

# “M&As Motives: Evidence from the European Financial Services Industry”

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# M&As Motives: Evidence from the European Financial Services Industry

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## Abstract

The most cited M&As motives have been synergy, agency problems and hubris. However, the literature on European bank M&As does not document any direct test for the existence of these explanations, consequently this motivated our study in which we examine a sample of 76 M&As in the European banking industry between 1987 and 1999. We found that synergy is the major motive for these mergers especially those with total positive gains although there is evidence for the simultaneous existence of hubris in these deals. The evidence of agency problems is thin and is more apparent in deals with negative total gain. Our results are robust and were confirmed after controlling for various deal characteristics; however, the agency problems motive becomes more apparent in equity exchange deals that result in negative total gains.

**JEL classification:** G34

**Key words:** synergy; agency problems; hubris; merger.

## 1. Introduction

The level of mergers and acquisitions (M&A) activity increased very significantly during the 1990s and reached \$3.4 trillion in 1999 in response to many forces of change<sup>1</sup>. These include technological change, globalization, deregulation, and changes in industry organization (Weston et al., 2001). As a result of these forces of change, the financial services industry worldwide, among other sectors, has been going through a period of restructuring, consolidation and deregulation. For instance, in the EU the Second Banking Directive (1989) has made it possible for European banks to form financial conglomerates, thereby engaging in 'universal banking' (Vander-Vennet, 2002). In contrast, in the US the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994 and the Financial Services Modernization (Gramm-Leach-Bliley) Act of 1999 relaxed previous restrictions imposed by the Glass-Steagall Act and the Bank Holding Company Act (1956). Accordingly, banks are able to bundle, structure and deliver new products to their end customers, overcoming previous geographic restrictions. On the other hand, banks are compelled to decrease their margins due to the intensifying global competition. This has in many cases forced managers to consider strategic alternatives such as mergers either with other banks or with other financial services firms in order to maintain competitiveness. The first enquiry that comes under the spot light is whether these mergers created wealth to the shareholders of the merged parties. In fact, empirical research reached a consensus that target shareholders gain<sup>2</sup>; however, there is much less consistency in the evidence relating to the returns of the acquiring bank shareholders, with a number of studies reaching contrasting conclusions (see for example, Desai and Stover, 1985; Pettway and Trifts, 1985; Trifts and Scanlon, 1987; Hannan and Wolken, 1989; Hawawini and Swary, 1990; Cornett and De, 1991; Houston and Ryngaert, 1994; and Siems, 1996). In sum, the evidence, from banking merger studies suggests that acquiring firm shareholders, at most, do no gain. This leads to the burning question, why takeovers happen if they do not result in significant gains to the acquirers? In other words what motivates managers to engage in M&A activities?

The market for corporate control literature advanced various theories that aim at explaining the motives for companies involved in M&As decisions. Perhaps the most popular of all those theories have been synergy, agency problems, and hubris. The synergy theory suggests value enhancement resulting from merger. While agency problems may arise due to the separation of

<sup>1</sup> Weston, Siu and Johnson (2001) and Thomson Financial Securities Data.

<sup>2</sup> For a review of the evidence see for example Jensen and Ruback (1983), Jarrell Brickley and Netter (1988) and recently Bruner (2001).

ownership and control with managers having a different incentive structure than shareholders (Jensen and Meckling, 1976). Thence takeovers decisions could be, rather, driven by managerial utility maximisation motives such as managing large firms which could also result in them earning high compensations and benefits at the expense of the shareholders. Therefore in such takeovers the acquiring management end up paying an economically unjustifiable price for the target company. Hubris, on the other hand, is manifested by the fact that bidders, due to the winner's curse, overbid for the target at higher than the intrinsic value. Therefore, as Roll (1986) states hubris is one of the factors that wipe out any potential synergistic gains that would result from merger<sup>1</sup>.

One of the few studies that examined the M&A motives in the non-banking industry is Berkovitch and Narayanan (1993) who developed a methodology to directly test the existence of any of the above motives. Whereas, the evidence for the bank merger is limited to very few studies such as Zhang (1998) that used the same methodology as Berkovitch and Narayanan (1993) for the USA banking merger. Both studies, we believe, do not apply to the European context, for many reasons, one being the differing regulations governing the activities of the financial services industry in the USA and Europe. Therefore we can not draw from these two studies any conclusions to be applied on the European banking scenario.

In this study we use a sample of 76 M&A deals that were completed between 1987 and Nov. 1999 in the financial services industry where both targets and acquirers were publicly listed in the European Union, Switzerland or Norway. We report a positive and statistically significant relationship between target gains and total gains suggesting that synergy is the dominant motive for these takeovers. We also found that hubris may be the main explanation for observing positive target gains and zero or negative acquirer gains. Our results also point at a thin evidence that agency problems motivations existed in these mergers, in fact the evidence of agency problems was documented in deals with negative total gains, suggesting that the close monitoring and supervision that financial institutions are subject to, render agency behaviour less common. We run further consistency checks and examine the effect of the deal characteristics on our analysis. Our results were, generally, robust.

The remainder of the paper is organised as follows: in section two we discuss the earlier evidence in the M&As motives literature, in section three we describe our sample and propose the methodology we use. While we report our findings in section four, we conclude in section five.

## 2. Historical Evidence on Bank M&As Motives

The literature on merger motives utilised several proxies to examine the existence of one or several possible motives for merger. For example the finding of positive total gain of merger deals in a sample has been considered fair evidence for mergers being motivated by the achievement of synergistic gains (Bradley, Desai and Kim, 1988). The lack of positive acquirer gains, or even evidence of negative acquirer gain, has been thought of as indicating that these mergers are motivated by either agency problems or hubris (Malatesta, 1983), or that they provided support for some form of managerial explanation (Neely, 1987; Hawawini and Swary, 1990). Moreover, other researchers contend that managers might engage in growth-oriented or empire building strategies in order to create a diversified portfolio within the firm to lower their employment risk (Amihud and Lev, 1981; Coffee, 1988).

Another bank-specific motive for growth is the concept of a bank being "too-big-to-fail". But O'Hara and Shaw (1990) argue that this type of motive, joining the club of "too-big-to-fail" banks, may actually be beneficial for the shareholders and so it is not totally consistent with an agency problem type of behaviour of the management.

Examining the motives for the European banking merger followed a path similar to all the other studies; that is, researchers tried to derive conclusions from the findings of post-merger operating performance change or X-efficiency change.

Vander Vennet (1996) found that in domestic majority-acquisitions the post-merger performance deteriorated. He deduced that defensive and managerial motives dominate and observed that these mergers did not seem to have benefited from synergistic effects and efficiency

<sup>1</sup> Ultimately, this leads to high positive gain to the target, negative gain to the acquirer and zero total gain.

enhancement. On the other hand, Vander Venet (1996 and 1999a) reported improvement in operational efficiency, frontier efficiency measures, and in profit levels for domestic mergers of equal partners. Consequently he concluded that the operational and managerial synergies and scale economies are probable explanations for the recovery in performance. However, as for cross border mergers Vander Venet (1996) concludes that the acquisition of a foothold presence in foreign bank markets with growth opportunities may be the principal motivation since he did not find any evidence for improved performance.

Berkovitch and Narayanan (1993) summarised the various theories and motives of M&A into three main categories as shown in Table 1.

Table 1

Patterns of Gains Related to Takeover Theories

The Merger Motive	Total Gains	Gains to Target	Gains to Acquirer
1. Efficiency or Synergy	+	+	+
2. Hubris ( winner's curse, overpay)	0	+	-
3. Agency problems and mistakes	-	+	-

By definition, total gains are positive for synergy, zero for hubris, and negative for agency problems and so on. The event studies that examined the market reaction to M&A announcement have not been able to clearly distinguish among all the three motives, cited above. The difficulty is that the three motives may simultaneously exist in any sample (Berkovitch and Narayanan, 1993; Zhang, 1998). This problem is overcome by investigating the relation between target and total gains instead of depending on average gains (Berkovitch and Narayanan, 1993).

Having said that we explain the hypothesis proposed in Berkovitch and Narayanan (1993) and their methodology for examining M&As motives, which we adopt, in the following section.

### 3. Methodology and Sample Design

#### 3.1. Methodology

Berkovitch and Khanna (1990) show that the target gain is a function of the total gain, conditional on the takeover motive, and the acquirer gain is a function of the target gain, conditional on the takeover motive as well. Berkovitch and Narayanan (1993) summarised these relationships which we report in Table 2<sup>1</sup>.

Table 2

The Implications of Different Hypotheses Regarding the Relation between Target Gain and Total and Acquirer Gains

Hypothesis	Correlation between	
	Target Gain and Total Gain	Acquirer Gain and Target Gain
Synergy	Positive	Positive
Hubris	Zero	Negative
Agency problems	Negative	Negative

Berkovitch and Narayanan (1993) justify the implied relationships that in a synergy motivated merger the target and the acquirer would benefit from the synergy. Any increase in the

<sup>1</sup> Zhang (1998) departs from this argument and from the patterns of gains reported in Table 1 to test the presence of the three major motives in US bank takeovers. They examined the relationship type between the target gains and the total gains, and the acquirer gain and the target gain, their findings confirmed the existence of synergy and hubris motives.

total gain would lead to an increase in the target gain, which in turn implies an increase in the acquirer gain; hence the positive relationships in the table.

On the other hand, in a merger motivated by agency problems, the increase in target gains is accompanied by a decrease in the total gain at the expense of the acquirer shareholders, where part of the gain is extracted to the benefit of the acquirer's management due to agency rent. Moreover, since the acquirer gains are inversely related to the severity of the agency problem, the target and acquirer gains are also negatively correlated. But if synergy and agency motives are present in the sample, and since both motives have opposite predictions, the results (of the relationship between target and total gains) may either reflect the stronger of the two effects or may show a zero correlation between target and total gains. In the latter case, the results could be misleading and erroneously implying, the presence of hubris motive.

To avoid this problem Berkovitch and Narayannan (1993) suggest using another test, that is, dividing the sample into two sub-samples based on the total gains whether they are positive and negative, and then examining the correlation between target and total gains, and between target and acquirer gains within each sub-sample. The logic for doing this is that in the case of an agency problems motive, if it exists, it is more likely to be present in the mergers with total negative gains than in mergers with positive total gains.

In hubris there is a transfer of gain from the acquirer to the target as a result of overpayment, or winner's curse, no matter how much the target gain increases, yet the total gain is unaffected at approximately the zero level. Therefore, in hubris, there is no relation between the total gains and the target gain and the relationship between the target gain and the acquirer gain is negative.

We adopt this argument and follow the pattern of relationships as shown in Table 2. We use initially two regression models, as in Berkovitch and Narayanan (1993), in order to test the relationships postulated above, these are:

$$\text{Target Gain} = \alpha_1 + \beta_1 (\text{Total Gain}) + \varepsilon \quad (1)$$

$$\text{Acquirer Gain} = \alpha_2 + \beta_2 (\text{Target Gain}) + \mu \quad (2)$$

### 3.2. Sample design

The sample consists of bank mergers that were completed between Jan 1987 and Dec 1999 where the acquirer was a publicly listed financial institution in the EU, Switzerland or Norway. We searched all the deals in Financial Thomson SDC Platinum database. We exclude from our sample deals that do not have a disclosed dollar value. We also require that the deal results in a transfer of control where the acquirer's ownership increases above 50% after the acquisition. The initial sample size was 238 deals, which had a publicly listed target firm as required for the study. Our selection criteria necessitate that share price data are available on Datastream for acquiring and target firms for at least 190 days prior to the deal announcement. Finally, the sample under scrutiny consisted of 76 matched targets and acquirers that merged between Jan 1987 and Nov 1999 in Europe. In fact in this study we use the same sample examined by Ismail and Davidson (2005).

We use standard event study methodology as in Brown and Warner (1980 and 1985) in order to calculate the abnormal returns of the participating banks. Abnormal returns are computed individually for acquirers and targets, which involves use of the market model calibrated on pre-announcement returns between -210 to -21 days. The benchmark return utilised for each deal was the DATASTREAM bank sector index<sup>1</sup>.

Target and acquirer gains are defined as the change in wealth of the shareholders of the target and acquiring banks or firms. The gains are computed in euro values. The target's gain is calculated as the target CAR (cumulative abnormal return) in the 5-day event window (-2,2)<sup>2</sup>

<sup>1</sup> We also conducted the analysis using the Datastream general market index for each country and reached similar results for the estimation of the market model parameters.

<sup>2</sup> We used other event windows and found similar evidence concerning the merger motives.

multiplied by the target's market value of equity one month prior to the merger announcement. We compute the acquirer's gain in a similar way. The total gain is, then, defined as the sum of the gains accumulating to the target and the acquirer. We also divide the sample into two sub-samples one with total negative gains and the other with total positive gains.

## 4. European Bank Merger Motives – the New Evidence

### 4.1. Descriptive Statistics

In Table 3 we present summary statistics for our sample. We show the distribution of the sample transactions based on various deal characteristics. For the method of payment we use three categorizations: pure cash, pure equity and mixed which is taken to include all other considerations including partial cash and partial equity settlement. We also use two groupings for the geographic scope of the deal; national for deals within the same country and cross-border for deals across different nations. Based on the industry scope, we use two categories to distinguish between industry focus deals (bank to bank) and industry diversification deals (cross-product) where one party is a bank and the other is a non-bank financial institution such as insurance, brokerage services firm or other. These deal characteristics show that there is more tendency to pay in cash (35 deals) than to pay shares for deal settlement. We notice that geographic diversification is rare with only 10 deals, representing about 13% of the total sample. A final observation is that most of the transactions (52 deals) are industry focus deals (bank to bank).

Table 3

Descriptive Data by Deal Announcement Year

The table presents descriptive statistics for a sample of 76 M&A deals in the European Financial Services industry between 1989 and 1999. We report the subdivision of the sample by method payment, by geographic scope and by industry scope. We also report summary statistics for the mean relative size, deal value, and the percentage of shares acquired. The mean relative size is calculated as the market value of equity of the target divided by that of the acquirer one month prior to the acquisition announcement. The acquirer size is the market value of equity one month prior to the acquisition announcement. The deal value is the dollar value of the consideration offered as reported by Thomson Financial SDC database.

Panel A: Deal Characteristics	Number of Deals
<i>1) By Method of Payment</i>	
Cash Deals	35
Equity Deals	20
Other	21
<i>2) By Geographic Scope</i>	
National Deals	66
Cross-Border Deals	10
<i>3) By Industry Scope</i>	
Bank to Bank Deals	52
Cross-Product Deals	24
Panel B: Summary Data	
Mean Acquirer size (Millions of USD)	4,511
Mean Deal Value (Millions of USD)	1,644
Mean Relative size	29%
Average % of shares Acquired	79%

Source: Thomson Financial SDC database (the author's calculations).

We also show that the mean acquirer size (market value of equity) is just above \$4.5 billion. The latter figure together with the mean deal value of \$1.644 billion indicate how exceptional the 1990s merger wave was, especially in terms of the huge size of the participating



firms and the amount of capital spent during that period<sup>1</sup>. We report that the average percentage of shares acquired reached 79% which implies that those deals resulted in a clear transfer of control.

#### 4.2. *Wealth Gains*

Table 4 provides estimates of the target and acquirer gains for the sample of 76 M&As deals in the European Financial services industry. The mean target gain for the total sample of 76 deals is € 47 million (significant at the 1% level), and the mean acquirer gain is € 18 million (significant at the 5% level). In 67.11% of the cases targets earn positive gains; while in 47.37% of the cases, acquirer gains were positive.

The total gain, that is the sum of the target and acquirer gain, was positive in 64.47% of the cases. The latter finding is almost the same as in Zhang (1998) where he reports 64% of the deals earning positive gains. This finding suggests that these positive total return deals were motivated by synergy, while the remaining 35.53% of the deals were motivated by either agency or hubris.

Table 4

#### Summary of Euro Gains for 76 M&As Deals

The table reports Gains (Millions of Euro) for Targets, Acquirers and Total Gains for 76 Mergers that were completed in the European financial services industry between 1987 and 1999. The gains are computed in money terms, which is the product of the firm's CAR (cumulative abnormal return) in the 5-day event window (-2,2) and the firm's market value of equity one month before the merger announcement. The total gain is, then, defined as the sum of the target gain and the acquirer gain. We also divide the sample into two sub-samples one with total negative gains and the other with total positive gains. Abnormal returns are computed individually for acquirers and targets with the OLS market model using for each deal the DATASTREAM bank sector index. Regression parameters are estimated from -210 to -21 days where day 0 is the day the deal was first announced to the public.

(-2,2) event window	Gains to	Minimum	Maximum	Mean	% Pos	Z Statistics
All (n = 76)	Target	-785.02	1057.20	47.09	67.11%	(10.29)***
	Acquirer	-417.27	830.07	18.04	47.37%	(2.36)**
	Total	-739.47	1262.90	65.13	64.47%	(2.58)***
Positive Total Gains only (n = 49)	Target	-59.47	1057.20	91.78	81.63%	(15.96)***
	Acquirer	-417.27	830.07	34.96	63.27%	(5.30)***
	Total	0.12	1262.90	126.75	100.00%	(7.40)***
Negative Total Gains (n = 27)	Target	-785.02	16.90	-34.01	40.74%	(-4.56)***
	Acquirer	-112.30	45.55	-12.67	18.52%	(-3.18)***
	Total	-739.47	-0.06	-46.68	0.00%	(-4.79)***

(\*\*\*) Indicates significance at the 1 % level.

(\*\*) Indicates significance at the 5 % level.

In 63.27% of the M&A deals with positive total gains, we found that the acquirer gains were also positive. This result is very close to the result reported by Berkovitch and Narayanan (1993) of 63.9%. The sub-sample of negative total gains shows that the loss from M&A may be large, the mean total loss for this group being -€ 46.68 million. This loss is mainly attributable to losses incurred by target firms. When we investigate this sub-sample closely we notice that the majority of this negative gain is due to one major deal, apparently the deal with the minimum gain in the table, of target negative gain of -€ 785 million (the merger between Banesto and Banco de Santander on Jan 28, 1994).

<sup>1</sup> Ismail (2005) shows that for the USA takeover market, the total volume of M&A deals completed by the top 10 US acquirers during the 1990s merger wave reached \$1.05 trillion which exceeds the total volume of the 1980s merger wave.

When we remove this deal from the sub-sample of total negative gains, we observe that the mean total loss becomes less negative, -€ 24.324 million, and the target mean loss is much lower, -€ 8.566 million. Moreover, if we remove this one deal from the whole sample the mean total gain increases from € 65.13 million to € 75.86 million and the mean target gain becomes € 58.18 million rather than € 47.09 million.

### 4.3. Regression Results

In Table 5 we report the results of the regressions<sup>1</sup>. In panel A, we report the regression results of the target gain against the total gain, for the entire sample as well as for the sub-samples of total positive gains and total negative gains. For the entire sample the correlation between target gains and total gains is positive and statistically significant at the 1% level, the estimate of  $\beta$  is 0.626 ( $t = 3.796$ ).

Table 5

#### Relations between Target Gain and Total and Acquirer Gains

In Panel A of the table we report the results of the regression that documents the relation between target gains and the total gain for 76 M&A deals that were completed in the European financial services industry between 1987 and 1999. Panel B shows the relation between acquirer gain and target gain for the same sample.

Sample	Size	$\alpha$	$\beta$	Adj. $R^2$
<i>Panel A. Target Gain = <math>\alpha + \beta</math> (Total Gain) + <math>\varepsilon</math></i>				
All	76	6.349	0.626	61.90%
		(0.573)	(3.796)***	
Positive Total Gains Only	49	24.109	0.534	50.40%
		(1.887)*	(3.337)***	
Negative Total Gains Only	27	15.364	1.058	97.00%
		(3.375)***	(39.842)***	
<i>Panel B. Acquirer Gain = <math>\alpha + \beta</math> (Target Gain) + <math>\mu</math></i>				
All	76	18.152	-0.00234	<0.00
		(1.974)*	(-0.0098)	
Positive Total Gains Only	49	38.333	-0.0367	<0.00
		(2.278)**	(-0.112)	
Negative Total Gains Only	29	-15.438	-0.0814	18.00%
		(-3.2118)***	(-7.888)***	

The numbers in parentheses are White's (1980) heteroscedasticity-consistent t-statistics.

(\*\*\*) Indicates significance at the 1% level.

(\*\*) Indicates significance at the 5% level.

(\*) Indicates significance at the 10% level

This result is consistent with the synergy hypothesis; the evidence of the synergy hypothesis persists with the two sub-samples of total positive gains and total negative gain. If we look at the intercept term, we notice that it is not significantly different from zero for the total sample. This tells that the target does not gain when the total gain is zero, which is consistent with the synergy hypothesis but not the hubris. On the other hand for the sub-samples of positive and negative total gain the intercept is positive and significant at the 10% and 1% level respectively, which suggests that the targets still gain even when the total gain is zero. This suggests a degree of hubris is present.

Panel B of Table 5 provides the results of the regression between the acquirer and the target gains for the entire sample as well as for sub-samples of positive and negative total gain. For the entire sample, the coefficient between acquirer and target gains is negative, though not significantly different from zero. This seems to lend a weak support the hubris hypothesis. The same result is

<sup>1</sup> We have also tested for autocorrelation in the samples using the Durbin-Watson  $d$ -statistic and found that autocorrelation is non-existent.



obtained for the sub-samples of positive and negative total gains, but the coefficient is significant only in the sub-sample of negative total gains. On the other hand the intercept  $\alpha$  is positive and significantly different from zero in the total sample and the positive total gains sub-sample. This suggests that when the target does not gain, the acquirer is able to maintain a positive gain, in other words, this is consistent with the notion that without hubris the acquirer on average should be able to retain its synergy gains. Thus hubris may explain the results of positive average target gains and zero average acquirer gains. In order to explain the negative total gains, we consider the intercept in the sub-sample of negative total gains. In this sub-sample, the negative intercept, which is significant at the 1% level, suggests that the acquirer loses even when the target does not gain. This implies that after adjusting for hubris, the acquirer in the sub-sample of negative total gains would still lose, apparently to the acquirer management. This result implies that agency, along with hubris, may explain the bank takeovers with negative total gains, even though we do not observe it in the coefficient  $\beta$  since synergy is the dominating motive in these takeovers.

Table 6

Relations between Target Gain and Total and Acquirer Gains, after adjusting for outliers in the sample

In Panel A of the table we report the results of the regression that documents the relation between target gains and the total gain for 75 M&A deals (after removing one outlier) that were completed in the European financial services industry between 1987 and 1999. Panel B shows the relation between acquirer gain and target gain for the same sample.

Sample	Size	$\alpha$	$\beta$	$R^2$
<i>Panel A. Target Gain = <math>\alpha + \beta</math> (Total Gain) + <math>\varepsilon</math></i>				
All	75	16.693	0.547	54.60%
		(2.27)**	(3.529)***	
Positive Total Gains Only	49	24.109	0.534	50.40%
		(1.887)*	(3.337)***	
Negative Total Gains Only	26	3.947	0.453	31.00%
		(1.009)	(1.42)	
<i>Panel B. Acquirer Gain = <math>\alpha + \beta</math> (Target Gain) + <math>\mu</math></i>				
All	75	17.133	0.0093	<0.00
		(1.623)	(0.092)	
Positive Total Gains Only	49	38.333	-0.0367	<0.00
		(2.278)**	(-0.112)	
Negative Total Gains Only	26	-16.211	-0.254	1.6%
		(-3.096)***	(-0.857)	

The numbers in parentheses are White's (1980) heteroscedasticity-consistent t-statistics.

(\*\*\*) Indicates significance at the 1% level.

(\*\*) Indicates significance at the 5% level.

(\*) Indicates significance at the 10% level

Although the gains in this sample are not highly dispersed around the mean, yet to ensure the robustness of our results to very limited outliers, we identified one major outlier earlier and removed it then we run the regressions one more time. The results we obtained are reported in Table 6 and provide support for the conclusions we arrived at earlier. The evidence to support Synergy is obvious and we found support for the existence of Hubris as well. The intercepts of the regressions in Panel B support the evidence of Hubris in the sub-sample of positive total gains, and the evidence of agency in the sub-sample of negative total gain even though the coefficients are not significant.

#### 4.4. The effect of the deal characteristics

The outcome from market return studies may vary according to various characteristics that accompany the deal; one of the major variables is the method of settlement. Although M&As participants have used several settlement methods perhaps the most popular of all have been cash and equity. In general a cash offer, would have to be larger than a stock offer to offset the increased target shareholders' tax liability (Hansen, 1987; Huang and Walkling, 1987). Moreover, Huang and Walkling (1987) argue that, transactions that use other payment methods (e.g., convertible preferred stocks) can be tax-deferred or taxed immediately, depending on the specific situation.

Others support the asymmetric information explanation. That is, one reason why bidders may use cash as a method of payment (if the bidding firm managers believe that their own firm's shares are undervalued) is to avoid issuing undervalued equity (Travlos, 1987; and Brown and Ryngaert, 1991). Moreover, Myers and Majluf (1984) and Loughran and Ritter (1995) argue that the method of financing an investment conveys (signal) information. They argue that when the firm sells shares to finance a new project, it is because managers judge the firm's shares to be overvalued. Consequently, equity financed acquisitions would result in lower gains for the acquiring firm than a cash financed acquisition<sup>1</sup>.

In order to gauge for the effect of the method of payment we re-examine the results for two sub-samples; one for cash deals and the other for equity exchange offers<sup>2</sup>. We report our results in Tables 7 and 8.

In Table 7 we report the results for 35 deals that were settled in cash and find a positive correlation between the target gain and the total gain in Panel A which supports the evidence of synergy. In the sub-sample of positive total gain, the insignificant coefficient may imply that a degree of hubris is present. Similar to our original findings for the total sample, the results reported in Panel B strongly suggest that agency is the main motive for the mergers with negative total gains while hubris is implied from the mergers with positive total gains.

When we look back at the results in Panel A for the sub-sample of positive total gain we conclude that the evidence that hubris existed is confirmed.

Table 7

#### Relations between Target Gain and Total and Acquirer Gains for 35 cash deals

In Panel A of the table we report the results of the regression that documents the relation between target gains and the total gain for 35 M&A deals that were completed in the European financial services industry between 1987 and 1999 and settled with cash. Panel B shows the relation between acquirer gain and target gain for the same sample.

Sample	Size	$\alpha$	$\beta$	Adj. $R^2$
<i>Panel A. Target Gain = <math>\alpha + \beta</math> (Total Gain) + <math>\epsilon</math></i>				
All	35	-7.133	0.939	88.25%
		(-0.885)	(7.634)***	
Positive Total Gains Only	22	8.508	0.452	30.40%
		(1.1165)	(1.571)	
Negative Total Gains Only	13	12.174	1.076	99.60%
		(3.341)***	(228.82)***	

<sup>1</sup> The studies that examined the effect of the payment method on the return to acquirers had, one more time reached contrasting conclusions. Some studies, in non-banking M&As, found higher returns to acquirers in cash deals than in equity deals (Travlos, 1987; Agrawal et al., 1992; Sudarsanam, Holl and Salami, 1996; Gregory, 1997; and Loughran and Vjih, 1997). On the other hand other studies in the literature reported contrasting results (Allen and Sirmans, 1987 and Chang, 1998). Chang (1998) found, for stock bidders acquiring privately held targets, a two-day positive return of 2.64% and insignificant 0.09% return for cash bidders.

<sup>2</sup> When we partition the sample based on the method of payment, we find that 12 deals were settled in a combination of cash, equity and other means such as liabilities. For this small sub-sample we rerun the regressions without separating negative from positive deals. The table for these regression results is available upon request.

Table 7 (continuous)

<i>Panel B. Acquirer Gain = <math>\alpha + \beta</math> (Target Gain) + <math>\mu</math></i>				
Sample	Size	$\alpha$	$\beta$	Adj. $R^2$
All	35	7.058	-0.0601	0.00
		(0.855)	(-2.527)**	
Positive Total Gains Only	22	23.098	-0.254	0.00
		(1.788)**	(-1.646)	
Negative Total Gains Only	13	-11.504	-0.0737	61.90%
		(-3.363)***	(-14.864)***	

The numbers in parentheses are White's (1980) heteroscedasticity-consistent t-statistics.

(\*\*\*) Indicates significance at the 1% level

(\*\*) Indicates significance at the 5% level

(\*) Indicates significance at the 10% level

In Table 8 we report the results for equity settled deals. Our results are similar to the previous (above) findings with one exception; the negative  $\beta$  coefficient in Panel A for the sub-sample of negative total gain (although significant at the 11% level) suggests a degree of agency is present. This result implies that when acquirers lose to the target one explanation could be due to the method of payment. In other words this is consistent with the evidence that issuing stocks sends a negative signal to the market which results in negative acquirer gain, see for example Myers and Majluf (1984) Asquith, Bruner, and Mullins (1987), Franks, Harris, and Mayer (1988), Travlos (1987) and Loughran and Ritter (1995).

Table 8

Relations between Target Gain and Total and Acquirer Gains for 20 equity deals

In Panel A of the table we report the results of the regression that documents the relation between target gains and the total gain for 20 M&A deals that were completed in the European financial services industry between 1987 and 1999 and settled with equity. Panel B shows the relation between acquirer gain and target gain for the same sample.

Sample	Size	$\alpha$	$\beta$	Adj. $R^2$
<i>Panel A. Target Gain = <math>\alpha + \beta</math> (Total Gain) + <math>\epsilon</math></i>				
All	20	8.704	0.704	58.20%
		(0.5064)	(2.644)**	
Positive Total Gains Only	13	-2.081	0.726	52.10%
		(-0.0589)	(2.429)**	
Negative Total Gains Only	7	-10.244	-2.09	<0.00
		(-1.64)	(-1.885)	
<i>Panel B. Acquirer Gain = <math>\alpha + \beta</math> (Target Gain) + <math>\mu</math></i>				
All	20	50.09	-0.143	<0.00
		(2.058)*	(-0.4708)	
Positive Total Gains Only	13	107.362	-0.227	1.70%
		(3.0614)***	(-0.7981)	
Negative Total Gains Only	7	-34.537	-1.657	40.30%
		(-3.002)**	(-2.5266)**	

The numbers in parentheses are White's (1980) heteroscedasticity-consistent t-statistics.

(\*\*\*) Indicates significance at the 1% level

(\*\*) Indicates significance at the 5% level

(\*) Indicates significance at the 10% level

We then examine other characteristics of the deal, these are, whether the deal is national or cross-border and whether the merging parties operate in the same industry; i.e. in-market vs. cross-product deals.

The majority of the deals in our sample are, in fact, national deals (66 out of 76 deals). So when we partition our sample on the basis of the geographic scope of the deal (national vs. cross-border) we rerun the regressions for the national deals sub-sample (Table 9) and found that our earlier results are unaltered.

Table 9

#### Relations between Target Gain and Total and Acquirer Gains for 66 national deals

In Panel A of the table we report the results of the regression that documents the relation between target gains and the total gain for 66 national M&A deals that were completed in the European financial services industry between 1987 and 1999. Panel B shows the relation between acquirer gain and target gain for the same sample.

Sample	Size	$\alpha$	$\beta$	Adj. $R^2$
<i>Panel A. Target Gain = <math>\alpha + \beta</math> (Total Gain) + <math>\varepsilon</math></i>				
All	66	6.802	0.626	61.54%
		(0.527)	(3.744)***	
Positive Total Gains Only	43	28.677	0.528	49.30%
		(1.979)**	(3.313)***	
Negative Total Gains Only	23	11.471	1.0712	98.99%
		(3.413)***	(158.39)***	
<i>Panel B. Acquirer Gain = <math>\alpha + \beta</math> (Target Gain) + <math>\mu</math></i>				
All	66	21.943	-0.792	<0.00
		(2.106)**	(-0.033)	
Positive Total Gains Only	43	41.905	-0.4332	<0.00
		(2.185)**	(-0.132)	
Negative Total Gains Only	7	-11.033	-0.754	37.94%
		(-3.421)***	(-11.793)***	

The numbers in parentheses are White's (1980) heteroscedasticity-consistent t-statistics.

(\*\*\*) Indicates significance at the 1% level

(\*\*) Indicates significance at the 5% level

(\*) Indicates significance at the 10% level

Finally we examine the product scope of the deal and also found similar results.

Table 10

#### Relations between Target Gain and Total and Acquirer Gains for In-Market deals

Sample	Size	$\alpha$	$\beta$	Adj. $R^2$
<i>Panel A. Target Gain = <math>\alpha + \beta</math> (Total Gain) + <math>\varepsilon</math></i>				
All	52	4.930	0.627	62.88%
		(0.323)	(3.729)***	
Positive Total Gains Only	34	28.576	0.530	50.31%
		(1.811)*	(3.291)***	
Negative Total Gains Only	18	15.474	1.0628	97.34%
		(2.420)**	(48.939)***	

Table 10 (continuous)

<i>Panel B. Acquirer Gain = <math>\alpha + \beta</math> (Target Gain) + <math>\mu</math></i>				
All	52	27.018	0.1312	<0.00
		(2.040)**	(0.053)	
Positive Total Gains Only	34	51.496	-0.2305	<0.00
		(2.190)**	(-0.066)	
Negative Total Gains Only	18	-15.625	-0.826	19.28%
		(-2.319)**	(-6.679)***	

Table 11

Relations between Target Gain and Total and Acquirer Gains for Cross product deals

Sample	Size	$\alpha$	$\beta$	Adj. $R^2$
<i>Panel A. Target Gain = <math>\alpha + \beta</math> (Total Gain) + <math>\varepsilon</math></i>				
All	24	9.957	0.5623	20.00%
		(0.916)	(2.654)**	
Positive Total Gains Only	15	22.164	0.3644	<0.00
		(0.999)	(1.340)	
Negative Total Gains Only	9	10.080	0.838	79.72%
		(1.884)	(10.316)***	
<i>Panel B. Acquirer Gain = <math>\alpha + \beta</math> (Target Gain) + <math>\mu</math></i>				
All	24	7.799	-0.5825	34.54%
		(0.821)	(-2.103)**	
Positive Total Gains Only	15	33.838	-0.8205	56.27%
		(2.874)**	(-4.138)***	
Negative Total Gains Only	9	-14.46	-0.1907	<0.00
		(-2.472)**	(-0.160)	

The numbers in parentheses are White's (1980) heteroscedasticity-consistent t-statistics.

(\*\*\*) Indicates significance at the 1% level

(\*\*) Indicates significance at the 5% level

(\*) Indicates significance at the 10% level

## 5. Conclusion

In this study we test the existence of three major motives of bank M&A: synergy, agency problems, and hubris by examining the relations between target and total gains and between acquirer and target gains. To perform this task we followed the same methodology developed by Berkovitch and Narayanan (1993).

We report a positive and statistically significant relation between target gains and total gains for the entire sample and the two sub-samples of positive and negative total gains. This relation suggests that synergy, rather than agency problems, is the dominant motive for the M&A in the European financial services industry. Our next step was to examine the simultaneous presence of hubris in isolation from the relation between acquirer gains and target gains. Although the coefficient is significantly different from zero in the negative total gains only, yet it carries a negative sign, which is consistent with the hubris hypothesis. The significantly positive intercept in the entire sample and in the positive total gains sub-sample suggests that the acquirer gains should the target's gain be zero; that is, without hubris the acquirer would be able to maintain his

synergistic gain. Therefore, hubris may be the main explanation for observing positive target gains and zero or negative acquirer gains.

While evidence of hubris exists, these results suggest that agency problems are not a major motive in the European financial services takeovers especially that it was documented in negative total gains deals only. This claim may be reasonable due to the close monitoring that bank's mergers might be subject to from the supervision and regulatory bodies in their home country, in addition to the rare hostile takeovers, in this industry. Moreover, one factor that could help to measure the presence of agency problems related motives is by examining the acquirer returns subject to various managerial ownership scenarios, an exercise which is not possible at this stage since the data on ownership in such a diversified sample is almost impossible to obtain. We also examined the effect of the deal characteristics on our results and found that our main conclusion was maintained, however, the agency problems motive was slightly more apparent for the negative total gains sub-sample for equity exchange deals.

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