

# **The determinants of the payment method choice in cross border acquisitions: the US case (1990-2008)**

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## **1. Introduction**

Many studies have tried to explain the choice of the payment method in mergers and acquisitions (for a survey of the literature on this issue, see Chevalier and Redor (2008)). However, to our knowledge, none of them make the distinction between domestic and cross-border acquisitions. Now, the number of cross-border acquisitions has sharply increased in the last eighteen years. In the 1990s, the number of acquisitions above one million dollars completed by US firms abroad has been multiplied by more than five in only ten years, and the corresponding value has been multiplied by more than twelve in the same period. In the early 2000's, during the collapse of the financial bubble, the number and the total value of cross-border acquisitions has sharply decreased, but started again to increase from 2003 and hit new records in 2007. The present sub-prime crisis seems to have a significant impact on cross border M&A activity, but nevertheless the number of deals is nearly more than three times as much in 2008 as it was in 1990 and the sums engaged are nearly six times as much as eighteen years before (see table 1).

Despite this large increase, the number of cross-border acquisitions is lower than the number of domestic acquisitions. During the 1990-2008 period, US public firms have acquired 34 723 US firms, the value of which was higher than one million dollars. Meanwhile, the number of acquisitions of more than one million dollars made by US firms abroad was only of 5 666. Therefore, cross-border acquisitions only represent 14% of the total number of acquisitions made by US public firms during this period.

Researchers have tried to explain the reasons encouraging firms to undertake domestic acquisitions rather than cross-border acquisitions, in particular in the sector of financial services. The main explanation given is the existence of barriers which make it more complicated to own and run a financial institution in a foreign country (Berger, DeYoung and Udell, 2000). Among them, the geographical and cultural distances are often alluded to explain the differences in the acquisition flows.

According to Buch and Delong (2001), the geographical distance and the sharing of a common language are proxies for the informational asymmetry. In other words, the higher the geographical distance and the cultural distance, the higher the informational asymmetries, and therefore the less likely the deals will be.

In addition to acquisition flows, the geographical distance and the cultural distance may also influence the choice of the payment method in mergers and acquisitions. Indeed, Grinblatt and Keloharju (2001) show that investors are more likely to hold stocks of firms located near from them geographically, which communicate in the native language of the investors and with managers owning the same cultural background as the investor. That is

why a shareholder may more easily accept a stock offer when the cultural and geographical distances are small.

The economic development of the target's country of origin is also an element which could influence the choice of the payment method used to finance a deal. According to Rossi and Volpin (2004), investors dislike being paid by stocks from a foreign firm. This lack of interest in stocks could be all the more important as the financial system and the economic sphere is not developed.

In other words, certain determinants of the choice of the payment method might be specific to cross-border deals. The previous studies (which do not distinguish between domestic and cross-border deals) have allowed to underline the importance of some variables in the choice of the payment method in mergers and acquisitions. In our study, we use them as control variables and we add specific variables linked to the geographical and cultural distance between the target and the bidder, as well as to the economic development of the target's country of origin.

The paper is organized as follows. The following part is a survey of the literature dealing with the choice of the payment method. The third part describes the data and the variables used in this study. Finally, the fourth part presents the results and the fifth part concludes.

## **2. Survey of the literature**

### **2.1 The choice of the payment method in domestic mergers and acquisitions**

#### **2.1.1 The impact of the relative size on the choice of the payment method**

Hansen (1987) has developed a model of bargaining under asymmetric information. This model predicts that the higher the relative size of the target in comparison with the size of the bidder, the more likely a stock financing, because informational asymmetry problems are a growing function of the relative size. Martin (1996) has tested this hypothesis. He shows that the relative size of the target, measured by the ratio of the sum paid for the acquisition to the market value of the bidding firm, in the 20 days preceding the announcement, is not significant at the 5% level. This result is confirmed by Ghosh and Ruland (1998). On the other hand, Zhang (2001) in a British sample and Grullon, Michaely and Swary (1997) in the banking sector, show that the larger the target in comparison with the bidder, the more likely a stock financing or a mixed offer.

*Hypothesis 1: "The relative size of the target comparatively to the bidder's size has a positive impact on the use of stocks in a cross border deal"*

### **2.1.2 The impact of the competition on the choice of the payment method**

Fishman's model (1989) studies the role of the payment method in preemptive bidding for the control of the same firm by several rivals. When a bidding firm makes an offer, other potential bidders will then study the offer, obtain information concerning the potential profitability of the offer and perhaps enter into the competition. Since in the case of a competition between several potential bidders, the target's returns increase whereas the bidder's returns decrease as the competition goes on (see Berkovitch and Narayanan (1990), Bradley, Desai and Kim (1988) and De, Fedenia and Triantis (1996)), a preemptive bid has to avoid this competition. For Fishman (1989), a cash payment allows to signal an important valuation of the target and therefore to discourage competition from other potential bidders.

Contrary to Fishman's predictions (1989), Franks, Harris and Mayer (1988) report that in the 1955-1985 period, the competition is higher in cash offers than in stock offers. Cornu and Isakov (2000) show that since cash offers are often used in hostile deals, they are more frequently associated with a competition between bidders than stock offers, because they are by definition more aggressive. However, they underline the fact that cash offers allow to signal a high valuation by the bidder, even if a competition between bidders happens. Thus, cash offers have a more important dissuasive power than stock offers. In addition, they find, on both the theoretical and empirical level, that the probability to have a competition in a hostile deal is weaker after a cash offer than after a stock offer which is consistent with Fishman (1989).

Berkovitch and Narayanan's model (1990) also studies the role of the payment method in the competition between bidders, and its effect on the returns of the target's and the bidder's shareholders. Their model predicts, among other things, that when the competition increases, the amount of cash used to finance the deal also increases. De, Fedenia and Triantis (1996) find results in contradiction with the models of Fishman (1989) and of Berkovitch and Narayanan (1990), since they show that cash-only offers and stock-only offers are more competed than mixed offers, and do not achieve to prove that cash offers generate less competition than stock offers. The results are contradictory but we can not exclude the hypothesis according to which competition has an impact on the choice of the payment method.

*Hypothesis 2: "The higher the competition, the higher the use of cash in cross border deals"*

### **2.1.3 The impact of the mode of acquisition and of the hostile or friendly character of the offer on the choice of the payment method**

Jensen and Ruback (1983) underline that most mergers are financed with stocks and that most tender offers are financed with cash. The form of the acquisition (merger or tender offer) might therefore have an impact on the choice of the payment method.

*Hypothesis 3: “The use of stock will be higher in cross border acquisitions than in tender offers”*

According to Martin (1996), the form of the acquisition also has an important impact on the choice of the payment method. A tender offer financed with cash is subject to the William Act and can begin a few days after the deal’s announcement. Conversely, a stock offer, whether it is a tender offer or a merger, has to respect the Securities Act of 1933 and compels the bidding firm to obtain authorization from the Securities and Exchange Commission (see Gilson, 1986). In other words, the delay necessary to obtain the authorization to realize a stock offer is longer than in the case of a cash offer. In case of a hostile offer, the bidding firm is therefore encouraged to use cash to finance its acquisition so as not to give time to the target to organize its defence.

The results presented by Martin (1996) are consistent with this hypothesis. According to him, the desire to realize the deal as quickly as possible, because of the actual or potential competition from other bidding firms and the different regulations applicable according to the payment method finally chosen, encourages managers to use cash in tender offers. On the

other hand, Noronha and Sen (1995) show that the character of the offer does not vary according to the payment method.

*Hypothesis 4: “The hostile character of an offer has a positive impact on the use of cash in a cross border acquisition”*

#### **2.1.4 The impact of the target’s status on the choice of the payment method**

One of the main differences between a public firm and a non-public firm lies in the concentration of the shareholding. Non-public firms tend to have few shareholders, each one holding a large stake in the firm. When the firm is listed, numerous stocks are issued, which dilutes the shareholders’ stakes. Public firms therefore tend to have a more widespread shareholding than non public firms. This distinction is important when a firm acquires a non-public firm, because in this case, the acquisition tends to create blockholders in the merged firm.

Since these shareholders have invested a large part of their wealth in the merged firm, they are encouraged to control the managers’ actions. Thus, the manager who hopes to be able to enjoy a freedom of action will be likely to use cash in the acquisition of a non-public firm.

*Hypothesis 5: “The use of cash will be higher in private firm than in public firm acquisitions”*

### **2.2 The choice of the payment method in cross border mergers and acquisitions**

The aim of this paper is to study the main determinants of the choice of the payment method in cross-border mergers and acquisitions. In addition to the characteristics identified in the previous studies which did not make a distinction between cross-border and domestic deals, we think that some elements linked to the distance between the target and the bidder can influence the choice of the payment method in cross-border acquisitions. In this article, the term of distance has to be taken in a broad sense. This concept refers to geographical distance as well as cultural or economic distance between the target's country of origin and the bidder's one.

According to Grinblatt and Keloharju (2001) investors are more likely to hold, to sell and to buy stocks from firms which are geographically close to the investor, which communicate in the native language of the investor, and whose managers have the same cultural background. Therefore, in a merger or in an acquisition, the target's shareholders are more likely to accept a stock offer if the bidder is geographically and culturally close to them. Thus, if the bidding firm wants to increase its probability to make the deal on a distant target, it had better use cash. In other words, a shareholder could therefore more easily accept a stock offer when the cultural and geographical distances are small.

*Hypothesis 6: "The lower the geographical distance between the target and the bidder, the higher the use of stocks"*

*Hypothesis 7: "The lower the cultural distance between the target and the bidder, the higher the use of stocks"*

In addition to the geographical and the cultural distance, we also think that some economic characteristics of the target's country of origin could play an important role in the



choice of the payment method used to finance a cross border deal. Indeed, we think that elements such as the economic development, the openness, the competitiveness and the country risk of the target's country of origin may have an impact on the choice of the payment method in cross border deals. For example, we think that the more economically open the country is, the more likely a stock financing will be. That is why we decide to include economic variables in our model to test whether they have an impact on the payment method.

*Hypothesis 8: "Economic situation of the target has an impact on the choice of the payment method"*

### **3. Data and variables**

#### **3.1 Data description**

Our sample is made up of 4 206 cross-border deals carried out by public US bidding firms between the 01/01/1990 and the 12/31/2008. To be part of our sample, the deal also had to respect the following criteria:

- The deal value needed to be higher than 1 million dollars and had to concern more than 50% of the target's stocks. This allowed to eliminate the non-significant deals and to avoid a disruption of the results.
- The percentage of cash used as a payment method had to be disclosed
- Finally, the deal had to succeed.

Our sample unsurprisingly shows that most acquisitions made by US bidding firms principally concern British (22.37%) and Canadian targets (17.38%), far ahead from German (7.80%) and French firms (6.35%) (see table 2). This result is consistent with the previous

studies which underline the role played in cross-border mergers and acquisitions, by the fact that the bidding firm and the target firm share a common language.

The firms that are the targets of US firms are mainly European (54.29%). However, it is interesting to notice that 17.38% of US acquisitions are made in Canada and 9.11% in Central and South America. Therefore, we can not totally exclude the geographical distance as an explaining factor for the choice of the target. Asia and Africa represent respectively 12.52% and 0.88% of cross-border acquisitions made by US firms. Altogether, our sample is made up of targets from 91 different countries.

The information concerning the mergers and acquisitions has been collected from the Thomson One Banker Database. Thus, we obtained information concerning the announcement date, the hostile or friendly character of the offer, the payment method, the percentage of stocks acquired, the deal value, the target's status (public or not), the market value of the bidder four weeks before the deal, whether it is a tender offer or not and the number of acquirers (that is to say the number of bids for a target).

## **3.2 The variables**

### **3.2.1 Definition of the control variables**

The survey of the literature allowed to underline that elements such as the relative size of the bidding firm in comparison with the target firm, the mode of acquisition (tender offer or merger), the competition or the target's status can be supposed to have an impact on the choice of the payment method in mergers and acquisitions.

Similarly to Martin (1996), we use the ratio of the sum paid for the acquisition to the market value of the bidding firm, in the 20 days preceding the announcement, as an estimation of the relative size of the bidder in comparison with the target.

We also use dummy variables to control the impact of the mode of acquisition, the character of the offer, and the target's status on the choice of the payment method. Finally, we use the number of acquirers to estimate the competition (see table 3). The information concerning the control variables have been collected exclusively from Thomson One Banker database.

### **3.2.2 Definition of the variables specific to cross-border deals**

According to our *hypothesis 6*, the geographical distance can influence the choice of the payment method in cross-border deals, so that the higher the distance between the target and the bidder, the lower the probability of a stock financing.

In our study, the geographical distance has been estimated by the distance in kilometres between the capital of the bidder's country of origin (Washington D.C. for the whole sample) and the capital of the target's country of origin.

The previous studies also seem to be consistent with the idea according to which the cultural difference between the bidder's country of origin and the target's one has an impact on the choice of the payment method in cross-border deals. However, the cultural distance is a concept that is difficult to quantify. According to Buch and DeLong (2001), speaking a common language, and according to Stulz and Williamson (2003) and to LaPorta, Lopez-de-Silanes, Shleifer and Vishny (1999), having the same religion, can be seen as measures of the

common culture between two countries. Therefore, we used these two variables in our study. The information concerning these variables has been obtained thanks to the CIA World Fact Book database.

According to Chakrabarti, Jayaraman and Mukherjee (2005), having the same legal origin is also a proxy for the cultural distance. From the information collected in the CIA World Fact Book database, we therefore use a dummy variable to estimate the impact of the legal origin.

These three measures are proxies for the cultural distance. Another measure developed by Hofstede (1980) has been widely used in the financial and economic literature. The Hofstede score offers to estimate the cultural distance through four dimensions: the power distance, the individualism or collectivism degree, the femininity or masculinity degree and the uncertainty avoidance. Each dimension is evaluated for various countries and is available on the internet<sup>1</sup>. The index can be easily computed by using the following formula:

$$\text{Hofstede index} = \frac{\sqrt{\sum_{i=1}^4 (S_{A,i} - S_{C,i})^2}}{4}$$

Where  $S_{A,i}$  is the bidder's score for the dimension  $i$

And  $S_{C,i}$  is the target's score for the dimension  $i$ .

In addition to the geographical and the cultural distance, we also think that the economic and financial development of the target's country of origin is also a factor that can influence the choice of the payment method.

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<sup>1</sup> <http://www.geert-hofstede.com>

First of all, we consider the gross domestic product per capita of the target's country of origin. The information has been collected from the CIA World Fact Book database.

The openness of the target's country of origin can also have an impact on the choice of the payment method in cross-border deals. In order to measure the openness of a country, we use the index supplied by Penn World Tables:

$$\text{Index of openness of a country} = \frac{IMPORT + EXPORT}{GDP}$$

This study also uses an index which allows to measure the competitiveness of the targets' country of origin. We have retained the *Growth Competitiveness Index* (GCI) supplied by the *World Economic Forum*<sup>2</sup>. This index is made up of three dimensions: a technology index, a public institutions index and a macroeconomic environment index.

We also use an index allowing to estimate the country risk, the country risk rating of the Coface, which is computed from data of seven dimensions: the vulnerability of the conjuncture, the risk of liquidity crisis, the external overindebtedness, the financial vulnerability of the state, the fragility of the banking sector, the fragilities of the political environment and of the governance and the payment behaviour of the firms. The best rating is A1 (the probability of default is very low and the political and economic situation is very good) and the worst is D<sup>3</sup>.

#### **4. Results of the regressions**

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<sup>2</sup> Source: Global competitiveness Report 2005-2006 of the World Economic Forum.

<sup>3</sup> Source : <http://www.trading-safely.com/sitecwp/cefr.nsf>

#### 4.1 The results of the simple regression

The aim of this article is to determine the variables that influence the choice of the payment method used in cross-border mergers and acquisitions. In most of previous studies, the authors define the payment method as a dummy variable which value is 0 for cash only offers and 1 for stock only offers. These studies have therefore not studied mixed offers. To avoid this problem, we define our dependent variable as the percentage of cash used by the bidder to finance a deal. Its value is included between 0 (stock only offers) and 100% (cash only offers) which allows us to study also mixed offers.

Tables 4 and 5 present the results of the simple regressions. First, we can see that only three control variables are significant to explain the payment method used in cross border mergers and acquisitions.

Thus, the *hypothesis 1* is validated which indicates a positive relationship between the relative size of the target compared to the bidder and the use of stocks to finance a deal. This result is consistent with Grullon, Michaely and Swary (2003) and with Zhang (2001).

Consistently with Jensen and Ruback (1983), the simple regression also shows that the use of stock is higher in cross border mergers than in tender offer (which validates our *hypothesis 3*).and that the target's status has an impact on the choice of the payment method in cross border mergers and acquisitions (which validates our *hypothesis 5*). This latter result is consistent with the idea according to which managers are reluctant to acquire a non public firm with stocks because it tends to create blockholders that would have interest in controlling the managers' actions. In public firms acquisitions the shareholding is more widespread and thus tends to create less blockholders.

Conversely, our proxy for the competition, the number of acquirers, is not a variable that influences the choice of the payment method in the simple regression. This result is consistent with the study of De, Fedenia and Triantis (1996).

Similarly, our study shows results that are in contradiction with Martin's one (1996) on a sample making no distinction between cross-border and domestic acquisitions. Indeed, Martin (1996) shows that the character of the offer influences the choice of the payment method in mergers and acquisitions. Our simple regression does not allow us to confirm this theory for cross-border mergers. We therefore reject *hypothesis 2* and *hypothesis 4*.

According to the simple regression, the variables specific to cross-border deals seems to explain the choice of the payment method in mergers and acquisitions. For example, the geographical distance is significant at the 1% level to explain our dependent variable (which validates our *hypothesis 5*).

Moreover, the simple regression allows to confirm the impact of the cultural distance on the choice of the payment method. Only one proxy for the cultural distance between the bidding firm and the target, the religion, is not significant to explain the choice of the payment method in cross border mergers and acquisitions. The other proxies the language, the legal origin and the Hofstede index are significant at the 1% level and confirm our *hypothesis 7* according to which the lower the cultural distance between the target and the bidder, the higher use of stocks.

Finally, it is very interesting to notice that all the variables used to proxy the economic distance are significant. We therefore accept *hypotheses 8* on the basis of the simple results.

## **4.2 The results of the multiple regression**

Since the variables “relative size”, “target’s status” and “mode of acquisition” are significant at the 1% level in the simple regressions, we used them as control variables in the multiple regressions.

The first regression tests the impact of the geographical distance on the choice of the payment method in cross border mergers and acquisitions. It shows that the geographical distance is significant at the 5% level to explain the choice of the payment method and corroborates our *hypothesis 6*. The negative sign before the coefficient means that the smaller the geographical distance, the more likely a stock financing. This result is consistent with Grinblatt and Keloharju (2001).

The second and the third regression focus on the impact of the cultural distance between the target and the bidder. The legal system is significant at the 1% level in the second regression. It is interesting to see that when the legal origin variable is not included, the variable language becomes significant at the 1% level. This is due to the fact that the language is strongly correlated with the legal origin (see table 3). Finally, it appears, as in the simple regression, that the Hofstede index is also significant to explain the choice of the payment method. Therefore, we conclude that the cultural distance has an impact on the choice of the payment method in cross-border acquisitions. The negative sign for these three measures implies that the higher the cultural distance between the bidding firm and the target, the more likely a cash payment (which validates *hypothesis 7*).



The fourth regression studies the impact of our economic variables on the choice of the payment method. We were not able to show that the GDP per capita was a determinant of the choice of the payment method because unsurprisingly the GDP per capita was strongly correlated with the GCI (0.78) and the political risk (-0.73) (see table 3). Conversely, the competitiveness of the target's country of origin is significant at the 1% level, the negative sign meaning that the more competitive the country of origin, the more likely a stock financing. Similarly, the political risk has a negative impact (significant at the 5% level) on the use of stocks. In other words, this result tends to show that the higher the political risk of the target country of origin, the less likely a stock financing. The openness of the target's country of origin can also have an impact on the choice of the payment method in cross-border deals since our proxy is significant at the 5% level, indicating that the more economically open the country is, the more likely a stock financing will be.

In the final regression (the fifth), we excluded all the variables that were too heavily correlated (that is to say when the correlation with another variable is higher than 0.5) which allow us to avoid correlation problems between the independent variables<sup>4</sup> but we include our proxies for geographical, cultural and economic distance. It confirms the existence of variables that are specific to cross border deals that influence the choice of the payment method in mergers and acquisitions. More precisely, we conclude that the geographical distance, the cultural distance and the economic distance influence the choice of the payment method in cross border deals according to the following principle: “the higher the distance (in the broad sense) between the target and the bidder, the higher use of cash”.

## **5. Conclusions**

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<sup>4</sup> In all our regressions, the Variance Inflation Factors are widely less than 10 indicating that multicollinearity is not too high.

This study offers a better comprehension of the choice of the payment method in mergers and acquisitions. Indeed, it shows that in addition to the variables traditionally used in the previous studies not doing the distinction between domestic and cross-border acquisitions, there are variables specific to cross-border deals that influence this choice. To our knowledge, this study is the first one dealing with this issue with a bidder and a target from different nationalities.

From four variable families, the control variables coming from the previous studies, the geographical distance between the target's and the bidder's country of origin, the cultural distance between these two countries, as well as proxies for the economic development of the target's country of origin, we show that some specific variables exist to explain the choice of the payment method in cross-border deals.

Our sample shows that the geographical distance between the two firms is significant. The higher the distance, the higher the probability of a stock financing. Similarly, we conclude that there is an impact of the cultural distance between the target's country of origin and the bidder's one on the choice of the payment method. The two results are consistent with the idea according to which the cultural and geographical distances influence the choice of the payment method in such a way that the higher the distance, in a broad sense, between the target's and the bidder's country of origin, the more likely a cash financing.

Some variables linked to the economic development of the target's country of origin also seem to influence the choice of the payment method in cross-border deals. In particular, the competitiveness, the economic openness of the target's country of origin and the political

risk are significant determinants of the choice of the payment method. The higher these variables, the more likely a stock financing.

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<sup>5</sup> This article is available at the following internet address:

<http://www.whu.edu/banking/sgf/papers02/Papers/Neuer%20Ordner/Buch%20DeLong.pdf#search='CrossBorder%20Bank%20Mergers:%20what'>.

<sup>6</sup> This article is available at the following internet address: <http://ssrn.com/abstract=685482>

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<sup>7</sup> This paper is available at the following internet address: <http://www.sm.umist.ac.uk/wp/index.htm>

## Appendix

<b>Year</b>	<b>Number of deals</b>	<b>Total value of the deals</b>
<b>1990</b>	86	7 644.27
<b>1991</b>	122	5 031.16
<b>1992</b>	145	9 646.17
<b>1993</b>	161	11 173.16
<b>1994</b>	219	14 274.04
<b>1995</b>	300	48 324,01
<b>1996</b>	328	28 979.97
<b>1997</b>	442	56 684.73
<b>1998</b>	519	81 658,97
<b>1999</b>	454	103 718.98
<b>2000</b>	462	93 098.01
<b>2001</b>	302	78 436.54
<b>2002</b>	241	28 882.72
<b>2003</b>	241	48 949.82
<b>2004</b>	333	50 991.38
<b>2005</b>	362	70 298.77
<b>2006</b>	336	71 651.90
<b>2007</b>	372	124 008.78
<b>2008</b>	241	45 759.87

**Table 1 : Number and total value of the acquisitions of more than one million dollars completed in a foreign country by public US bidders between the 01/01/1990 and the 12/31/2008**

Algeria	1	0.02%	Japan	49	1.17%
Antigua	3	0.07%	Jordan	2	0.05%
Argentina	58	1.38%	Kazakhstan	4	0.10%
Armenia	2	0.05%	Lithuania	2	0.05%
Aruba	2	0.05%	Luxembourg	10	0.24%
Australia	219	5.21%	Malaysia	8	0.19%
Austria	17	0.40%	Mexico	78	1.85%
Bahamas	2	0.05%	Morocco	2	0.05%
Belgium	38	0.90%	Netherlands Antilles	4	0.10%
Belize	1	0.02%	Netherlands	125	2.97%
Bermuda	11	0.26%	New Zealand	26	0.62%
Bolivia	4	0.10%	Nicaragua	1	0.02%
Brazil	72	1.71%	Norway	51	1.21%
British Virgin Islands	35	0.83%	Pakistan	2	0.05%
Bulgaria	4	0.10%	Panama	1	0.02%
Cameroon	1	0.02%	Peru	12	0.29%
Canada	731	17.38%	Philippines	7	0.17%
Cayman Islands	2	0.05%	Poland	33	0.78%
Chile	26	0.62%	Portugal	7	0.17%
China	106	2.52%	Puerto Rico	26	0.62%
Colombia	9	0.21%	Qatar	1	0.02%
Costa Rica	5	0.12%	Romania	9	0.21%
Croatia	1	0.02%	Russia	26	0.62%
Czech republic	14	0.33%	Saudi Arabia	1	0.02%
Denmark	41	0.97%	Singapore	24	0.57%
Dominican republic	3	0.07%	Slovakia	1	0.02%
Ecuador	2	0.05%	Slovenia	2	0.05%
Egypt	7	0.17%	South Africa	23	0.55%
El Salvador	3	0.07%	South Korea	40	0.95%
Finland	29	0.69%	Spain	56	1.33%
France	267	6.35%	St Kitts & Nevis	1	0.02%
Georgia	2	0.05%	Sweden	93	2.21%
Germany	328	7.80%	Switzerland	70	1.66%
Ghana	2	0.05%	Taiwan	34	0.81%
Greece	2	0.05%	Thailand	12	0.29%
Guatemala	4	0.10%	Trinidad and Tobago	2	0.05%
Guernsey	2	0.05%	Turkey	3	0.07%
Hong Kong	73	1.74%	UK	941	22.37%
Hungary	15	0.36%	Ukraine	2	0.05%
Iceland	1	0.02%	United Arab Emirates	3	0.07%
India	33	0.78%	Uruguay	1	0.02%
Indonesia	6	0.14%	Uzbekistan	1	0.02%
Ireland	46	1.09%	Venezuela	12	0.29%
Israel	87	2.07%	Serbia	1	0.02%
Italy	76	1.81%	Zambia	1	0.02%
Jamaica	3	0.07%	<b>Total</b>		

**Table 2 : Number of acquisitions made by US bidders between the 01/01/1990 and the 12/31/2008 according to the target's nationality**

Variable	Proxy or codification
Relative size	Sum paid for the acquisition divided by the market value of the bidding firm
Competition	Number of acquirers
Mode of acquisition	1 if merger, 0 otherwise
Attitude	1 if hostile, 0 otherwise
Target's status	1 if public, 0 otherwise
Geographical distance	Distance in kilometres between Washington D.C. and the capital of the target's country of origin
Cultural distance	<ul style="list-style-type: none"> <li>- Language : 1 if English, 0 otherwise</li> <li>- Religion: 1 if protestant, 0 otherwise</li> <li>- Legal origin: 1 if common law, 0 otherwise</li> <li>- Hofstede score</li> </ul>
Economic variables	<ul style="list-style-type: none"> <li>- GDP per capita</li> <li>- Index of openness of a country</li> <li>- Growth Competitiveness Index</li> <li>- Risk rating of the Coface (A1=0, A2=1,... D=6)</li> </ul>

**Table 3: Proxy or codification of the main variables used in the study**





GDP/capita	-0.21*** (-3.90)			
Openness		-0,08*** (-6.28)		
GCI			-5.79*** (-4.18)	
Coface				1.03* (1.95)
Constant	82.40*** (42.61)	82.09 *** (69.84)	105.61*** (14.83)	74.97*** (98.56)
Adj R-squared	0.0034	0.0091	0.0040	0.0007
Observations	4206	4165	4142	4117

**Table 5: Results of the simple regression concerning the variables linked to economic development of the target's country of origin**

	Relative size	Target's status	Tender offer	Geo. distance	Language	Legal system	Hofstede	GDP	Openness	GCI	Coface
Relative size	1										
Target's status	0.0172	1									
Mode of acquisition	0.0536	-0.4255	1								
Geographical distance	0.0436	0.1075	-0.0616	1							
Language	0.0097	-0.1182	0.0970	-0.2437	1						
Legal origin	0.0107	-0.1220	0.0971	-0.2530	0.9792	1					
Hofstede	0.0021	-0.0405	0.0467	-0.2935	-0.3234	-0.3126	1				
GDP/capita	-0.0154	-0.1153	0.1008	-0.2806	0.4236	0.4362	-0.2691	1			
Openness	0.0276	-0.0110	0.1056	0.0698	0.1363	0.1467	0.2511	0.3979	1		
GCI	-0.0041	-0.1008	0.0891	-0.2401	0.3435	0.3565	-0.2915	0.7844	0.2208	1	
Coface	0.0153	0.0975	-0.0758	0.3663	-0.2085	-0.2179	0.0469	-0.7275	-0.1726	-0.4500	1

**Table 6 : Table of correlation between the variables**

	(1)	(2)	(3)	(4)	(5)
Mode of acquisition	-35.579*** (-22.16)	-34.182*** (-21.02)	-34.185*** (-21.01)	-33.346*** (-20.47)	-33.635*** (-20.66)
Relative size	-.037** (-2.17)	-.033* (-1.94)	-.033* (-1.94)	-.031* (-1.84)	-.033* (-1.95)
Target's status	-11.762*** (-5.19)	-11.461*** (-5.02)	-11.396*** (-5.00)	-10.117*** (-4.44)	-11.124*** (-4.89)
Geographical distance	.052*** (3.06)				.044** (2.19)
Language			-4.607*** (-3.07)		
Legal origin		-4.826*** (-3.23)			
Hofstede score		-.280*** (-3.07)	-.279*** (-3.04)		-.245** (-2.14)
GDP/capita				.145 (1.31)	
Openness				-.058*** (-3.68)	-.041** (-2.53)
GCI				-11.497*** (-3.19)	-14.755*** (-3.79)
Coface				-2.541** (-2.06)	-4.932*** (-3.65)
Constant	92.569*** (36.49)	102.175*** (33.85)	101.995*** (33.72)	155.287*** (8.53)	179.342*** (8.19)
Adj R-squared	0.1616	0.1556	0.1552	0.1545	0.1618
Prob > F	0.0000	0.0000	0.0000	0.0000	0.0000
Observations	2785	2718	2718	2729	2718

**Table 7 : Determinants of the choice of the payment method in cross-border mergers and acquisitions: the results of the multiple regression**