US Financial Institutions: Reputational Risk and Senior Management Sell Decisions

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Abstract

The firm's stock price is affected when an insider such as a high ranking manager or board member, sells the firm's equity. This action can be construed as a signal of changes in expectations of firm's future cash flows. Does this action affect reputation as well? Using insider sell decisions as proxy, particularly in periods of declining returns, we investigate the existence and the possible consequences of a risk to firm reputation as a result of the sell decisions of top managers. Data from 55 US financial institutions, for the period 2003-2005, was used to undertake two kinds of analysis to test the hypothesis that sell actions have a negative effect on share price. We conducted a daily event study adopting a multi-factor model. An estimated of the pooled data using the Heteroskedasticity Consistent Covariances shows unsatisfactory results. However, we found a significant market reaction around the event dates when managers decide to sell their stocks during periods when they anticipated a negative trend of returns with an absolute magnitude higher than the market one.

Key Words: Managment sell decisions; Event study; US financial institutions; Reputational risk; Compliance risk; Hetroskedasticity Consistent Covariances regressor.
JEL Classification: N 22; G14; G21.

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Introduction

Reputation and trust are the hallmarks of good business, particularly for financial institutions. This was never more true than today as the banking credit and liquidity crisis, resulting mainly from the collapse of the securitized debt market, unfolds globally, affecting all manner of financial institutions worldwide.

In this paper we address the issue of financial institutions'reputation from the perspective of management behaviour. The paper investigates how decisions by top managers and board members of financial institutions, to sell their company equity, affects the reputation of their company as reflected by equity prices. Reputational risk has been the subject of growing attention in both academic literature and the financial press, yet evidence to document reputational losses at financial firms has been limited.[1] Regardless, it is clear that equity markets react to the reputational consequences of some events, including sell decisions by top management.

According to the Price Waterhouse Coopers (2004) survey conducted among financial services institutions, reputational risk was noted as the greatest potential threat to their firm's market value than any other risk class. The sources cited by 25% of the respondants as contributing to reputational risk were perceived or actual failures in corporate transparency and business ethics. A more recent survey, conducted among European financial intermediaries by Gabbi et al. (2008), found that reputational risk is strictly linked to compliance risk. When asked how compliance risk was defined within their function[2], respondents declared that the *mission* of Compliance conditions the behaviour of all those who can change the external awareness of the quality of the service offered, namely: (i) Protect the reputation of the Group or of the Bank; (ii) "Avoid any reputational risk"; (iii) "Our reputation is everything". We seem to return to reputational risk regardless.

Broadly speaking, reputational risk is represented by any risk that can potentially damage the standing of an organization in the eyes of third-parties, including intangible elements that may surface gradually. Reputational risk remains one of the most elusive risks because of the difficulty in measuring it as well as a lack of understanding of the mechanisms that generate it. [3] In particular, for the purpose of

[1] "The nature of reputational risk appears to be very poorly understood. Consequently, when it comes to risk management, reputation is not accepted as an independent risk category – that is, one which would merit tailored management approaches – but is simply labeled as a consequence and secondary risk" (Cutler – Zollinger, 2001).

[2] The macro functional categories are a) Conform regulation; b) Risk of sanctions or economic losses; c) Operational risk; d) Reputational risk.

[3] The Board of Governors of the Federal Reserve System (2004) and the Basel Committee on Banking Supervision (1997) provide regulatory definitions. Board of Governors - "Reputational risk is the potential that negative publicity regarding an institution's business practices, whether true or not, will cause a decline in the customer base, costly litigation, or revenue reductions". Basel Committee - "Reputational risk arises from operational failures, failure to comply with relevant laws and regulations, or other sources. Reputational risk is

this paper, reputational risk is generated by operational, legal and ethical factors. Two other circumstances also weigh in. They are responsibility of managers and the presence of specific reputation variables that can affect the firm's reputation.

Although it is a challenge to pin down an exact definition of reputational risk, this risk has strong economic underpinnings because it could be generated by deliberate, may be even rational behaviour of the insider.[4] Corporate insiders, management, are supposed to possess information that is not yet available to the open market giving them the opportunity to make profitable – even though illegal - trades. By purchasing shares in advance of price rises, or selling before price drops, insiders, including managers, can exploit the information to make significant personal gains (Jaffe, 1974; Seyhun, 1986). If there is timely disclosure of these trades, it allows the market to act more rapidly. However it does reduce the profitability of the trades and removes the opportunity for ongoing profits (Huddart et al., 2001).

Among corporate insiders, high ranking managers and board members have relatively short lived careers. There is a lively discussion of reputational concerns as applied to insiders with short lived careers. As Tadelis (1998) demonstrates, the reputational concerns provide incentives for short lived agents to work hard and the effect of current performance on future payoffs are central to the economics of reputation. Kreps (1990) shows that firm reputation is a tradable asset, with a pricing process. Tadelis (1998) states that the only asset of the firm is the brand. The existence of an immaterial asset market gives the opportunity to price and trade this asset. Fang (1998) generalizes the Tadelis model with the inclusion of moral hazard where past behaviour provides no guide for future behaviour.[5] Garvey and Swan (1994) draw attention to the economic rationality of managerial hiring decisions by stating that the reputational story must assume that hiring decisions are made in the interest of shareholders.[5]

In this paper we consider firms in the financial sector, banks and financial institutions. We take the stand that the financial institutions' reputation is

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particularly damaging for banks since the nature of their business requires maintaining the confidence of depositors, creditors and the general marketplace".

[4] "The questions of why players do punish and do not cheat are really the same questions that arise in the repeated Prisoner's Dilemma, where the fact of an infinite number of repetitions allows cooperation. That is the great problem of reputation. Since everyone knows that a player will Blame, choose low effort, or default on debt in the last period, why do they suppose he will bother to build up a reputation in the present? Why should past behaviour be any guide to future behaviour? Not all reputation problems are quite the same as the Prisoner's Dilemma"(Rasmusen, 2005, p. 9).

[5] *"A related weakness with the reputational story is that it must assume that hiring decisions are always made in the interests of shareholders. Reputation-induced distortions are far greater if an executive believes her future employers will be Berle-Means firms that are more interested in how much her talent will contribute to the utility of incumbent managers rather than their shareholders*" (Garvey and Swan, 1994, p. 145).

particularly important for the fiduciary relation with stakeholders and is linked to allocative efficiency and the regulatory process that permit private entrepreneurs to participate in the corporate governance process.

The remainder of the paper is divided into four sections. First, a brief literature review followed by a presentation of data with model specifications, then the presentation of results and finally our conclusions.

2. Literature Review

There is a diverse body of literature on insider trading. This section includes previous work done to examine the potential for profitability generated by insider trading; information hierarchy as a result of the job position of the insider; the rapidity of share price reaction to insider trades and finally the level of magnitude of share price returns, abnormal returns and its measurement.

The studies on the profitability of insider trading began in the 1960s with Lorrie and Neiderhoffer (1968). With a few exceptions such as Eckbo and Smith (1998), numerous studies such as Friederich et al. (2002) and Lakonishok and Lee (2001) have consistently shown that insiders make significant abnormal returns from their share transactions but can also time their transactions better than the market. Furthermore, Friederich et al. (2002) and Lakonishok and Lee (2001) also concluded that purchases are more informative than sales as there could be a number of reasons to sell a stock including personal liquidity needs, rather than changes in directors' expectations about the firm's future cash flows.

In addition to the numerous investigations on the potential profitability generated by insider trading practices, a large body of literature has also been devoted to the debate of whether such practices are generally harmful, and thus require harsh regulation, or whether such practices may be beneficial. As Meulbroek (1992) points out, there has been a great deal of debate about the pervasiveness and harmfulness of insider trading. However, financial economists remain divided over the need to regulate insider trading. Opponents of insider trading contend that it leads to a decrease in market liquidity, produces abusive managerial practices, and is unfair to public investors. Proponents of insider trading, like Manne (1966) and Carlton and Fischel (1983), however, promote insider trading's extensive benefits. Manne (1966) documents the ability of insider trading practices to improve the accuracy of stock prices by incorporating a large fraction of insider information into the share prices before the information is made public, thus fostering an efficient market. Although an insider purchase conveys positive information about the firm's prospects, there is no doubt about what information is conveyed by an insider sale. An insider sale can convey bad information about the firm's prospects and yet an insider sale may be less informative if it is made to meet the personal liquidity needs of the seller.

According to the information hierarchy hypothesis, the information content of the transactions depends on the type of insiders who is trading: directors who are familiar with the day-to-day operations of the company trade on more valuable information. Seyhun (1986) and Lin and Howe (1990) partially confirm this hypothesis on US data. Seyhun shows that cumulative average abnormal returns (CAARs) following the transactions by officers are significantly higher than those by non-executive directors. Lin and Howe (1990) demonstrate that trades by chairmen, directors, officer-directors, and officers contain more information than those by large shareholders.

The existing empirical literature uses two approaches to measure the effect of insider information on share prices. The first approach argues that the price reaction to insider trading is gradual. This literature measures the price reaction via the cumulative abnormal returns earned over the 6 to 12 months after the transaction. The existence of significant abnormal returns over this period is interpreted as proof of superior information held by insiders[6] The second approach assumes that stock markets are - to some degree at least - informationally efficient and that share prices adjust rapidly to insider trades. These studies measure the abnormal return on the date of announcement of the insider trade[7] .

In investigating abnormal profits obtained by insiders, the classic approach has been to form portfolios of firms on the basis of the number of insiders who buy and sell in a given month and to run statistical tests on the portfolios' returns using the Capital Asset Pricing Model (CAPM). Lorie and Neiderhoffer (1968) investigate stock performances following months in which there are at least two more buyers than sellers or at least two more sellers than buyers among insiders of a company. They found that a security experiencing an intensive buying month is more likely to advance than to decline relative to the market in the six months subsequent to the event. And, conversely, a security experiencing an intensive selling month is more likely to decline than to advance relative to the market in the six months subsequent to the event.

In confirming the results of Lorie and Neiderhoffer's investigation, Pratt and DeVere (1970) and Jaffe (1974) report significant abnormal returns earned by insiders, especially in situations when buyers outnumber sellers by three or more in one month or sellers outnumber buyers by three or more. In using the classic approach, Finnerty (1976) tries to test the strong form of the efficient market hypothesis by determining whether insiders' average returns from their market transactions are above that of the market in general. In doing so, he points out the shortcomings of the previous studies. He concludes that insiders can outperform the market by benefiting from asymmetrical information advantages about their corporations. Consistent with the prior studies on insider trading in the U.S. stock market in the 1960s, Finnerty's finding implies a refutation of the strong form of the efficient market hypothesis.

[6] See, e.g., Jaffe (1974), Rozeff and Zaman (1988), and Lakonishok and Lee (2001).
[7] Jaffe (1974), and Friederich et al. (2002).

Seyhun (1986) adopts the market-model in measuring the abnormal returns of individual stocks. His results indicate that insiders are able not only to earn abnormal profits but also to predict abnormal future stock price changes. In a later study, Seyhun (1992) strengthens his initial findings by documenting a strong relation between past aggregate insider trading and future excess stock returns. As in Seyhun's studies, many previous works have generally assumed that insider trading activity is based on the exploitation of private information prior to public announcements.

Among others, Penman (1982) investigates one of these insider trading pattern by focusing on management forecasts of annual earnings. Other studies investigating insider trading relative to specific corporate announcements include Elliot and Richardson (1984), Givoly and Palmon (1985), and Oppenheimer and Dielman (1985). Unlike Penman's findings, these studies conclude that at best only a small proportion of insider trades may be related to firm-specific announcements. The evidence presented in a later study by Givoly and Palmon (1985) finds that profits from insider trading are not associated with the disclosure of specific news about the company. Their evidence suggests that the abnormal returns to insider transactions endure well beyond the typical period of market reaction to the disclosure of a specific news event. Furthermore, they show that a significant abnormal return is produced in the wake of the trades themselves, lending support to the hypothesis that outside investors accept the superior knowledge of insiders follow in their footsteps.

The literature review establishes a significant connection between insider trading and share price returns for all firms. However, financial firms experience an additional consequence of insider trading. Financial firms have a relatively higher vulnerability for reputational risk. This vulnerability exists due to the nature of their business, requiring a hirer degree of trust, transparency and governance. As compared to non financial firms, situations such as insider trades by senior managers and related reputation damaging events, beyond affecting share price, could potentially harm the reputation of the financial firm more than the non financial firm.

Using the sell actions of senior management as proxy, this paper studies the impact of insider trading on share price and its consequences on reputation of financial institutions when senior managers and board members decide to sell their shares; using the market model added with a dummy variable aimed at explaining the reputational effects over the market value of the bank, this paper contributes to the measurement of the effect of insider traders on stock prices as a proxy of reputation for financial firms. Below is the presentation of data with the model specifications.

3.1. Data

We collected daily data[8] from 2003 to 2005, on insider sell decisions of high ranked manager and board members at publicly traded US financial institutions. In order to check the impact of the decisions on the share prices, we analyse events from January 2003 to December 2005. Our sample includes only medium to large sized banks, with a minimum market capitalization of USD 2 billions. As in Bhushan (1989) we assume a positive correlation between firm size and analysts coverage. Because, stocks of bigger firms should be ones where firm-specific informations moves more quickly across the investing public and thus has faster impact on firm value. The original sample of sell events in the interval 2003-2006 comprises 414 events. From this original sample, for each bank, we selected events that have the following criteria:

1. The trades were executed by high ranking managers.[9]
2. There was a time lag of minimum 5 days between each trade, so as to avoid bias due to event overlapping (i.e. in some cases we observed multiple insider actions in the same or opposite direction)
3. The trade amount was at least equal to 0.05% of bank's market value the day before the event

The final sample consists of 55 banks traded at NYSE or NASDAQ for a total of 299 sell actions. Table 1 shows the sample used in our analysis.

[Insert Table 1]

3.2. Reputational Model Specification and hypothesis

In order to estimate the existence of a negative reputational effect of sell action by insiders, we used a multifactor model, based on the traditional market model as in Cruz (2002). Introducing a reputational factor (R_{rep}) we extract non-noise elements related to market risk, and parameterize the abnormal return in the market model regression equation.

The *reputational model* specification is therefore

$$\mathrm{R}_{\mathrm{i,t}} = \alpha + \beta \mathrm{R}_{\mathrm{m,t}} + \gamma R_{rep,t} + \varepsilon_{i,t}$$

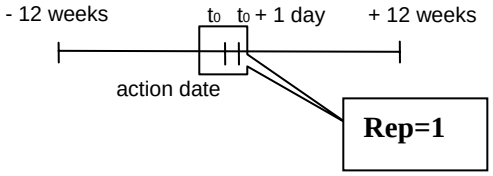
[8] We obtained our data from J3 Information Services Group website (www.j3sg.com), which provides insider and institutional ownership data for more than 8,000 companies.

[9] Our definition of the high ranking insider includes the Chairman, CEO, the executive level managers, members of the board, CEO of subsidiary banks, Directors, EVP & President of Subsidiary, Exec Vice President, Exec. Vice President, Senior Vice President, Senior Vice President & General Co, Senior Vice President & Controller, and Chief Financial Office.

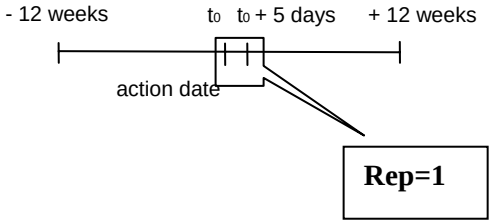
where:
$R_{i,t}$ is the daily return of the bank *i* at time *t*;
$R_{m,t}$ is the daily return of the stock index *m* at time *t*;
$R_{rep,t}$ is the reputational dummy variable.

For each event in the sample we consider a 24 weeks estimation window. The dummy variable assumes value 0 in the 12 weeks before the event, value 1 starting from the event date to 1, 5 and 10 trading days after the event, and 0 in the remaining weeks after the event. The γ coefficient represents the abnormal return of security *i* during period *t*, therefore measuring the impact of the reputational event (i.e. sell decisions by insiders) on share prices in the event window.

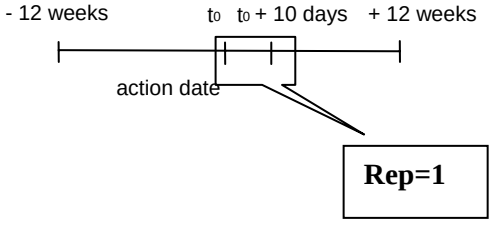
Model 1: 12 weeks prior to the event and 12 weeks after the day after the event with the dummy assuming value 1 only the day after the announcement.



Model 2: 12 weeks prior to the event and 12 weeks after the day after the event with the dummy assuming value 1 five days after the announcement.



Model 3: 12 weeks prior to the event and 12 weeks after the day after the event with the dummy assuming value 1 ten days after the announcement.



As a proxy of market returns we use S&P 500 Composite Index for banks trading on the NYSE and NASDAQ Composite Index for those trading on the NASDAQ. All market data were collected from Datastream database.

The *reputational models* were estimated using the Heteroskedasticity Consistent Covariances suggested by White (1980) in order to study not only single events but a matrix of events for each bank and for the complete database.

This methodology allows us to verify:

a) the existence of a reputational effect;
b) the persistence of the reputational effect.

Afterwards, in order to verify if there is any correlation between reputational effect of sell decisions by insiders and market trends, we split the sample of events in two different groups:

- Group 1 (DECLINING): events anticipated by a negative trend of returns with an absolute magnitude higher than the market one.
- Group 2 (INCREASING and NEGATIVE TRACKING ERROR): events anticipated by a positive trend of returns or by a negative trend with an absolute magnitude lower than the market one.

Banks who showed at least one negative trend before the decision of the insider to sell their stocks were 35 out of 55. This new sample contains 209 selling events out of 299 (69.9%). Among these events, 21.7% were the events of group 1 (DECLINING).

The hypothesis we test is that the reputational signal of the selling decision by a top manager or a board member is amplificated in a declining period.

4. Results

Estimations are presented in two stages.

a) Reputational risk for all the database of 55 banks;
b) Reputational risk in Group 1compared with Group 2.

The reputational model when estimated in case of scandal is generally able to measure the magnitude of market value changes due to the negative event.We show two recent cases useful to evaluate the goodness of the model.

1. On October 15th 2007, an Italian television program showed that Unicredit Bank (the 2nd largest European Bank) used to sell derivatives and structured products to retail and institutional investors, such as public administrations. The message was that not only investors suffered a large amount of losses but they ignored the actual risk intensity of those products which were on average not coherent with their risk appetite.
2. On January 19th 2008, Societé Generale, a large French bank announced a loss of about 4.9 billions euros (7.1 billions USD) due to the rash behaviour of a trader who opened more than 50 billions euros positions in plain vanilla derivatives.

The reputational model was run with the value 1 for the dummy only the day after the events.Table 2 shows that the reputation variable is statistically significant for both the cases.

Table 2 - Reputational loss for Unicredit and SocGen
The table contains values of R^2, standardized coefficient of market return and reputational dummy in the *reputational model* for Unicredit and SocGen. The estimation window covers 12 weeks before and 12 weeks after the event. The reputational dummy variable assumes value of 1 only the day after the event (*p values* in parenthesis).

	Unicredit	SocGen
R^2	0.331	0.561
$R_{m,t}$	1.165	1.337
	(0.000)	(0.000)
$R_{rep,t}$	-0.032	-0.12
	(-0.006)	(0.000)

The coefficient of the reputational variable shows a negative sign as expected. In case of Unicredit the estimated reputational loss was 3.2% of the market value in one trading day. In the case of Société Générale the estimated reputational loss was 12%.

4.1. Global analysis

If the signal of bad news could be read from any sell decision by top managers, in an efficient market investors should react taking short positions. In this case, returns would react negatively the day after the events.
We estimated the whole dataset in a pool matrix obtaining the following outcomes (Table 3).

All the dummy variables show positive results (while the expected sign was negative) and probability tests which cannot be considered statistically significant.

Table 3 - Pooled results of the entire database of 55 banks and 299 events.
This table shows regression results for the entire database of 299 events of sell decisions of top managers during the period Jauary 2003-December 2006. R_MKT is the standardized coefficient of the market return; REP_1 is the standardized coefficient of the reputational dummy in Model 1 (dummy equal to 1 from the event date to the day after the event), REP_2 is the standardized coefficient of the reputational dummy variable in Model 2 (dummy equal to one from the event date to five days after the event); REP_3 is the standardized coefficient of the reputational dummy variable in Model 3 (dummy equal to one from the event date to ten days after the event). To compute market return we used S&P 500 Composite index or Nasdaq Composite index depending on the exechange where the banks trade. The *reputational models* are estimated using the Heteroskedasticity Consistent Covariances.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
		Model 1		
R_MKT	0.781077	0.00865	90.29525	0.000
REP_1	0.00046	0.000681	0.674817	0.4998
DW stat	2.025978			
Adj. R^2	0.229569			
		Model 2		
R_MKT	0.780989	0.00865	90.28991	0.000
REP_2	0.000379	0.000254	1.493178	0.1354
DW stat	2.026013			
Adj. R^2	0.229591			
		Model 3		
R_MKT	0.780987	0.008651	90.27756	0.000
REP_3	0.000250	0.000176	1.419273	0.1558
DW stat	2.026007			
Adj. R^2	0.229587			

4.2. Analysis in declining and increasing periods

Our second research question is whether investors become more sensitive to insider signals during negative periods, since a sell decision by an insider could confirm the actual trend of prices.
Table 4 was generated by the matrix of 35 banks and 45 events.

Table 4 - Pooled results of the declining periods.
This table shows results of the reputational model for the sub-sample of 45 events anticipated by a negative trend of returns with an absolute magnitude higher than the market one. R_MKT is the standardized coefficient of the market return; REP_1 is the standardized coefficient of the reputational dummy in Model 1 (dummy equal to 1 from the event date to the day after the event), REP_2 is the standardized coefficient of the reputational dummy variable in Model 2 (dummy equal to one from the event date to five days after the event); REP_3 is the standardized coefficient of the reputational dummy variable in Model 3 (dummy equal to one from the event date to ten days after the event). To compute market return we used S&P 500 Composite index or Nasdaq Composite index depending on the exechange where the banks trade. The *reputational models* are estimated using the Heteroskedasticity Consistent Covariances.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
		Model 1		
R_MKT	0.779391	0.026934	28.93676	0.0000
REP_1	-0.00686	0.001257	-5.45892	0.0000
Adj. R^2	0.251163			
DW stat	2.03534			
		Model_2		
R_MKT	0.779315	0.02696	28.90624	0.0000
REP_2	-0.00218	0.000927	-2.35235	0.0187
Adj. R^2	0.249967			
DW stat	2.040498			
		Model 3		
R_MKT	0.779034	0.026961	28.89447	0.0000
REP_3	9.74E-06	0.000681	0.01429	0.9886
Adj. R^2	0.248751			
DW stat	2.040624			

The standardized coefficient of the dummy variable in the first equation (REP_1) confirms the question of our research, both economically (negative sign) and statistically (probability lower than 1%). The average reputational loss is estimated as 0.68% the day after the announcement of insider trading.
When we consider the weekly impact, the loss reduces to 0.22% and the contribution of the dummy REP_2 to explain the phenomenon is acceptable with a probability of 1,8%. Only the third model does not show any interesting results. The dummy coefficient is unacceptably close to zero. We can therefore conclude that there is a reputational loss which is concentrated in the first week after the event.

In Table 5 we show outcomes of events anticipated by a positive trend in returns or, if negative, by positive tracking errors.

Table 5 - Pooled results of the increasing and positive tracking error periods.
This table shows regression results of the reputational model for the sample of events anticipated by a positive trend in returns or, if negative, by positive tracking errors. R_MKT is the standardized coefficient of the market return; REP_1 is the standardized coefficient of the reputational dummy in Model 1 (dummy equal to 1 from the event date to the day after the event), REP_2 is the standardized coefficient of the reputational dummy variable in Model 2 (dummy equal to one from the event date to five days after the event); REP_3 is the standardized coefficient of the reputational dummy variable in Model 3 (dummy equal to one from the event date to ten days after the event). To compute market return we used S&P 500 Composite index or Nasdaq Composite index depending on the exechange where the banks trade. The *reputational models* are estimated using the Heteroskedasticity Consistent Covariances.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
		Model 1		
R_MKT	0.843984	0.025532	33.05538	0.0000
REP_1	0.00112	0.001575	0.711147	0.477
Adj. R^2	0.202818			
DW stat	2.048715			
		Model 2		
R_MKT	0.843802	0.025535	33.04469	0.0000
REP_2	0.000629	0.00062	1.015518	0.3099
Adj. R^2	0.202843			
DW stat	2.048883			
		Model 3		
R_MKT	0.843823	0.025533	33.04853	0.0000
REP_3	0.000624	0.000419	1.489975	0.1363
Adj. R^2	0.202909			
DW stat	2.048876			

This last sample shows dummy coefficients which do not significantly react to insider trading announcements, neither economically (positive sign) nor statistically.

The introduction of a dicotomic variable to capture the reputational risk affecting the banks' market value leads to three conclusions:

a) The hypothesis that banks' investors believe that decisions to sell large amount of stocks by top managers or board members is a signal for them to sell stock as well, is not confirmed, both in terms of sign and in terms of statistical probability.

b) When this signal is given during declining periods for the stock, investors become more pessimistic and provoke an increasing loss for the market value which can be interpreted as a reputational loss.
c) The impact is statistically significant when the dummy variable assumes value 1 the day after and the week after the event. The shock does not distribute during ten days as controlled by the third estimated model.

5. Conclusions

We conduct two sets of estimations to test two hypothesis. First, the estimation of the existence of a negative reputational effect of sell action by insiders. We used a reputational model based on the traditional market model (Cruz, 2002) on a large number of publicly quoted US banks. While the model is able to estimate the reputational loss in case of banking scandals (such as the Unicredit and SocGen), the pooled data estimated using the Heteroskedasticity Consistent Covariances shows unsatisfactory results.

Second, the estimation that banks risk a reputational loss when managers decide to sell their stock in declining periods. In this case we see that the economic significance of the results is as expected (negative sign) in particular when we use the Model 1 (dummy equals to 1 only for one day after the event). The significance tends to decrease in Model 2 and is not acceptable for Model 3. This means that reputation loss is an event immediately priced by the market, even though the magnitude is on average only 0.7% of the market value. Although the value seems low, it is higher than the threshold we use to accept events in our study (0.05%).

These results are intriguing particularly in the light of the global banking crisis that surfaced in August 2007, showing as yet no end in sight.

Possible future research could be to extend the conclusions of Lakonishok and Lee (2001), that small-cap stocks show stronger evidence of insider trading activity, on the information of sell decisions by banks' top managers.

REFERENCES

Basel Committee on Banking Supervision, 1997, "Core Principles for Effective Banking Supervision", September.

Basel Committee on Banking Supervision, 2001a, "Operational Risk", Consultative Document, Supportive document to the New Basel Capital Accord, January.

Basel Committee on Banking Supervision, 2001b, Nuovo Accordo di Basilea sul capitale, January.

Bhushan R. (1989), "Firm characteristics and analyst following", Journal of Accounting and Economics, 11, 255-274

Board of Governors of the Federal Reserve System, 2004, "Commercial Bank Examination Manual," *Division of Banking Supervision and Regulation*, November.

Carlton, D., and D. Fischel (1983): "The Regulation of Insider Trading," *Stanford Law Review*, 35, 857–895.

Cruz D., 2002, Measuring and Managing the Operational Risk, New York, Wiley & Sons

Cutler A. – Zollinger P., 2001," Stealth Risks Evade Corporate Radar", *SustainAbility Radar*, October.

Eckbo, E., & Smith, D. 1998, The Conditional Performance of Insiders Trades. *Journal of Finance*, 53: 467-498.

Elliot, J., M. D., and G. Richardson 1984, "The Association between Insider Trading and Information Announcements," *Rand Journal of Economics*, 15, 521–536

Fang H., 1998, "Name Trading and Efficiency Manuscript. Philadelphia: University of Pennsylvania, Department of Economics.

Finnerty, J. E. ,1976, "Insiders and Market Efficiency," *Journal of Finance*, 31, 1141–1148.

Friederich, S., Gregory, A., Matatko, J., & Tonks, I. , 2002, Detecting Returns around the Trades of Corporate Insiders in the London Stock Exchange, *European Financial Management* 8(1): 7-30.

Gabbi G., Musile Tanzi G., Poli M., Previati D., Schwizer P., 2008, Compliance Risk in the Evolution of the Investment Services: an Empirical Study, *Politeia*, n. 89, 232-250.

Garvey, G., and P. Swan, 1994, "The Economics of Corporate Governance: Beyond the Marshallian Firm", Journal of Corporate Finance 1, 139-174

Givoly, D., and D. Palmon ,1985, "Insider Trading and the Exploitation of Insider Information: Some Empirical Evidence," *Journal of Business*, 58, 69–87.

Huddart, S., Hughes, J., & Levine, C. (2001). Public Disclosure and Dissimulation of Insider Trades. *Economica*, 69(3), 665.

Jaffe, J. F., 1974, Special Information and Insider Trading, *Journal of Business* 47, 410-428.

Kreps D. M., 1990, "Corporate Culture and Economic Theory", in J. Alt, K. Shepsle (eds), Perspectives on Positive Political Economy, Cambridge University Press, Cambridge

Lakonishok, J., & Lee, L. , 2001, Are Insider Trades Informative? *The Review of Financial Studies*, 14(1): 79-111.

Loderer, C. & Martin, K. 1997. Executive stock ownership and performance. *Journal of Financial Economics*, 45: 223-255.

Lorie, J., & Neiderhoffer, V. 1968, Predictive and Statistical Properties of Insider Trading. *Journal of Law and Economics*, 11: 35-53.

Manne, H. G. (1966): *Insider Trading and the StockMark et*. The Free Press, New York.

McConnell J. J. & Servaes, H. 1990. Additional evidence on equity ownership and corporate value. *Journal of Financial Economics,* 27(2): 595-612.

Meulbroek, L.,1992, "An Empirical Analysis of Illegal Insider Trading," *Journal of Finance*, 47, 1661–1699.

Oppenheimer, H. R., and T. E. Dielman ,1985, "Firm Dividend Policy and Insider Activity: Some Empirical Results," *Journal of Business Finance and Accounting*, pp. 525–541.

Penman, S.,1982, "Insider Trading and the Dissemination of Firm's Forecast Information," *Journal of Business*, 55, 479–504.

Pratt, S., and C. DeVere ,1970, "Relationships between Insider Trading and Rates of Return for NYSE Common Stocks, 1960-1966," in *Modern Development in Investment Management*, ed. by J. Lorie, and R. Brealey, pp. 259–270, Praeger.

PriceWaterhouseCoopers/Economist Intelligence Unit ,2004, "Uncertainty Tamed? The Evolution of Risk Management in the Financial Services Industry,"

Rasmusen E., 2005, *Games and Information. An Introduction to Game Theory*, Basil Blackwell

Rozeff, M. S., and M. A. Zaman ,1988, "Market Efficiency and Insider Trading: New Evidences," *Journal of Business*, 61, 25–44.

Rozeff, M., & Zaman, M. 1988, Market Efficiency and Insider Trading: New Evidence. *Journal of Business*, 61:25-44.

Seyhun, H. N., 1986, Insiders' Profits, Costs of Trading and Market Efficiency, *Journal of Financial Economics*, 16: 189-212.

Tadelis S., 1998, "What's in a Name? Reputation as a Tradable Asset", Stanford University Working Paper.

Tadelis S, 2001, "The Market for Reputations as an Incentive Mechanism", Stanford University Working Paper.

Table 1- Banks name and the number of significant stock sells by top managers and board members (2003-2005)

Bank	2003	2004	2005	Total/bank
Alabama Nat.Bancorp	1	2	1	4
Astoria Finl.	4	2	3	9
Bank Of America	3	2	3	8
Bank Of Hawaii	0	2	2	4
Bank Of New York Co.	4	3	1	8
Bankunited Finl.A	0	2	1	3
Bb & T	2	2	3	7
Capitol Fed.Finl.	0	2	2	4
Citigroup	1	2	3	6
City National	3	2	0	5
Colonial Bancgroup	2	3	2	7
Com.Banc.	3	2	1	6
Comerica	1	5	3	9
Commerce Bcsh.	1	2	3	6
Compass Bancshares	0	3	1	4
Corus Bankshares	2	0	2	4
Cullen Fo.Bankers	0	2	2	4
Downey Financial	0	2	2	4
Fidelity Bksh.	0	2	2	4
Fifth Third Bancorp	2	2	3	7
First Cmty.Banc.	0	1	1	2
First Horizon National	1	5	2	8
Firstfed Finl.	2	3	1	6
Fremont Gen.	1	3	2	6
Fulton Fin.Penn.	0	6	2	8
Greater Bay	2	4	2	8
Hudson City Banc.	1	3	0	4
Indymac Bancorp	2	1	2	5
Jp Morgan Chase & Co.	2	1	3	6
Keycorp	1	2	1	4
Marshall & Ilsley	2	1	2	5
Mellon Finl.	1	2	2	5
Mercantile Bankshares	0	1	2	3
National City (Fra)	2	2	0	4
Northern Trust	0	1	1	2

Ny.Cmty.Banc.	0	2	1	3
Pnc Finl.Svs.Gp.	1	2	1	4
Popular	1	1	0	2
Regions Finl.New	0	2	2	4
Sky Finl.Gp.	3	3	1	7
Sovereign Banc.	1	1	2	4
State Street	1	2	2	5
Suntrust Banks	0	3	5	8
Tcf Financial	2	4	2	8
Td Banknorth	1	4	2	7
Unionbancal	1	3	1	5
Us Bancorp	1	3	2	6
Valley Nat.Bk.	3	2	0	5
Wachovia	0	1	5	6
Washington Mutual	1	3	3	7
Webster Financial	1	1	2	4
Wells Fargo & Co	1	3	3	7
Whitney Hdg.	0	2	3	5
Wilmington Trust	0	2	0	2
Zions Bancorp.	2	4	5	11
Total/year	66	128	105	**299**