerial and research implications. Specifically, we find the perceived valuation are lower for EU-to-emerging countries CBM&As and, further to this, that acquirers have no preference for cash or stocks and that they do not pay out higher premiums. The results suggest that acquiring managers do not take advantage of the 'window of opportunity' in the markets when making these payment decisions. Ours contradicts Faccio & Masulis (2015) concerning the payment methods of the European firms.

In additions, we find acquiring managers do not incline to pay cash to the targets of emerging countries irrespective of the positive reaction to those cash deals within the markets. The results from our additional tests suggest that managers are rather entrenched and are not willing to take extra risks when going into emerging countries, and there exists a conflict of interests between managers and shareholders.

This paper contributes to the current literatures in several ways. First, we fill the current empirical gap in terms of payment decisions in relation to CBM&As with emerging countries. Specifically, we do not find supporting evidence to the market mis-valuation hypothesis of Shleifer & Vishny (2003) and Rhodes-Kropf & Viswannathan (2004). Second, ours enriches the agency theory, especially among 'managerial entrenchment' theories as we find that, when facing more information asymmetry and higher unpredictability, managers tend to become entrenched. Third, the paper adds to the scarce premiums M&A literature by highlighting the importance of perceived mis-valuation for acquirers in CBM&As with emerging countries.

Two former studies are close to the paper. The first one is Chemmanur et al. (2009), who examined the payment method of M&As between US listed firms under the influence of private information perceived acquirers. The second one is de La Bruslerie (2013), who used firms from 7 major European Union countries as the targets acquired by firms of the other developed countries. Different to their papers, we not only examine the role of market mis-valuation but also take a step further forward by working on the payment methods and paid premium in CBM&As with emerging markets. Our paper is the first that examines the payment methods and the paid premium simultaneously in the context of CBM&As with emerging countries.

The remainder of the paper is organized as follows: in Section 2 we discuss the related literatures and develop our empirical hypotheses; in Section 3, we discuss the sample and methodology; in Section 4 we report, discuss, and analyze the results and robustness checks; within Section 5 we perform additional tests regarding the agency theory; finally, Section 6 concludes the paper.

3.2 Development of Hypotheses

Two theories that use market misvaluation to shed light on the payment methods in merger and acquisitions. They are Shleifer & Vishny (2003) and Rhodes-Kropf & Viswannathan (2004), who provide theoretical framework and develop models. They argue that the market value firms incorrectly whereas acquiring managers are rational, understand market mis-valuation and take advantage of it. When applied in the context of the payment method, this advantage is drawn from managers choosing either cash or stock depending on how they believe markets are evaluating their securities. More specifically, acquiring managers pay cash instead of stocks when they feel their securities are under or correctly valued by the market. Moreover, doing that, acquiring managers signal positive information to the market that they are not in financial constraints (Myers & Majluf, 1984). By opposite, acquiring managers pay through stock when they feel their firms are overvalued by the market (Dong et al., 2006; Jung et al., 1996).

Contrarily, if the target shareholders or target managers have more information than the acquiring managers on the target, stock paid deals are more appreciated by the markets. Using stocks not only forces target shareholders to share part of the M&As investment risks, but also permits the local shareholders of the targeted firms to contribute their 'soft information', which is beneficial for the combined firms heading into the future (Uysal et al., 2008).

Among the empirical lines, majority of literatures suggest firms are more likely to use cash in cross-border M&As. To name a few, focusing on CBM&As among European firms over 1997-2000, Faccio & Masujlis (2005) find European firms prefer to pay cash. Similarly, Da La Bruslerie (2013) suggest that CBM&As deals be more likely to be paid with cash. Chevalier & Redor (2007) argue it is the asymmetry of information that explains why CBM&As are more often paid with cash. Fuller, Netter & Stegemoller (2002) argue, due to information asymmetry

and the valuation uncertainty about stock paid deals, the market views those stock financed deals less favorably than cash financed deals. Savor and Lu (2009) find stock deals encountered very negative market reactions around the announcement dates. Chemmanur et al. (2009) further suggest that a higher probability of acquiring firms overpay the targeted firms if the level of information asymmetry between acquirers and targets firms is high. Besides, La Porta (2006) shows higher information asymmetry between the two are also more likely to decrease investors' protection as well as the consequent target valuations

In case of cross-border M&As from the European Union-to-emerging markets, there is even higher asymmetric information. Compared with those CBM&As inside the European Union, acquiring firms' investors can be more likely to be concerned about the higher level of information asymmetry. Therefore, the market may undervalue the CBM&As to emerging countries for the sake of information asymmetry and the valuation uncertainties. Therefore, despite acquiring managers may possess more 'private information' in these CBM&As, they are more likely to use cash instead of stock in CBM&As to emerging countries in order to avoid negative markets valuations (Myers & Majluf, 1984)

Combining the theoretical arguments of Shleifer & Vishny (2003) and Rhodes-Kropf & Viswannathan (2004) with the extant empirical suggestions, we yield the following empirical predications:

Hypothesis 1: Acquiring managers prefer to pay by cash in CB&MA to emerging countries when their firms are correctly or undervalued by the markets.

Hypothesis 2: Acquiring managers prefer to pay more by cash in CBM&A to emerging countries than in CBM&A inside Europa when their firms are correctly or undervalued by the markets.

Hypothesis 3: Acquiring managers in CBM&A to emerging countries pay higher premiums to the targets of emerging countries than CBM&A conducted wholly inside the European Union when their firms are undervalued by the markets.

3.3 Sample and Methodology

3.3.1 Sample

We construct M&A samples deals from Thomson SDC. For selections of acquiring countries, we focus on 15 European countries, which include the following countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and United Kingdom. To select our targeted emerging countries, we review the definitions of emerging economies from several international organizations such as FTSE, MSCI, the Dow & Jones, and the International Monetary Fund (IMF). After comparisons we select 18 emerging countries: Argentina, Brazil, Chile, China, Colombia, Egypt, Hungary, India, Indonesia, Malaysia, Mexico, Morocco, Peru, Philippines, Russia, South Africa, Thailand, and Turkey. Considering the adoption of the currency of Euro in European Union is in 1998 and lacks of capital market data of emerging countries before 1998, our M&As sample periods are fixed between 1 January 1998 and 31 December 2012. Initially this yields a total of 7,245 CBM&As inside European Union and 3,198 CBM&As from European Union.

Our sampling procedures mainly comprise two stages. First, we exclude acquiring firms in financial sectors and utility, energy sectors (SIC code from 6000 to 6999, 4000 to 4999).²⁵ The sampling procedure reduces the total EU-only CBM&As deals to 6,371 and 2,353 CBM&As of EU-to-emerging countries. Then, we require acquiring firms' accounting data to be available in Worldscope, which reduces observations to 5,262 of EU-only CBM&As and 2,323 in CBM&As of EU-emerging countries. The security prices data and capital market data are extracted from EUROFIDAI (www.eurofidai.org). Our sampling finally yields 4,782 deals completed by 1,367 acquiring firms in CBM&As inside EU, 1,707 deals completed by 598 acquiring firms in CBM&As from EU to EMs, and 2,011 industry-and-size matched M&As EU-only CBM&A relating to 438 acquiring firms.

²⁵ We exclude these sectors because there will be research bias if we include these firms in the stage of empirical analyses. For an example, quite often accounting data is recorded differently in financial institutions and banks. Energy and utility firms often involve government interventions.

To test Hypothesis 3, we include those -public-targets deals for the purpose of computing the premiums.²⁶ We also exclude those that have transaction values less than 1 million US dollars.²⁷ Moreover, we require that target securities prices to be reported in SDC for calculating M&A premiums. These sampling procedures reduce our observations to a greater extent. The final sampled M&As deals include 85 deals of CBM&As EU-to-Emerging countries which relates to 56 acquiring firms, and 116 deals of industry-and-size matched firms of EU-only-CBM&As concerning 70 acquiring firms.²⁸

3.3.2 Methodology

To test hypotheses 1 and 2, we perform the following baseline regression to test the relationship between the payment method (y_i^*) and a vector of explanatory variables x_i' :

$$y_i^* = x_i' \beta + \mu_i \quad (3-1)$$

Where: the latent variable y_i^* represents the payment method of M&A, which is unobservable, x_i' is the vector of explanatory variables, and $\mu_{i,t}$ is the error term.

In general, we model the payment of cash in CBM&As EU-to-emerging countries as a function of

$$Payment_cash_{i,t} = f(VEs, Control\ Variables) \quad (3-2)$$

Since payment method cannot be only limited to “pure cash” and “pure stock” but also associate with mixture of payment, we use two approaches to estimate the relationship between payment method y_i^* and the market misevaluation (VE).

²⁶ Please see the definition specified in the appendix at the end of the chapter on how we measure and compute the premium.

²⁷ This sampling procedure ensures the deal is big enough. The acquiring firms make their decisions seriously because such deals are likely to influence the post M&A performances of the combined firms (please see Moeller, Schlingemann & Stulz, 2004)

²⁸ This sampling procedure shows that most M&As to emerging countries are non-public targets. Literature tells overpayment does not appear to be the major problem when acquiring non-public targets (e.g. (Bargeron, Schlingemann, Stulz, & Zutter, 2008)), excluding those deals are less likely to affect our test results.

The first approach is the TOBIT model, in which the dependent variable is the percentage of cash to consideration of M&A. In Tobit regression, the dependent variable has both left and right censoring so:

$$Y_i = \begin{cases} 0 & \text{if } y_i^* \leq 0. \\ y_i^* & \text{if } 0 < y_i^* < 100 \\ 100 & \text{if } 100 \leq y_i^* \end{cases} \quad (3-3)$$

The parameter β in the Tobit model is estimated by using maximum log likelihood method described as follows:

$$l(\beta, \sigma) = \sum_{i \ni y_i=0} \log F((-X_i' \beta)/\sigma) + \sum_{i \ni 0 < y_i < 100} \log f((y_i - X_i' \beta)/\sigma) + \sum_{i \ni y_i=100} \log(1 - F((100 - X_i' \beta)/\sigma)) \quad (3-4)$$

Where: f and F are the density and cumulative distribution functions respectively.

The second approach is the Ordered Probit Model. By assuming that there are two thresholds of payment methods as α_1, α_2 (conditional upon $\alpha_1 < \alpha_2$), we get:

$$Y_i = \begin{cases} 2 & \text{if } y_i^* \geq \alpha_2 & (\text{pay by all cashes}). \\ 1 & \text{if } \alpha_1 < y_i^* < \alpha_2 & (\text{pay by mix payment}) \\ 0 & \text{if } y_i^* \leq \alpha_1 & (\text{pay by all stocks}) \end{cases} \quad (3-5)$$

The probability of paying cash in EU-to-Emerging-Markets-CBM&A can be described as follows:

$$\text{Prob}(Y = 0|X) = \text{Prob}(\beta X + \mu \leq \alpha_2|X) = \varphi(\alpha_2 - \beta X) \quad (3-6)$$

$$\text{Prob}(Y = 1|X) = \text{Prob}(\alpha_1 < y^* < \alpha_2|X) = \varphi(\alpha_2 - \beta X) - \varphi(\alpha_1 - \beta X) \quad (3-7)$$

$$\text{Prob}(Y = 2|X) = \text{Prob}(y^* \geq \alpha_2|X) = 1 - \varphi(\alpha_2 - \beta X) \quad (3-8)$$

Where: $\varphi(\cdot)$ stands for the standard normal distribution cumulative function. The coefficient of β is estimated by using the maximum likelihood method.

More specifically, we run the following regressions:

$$Payment_cash_{i,t} = \alpha_{i,t} + \sum_{j=1}^n \beta_{j,t} X_{j,t} + \beta_{1,t} VES_{i,t} + \varepsilon_{i,t} \quad (3-9)$$

$$Payment_cash_{i,t} = \alpha_{i,t} + \sum_{j=1}^n \beta_{j,t} X_{j,t} + \beta_{1,t} CBEC \times VES_{i,t}^{29} + \varepsilon_{i,t} \quad (3-10)$$

Where: the dependent variable $Payment_cash_{i,t}$ is the portion of cash payment in equation (3-8), and the probability of using cash in equation (3-9). $\sum_{i=1}^n X_{i,t}$ is a vector of control variables, and $\varepsilon_{i,t}$ is the error term.

If hypotheses 1 and 2 are respected, the coefficient β from the Tobit and the Ordered Probit estimations must be consistent. Namely, the coefficient of β should be positive and significant.

To test hypothesis 3, we model the premiums paid in CBM&As from EU to emerging countries as a function of market misvaluations and the other controllable variables, which can be expressed as:

$$M\&As\ Premium_{i,t} = f(VES, Control\ Variables) \quad (3-11)$$

Specifically, we run OLS regressions described as follows:

$$Premium_{i,t} = \alpha_{i,t} + \sum_{j=1}^n \beta_{j,t} X_{j,t} + \beta_{1,t} VE_{i,t} + \varepsilon_{i,t} \quad (3-12)$$

$$Premium_{i,t} = \alpha_{i,t} + \sum_{j=1}^n \beta_{j,t} X_{j,t} + \beta_{1,t} CBEC \times VE_{i,t} + \varepsilon_{i,t} \quad (3-13)$$

Where: $Premium_{i,t}$ is the premium paid. $\sum_{i=1}^n X_{i,t}$ is a vector of control variables, and $\varepsilon_{i,t}$ is the error term.

If Hypothesis 3 is respected, we expect the coefficient of β to be positive and significantly associated with $Premium_{i,t}$.

We control for acquiring firms' size (Gondhalekar et al., 2004; Betton et al., 2008) because larger firms usually have better financial capacities and are less likely to be financially

²⁹ $CBEC \times VE_{i,t}$ is an interactive term we create for the purpose of benchmarking analyses. We explain it in details later.

constrained. We measured the acquiring firms' size as the log ratio of acquiring firms' market capitalization. We also control the relative size of the deal because literature confirms it is a determinant of the payment method (Moeller & Schlingemann, 2005; Dong M. , Hirshleifer, Richardson, & Teoh, 2006). We also control acquiring firms' Final Leverage as literatures show most cash-paid M&As are funded from debts (Harford et al., 2009)

Firms' growth opportunities determine their payment methods as well. If acquiring firms can obtain more growth opportunities in the target firms acquiring firms should be willing to pay out stocks and pay with higher premiums (Martin, 1996). We computed the market-to-book to proxy acquiring firms' growth opportunities. Firms' financial constraint status (liquidity constraints) prior to the M&As should have important influences on acquiring firms' payment decision (Martin, 1996; and Faccio & Masulis, 2005). Literature also shows the level of information asymmetry of acquirers determine the payment decision in M&A. Following Thomas (2002) and Chammanur et al. (2009) and many others, we use the number of analyst of acquiring firms reported by IBES for the preceding month of the fiscal year prior to the M&A announcements to proxy for acquirers' 'private information'.

Moreover, prior studies also document that deal-level characteristics also play important roles in determining M&A payment decisions (payment methods and premium). For example, those M&As in related industries can generate better synergies and therefore should be associated with higher premium. However, acquirers may also pay higher premium in unrelated M&A because they are not familiar with the new businesses in the target countries. In CBM&As studies, controlling deal characteristics is particularly essential because the deal characteristics vividly reflect the agency perceptive under the influence of asymmetric information (Hansen, 1987). In short, we follow prior studies such as Ghosh & William (1998), Martin (1996), Ang, Cheng, & Gregory (2008), Harford, Klasa, & Walcott, 2009, and Simonyan, (2014), and we control for hostile deals, tender offer, industrial relatedness and the types of payment methods.

Furthermore, M&A payment decision can depend on the economic development and institutional characteristics of target countries (Huang et al., 2015). We believe it is the case especially for our paper because of the special characteristics of those emerging countries. We

control for the economic growth, market size, shareholder right protection, creditor right protection, and minority shareholder right protection of the targeted countries.

Finally, we create variables to facilitate tests in the next stage. The first variable is a dummy variable named as cross-border emerging country (CBEC). It takes the value of 1 when the M&A belongs to the CBM&A from the EU to emerging countries and takes the value of 0 when the M&A belongs to the industry-and-size matched firms in CBM&A inside the EU. Second, we create a dummy variable named as Undervalue (UVO). It takes the value of 1 when the computed VEs are non-positive, otherwise it takes the value of 0. Finally, we create an interactive term called $CBEC \times VE$ (UVO). The variable is used to capture the differences on the market undervaluation between the experimented samples.

The detailed definitions and measurements of all the variables described above can be found in the appendix of the chapter.

3.3.3 The Perceived Misvaluation

We use the residual income model to measure the perceived acquirers' misvaluation. There are the RIM of the Ohlsen (1990) as well as Ohlsen (2005) to compute market misvaluation. In our empirical tests, we use the measure from the residual income model of Ohlsen (2005).³⁰

The computation process of market valuation of the RIM can be described as follows:

First, we compute acquiring firms' intrinsic values, and then we compare them with the market prices of acquiring firms on the day before announcement date.

$$\text{Valuation Error (VE)} = \ln (P_0/V_0) \quad (3-14)$$

Where: P_0 is the acquirers closing stock price on the day before the acquisition announcement.
 V_0 is the intrinsic value of acquiring firms' share.

³⁰ The reason of using the RIM of Ohlsen (2005) is because prior literatures often find the RIM of Ohlsen (1990) tends to consistently overvalue stocks (i.e. there is positive VEs). Please see Ritter & Warr (2001) etc.

The difference between the RIM of Ohlsen (1990) and Ohlsen (2005) mainly lie at the computation the intrinsic value of the acquiring firms (V_0). For the Ohlsen (1990), the intrinsic value of acquiring firm is computed as:

$$V_0 = B_0 + \frac{EPS_1 - r \times B_0}{1+r} + \frac{EPS_1 - r \times B_1}{(1+r)^2} + TV \quad (3-15)$$

$$TV = \frac{(EPS_2 - r \times B_1 + (EPS_3 - r \times B_2))}{2 \times (1+r)^2 \times r} \quad (3-16)$$

For the model of Ohlsen (2005), the intrinsic value of acquiring firm is computed as:

$$V_0 = \frac{EPS_0}{R} + \frac{\frac{EPS_1}{R} + [(1+R) \times \frac{EPS_0}{R} - DPS_1]}{1+R} + \frac{\frac{EPS_2}{R} - [(1+R) \times \frac{EPS_1}{R} - DPS_2]}{(1+R)^2} + TV \quad (3-17)$$

TV is the terminal value computed as

$$TV = \frac{(\frac{EPS_2}{R} - [(1+R) \times \frac{EPS_1}{R} - DPS_2]) + (\frac{EPS_3}{R} - [(1+R) \times \frac{EPS_2}{R} - DPS_3])}{2 \times (1+R)^2 \times R} \quad (3-18)$$

Where: B_0 is the book value of equity per share at the end of the fiscal year in which the acquisition is announced. EPS_1 represents the earning per share subsequent to the M&As. r is the required rate of return on the acquiring firms' equity. EPS is the earning per share, DPS is the dividend per share, r is the required rate of returns on the acquirers' stock. We estimate the required rate of return by using the market beta computed over 251 trading days ending on the 21st trading day before the M&A announcement³¹. We use the annualized monthly Euro Interbank Offered Rate (EURIBOR) one-month preceding the M&A announcement. We measure the market risk premium as the annualized difference between the EUROFIDAI EU-15 benchmarked value-weighted index and the one-month EURIBOR rate over 360 days preceding the M&As. The calculation process of the required rate of return can be further described as follows:

³¹. We follow Savickas (2003) and the others to use (-250, -20) interval as the "estimation window".

$$R_{i,t} = R_f + \beta_i(R_{\text{market}} - R_f) \quad (3-19)$$

Where: R is the required rate of return; R_f is the risk free of return, we use the monthly the Euro Interbank Offered Rate (Euribor); β_i is the systematic risk of each stock, we estimate β by using market adjusted model over 251 trading days.

3.4 Results

3.4.1 Statistics Summary

Table 3.1 presents the mean, median and standard deviations of the top and bottom 5% of firm-level and deal-level characteristics present in sampled acquiring firms in CBM&As of EU-to-emerging countries as well as industry-and-size matched firms in EU-only CBM&As. Panel A presents the acquiring firm's characteristics; Panel B shows the statistical results of the deals' characteristics. Overall, the statistics produce some initial responses to our hypotheses.

Panel A shows that European acquiring firms in CBM&A with emerging countries bear more debts with higher market-to-book ratios and intangible assets than their industry-and-size matched peers doing EU-only CBM&As. These acquiring firms have poorer financial profitability and lower Tobin Q, indicating these firms have relatively poor financial and market performances. We also find that acquirers in EU-to-emerging countries have longer incorporation histories, indicating greater experience. More importantly, the statistics show that those acquiring firms have more analysts, a fact that suggests these firms may obtain more information about their overseas investment projects. In other words, in CBM&As these acquiring firms can suffer less information asymmetry and are able to garner more private information about a targeted firm in a target country. Surprisingly, we find the European acquirers of EU-to-emerging countries CBM&As use substantially less cash than those EU-only CBM&As (see Panel B). Acquiring firms' bidding attitudes for EU-to-emerging countries CBM&As are slightly more hostile. We observe the percentage the targeted public firms is significantly smaller in EU-to-emerging countries than in EU-only. Last but not the least, the percentage of industrially related deals is significantly higher in EU-to-emerging countries CBM&As.

Table 3. 1

Summary Statistics

The table summarizes the statistics of acquiring firms' characteristics as well as deals characteristics in CBM&As from EU to EMs. The industry- and size-matched firms in CBM&As inside EU are also reported. Firms' characteristics include asset growth, financial leverage, free cash flows, profitability, Tobin q, market-to-book, intangible asset ratio and the firm age. Deal characteristics include All Cash, All Stock, Cash 50%, Stock 50%, Debt financing, Equity Financing, Related deals, Hostile deals, Tender deals, Target public status and payment premiums. We perform two-sample statistic tests to capture the statistical differences between the two samples. Panel A summarizes statistics in the firms' level characteristics. Panel B summarizes statistics of the deal-level characteristics. *, ** and *** denote significance at the 10%, 5%, and 1% level, respectively.

Variables	EU-to-emerging-countries CBM&A [1]						EU-only CBM&As [2]						Differences [3]=[1]-[2]	
	Obs	Mean	Median	STD	5th percentile	95th percentile	Obs	Mean	Median	STD	5th percentile	95th percentile	Mean	Median
Panel A : Firms' Characteristics														
Asset growth	6693	0.366	0.115	1.071	-0.254	8.292	5993	0.363	0.124	1.043	-0.287	1.618	-0.003	0.447
Fin. leverage	7854	0.243	0.235	0.161	0.000	0.524	6815	0.286	0.225	0.575	0.000	0.589	0.043***	0.023**
Free Cash	7085	-0.008	0.019	0.128	-0.219	0.201	6273	-0.005	0.018	0.164	-0.202	0.112	-0.003	0.347
Profitability	7252	0.126	0.132	0.263	-0.028	0.411	6567	0.138	0.116	0.287	-0.029	0.296	-0.011**	<0.01***
Tobin Q	7148	1.483	1.017	1.636	0.370	3.967	6160	1.752	0.979	3.932	0.282	15.977	-0.268***	<0.01***
MTB	7046	0.833	0.483	1.386	0.066	2.388	6054	0.476	-0.717	5.313	-0.717	9.015	0.356***	<0.01***
Intangible ratio	6573	0.076	0.031	0.116	0.001	0.310	3710	0.075	0.033	0.107	0.002	0.521	0.001	0.035**
Firms age	598	20.311	17.000	11.844	6.000	48.000	1597	16.93	14.272	11.272	4.000	41.000	3.381	<0.01***
Numanalysts	62418	14.059	13.00	9.789	1.000	33.000	52121	12.37	10.00	9.669	1.000	32.000	1.681***	<0.01***
Panel B : Deals' Characteristics														
All Cash	1707	0.132	0.000	0.338	0.000	1.000	1811	0.135	0.000	0.342	0.000	1.000	-0.003	0.801
All Equity	1707	0.019	0.000	0.137	0.000	1.000	1811	0.018	0.000	0.136	0.000	1.000	0.001	0.904
Cash (>50%)	1707	0.153	0.000	0.360	0.000	1.000	1811	0.183	0.000	0.386	0.000	1.000	-0.029**	0.021**
Stock (>50%)	1707	0.027	0.000	0.463	0.000	1.000	1811	0.026	0.000	0.161	0.000	1.000	0.001	0.851
Debt financing	1707	0.013	0.000	0.115	0.000	1.000	1811	0.004	0.000	0.062	0.000	1.000	0.009***	0.001***
Share financing	1707	0.005	0.000	0.072	0.000	1.000	1811	0.008	0.000	0.091	0.000	1.000	-0.003	0.278
Relate %	1707	0.623	0.000	0.484	0.000	1.000	1811	0.537	1.000	0.498	0.000	1.000	0.086***	0.001***
Hostile %	1707	0.059	0.000	0.237	0.000	1.000	1811	0.045	0.000	0.207	0.000	1.000	0.015*	0.054
Tender offer %	1707	0.025	0.000	0.156	0.000	1.000	1811	0.031	0.000	0.173	0.000	1.000	-0.005	0.304
Target Public	1707	0.099	0.000	0.299	0.000	1.000	1811	0.304	0.000	0.460	0.000	1.000	-0.205***	0.001***

Approaching to the announcement day, information can start to leak out. In order to more directly observe if there any changes about the premiums paid, we exclude those deals of which “percentage changes of final offer price to initial offer price” are more than zero³². We compare those averaged yearly premiums of 1-day, 1-week and 4-weeks prior to announcement of M&As. Figure 3.1/3.2 depict the premiums pattern development trends.

Figure I/II below plots yearly average premium paid by acquirers in CBM&A of EU-to emerging countries and the CBM&A of EU-only. The red solid lines represent the 4-weeks premium prior to the announcement day, the green dash lines represent the 1-week premium prior to the announcement da, and the red dot lines represent the 1-day premium prior to the announcement day. The two figures reveal acquiring firms pay lower premiums with the announcement day approaching. That is to say, if the final offer price is held constant, the decrease of the premium will evidence the increase of the stock price of the targeted firms. The trend line charts reflect that acquiring managers may have grasped more private information when the announcement day is approaching. Moreover, we can see the development trend for premiums paid in CBM&A from the EU to emerging countries is more volatile, which may suggest that acquiring managers hold more private information.

³² The SDC reports premiums 1 day, 1 week and 4 weeks prior to announcement. SDC also reports percentage changes of final offer price to initial offer price. As a result, there are round 10% of deals are excluded from the original sampled deals. The rates of exclusion are not reported here and they are available upon request.

Figure 3. 1

The figure shows the development trend of average Yearly Premium Paid in CBM&As from EU to Emerging Countries 1998-2012. The blue dot line represents the premium 1 day before the announcement of the M&A. The green dash line represents the payment premium 1 week before the announcement of the M&A. The red solid line represent the premium 4 weeks before M&A announcements. The data is extracted from Thomson SDC.

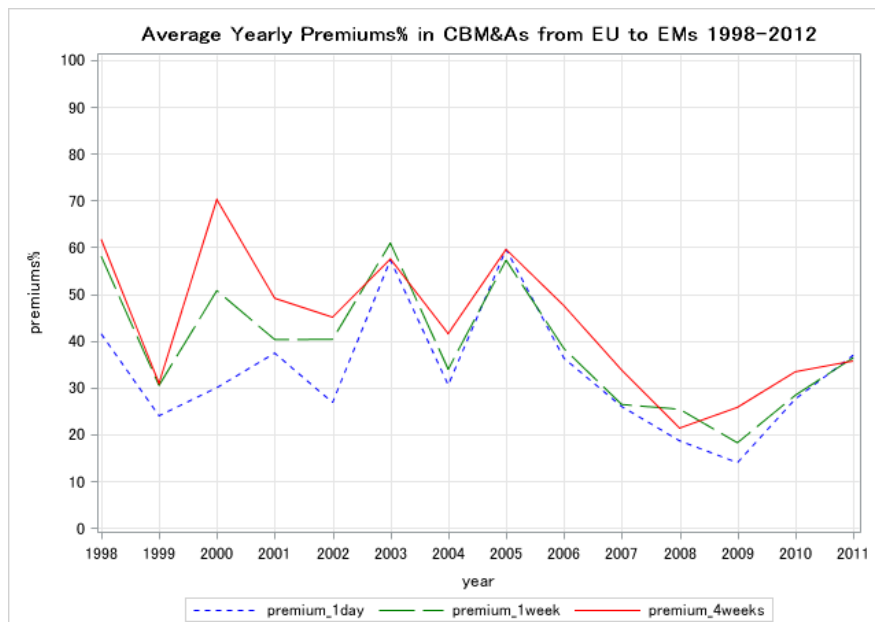
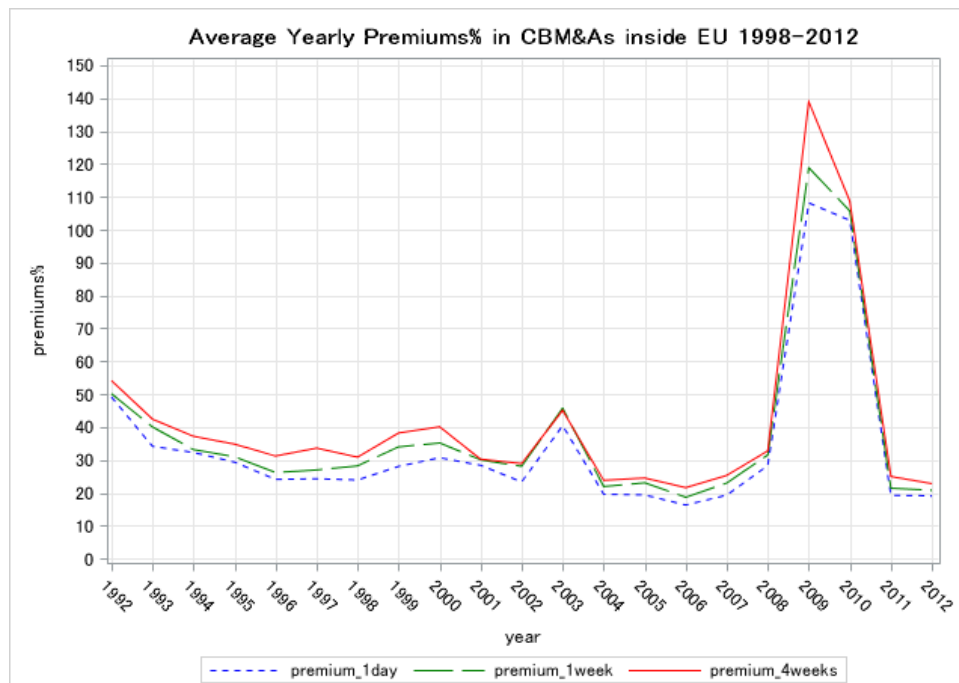


Figure 3. 2

The figure shows the development trend of average Yearly Premium Paid of the CBM&As inside the European Union over 1998-2012. The blue dot line represents the premium 1 day before the announcement of the M&A. The green dash line represents the payment premium 1 week before the announcement of the M&A. The red solid line represent the premium 4 weeks before M&A announcements. The data is extracted from Thomson SDC.



3.4.2 Results and Discussions

Table 3.2 presents univariate results of the acquirers' mis-valuation in CBM&As of EU-to-emerging countries, as well as their industry-and-size matched peers of EU-only CBM&As. The mean and median (in parenthesis) of VEs are presented. Specifically, column 1 describes the model used; column 2 breaks down the analysis by payment methods; column 3 presents the univariate results for acquiring firms in CBM&As of EU-to-emerging countries; column 4 presents the univariate results for the industry-and-size matched acquirers in EU-only CBM&As; column 5 shows two sample univariate results. Finally column 6 summarizes the univariate results by referring to the method of Chemmanur et al. (2009). With this method, we compare the computed VEs between CBM&As of EU-to-emerging countries (VE_{em}) with those of EU-only CBM&As (VE_{iseu}). We get $\Delta VE_{ems-iseu}$. If $\Delta VE_{ems-iseu}$ is positive and significant, the perceived mis-valuation of an acquirer is valued high by the market. Likewise if $\Delta VE_{ems-iseu}$ is negative and significant, an acquirer then feels it is undervalued by the markets, and if $VE_{ems-iseu}$ has no statistical significance indicating correct valuation perceived by acquirers. Following this approach, the univariate results suggest overall these acquirers are undervalued by the markets when compared to industry-and-size matched firms in EU-only CBM&As. When breaking down the samples by payment methods, the instance in which 100% cash is used to pay targeted firms, the acquiring firms with emerging countries obtain even higher undervaluations (on average 32% and 101% under the Ohlsen of 1990 and 2005 respectively) than those industry-and-size matched EU-only CBM&As. The undervaluation effect still holds when acquiring firms use cash down to a cut-off point of 50%.

We conduct Pearson Correlation Analysis before running regressions. We compute the variance inflation factor (VIF) to diagnose collinearity problems. Despite econometrists' claims that collinearity will not be a problem if the VIFs computed for each explanatory variable are less than 10 (Neter et. al.1983), other researchers offer different opinions (Ho & Wong, 2001; Haniffa & Cooke, 2002). To ensure our regression analysis produces persuasive results, we require the VIFs values of all our explanatory variables to be no higher than 6. The test procedure shows that the collinearity problem does not appear to be a major problem for the Tobit and the Ordered Probit regressions. However, in the OLS analyses, the test procedure shows VIFs values exceed the 'limit' for acquiring firms' financial leverage, 'relative size', 'pure cash' and 'pure shares'. Thus we remove these variables from our OLS analysis. Table 3.3 presents the matrix of the Pearson correlation between variables.

Table 3. 2

Univariate Analyses - Acquirers' Misvaluation

This table displays univariate results of acquirer's misevaluation. We use the residual income models (RIM) of Olsen (1990, 2005) to measure acquirers' misvaluation. More precisely, we follow Chemmanur et al. (2009) to determine acquirers' misvaluation by comparing to the industry-and-size matched firms of conducting CBM&As wholly inside European Union. Column (1) presents the univariate results of acquirers' misvaluation for those acquiring firms in cross-border M&As from EU to emerging countries. Column (2) presents the univariate results of acquirers' misvaluation for the acquirers in cross-border M&A inside European Union. Column (3) presents the differences between (1) and (2). Column (4) defines the valuation results (undervaluation or overvaluation) according to the RIMS of Olsen (1990, 2005). Column (5) defines the statistical significance of the two-tailed parameter and non-parameter tests for the difference in means and medians (in parenthesis). *, ** and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

		EU-to-emerging-countries CBM&A	EU-only CBM&As	$\Delta V E_{ems-iseu}$	Perceived Misvaluation
[1]	[2]	[3]	[4]	[5]=[3]-[4]	[6]
VEs Residual Income Model (Olsen (1990))	Full Sample	1.064***	1.190***	-0.16	Undervalued
		[0.544]***	[1.066]***	[-0.522]***	
	Cash100%	1.090***	1.385***	-0.32	Undervalued
		[1.061]***	[1.169]***	[-0.625]**	
	Share100%	1.090***	0.819***	0.271	Overvalued
		[1.061]***	[0.656]***	[0.405]**	
	Cash >50%	1.064***	1.419***	-0.352	Undervalued
VEs Residual Income Model (Olsen (2005))		[0.540]***	[1.169]***	[-0.629]**	
	Share >50%	1.090***	0.819***	0.271	Overvalued
		[1.061]**	[0.656]***	[0.045]**	
	Full sample	-0.098***	0.911***	-1.00***	Undervalued
		[-0.133]***	[0.615]***	[P<0.01]***	
	All Cash	-0.129	0.881***	-1.01***	Undervalued
		[-0.241]*	[0.514]***	[P<0.01]***	
	All Shares	-0.453	0.864***	-1.318***	Undervalued
		[-0.645]**	[0.523]***	[P<0.01]***	
	Cash >50%	-0.162	0.775***	-0.936***	Undervalued
		[-0.241]*	[0.478]***	[P<0.01]***	
	Share >50%	-0.041	0.857***	-0.899**	Undervalued
		[-0.363]	[0.518]***	[P<0.01]***	

Table 3. 3**Pearson Correlation Matrix**

The table presents the matrix of Pearson correlations of the variables for the OLS analyses on premiums. Firms' Size is measured as log value of market capitalization in million US dollars. Cash ratio is the total free cash flow divided by total assets. Market-to-book ratio is used to proxy firms' growth opportunity. Country-level governance variables include: Shareholder Rights Index, Credit Rights Protection Index, Minority Shareholders Protection Index and Country Level Ownership Concentration. The data are extracted from La Porta et al. (2006), "What works in securities laws", Journal of Finance; Djankov et al. (2008) "Private credit in 129 countries" Journal of Financial Economics. The country-level macro-economic data is extracted from the World Bank.

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 M&As Premiums	1														
2 Size	-0.119	1													
3 MTB	0.168	0.480	1												
4 Free Cash	-0.201	-0.209	-0.001	1											
5 Market Misevaluation	0.217	-0.251	-0.006	0.073	1										
6 All_Cash	0.024	0.034	-0.093	-0.137	0.052	1									
7 All_Share	-0.118	-0.171	-0.251	0.260	-0.069	-0.650	1								
8 Hostile	0.157	0.111	0.177	-0.030	-0.060	-0.140	-0.136	1							
9 Tender	-0.152	-0.177	-0.259	0.036	-0.107	0.274	-0.178	-0.141	1						
10 Relatedness	-0.136	0.295	0.039	-0.308	-0.187	0.052	0.007	-0.169	0.052	1					
11 T. Economy	-0.238	-0.178	-0.085	-0.131	-0.183	-0.089	0.126	-0.223	0.229	-0.062	1				
12 T. Market Size	-0.160	0.140	0.098	0.239	-0.162	-0.357	0.319	0.187	-0.137	-0.283	-0.035	1			
13 T_Shareholder	0.129	0.014	0.238	0.203	0.056	-0.155	-0.055	0.208	-0.198	-0.349	-0.401	0.425	1		
14 T_Creditor	0.376	-0.440	-0.085	0.031	0.166	0.156	-0.250	0.147	-0.003	-0.406	-0.085	-0.127	0.378	1	
15 T_Minority	0.162	-0.561	-0.222	0.343	0.272	0.034	0.100	-0.005	-0.012	-0.323	-0.122	0.047	0.409	0.582	1

The Tobit regressions results are presented in Table 3.4. The first regression show the market mis-valuation (VEs) has a negative impact on the percentage of cash to M&A consideration in EU-to-emerging-markets CBM&As. It suggests in general, the market undervaluation errors lead to less use of cash in the CBM&As to emerging countries. The second regression shows that the coefficient of CBEC is negative and statistically significant. It reveals that acquiring firms use significant less cash compared to those industry-and-size matched firms in EU-only-CBM&As. The negative co-efficient of the $CBEC \times VEs$ suggest that acquiring firms are less prone to use cash under the influence of market misvaluation in general in EU-to-Emerging-Countries CBM&As. In the third regression, we find the coefficient of the interactive term $CBEC \times UVO$ is negative and statistically significant. It implies that acquiring firms use significant less cash in the CBM&A of EU-to-emerging-countries than in the EU-only CBM&As. Therefore, these results lead us to reject hypothesis 1 and hypothesis 2.

Table 3. 4: Tobit Estimation

Model	(1)		(2)		(3)	
Variables	Coeff.	T-Stat.	Coeff.	T-Stat.	Coeff.	T-Stat.
VEs (Ohlsen (2005))	-0.435*	-1.74	-1.325	0.59		
UVO (Ohlsen (2005))					8.103	1.26
REL_SIZE	-43.141***	-3.06	-6.308	-0.48	6.357	0.97
SIZE	-1.299	-1.10	0.447	0.46	1.157	0.97
LEV	33.781***	2.69	15.397	1.28	7.809	0.79
MTB	3.772	0.65	-2.360	-0.43	0.014	0.00
CASH	-64.171**	-2.01	-3.4.38	-1.15	-8.055	-0.73
TENDER	-3.625	-1.04	-6.301**	-1.95	-6.077*	-1.87
PRIVATE	-0.386	-0.11	0.286	0.09	-0.696	-0.23
HOSTILE	-1.727	-0.81	-2.904	-0.24	-9.119*	-1.70
RELATE	-7.609***	-2.86	-4.045	-1.52	-1.064	-0.43
Numalyse	0.036	0.15	0.039	0.19	-0.076	-0.44
Constant	63.922***	5.26	68.775***	6.45	70.021***	7.62
CBEC			-15.006***	-3.38	-17.719***	-3.91
CBEC× VE (Ohlsen (2005))			-2.671*	-1.75		
CBEC× UVO					-0.407**	-2.08
Year Dummy	Yes		Yes		Yes	
Obs Numbers	418		693		693	
Scale factor	8.574***		10.878***		14.751***	
Log likelihood	-345.153		-492.887		-429.407	

Note: This table presents the estimation based on a two-boundary Tobit model. The dependent variable is the cash portion of M&As considerations. All definitions of the variables are presented at the Appendix at the end. Year dummies are included to control for year fixed effects. The T-Statistic is based on heteroscedasticity-consistent errors. Model 1 is Tobit estimation for CBM&As from EU to emerging countries. Model 2 -3 are the estimation of benchmark analyses with the industry-and-size matched firms conducted CBM&As inside the E.U. *, ** and *** denote significance at the 10%, 5%, and 1% level, respectively.

Besides, consistent with Martin (1996), Ghosh & Ruland (1998), and Faccio & Masulis (2005), we also find that the cash availability of acquiring firms and industrial relatedness both have negative relationship with the cash portion payment of the M&As. We find the Tender-Offer and Hostile deals are negative and significantly associated with the cash portion of payment in the M&As. Walking (1985) comments, due to that the tender-offer based and hostile deals are often unsuccessfully bided, acquiring firms are risk averse and afraid of losing the investment opportunities. Hansen (1997) further explains the asymmetric information can exacerbate such risk adverse behaviors of managers.

Table 3.5 presents the results from the Ordered Probit analyses. The first regressions show the coefficients of VEs are not statistically significant. It suggests that the general market mis-valuation does not have influence the probability of firms' using cash in EU-to-emerging-markets CBM&As. In the second and the third regression, we find the coefficients of the two interactive terms, $CBEC \times VE$ and $CBEC \times UVO$, are statistically insignificant. It indicates the acquirers' mis-valuation do not have significant impacts on the decision of the payment means (cash vs. stock) in EU-to-emerging-markets CBM&As. Therefore, the results from the Ordered Probit also lead us to reject hypothesis 1 and 2.

Moreover, we find the relative size is negatively related with the cash payment (consistent with Faccio & Masulis, 2005; Moeller, 2005 etc.). It indicates that larger acquirers with smaller transaction scale are more likely to pay cash in EU-to-emerging-markets CBM&As. We also find the signs of Tender_offer and Industrial Relatedness are consistent with the Tobit estimations. Again, these results support Hansen's (1997) asymmetric information and it reflects that acquiring firms inside European Union are risk adverse in CBM&A of EU-to-emerging-countries.

Table 3. 5**Ordered Probit**

This table presents the results of the ordered probit estimation. Following Faccio and Masulis (2005), the dependent variable takes the value of 2 for all cash deals, 1 for mixed deals and 0 for all stock deals. Model 1 are the estimations for CBM&As from E.U. to EMs. Model 2-3 are the benchmark analyses with the industry-and-size matched firms of CBM&As inside the E.U. The variable VEs are computed by using the RIM of Ohlson (2005). The variable undervalue_only is computed when the VEs (Ohlson, 2005) is non-positive. All variables are defined at the Appendix at the end of the paper. Year dummy are included in all regressions for year fixed effects. *, ** and *** denote significance at the 10%, 5%, and 1% level, respectively.

Model	(1)		(2)		(3)	
	Coeff.	p-value	Coeff.	p-value	Coeff.	p-value
VEs (Ohlson (2005))	0.602	0.437			0.002	0.944
UVO (Ohlson 2005)			0.015	0.918		
REL_SIZE	-1.187**	0.045	-0.602***	0.07	-0.511*	0.084
SIZE	-0.074	0.243	-0.026	0.298	-0.057	0.112
LEV	-0.796	0.184	-0.048**	0.012	-0.064**	0.037
MTB	-0.022	0.805	0.071	0.296	0.006	0.933
CASH	-0.266	0.854	1.192**	0.015	1.664*	0.071
TENDER	-0.816***	<0.01	-0.355***	0.009	-0.336**	0.046
PRIVATE	-0.093	0.536	-0.256***	0.004	-0.296***	0.007
HOSTILE	-0.189	0.513	0.038	0.806	-0.167	0.444
RELATE	-0.144	0.309	0.043	0.596	0.014	0.892
Numalyse	-0.007	0.521	-0.004	0.436	-0.011	0.174
Intercept 1	2.481***	<0.01	2.469***	<0.01	2.936***	<0.01
Intercept 2	-0.226	0.603	0.021	0.925	0.410	0.193
CBEC			-0.965***	<0.01	-1.008***	<0.01
CBEC× UVO			0.032	0.873		
CBEC× VE (Ohlson (2005))					0.028	0.714
Year Dummy	Yes		Yes		Yes	
Obs Numbers	432		731		697	
Pseudo R Square	0.131		0.205		0.222	

Table 3.6 reports the OLS results. In the first regression, we find the coefficient of VEs is positive but not statistically significant. The result indicate that the general market misvaluation does not significantly influence the premiums paid in CBM&As in EU-emerging countries. However, in the second regression, we find the coefficient of UVO is negative and statistically significant. It indicates that market undervaluation lead to lower premiums in CBM&As EU-to-emerging markets. In the third regression, we find the coefficient of $CBEC \times UVO$ is not statistically significant. Moreover, we, the coefficients of CBEC in both second and the third regression are not significant. The result suggests there is no substantial difference on the

premiums paid compared with the EU-only CBM&A. As a result, the OLS analyses reject the hypothesis 3. Moreover, consistent with the Tobit and the Ordered Probit analyses, we find the coefficients of the hostile deals are negative. It reveals to us again that acquiring managers are risk averse when bidding for the targeted firms in emerging countries. Furthermore, we find that, the industrial relatedness, the economic development of emerging countries, the market size of emerging countries, the shareholder right protection of emerging countries are important determinants of the premiums in the CBM&As. In additions, our results are qualitatively unchanged by using alternative measurement of market misvaluation of the residual income models of Ohlsen (1990)³³.

Table 3. 6 OLS Estimations

This table presents the results OLS regressions analyses on the premium. The dependent variable premium is winsorized at 1% level. Model 1 is regressions analyses for EU-to-EMs CBM&As. Model 2-3 are benchmarking analyses with EU-only CBM&As (industry-and-size matched firms). All definitions of variables can be found at the appendix. The coefficients and T-values of each variable are presented in the table. Year dummy are included in all regressions for year fixed effects. Statistical significance is based on heteroscedasticity-consistent standard errors. *, ** and *** denotes significance at the 10%, 5%, and 1% level, respectively.

Model	1		2		3	
	Coeff.	T-value	Coeff.	T-value	Coeff.	T-value
VEs_Ohlsen (2005)	5.789	1.58				
UVO (Olsen 2005)			-40.099*	-1.96	-16.939	-1.60
CBEC					-63.573	-1.03
CBEC× UVO					0.909	0.04
SIZE	6.476	1.42	9.558*	2.00	4.699	1.42
MTB	75.446*	1.95	62.797*	1.73	17.447	1.24
CASH	150.352	0.53	261.576	0.92	112.517	1.46
HOSTILE	-61.746**	-2.12	-47.474*	-1.67	-91.766***	-3.00
TENDER	5.800	0.43	7.167	0.55	-7.137	-0.46
RELATE	52.702***	4.65	35.604**	2.26	-58.051**	-2.15
CASH100%	-80.251***	-3.65	-88.873***	-4.56	-74.878***	-3.93
TEG	63.084***	12.06	70.377***	13.14	-4.105	-0.34
TMS	-26.797	-0.55	-25.568	-0.47	-18.049***	-3.14
TMSP	-406.489***	-69.41	-376.362***	-66.63	-48.745***	-2.75
TSRP	24.236***	4.19	23.498***	4.08	9.8411*	1.75
TCRP	10.820	0.33	13.409	0.36	0.005	0.998
Year dummy	Yes		Yes		Yes	
F Stat.	9.00***		9.57***		2.63***	
Adjusted R2	0.803		0.814		0.2951	
N	48		48		106	

³³ For simplicity, the robustness tests of using Olsen (1990) are not presented in this paper.

To sum up, our tests show that the (perceived) acquirers' market valuation in CBM&As of EU-to-emerging countries are lower than their industry-and-size matched peers in EU-only CBM&As. We do not find evidence that European acquiring firms take advantage of the market timing. Specifically, compared to those EU-only CBM&As, the acquiring firms pay less cash and there are no significant differences on the premium paid in the CBM&A from the EU to emerging countries. Our analyses rather show that acquiring firms are more risk averse in CBM&A from the E.U. to emerging countries.

3.4.3 Robustness Checks

To ensure our analysis results are robust we use various methods to re-estimate. First, referring to Faccio & Masulis (2005), we use the probit model to replicate the Tobit and the ordered probit models. Second, literatures provide us two methods for computing the premium. The first method is the difference between the offer price and the market price of the targets before the announcement of M&As (Malhotra et al. 2015). The second method of computing premium is the difference between the offer price and book value of the targets before the announcement (Hagendorff et al., 2012). Since the first method does have its disadvantage as the price data is only available for publically traded firms³⁴, we then use an alternative book value based premium to re-estimate OLS regressions. Third, we add extra analysis by using alternative benchmarking samples of total EU-only CBM&As in OLS estimations. What is more, we create interactive term $CBEC \times cash$.

In all, the various robustness tests described above turn out to be qualitatively similar to our original results. The robustness checks reveal that acquiring firms are more likely to use mixed forms of payment in EU-to-emerging countries CBM&As. The coefficients of the two interactive term $CBEC \times UVO$ and coefficient of $CBEC \times cash$ turns out to be negative and statistically significant. Our original results are robust. Table 3.7-3.8 present the robustness results.

³⁴. Literatures tell us overpayment does not appear to be the major problem if firms choose to take over private targets (e.g. see Bargaron, Schlingemann, Stulz & Zutter 2008), hence including or excluding deals of private targets are unlikely to affect our results. However, to avoid sample selection bias, we further conduct additional tests in late stage.

Table 3. 7

Robustness Checks - Probit Estimations

The table presents the robustness results of using the probit model. Model 1 is the regression when cash payment is more than 50% as the dependent variable, which takes the value of 1, otherwise takes the value of 0. Model 2 is the probit estimation when the dependent variable is 100% in cash, which takes the value of 1, otherwise takes the value of 0. Model 1 and 2 are the probit estimations without controlling the relative size. Model 3-4 are the probit estimations with the relative size. Model 5- 6 are probit estimations for predictions of using stock payment. Model 7-8 are the probit estimation for predicting the use of mixed payment in M&A. Hosmer Lemeshow Test is used to test the good and fitness of models. The coefficient (p value) of each variable is presented (in parentheses). *, ** and *** denote significance at the 10%, 5%, and 1% level, respectively.

Models	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	<i>Cash 50%</i>	<i>Cash 100%</i>	<i>Cash50%</i>	<i>Cash100%</i>	<i>Stock50%</i>	<i>Stock100%</i>	<i>Mixed50%</i>	<i>Mixed 100%</i>
Constant	-0.104	-0.108	1.248**	1.142**	-0.785	-0.065	-1.813***	-1.935***
	[0.821]	[0.823]	[0.026]	[0.048]	[0.183]	[0.494]	[p<0.01]	[0.007]
REL_SIZE			-4.292**	-5.515***	-0.340	-0.037	3.212**	4.107**
			[0.015]	[0.005]	[0.668]	[0.741]	[0.022]	[0.011]
SIZE	-0.057	-0.029	-0.143*	-0.139*	-0.219	-0.152	0.211***	0.178**
	[0.85]	[0.658]	[0.052]	[0.066]	[0.140]	[0.304]	[0.004]	[0.016]
LEV	-0.309	-0.853	-0.274	-0.621	-2.923	-3.452*	0.725	1.311*
	[0.622]	[0.207]	[0.692]	[0.392]	[0.102]	[0.061]	[0.289]	[0.016]
MTB	-0.801***	-0.844***	-0.655**	-0.598*	0.234	-0.647	0.038	0.754**
	[0.006]	[0.006]	[0.035]	[0.061]	[0.180]	[0.342]	[0.774]	[0.015]
CASH	2.337*	2.752**	2.215	2.961*	-1.158	-1.802	-2.111	-2.049
	[0.071]	[0.047]	[0.148]	[0.068]	[0.637]	[0.473]	[0.146]	[0.179]
TENDER	1.777***	1.879***	0.888**	1.044***	1.172**	0.999*	-1.455***	-1.488***
	[P<0.01]	[p<0.01]	[0.011]	[p<0.01]	[0.032]	[0.072]	[p<0.01]	[p<0.01]
PRIVATE	-1.164	-1.382***	-0.768***	-0.853***	-0.023	-0.195	0.712***	0.867***
	[P<0.01]	[p<0.01]	[p<0.01]	[p<0.01]	[0.960]	[0.695]	[p<0.01]	[p<0.01]
HOSTILE	0.116	0.238	-0.162	-0.019	-1.127	-1.045	0.391	0.174
	[0.692]	[0.429]	[0.637]	[0.956]	[0.283]	[0.321]	[0.249]	[0.616]
RELATE	-0.161	-0.268	-0.177	-0.143	0.092	0.049	0.175	0.131
	[0.321]	[0.123]	[0.385]	[0.473]	[0.557]	[0.907]	[0.353]	[0.501]
Numalyse	-0.005	-0.012	0.0156	0.012	0.019	0.015	-0.017	-0.014
	[0.648]	[0.327]	[0.313]	[0.429]	[0.557]	[0.637]	[0.223]	[0.342]
VEs	-1.621**	-0.198***	-0.125*	-0.107	-0.231	-0.258	0.152**	0.158**
	[0.010]	[0.004]	[0.087]	[0.153]	[0.161]	[0.143]	[0.033]	[0.034]
Pseudo R ²	0.143	0.181	0.121	0.140	0.125	0.107	0.136	0.173
Hosmer Lemeshow Test	0.007	P<0.01	0.266	0.838	0.076	0.003	0.045	
Number of obs	1417	1417	539	539	539	539	539	539

Table 3. 8**Robustness Checks - OLS Estimations**

The table presents the robustness checks for the OLS analyses. Model 1 is OLS regressions of the benchmarking analyses (industry-and-size matched) of using book premium as the dependent variable. Model 2 are the regressions analyses of benchmarking with total EU-CBM&As. Model 3 is the extra robust test by adding the interactive term $CBEC \times Cash$. Year dummy are included in all regressions for year fixed effects. Statistical significance is based on heteroscedasticity-consistent standard errors. *, ** and *** denote significance at the 10%, 5%, and 1% level, respectively.

Model	1		2		3	
	Coeff.	T-value	Coeff.	T-value	Coeff.	T-value
UVO	-3.009	-0.24	-0.090	-0.95	-0.123	-1.02
CBEC	212.705**	2.59	-0.2001	-0.78	-0.268	-1.11
CBEC× UVO (Ohlsen (2005))	-3.009	-0.24	-0.248*	-1.63	-0.207	-1.19
CBEC× Cash					-12.123***	-3.04
SIZE	-5.887*	-1.70	-0.0182	-1.15	-0.019	-0.67
MTB	30.311	1.09	-0.023	-0.16	0.007	0.05
CASH	-11.202	-1.28	0.033***	3.77	0.006	0.23
HOSTILE	-35.961	-1.44	-0.040	-0.50	-0.105	-1.16
TENDER	-23.464*	-1.95	-0.104	-1.56	-0.098	-1.12
RELATE	19.818	0.97	0.156*	1.87	0.291**	2.23
CASH100%	-6.804	-0.38	0.121	1.47	0.041	-0.85
SHARE100%	54.863	0.75	-0.005	-0.05	-0.117	-0.85
TEG	-13.64	-0.81	-0.019	-0.43	-0.057	-1.23
TMS	-	-	-0.106	-1.49	-0.233***	-3.01
TMSP	52.053	1.25	0.101	0.67	0.163	0.70
TSRP	1.114	0.06	0.029	0.83	0.025	0.55
TCRP	2.462	0.20	-0.004	-0.08	-0.029	-0.64
Year dummy	Yes		Yes		Yes	
F Stat.	15.29***		3.78***		3.59***	
Adjusted R2	0.735		0.2662		0.344	
N	140		208		139	

3.5 Additional Tests

Our results reflect that managers want to retain their cash in CBM&A from EU to emerging markets, and we infer that there is agency problem on the payment decisions in these CBM&A. There are large literatures that support our inference. For example, Opler et al. (1999) suggest that managers want greater cash flexibility to achieve their own personal interests. Jensen (1986) suggests entrenched managers tend to squander their free cash flow in M&As. Shleifer & Vishny (1989) argue that entrenched managers prefer to enter those industries that only apply their best managerial skills. Hubris managers exacerbate managerial decisions by diversifying into unfamiliar businesses to maintain their personal reputation, power and prestige (Jensen, 1986). Most recently, Jiang & Lie (2016) find entrenched firms are less willing to disburse or spend their excess cash of the targeted level. In this section, we conduct additional tests aiming to find evidence whether there exists conflicts of interests on the payment decisions in the CBM&As EU-to-emerging-markets.

In the meantime, there is a growing body of literature examining the agency problem from the perspective of market prices returns (Doukas & Petmezas, 2007; Billet & Qian, 2008; Aktas et al., 2011; Rahahleh & Wei, 2013). They document a price return diminishing effect amongst frequent bidders in the markets, which reflect the level of distrust from investors in that they are concerned managers are hubris or overconfident in making a series of M&A transactions (Roll, 1986) which will destroy their wealth.

We follow Billett & Qian (2008) and create a categorical variable deal order to proxy for frequent acquirers. We perform univariate and multivariate analysis on the CARs computed, wanting to test how markets react to the serial acquirers in EU-to-emerging countries CBM&As, especially on cash-paid deals. We then run logit regression to see whether those series acquirers are likely to go for industrially diversified M&As to emerging markets and how they use their cash reserves. In the meanwhile, we apply the same test procedures for benchmarking samples in EU-only CBM&As (industry-and-size matched) in order to compare if there are any differences.

Table 3.9 and 3.10 present the univariate results on CARs. Table 3.9 reports the announcement returns for the full samples and the analysis on CARs partitioned by payment methods. We find both the mean CARs and the median CARs are positive and significant, confirming the dominance of the positive announcement returns. The results show markets react positively to

EU-to-emerging countries CBM&As, and to EU-only CBM&As. We find acquiring shareholders realized significant returns of around 0.8%, 0.6% and 0.6% on average in EU-only CBM&As, the industry-size matched M&As, and EU-to-emerging countries CBM&As respectively. Panel B shows cash-paid deals obtained positive abnormal returns: the deals paid with 100% cash, as well as those paid with over 50% cash, all obtain positive CARs in EU-to-emerging countries CBM&As (see column 3, 1.1% significantly at 1% confidence level). In short, the results show that markets are optimistic about EU-to-emerging countries CBM&As, particularly to cash-paid deals.

Panel A of Table 3.10 shows the frequent acquirers in EU-only CBM&As have lower price returns than the non-frequent acquirers (lower by 0.66% in CAR1 significant at 1%. Lower by 0.62% in CAR2 significant at 1%). Specifically, for the first deal, the mean CAR1 and mean CAR2 are 1.26% and 1.27% respectively (both significantly at 1%). The subsequent M&A transactions with deal orders of 2nd, 3rd, 4th, 5th and 6th have CAR1 (CAR2) of 1.12% (1.36%) 0.61% (0.75%), 0.28% (0.75%), -0.35%(-0.58%) and 0.85% (0.92%) respectively. Results are similar in the industry-and-sized matched sampled deals. The results are consistent with the prior literature stated above in that there is a diminishing price return pattern among the acquirers in the EU-only CBM&As.

Panel C shows that price returns exhibit different patterns for acquiring firms in EU-to-emerging countries CBM&As. We find that those frequent acquirers do not get a diminishing price returns pattern as there are no differences on price returns between the frequent and the non-frequent acquirers. The results suggest markets do not expect the subsequent investment returns from emerging countries to decline. Perhaps markets believe there will be better investment opportunities in the emerging markets and the best investment opportunity has not been taken yet in cross-border M&As to emerging countries.

Table 3. 9

CARs analyses by Payment Methods

This table reports the univariate results of cumulative abnormal returns of acquirers' shareholders *around event windows* $[-2, +2]$, $CAR2$. We use the market adjusted model $AR_{it} = R_{it} - (\hat{\alpha}_i + \hat{\beta}_i R_{mt})$. We estimate the firm-specific parameters $\hat{\alpha}_i$ and $\hat{\beta}_i$ for the estimation period fixed at 21-250 days. To calculate $CAR2$, we aggregate AR_{it} over five-day window $[-2, +2]$. Column 1 reports the univariate results for CBM&As inside EU. Column 2 reports the univariate results for the industry-and-size- matched firms of CBM&As inside EU comparing to firms in CBM&As from EU to EMs. Column 3 reports the univariate results of CAR in CBM&As from EU to emerging countries. Column 4 (column 5) report two sample tests results between CBM&As inside EU (industry-and-size-) and CBM&As from EU to emerging countries respectively. Panel A presents CARs of all M&As. Panel B shows univariate results based on different payment method. *, ** and *** denote significance at the 10%, 5%, and 1% level, respectively.

CARS	Total EU-only CBM&A		EU-only CBM&A		EU-to-Emerging Countries CBM&A		Diff1= (1)-(3)		Diff2= (2)-(3)	
	[1]		[2]		[3]		[4]		[5]	
Payment Method	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median
Full sample	0.008***	0.003***	0.006***	0.002***	0.006***	0.001**	0.002*	0.161	0.000	0.700
All Cash	0.008***	0.002**	0.009*	0.002	0.011**	0.003**	-0.004	0.655	-0.00	0.702
All Stock	0.012***	0.006***	-0.013	-0.015	-0.011	-0.006	0.023*	0.067*	-0.00	0.590
Cash50%	0.007***	0.002**	0.009*	0.001	0.012***	0.004**	-0.005	0.397	-0.00	0.412
Shares50%	0.013***	0.006***	0.002	-0.012	-0.001	-0.007	0.015	0.065	0.003	0.755

Table 3. 10: CARs Analyses- Frequent Acquirers Vs Non-frequent Acquirers

This table reports CARs by deal orders completed by European firms over 1998 – 2012. CAR (-1, 1) is the 3-day cumulative abnormal returns, CAR (-2, +2) is the 5-day cumulative abnormal returns using market adjusted models. Frequent acquirers are classified as those acquiring firms that have completed more than 2 deals in the 5-year windows. Panel A reports the deals prices returns by deal orders for CBM&As inside EU. Panel B reports deals price returns by deals orders for cross-border M&As industry-size matched firms. Panel C reports deal price returns by deals for cross-border M&As from EU to emerging countries. At the bottom of each Panel, we make two-samples tests on the deal prices returns between frequent and non-frequent acquirers. *, ** and *** denote significance at the 10%, 5%, and 1% level, respectively

Panel A: Total EU-only CBM&A							
CAR (-1, 1)				CAR (-2, 2)			
Deal order	N	Mean	Median	Deal order	N	Mean	Median
First	1552	0.0126***	0.0053***	First	1560	0.0127***	0.0068***
Second	921	0.0116***	0.0045***	Second	925	0.0136***	0.0019***
Third	630	0.0061***	0.0029***	Third	631	0.0075***	0.0033***
Fourth	403	0.0028	0.0035*	Fourth	405	-0.0005	-0.0011
Fifth	295	-0.0035	0.0004	Fifth	295	-0.0058	0.0010
Sixth	197	0.0085**	0.0067***	Sixth	197	0.0092**	0.0067***
Seventh	147	0.0050	0.0027**	Seventh	147	0.0044	0.0015
Eighth	118	0.0057*	0.0001	Eighth	118	0.0122***	0.0077***
Ninth	87	0.0138*	0.0048*	Ninth	87	0.0172*	0.0075***
>=10th	417	0.0006	-0.0015	>=10th	417	0.0006	-0.0018
Infrequent Vs Frequent		0.0066***	0.0112**	Infrequent Vs Frequent		0.0062**	0.0045
Panel B: EU-only CBM&A							
Deal order	N	Mean	Median	Deal order	N	Mean	Median
First	546	0.007***	0.004***	First	548	0.009***	0.006***
Second	398	0.007***	0.002***	Second	396	0.001**	-0.000
Third	266	0.006**	0.002	Third	267	0.008**	0.003*
Fourth	204	-0.004	-0.001	Fourth	204	-0.004	-0.001
Fifth	156	0.001	0.000	Fifth	156	-0.000	0.001
Sixth	103	0.002	0.002	Sixth	103	0.005	0.012*
Seventh	71	0.002	0.001	Seventh	71	0.001	-0.002
Eighth	61	0.006	0.003	Eighth	61	0.009	0.007
Ninth	49	0.001	0.001	Ninth	49	0.000	-0.001
>=10th	157	-0.002	-0.000	>=10th	44	-0.004	-0.007*
Infrequent Vs Frequent		0.006*	0.058*	Infrequent Vs Frequent		0.008**	0.022**
Panel C: EU-to-Emerging-Countries CBM&A							
Deal order	N	Mean	Median	Deal order	N	Mean	Median
First	580	0.0065**	0.0015	First	584	0.0104***	0.0001**
Second	290	0.0032	0.0000	Second	290	0.0006	-0.0002
Third	165	0.0007	0.0015	Third	165	0.0011	0.0033
Fourth	110	0.0039	-0.0014	Fourth	110	0.0037	-0.0032
Fifth	58	-0.0006	0.0051	Fifth	58	0.0072	0.0106**
Sixth	45	-0.0052	-0.0042	Sixth	45	-0.0036	-0.0084
Seventh	45	0.0173**	0.0095***	Seventh	45	0.0200**	0.0092***
Eighth	22	0.0012	0.0037	Eighth	22	0.0098	0.0074**
Ninth	14	-0.0020	0.0098	Ninth	14	-0.0113	-0.0108
>=10th	86	0.0170***	0.0054**	>=10th	86	0.0127***	0.0104**
Infrequent Vs Frequent		0.0024	0.8964	Infrequent Vs Frequent		0.0068	0.5320

Table 3.11 presents the regressions results on the CARs. We control acquiring firms' characteristics and deals' characteristics as the baseline regressions. Our explanatory variable is Deal_Order. We expect those frequent acquirers to be negatively associated with the market prices returns (CARs) and we expect the co-efficient of the variable Deal_Order to be positively associated with the market price returns (CARs) in EU-to-emerging countries CBM&As. We expect cash payment to be positively associated with price returns. The inclusion of the variable Deal_Order increases the explanatory powers of the model in EU-only CBM&As. The adjusted R² is increased from 0.017 in Model 1 to 0.018 in Model 2 and 0.032 in Model 3, which suggests a goodness and fit of adding the variable into the regressions. The coefficients of the Deal_Order are significantly negative (e.g. =-0.004 p<0.01 in model2) suggesting European markets do not favor frequent acquirers. The results are qualitatively similar in the industry-and-size matched firms in EU-only CBM&As (see Model 4 and 5).

The regression analysis yields different results in EU-to-emerging countries CBM&As. The presence of the Deal_Order has a positive impact on the CAR (=0.004 and 0.001 see Model 7 and 8) but is statistically insignificant. The coefficients of CASH and the All Cash are both positive and statistically significant. The results rather suggest markets show no differences between frequent acquirers and infrequent acquirers and favor those acquirers to pay cash in CBM&As to emerging countries.

Table 3.12 below presents logistic estimations on the probability of conducting industrially diversified M&As. Columns 1-2 present the estimation results for EU-only CBM&As and its industry-and-size matched firms. Columns 3-4 present results for EU-to-emerging countries CBM&As. We use the Hosmer-Lemeshow test to test the goodness-of-fit of our models. The test results illustrate that our models are all good-and-fit.

We find that the coefficient of the CASH has no significant connections with the probability of conducting industrially diversified M&A inside the E.U. However, the coefficients are negative and significant suggesting acquirers are less likely to use their excess cash to invest into emerging countries as well as in the industry-and-size matched firms of EU-only CBM&As. The coefficients of the Deal_Order and Firm Age display different patterns between EU-only CBM&As and E.U-to-emerging countries CBM&As. Specifically, we find frequent acquirers are less likely for industrially diversified M&As inside the EU, but that firms with longer incorporating history are more likely to partake in industrial diversification (see model1). Contrarily, frequent acquirers in EU-to-emerging countries CBM&As are less likely to go for

industrially diversified M&As, but that acquiring firms with shorter (younger) incorporating histories are more likely to go for industrially diversified M&As to emerging countries (see model 3-4 in Table 3.12).

Table 3. 11

Cross-Sectional Regressions

This table reports cross-sectional regression results that test the influence of higher deal orders on announcement returns. We use CARs of the acquiring firms over the event window $[-1, +1]$ around the M&As announcement as the dependent variable. Model1, Model2, Model3 present the regression results for the sampled deals CBM&As inside EU. Model4 and Model5 present the regression results for the industry-and size- matched firms. Model 6, Model 7 and Model 8 present the regression results for the sampled deals CBM&As from EU to EMs. Statistical significance is based on White (1980) heteroskedasticity-consistent standard error. Coefficients of each variable are presented and T statistics are presented in parentheses. *, ** and *** denote significance at the 10%, 5%, and 1% level, respectively. All detailed definitions and measurement of the variables are presented in Appendix. The regression specification can be expressed as follows:

$$CAR = \alpha_0 + \beta_{1,t}Ln(Asset)_{i,t-1} + \beta_{2,t}LEV_{i,t-1} + \beta_{3,t}MTB_{i,t-1} + \beta_{4,t}CASH_{i,t-1} + \beta_{5,t}Tobin_{i,t-1} \\ + \gamma_{1,t}Hostile_{i,t} + \gamma_{2,t}Relateness_{i,t} + \gamma_{3,t}Tender_Offer_{i,t} + \gamma_{4,t}Cash\ Payment_{i,t} \\ + \gamma_{5,t}Share\ Payment_{i,t} + \beta_{6,t}Deal_Order_{i,t} + Year\ effects + Industry\ Effects + \varepsilon_{i,t}$$

Models	Total EU-only CBM&A			EU-only CBM&A		EU-to-Emerging-Countries CBM&A		
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Ln (Asset)	0.003*** [-5.66]	-0.003*** [-4.72]	-0.002*** [-3.96]	-0.001** [-2.26]	-0.001** [-2.30]	-0.003*** [-2.60]	-0.004*** [-2.82]	-0.003* [1.94]
Leverage	-0.000 [-0.97]	-0.000 [-0.93]	0.000 [0.93]	0.001 [0.33]	0.000 [0.10]	-0.006 [-0.47]	-0.006 [-0.46]	-0.020 [-1.13]
Tobin Q	-0.000 [-0.73]	-0.000 [-0.59]	-0.000** [-2.12]	-0.000 [-0.50]	-0.000 [-0.30]	-0.000*** [-4.76]	-0.000*** [-4.90]	-0.000*** [-3.84]
Market-to- book	0.000 [0.56]	0.000 [0.55]	-0.000 [-0.83]	0.005 [0.83]	0.005 [0.84]	-0.000** [-2.53]	-0.000** [-2.41]	-0.000** [-2.28]
CASH	0.002* [1.60]	0.002 [1.55]	0.003* [1.73]	-0.003 [-0.23]	-0.003 [-0.21]	0.033** [2.08]	0.034** [2.09]	0.034* [-1.60]
Relateness	0.003 [1.44]	-0.003 [-1.39]	-0.003 [-1.43]	-0.000 [-0.56]	-0.001 [-0.54]	0.002 [0.86]	0.002 [0.85]	0.005 [0.99]
Hostile	0.002 [0.63]	0.002 [0.49]	0.0038 [0.82]	0.001 [0.24]	0.000 [0.09]	0.012** [2.16]	0.012** [2.16]	0.006 [0.89]
Tender	-0.016** [-2.29]	-0.002** [-1.95]	-0.010 [-1.32]	-0.015* [-1.76]	-0.016* [-1.83]	-0.005 [-0.67]	-0.005** [-2.11]	-0.019*** [-6.02]
All Cash	0.007** [2.16]	0.007** [-2.09]	0.004 [1.05]	0.008 [1.50]	0.008 [1.50]	0.006 [1.39]	0.006* [1.60]	0.009* [1.66]
All Stock	0.015 [1.34]	0.014 [1.30]	0.009 [0.79]	-0.018 [-1.05]	-0.018 [-1.01]			
Deal Order>2	- -	-0.004** [-2.84]	-0.004* [-1.62]	-0.008*** [-2.67]	-0.007** [-2.56]		0.004 [0.52]	0.001 [0.09]
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R2	0.017	0.0187	0.032	0.009	0.010	0.028	0.028	0.021
Number of obs	3259	3259	3265	1446	1446	1192	1192	1195

Note: model 3, 6 and 8 are sensitivity and robustness tests for model 2, 4 and 7. Model 3, 5 and 8 are for high order deal >3.

Table 3. 12**Logit Estimation - Industrially Diversified M&As**

This table presents logit regression results. The dependent variable is the probability that an acquiring firms bid a firm in an unrelated businesses segments of the target countries. The main explanatory variable the higher deal orders by frequent acquirers. The control variables include acquiring firm size, acquiring firms' financial leverage, acquiring firms' Tobin q, acquiring firms' free cash flows, acquiring firms' intangible asset ratio, acquiring firms' asset growth and acquiring firms' age. Deal-level variables include related deals, hostile deals, tender-offer deals, all cash and all stock payment, and these variables are all dummy variables. Target countries variables include target market size, target shareholder protection, target creditor right protection, target minority shareholders protection. The detailed definitions and measurement of all the control variables are presented at Appendix. The bottom of the table reports the Pseduo R² and Hosmer Lemeshow Test. *, ** and *** denote significance at the 10%, 5%, and 1% level, respectively. The regression specification can be expressed as follows:

$$\log\left[\frac{p(y=1)}{1-p(y=1)}\right]_i = \alpha_0 + \beta_{1,t}Ln(asset)_{i,t-1} + \beta_{2,t}LEV_{i,t-1} + \beta_{3,t}Tobin_{i,t-1} + \beta_{4,t}CASH_{i,t-1} + \beta_{5,t}Intangible_{i,t-1} \\ + \beta_{6,t}Asset\ growth_{i,t-1} + \beta_{7,t}Firm\ age_{i,t-1} + \delta_{1,t}T.\ market\ size_{i,t-1} + \delta_{2,t}T.\ country\ economic\ growth_{i,t-1} \\ + \delta_{3,t}T.\ Shareholder\ Protection + \delta_{4,t}T.\ Creditor\ Protection_{i,t-1} + \delta_{5,t}T.\ Minority\ Shareholder_{i,t-1} + \delta_{6,t} \\ + \beta_7 Deal\ Order_{i,t} + \varepsilon_{i,t}$$

	Total EU-only CBM&A	EU-only CBM&A	EU-to-Emerging-Countries CBM&A	
Models	(1)	(2)	(3)	(4)
Constant	-3.916** [0.018]	-3.293 [0.154]	-0.634 [0.176]	-1.346 [0.190]
SIZE	0.057** [0.028]	0.108** [0.010]	0.085* [0.08]	0.010** [0.045]
Leverage	-0.008 [0.685]	0.123 [0.498]	-0.699 [0.27]	-0.440 [0.517]
Tobin Q	-0.001 [0.819]	-0.052 [0.105]	0.006 [0.85]	-0.007 [0.841]
CASH	0.007 [0.923]	-1.179* [0.091]	-2.515** [0.046]	-3.687** [0.012]
INTANG	0.211** [0.041]	0.682 [0.341]	-0.003 [0.979]	0.007 [0.950]
AGROWTH	-0.129* [0.085]	-0.032 [0.599]	0.612** [0.028]	0.472 [0.137]
Firm Age	0.011** [0.026]	0.004 [0.478]	-0.012* [0.072]	-0.008* [0.052]
TCEG	0.076 [0.120]	0.220 [0.302]		-0.000 [0.997]
TMS	0.266* [0.075]	0.220 [0.302]		0.043 [0.671]
TSRP	0.122** [0.023]	0.019 [0.978]		-0.036 [0.601]
TCRP	0.063 [0.213]	0.055 [0.465]		0.403** [0.023]
TMSRP	0.036 [0.951]	-0.899 [0.305]		-0.725 [0.285]
Deal Order>2	-0.271*** [0.005]	0.162 [0.261]		0.496*** [0.004]
Pseduo R ²	0.033	0.033	0.032	0.058
Hosmer Lemeshow Test	0.317	0.278	0.154	0.952
Number of obs	1918	887	791	713

To summarize, the results from our additional tests once again show managers are not willing to spend cash to pay for the targeted firms in CBM&As of EU-to-emerging countries. Conversely, markets react positively to excess cash held by the acquiring firms by having positive reactions to cash-paid deals. Different to E.U.-only CBM&As (including industry-and-size matched firms), markets are more tolerant of frequent acquirers. Our results reveal there is an obvious conflict of interests between managers and investors in EU-to-emerging countries CBM&As. Moreover, the additional tests show younger frequent acquirers are more likely to explore the benefits of industrial diversification in CBM&As to emerging countries, which once again provide evidence that the managerial entrenchment problem is evidently serious in EU-to-emerging countries CBM&As.

3.6 Conclusion

Despite CBM&As with emerging countries becoming an economic phenomena, our knowledge is still very limited concerning how managers make payment decisions in these CBM&A activities. The payment decision is one of the most critical decisions because it vividly portrays the agency-principal relationship, but to our best knowledge there has been no relevant study focusing on the payment decision in CBM&A from developed countries to emerging countries. We focus on the role acquirers' perceived market mis-valuation has in relation to the payment method and the paid premium in CBM&As with emerging countries.

Compared to the industry-and-size matched firms of EU-only CBM&As, we find acquirers' managers are not willing to use cash and prefer industrially specialized M&As with emerging markets, which is inconsistent with the findings in Faccio & Masulis (2005). We also find that acquiring managers do not pay higher premiums in EU-to-emerging countries CBM&As despite that perceiving that their firms are undervalued by the markets. Hence, our results reveal that acquiring managers do not take advantage of market timing when deciding payment methods and the paid premium in EU-to-emerging countries CBM&As, and the market mis-valuation hypothesis of Shleifer & Vichy (2003) loses its explanatory power when it is applied to contexts involving these emerging countries. Furthermore, our results consist with literature (Simonyan, 2013) approving that market mis-valuation is a direct determinant of the paid premiums in M&A. Finally, our further investigation finds markets have positive investment sentiments to M&As announced by European acquirers to emerging countries, especially on those cash paid deals, but that acquiring managers are inclined to save cash (consistent with

Opler et al., 1999; Jiang & Lie, 2016) and tend towards industrial specialization in CBM&As with emerging countries. To summarize, our results reveal that acquiring managers are entrenched in CBM&As with emerging markets and there exists a clear agency cost between managers and investors' expectations in the markets.

To conclude, CBM&As pose challenges to acquirers because they are more difficult to integrate into businesses than domestic M&As. CBM&As with emerging markets pose even more challenges as this is heightened when attempting to integrate businesses from these emerging countries. Any decisions made by acquirers are critical to the success of M&A deals affecting investors' wealth. Our findings suggest that acquiring managers should fully utilize market timing when planning CBM&As with emerging countries.

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Appendix 3 Variables Definitions

Variables	Abbreviations	Definitions
Percentage of cash to consideration	PCTC	Cash as percentage of the overall consideration of the payment in a M&A. DataSource: Thomson SDC.
Cumulative abnormal returns	CAR	Cumulative abnormal returns of acquiring firms computed based on the market adjusted model during 3 days M&As announcement. Data-source: EUROFIDAI
Diversified M&As	DIV.	Dummy variable, which take the value of 1 when the acquiring firm buys a firm in a unrelated business areas. Following Berger and Ofek (1996), we consider acquiring and targeted firms do not share the same the same first two digits SIC code as the unrelated M&As.
Premium	Premium	The percentage differences between offer price and the target firms' stock price four weeks (30-days) before the M&As announcement.
Ratio of Price Book Premium to Book Value	RBP	Expressed as a percentage, of the offering price in the deal to the target book value per share as of the date of the most current financial information prior to the announcement of the transaction
Relative Size	REL_SIZE	
Firm Size	SIZE	Firm size is measured as log value of market capitalization. Data source: the World-scope Financial.
Financial Leverage	LEV	Financial leverage of acquiring companies is computed as total long term debts dived by total assets. Data source: the World-Scope Financial.
Cash Availability	CASH	Operating before interest and tax minus total cash paid on dividend, minus total income taxes, minus interests expenses on debt normalized by total asset. Data source: World-Scope Financial.
Asset Growth	AGROWTH	Geometric Growth of firms' book value of total assets. Data source: World-Scope Financial.
MTB	MTB	Ratio of book and market equity in the fiscal year prior to the M&As. Data source: World-Scope Financial.
Tobin Q	TOBIN	Market value of equity plus book value of total debt divided by the book value of total assets. Data: The World-Scope Financial.
Profitability	PROF	Earnings before interest and tax (EBIT) divided by total sales. Data source: the World-Scope Financial.
Intangible Asset	INTANG	The portion of tangible assets to total assets. Data source: the World-Scope Financial.
Firm Age	AGE	Year of incorporation to the year of M&As announcement. Data source: Thomson One
Deal Order	DO	Dummy variable. If firms announce more than 2 deals within 5-year window, those firms are coded as frequent acquirer takes the value of 1. Otherwise the firms are coded as 0 classified as non-frequent acquirers.
Numanalysts	NOA	Numbers of analysts. Data-source: IBES, Thomson.
Cross-border Emerging Countries	CBEC	Dummy variable, in which CBM&As from EU to emerging countries takes the value of 1
Cross-border Emerging Countries \times VEs	CBEC \times VE	Interactive variable
Cross-border Emerging Countries \times Cash	CBEC \times CASH	Interactive variable

Cross-border Emerging Countries × Undervalue	CBEC×UVO	Interactive variable
Hostile bided deals	HOSTILE	Dummy variable. Deals are classified as hostile when deals are defined as non-friendly in SDC database
Privat Target Deals	PRIVATE	Dummy variable. Deals are classified “private deals” if the status of targeted firms are “private” defined by SDC.
Public Target Deals	PUBLIC	Dummy variable. Deals are classified “public deals” if the status of targeted firms are “public” defined by SDC
Related deals	RELATE	Dummy variable, which takes the value of 1 when the acquiring firms buy a firm a related line of core business in the target countries. We regard the deals are related when the acquiring firms’ 2-digits share the same 2-digits SIC primary SIC codes with the targeted firms.
Tender-offer deals	TENDER	Dummy variable which takes the value 1 if the deals are bided based on tender-offer. Otherwise the variable takes the value of 0.
Cash only	CASH 100%	Dummy variable which takes the value of 1 when the portion of cash payment equals to 100%, otherwise the variable takes the value of 0.
Share only	SHARE100%	Dummy variable which take the value 1 when the portion of share payment equals to 100%, otherwise the variable take the value of 0.
Cash > 50%	CASH50%	Dummy variable. If cash paid portion is more than 50% According to the definition from the SDC database, we define the variable to takes the value of 1 otherwise take the value of 0.
Share >50%	SHARE50%	Dummy variable. If stock paid portion is more than 50% According to the definition from the SDC database, if the share paid portion is more than 50%, the variable takes the value of 1, otherwise take the value of 0.
Target Economic growth	TEG	Nature logarithmic value of GDP growth rate of targeted countries over 1998-2012. Data Source: The World Bank.
Target Market size	TMS	Nature logarithmic of the ratio of GPD per capita of EU-15 and emerging markets. Data source: The World Bank.
Target Shareholder right protection	TSRP	Shareholder right protection index developed in La Porta (2000) and further revised by Djankov et al (2008)
Target creditor right protection	TCRP	Shareholder right protection index developed in La Porta (2000) and further revised by Djankov et al (2008)
Target minority shareholder right protection.	TMSP	Minority Shareholder Protection index developed by La Porta (1998) and revised by La Port et al (2006) and Djankov et al (2008)
Valuation Errors	VEs	We use the Residual Income Model of Ohlson (1990, 2005) to compute firms intrinsic value V_0 by following the model: $V_0 = B_0 + \frac{EPS_1 - r \times B_0}{1+r} + \frac{EPS_1 - r \times B_1}{(1+r)^2} + TV$, B_0 is the book value of equity per share at the end of the fiscal year in which the acquisition is announced. EPS_1 and EPS_1 are the earning per share subsequent to the M&As. r is the required rate of returns on the acquiring firms’ equity. TV is the terminal value, computed as $TV = \frac{(EPS_2 - r \times B_1 + (EPS_3 - r \times B_2))}{2 \times (1+r)^2 \times r}$. Valuation Error is computed as Valuation Error (VE) = $\ln(P_0/V_0)$
Undervalue	UVO	Dummy variable, takes the value of 1 when the market misvalue is non-positive, otherwise takes the value of 0.

General Conclusion

Compared to domestic M&A, research on cross-border M&A is relatively new. Cross-border M&A into and out of emerging countries is an even newer area of research. Current literature is mainly based on US practice due to that fact that US firms make the most (CB) M&As. Despite a small but a growing number of studies concerning cross-border M&As involving European firms, there are limited numbers of studies performed solely by European countries (Wang and Liao, 2008). Sudarsanam (2003) explains that this can be due to the fact that there is little information about M&A activities written in English.

Although M&A studies have been carried extensively, current literature has researched little consensus in terms of empirical findings. For example, debates on the wealth and valuation effects of CBM&A under the highly asymmetric information have never been settled. Whether market mis-valuation of Rhodes-kropf & Viswanathan (2004) and Shleifer & Vishny (2003) drives M&As is still in debate. There has been little consensus made according to current literature regarding the determinants of cross-border M&As (Erel, Liao, & Weisbach, 2012). In such research contexts, the thesis produces three distinct papers with a focus on the CBM&A initiated by the European Union (EU) to emerging countries.

I start the thesis by focusing on the perspective of industrial diversification in CBM&A from the EU to emerging countries. In general, past studies have suggested that international diversification benefits enterprises more than industrial diversification. Industrial diversification has a decreasing trend while international diversification has an increasing trend. Current literature seems to suggest a unified model for firms: international diversification in related industries can generate value for firms. However, such a claim is not necessarily true because whether cross-border M&A creates or destroys values for acquirers can largely depend on the trade-off between international diversification and industrial diversification (Francis, Hasan, & Sun, 2008). There is no universally accepted formula for assessing the benefits and costs of these diversifications.

The contributions in the form of the three papers in this Ph.D. thesis are mainly empirical and it contains meaningful managerial implications especially on the side of developed countries. I will now summarize the main contributions of the thesis below.

First, prior literature argues that industrial diversification is more valuable in emerging countries. Unfortunately, less literature has addressed this theoretical research issue and investigated whether firms from industrialized countries actually adopt industrially diversified operations in emerging countries. Besides, empirical puzzles still exist in terms of the relationship between international diversification and industrial diversification. Therefore, the contributions of the first study are unique. To the best of our knowledge, it is the first empirical attempt ever that has explored the adoption of an industrial diversification strategy in CBM&As from developed countries to emerging countries. Focusing on the non-finance and the non-energy-and-utility firms, we have created comprehensive descriptive statistics and conducted various empirical tests. We have examined the industrial diversification development trend in CBM&As from European Union to emerging countries between 1992 and 2012. Results show that European firms tend to specialize their industries in CBM&As to emerging countries. We discovered that there is a substitute effect between international diversification and industrial diversification in CBM&As from the EU to emerging countries. Therefore, we did not find evidence that European firms have adopted an industrial diversification strategy in CBM&As to emerging countries.

The empirical findings from the first study imply that European firms may be behaving in a “conservative” way when considering investments in emerging countries. This has paved the way for us to continue with our empirical investigation in the second study.

Second, despite there being extensive studies looking at market price short-term reactions already in the M&As literature, our understanding of M&A announcement effects (especially on the side of acquiring shareholder) are still very limited. As such we further examined how markets react to the announcement of M&As to emerging countries. We centered our research focus on the role of industrially specialized operations in emerging countries.

Consistent with some of the previous literatures, we also found that European acquiring shareholders obtain significantly positive abnormal returns after the announcements of CBM&As to emerging countries. However, surprisingly, the price returns are significantly lower than those CBM&As conducted inside the European Union. We also found that there is a significant negative relationship between industrially specialized operations and cumulative abnormal returns. This indicates that the choice of industrially specialized operations in emerging countries destroys shareholders' wealth. This finding is contradictory to the

traditional wisdom that industrial diversification has a negative impact on a firm's value for firms in the developed countries (Berger & Ofek, 1995; Lang & Stulz, 1994).

Our findings in the second study have profound managerial implications. First, our findings suggest that markets expect acquiring firms to diversify industrially to emerging countries via cross-border M&As. The findings can be viewed as evidence for why the price returns when approaching emerging countries are lower than the CBM&As conducted inside the European Union. Second, our results concur with the earlier theoretical literature which argues that industrial diversification can be more valuable in emerging countries (Khanna & Palepu, 1997; Khanna & Palepu, 2000). Therefore, the second paper provides pioneering evidence that industrial diversification can create wealth for acquiring firms' shareholders in CBM&As from the European Union to emerging countries.

The results from the first and second study suggest that there are potential conflicts of interests between the shareholders in the market and the managers in CBM&As from the European Union to emerging countries. On one hand, the market expects managers to take risks and explore the benefits of industrial diversification in emerging countries. On the other hand, managers are rather displaying risk free behaviour and continue to adopt an industrial focus strategy for emerging countries via cross-border M&As. With this research motivation in mind, we continued our investigations by working on the payment decisions in CBM&As from the European Union to emerging countries. Prior literature indicates that payment decisions can best reflect conflict of interests between managers and their shareholders.

Third, CBM&As with emerging countries have higher information asymmetry than 'normal' CBM&As. As a result, acquiring firms can possess substantial amount of private information in these CBM&As. Such scenarios can subsequently lead to mis-valuation issues within the markets. If market valuations between two countries are asymmetrical, and if such imperfective valuations or mis-pricing continues for prolonged period of time, acquiring managers can choose to arbitrage the market timing. Besides, literature also suggests that severe market imperfection leads to an increase in asymmetric information, which can further result in the rise of agency problems.

In light of the market misevaluation hypothesis of Shleifer & Vishny (2003) and Rhodes-kropf & Viswanathan (2004), it is apparent that compared to industry-and-size matched firms in

CBM&As inside the European Union, the market generally undervalues CBM&As to emerging countries. However, inconsistent with the market misevaluation hypothesis, it can be seen that acquiring firms do not pay cash and acquiring firms do not pay higher premiums in the CBM&As with the emerging countries.

The third study also generates important research implications. It provides supporting evidence for the prior literature regarding payment decisions in CBM&A from developed countries to emerging countries. We find that the market mis-valuation does not drive acquiring firms to fix their payment decisions in the context of CBM&As with emerging countries. We can also see that the European market is generally less optimistic in terms of cross-border M&As to emerging countries than those inside the European Union; and acquiring firms are reluctant to use cash in these CBM&As. We find managers are entrenched and are not taking advantage of market irrationality by pricing their assets into emerging countries via CBM&As. The results also complement those findings in the first and the second study as they confirm that there is a clear conflict of interest between shareholders in the market and the managers in cross-border M&As from the European union to emerging countries. In short, evidence clearly shows that there is a conflict of interest between managers and shareholders. Therefore, the third paper enriches the agency theory through the channel of information asymmetry.

The thesis is mainly synthesized from the perspective of financial markets and it has much potential to be further developed.

The first study explores whether there is an ordered industrial diversification pattern among European acquirers. We can work on the corporate industrial diversification behaviors over the financial crisis period because prior studies also show that firms are more likely to be involved in or embracing foreign investment when their countries are in economic or financial crisis (Mody & Negishi, 2001)

The first study in the thesis only begins to reveal what motivates firms from developed countries to diversify industrially into emerging markets via cross-border M&As. With further integration of the global economy, alongside the further development and improvement of governance in emerging countries, it is reasonable to infer that such industrial diversification strategy can vary.

In fact, studies have already begun to show that investment environments in emerging countries have improved. For example, Tsui & Shieh (2002) argue that reforms in many jurisdictions in emerging countries have strengthened listed companies' abilities to protect investors and therefore can ensure increased accountability. Corporate governance reforms converging to international accounting standards have been carried out in some major emerging countries such as China, Malaysia, and Brazil. There have also been reforms to Stock Exchanges and Regulatory Authorities in emerging countries to improve overall accountability and transparency of information disclosure (Hoskisson R. E., Wright, Filatotchev, & Peng, 2012). Second, we can track the long-term performance of firms who have investment stakes in emerging countries. In particular, we can focus on industrially diversified deals. We can also further explore whether industrial diversification increases firms' value by computing firms' "Excess Value" before and after the diversified M&As. Third, we can study cross-border M&As from emerging countries to developed countries. In particular, I am personally very interested in those outbound cross-border M&As in the Asia Pacific region to developed countries³⁵.

Furthermore, the agency theory suggests that entrenched managers cause underinvestment problems, whereas hubris managers cause over-investment issues. We can work on the research issues of managerial entrenchment or hubris in the contexts of CBM&As to emerging countries. Interestingly, some recent literature has put forward the argument that managerial entrenchment is not necessarily a bad thing. When facing the investment environment in emerging countries, it may be beneficial to adopt an entrenchment strategy because 'there is a good-type of entrenchment' (Surroca & Tribo, 2009).

To conclude, emerging market is by no means without investment risk. Managers should understand the rewards and challenges of investment opportunities in emerging markets and formulate a balanced risk strategy. This is essential in emerging markets. Through the empirical findings of the thesis, it can be concluded that the traditional financial and strategic mechanisms firms use can create limited value. We believe acquiring managers in CBM&A with emerging countries can take more risks. We also believe that continuous monitoring of the political and

³⁵ The outbound cross-border M&As from the emerging countries in the Asia-Pacific region have maintained a strong development trend.

corporate governance issues in emerging countries is essential as it forms the core of business strategy and subsequent strategic adjustments towards investment into emerging countries.

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