

RELATIONSHIP BETWEEN FINANCIAL MARKET CONDITIONS ON M&A ACTIVITY: OPENING UP VISTAS TO HANDLE FINANCIAL CRISIS

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Abstract: *The interdisciplinary study proposes a vista for theoretical framework that can help companies create value and do more than business sustenance especially during times of financial crisis. Different case and event studies reveal that there is a two-way relationship between financial markets and M&A activity in European, Australian and Russian markets. We find that the impact of financial markets on industry growth (even with M&As) is more significant than that of M&As on financial market activity. However the impact of M&As is more towards promoting growth of merged entities, with the capability to influence market factors. Hence this strand can be explored further to develop a business-crisis-applicable theoretical framework for future.*

Keywords: *Financial markets, Financial crisis, Mergers & Acquisitions, Distress research, Regional Strategies*

Field: *Management*

1. INTRODUCTION

We have known for long that the economic activity impacts the growth strategies of companies in more than one way. When the economy grows well with attractive interest rates and healthy FDIs, the firms also make their ways of grabbing a share in the growth by expanding their businesses. One way is through merger and acquisition (M&As) whether domestic or global. The prevailing financial market conditions affect many factors like mode of payment (cash or stock), premium, integration, post-merger performance in M&As. The paper will review the works of scholars in the same area to see how different scenarios in financial markets affect the M&A activity. Relevant industry and country examples will be used accordingly. The dependence between financial markets & M&A activity is two-way. Most scholars have worked on both sides showing how changes in one lead to changes in the patterns of the other. The review brings out 3 key facets to show the relationship between M&A activity and financial market conditions:

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- M&As are tools to create value in the Financial markets and hence are influenced by changes in macro-economic factors.
- Financial markets also face a change in their conditions owing to merger activity between the players, say, banks.
- Distress research reveals the negative side when M&A deals fail or the market conditions are not favorable.

2. M&AS AS VALUE CREATORS IN FINANCIAL MARKETS

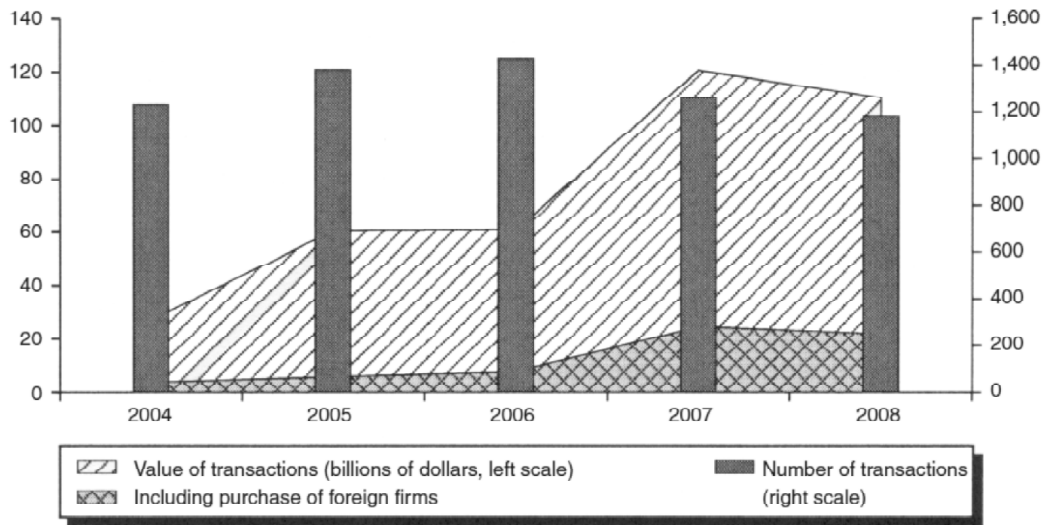
M&A is one way that foreign investors can also participate in the industrial growth of another nation. Billions of dollars of investments become part of the M&A deals in a short time. Dolgopiatova (2009) argued that changes in financial markets lead to changes in value and number of M&A transactions. He took the example of Russia to explain his stand. For example, Russia entered the financial markets and M&A market as late as in 2000s and is put at 18th place for M&A activity and 6th place for raising financing by IPO by World Economic Forum (WEF, 2009). The funds have enabled Russian firms to acquire private firms and make them public by listing them on stock exchanges. In Russia, it was not only the financing but also acquisition of assets abroad that surged M&As.

The main reasons why Russian purchasers acquire foreign assets are:

- To develop their core business—obtain a foothold for winning foreign markets and experience for operating in market economies;
- To build an integrated, transnational company and enlarge it with an increase in market share;
- To diversify assets by jurisdictions in order to insure major shareholders against risks of losing ownership.

At the same time, owing to the global 2008 financial crisis, Russia M&A activity slowed down. However the research indicates that managers have not considered the uncertainty inherent in crisis as an important element of risk but rather risk as a hazard with negative results (Oviatt, 1991; Miller, 1996). Because of the risks of excessive foreign borrowing and accumulation of foreign debt, a new round of redistribution of equity ownership began at the end of 2008, which has led to violations of minority shareholder rights in the purchase and sale of large blocks of shares. All these are leading to new regulations and policies which will in turn affect the consolidation activity in the future Russian industry. KPMG estimates that in 2007 cross-border transactions made up 37% of the market's value, and almost 18% of the value and 13% of the number of transactions were for the acquisition of foreign assets (Dolgopiatova, 2009). After peaking in 2007, the total value of transactions to acquire foreign firms fell 11% in 2008 (Figure 1).

Figure 1: Russian M&A Market; Dolgopiatova (2009)



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The pricing of mergers includes decisions on premium, cash-stock mode of payment and Mitchell et al (2004) argue that financial markets create price pressure on the mergers when conditions of uninformed shifts in excess demand and merger arbitrage short selling. The latter condition creates a downward pressure in stock-financed mergers indicating that previous estimates of merger wealth effects are biased downward. A merger completion leads to index rebalancing, requiring substantial purchases of the acquirer's stock, is when an S&P index member acquires a non-S&P member with stock. This type of acquisition increases the market value of the acquiring firm's equity as additional shares are issued in exchange for the target shares outstanding. If the acquisitions increase the number of acquirer shares by more than 5%, S&P increases the acquirer's weight in the index when the merger closes, inducing purchases by index funds. Similar increases in demand for the acquirer's stock occur when an S&P index member acquires a target that is a member of another S&P index. For example, the acquisition of an S&P 400 target by an S&P 500 acquirer will induce buying of the acquirer's stock by S&P 500 index funds.

The investment policy (Jensen, 1986 and Shleifer and Vishny, 2003) and information-based theories of financial policy (Myers and Majluf, 1984) also support the negative stock price reaction to stock-financed mergers. The scholars present a common interpretation of the negative stock price reactions in that the acquirers use stock as the mode of payment when their stock is overvalued or that the case may be of the market perceiving the merger to be a value-destroying investment

project. The announcement of a stock-financed merger signals that the acquirer's stock is overvalued. Traders may short the acquirer's stock to correct this mispricing, resulting in an increase in short interest. According to the scholars, the increase in short interest is not caused by arbitrageurs, rather it is caused by fundamental investors reacting to new information. In cash mergers where one asset (cash) is exchanged for another asset (target company), the acquirer's equity account is unaffected. Thus, in a cash merger, index weights are not altered and index fund trading around the merger closing would not be expected. Similarly, stock mergers where both the acquirer and the target are members of the same S&P index will not induce index fund trading. While it is true that index weights change at the closing (acquirer weight increases, target weight goes to zero), an index fund that holds both the acquirer and target will be naturally rebalanced, as the fund's target shares are relinquished in exchange for acquirer shares.

Thus investments in price pressure events could enhance returns from other well-defined investment strategies such as merger arbitrage.

3. FINANCIAL MARKETS & M&AS - A GIVE AND TAKE RELATIONSHIP!

One cannot ignore the consolidation happening within the financial markets themselves. The key participants in financial markets are banks without reason for doubt. Banks face competition from financial markets and other non-bank financial institutions. This changes the banks' traditional role as financial intermediaries. At the same time, globalization, advances in communication technologies, deregulation, and demand from investors wishing to deploy assets more efficiently have opened up new business opportunities for banks (Hagendorff & Keasey, 2009). The conditions have impacted the M&As of banking industry. Financial markets' efficiency is influenced by labor and transaction costs on one side and the banks' interest rates. Rhoades (1994) illustrates the importance of including some interest expenses in performance metrics. He argues that mergers for US banks lead to reductions in noninterest expenses as a result of branch closure programmes, but interest expenses may increase in the post-merger period as financial institutions substitute low-interest retail deposits with higher-interest money market deposits.

Hagendorff & Keasey (2009) argue that European banks pursue a cost-cutting strategy by increasing efficiency levels vis-à-vis non-merging banks and by cutting back on both labour costs and lending activities. US banks, on the other hand, raise both interest and non-interest income in the post-merger period. Banks are the credit institutions that provide liquidity to the financial markets. With a combined acquisition value of roughly \$US2 trillion between 1986 and 2006 (Thomson Financial), the banking industry is one of the most active industries in terms of mergers and acquisitions (M&A). The authors develop a linear regression framework to capture the market variables and M&A performance variables for banks as below.

Equation 1 - Variables for Bank

$$\begin{aligned} \Delta\text{OPCFROA}_t = & \alpha + \beta_1 \text{ loans} + \beta_2 \text{ employment cost} + \beta_3 \text{ rel. size} \\ & + \beta_4 \text{ non-int. inc.} + \beta_5 \text{ dealvalue} + \beta_6 \text{ loss provisions} \\ & + \beta_7 \text{ cash dummy} + \beta_8 \text{ cross-border dummy} + \beta_9 \text{ US dummy} \\ & + \beta_{10} \text{ target profit.} + \beta_{11} \text{ product focus} + \beta_{12} \text{ sector concentration} \\ & + \beta_{13} \text{ sector int. margin} + \beta_{14} \text{ pooling} + \varepsilon. \end{aligned}$$

An interesting argument by Ruefli *et al.* (1999) is that the commonly used financial measures are still not considered to be generalizable or conceptually valid especially the betas and mean-variance returns. These measures though have high-use validity.

Operating cash flows returns on assets - OPCFROA = (income before taxes and extraordinary items + Interest expense on debt)/ total assets

Cornett *et al.* (1998) calculate this metric as pre-tax operating cash flows divided by the book value of assets where pre-tax operating cash flows are income before taxes and extraordinary items plus debt expenses. OPCFROA distinguishes between two types of interest expenses for banks: interest expenses resulting from (i) the financing decision and from (ii) financial intermediation (e.g. interest payments to depositors). The dummy variables like cross-border take 1 if it's a cross-border merger; US dummy becomes 1 if it's a domestic merger.

The market-adjusted results in the USA are found to be in line with research findings that US bidders outperform the market before M&A, but do not see many improvements in financial performance after M&A (Houston and Ryngaert, 1994; Knapp *et al.*, 2005). Recent evidence using the market reaction to product diversifying bank mergers also points to such deals having positive outcomes on average. Staikouras (2009) report positive abnormal bidder returns associated with mergers between banks and insurance companies. Thus financial markets have a definite impact on the M&A activity in banks and in turn are influenced by the consolidation as seen above.

4. DISTRESS RESEARCH

Hensher *et al* (2007) conduct 'distress research' in Australian market to see how unfavourable financial markets lead to mergers that turn into failures or 'distress mergers'. The authors argue that many distressed firms seek merger partners or amalgamations to alleviate financial distress, while other firms might reduce or eliminate dividend payments, default on loans or dilute their capital base by issuing shares to raise working capital. Although these scenarios are often associated with firm financial distress, they do not necessarily result in a firm entering bankruptcy administration per se but by the macro-economic conditions.

The sample of listed Australian distress firms that were close to bankruptcy in was picked for the study.

The key market variables tested in this study include excess market returns and the market value of equity to total book value of debt, the later variable being a widely used market proxy for firm solvency in many structural models of default risk. Due to the relative lack of liquidity in many Australian stocks, they could not generate reliable parameter estimates using a market model such as the capital asset pricing model (CAPM).

A more common measure used in Australian capital market research is

Market-adjusted returns = the sample firm's return expressed as a price relative - return to the All Ordinaries Accumulation Index (AOAI)

The study revealed that financial-based variables (including the firm size proxy) appear to have the greatest overall association with the failure outcome, relative to market-based variables, firm age and macroeconomic factors (none of which are found to be significant in either the error component logit or MNL models reported as shown below).

Table 1
Log-likelihood at Convergence and Sample Sizes for Final Multinomial Error Component Logit and Standard Multinomial Logit (MNL) Models; HENSHER *et al.* (2007)

	<i>Multinomial error component logit</i>	<i>Standar MNL</i>
Log-likelihood at zero	-3131.64	-3131.64
Log-likelihood at convergence	-1036.90	-1088.57
Sample size	2259	2259

It can be seen from Table 1 that the error component logit model has delivered a very good overall goodness of fit. We can see that the results of the study show the change in log-likelihood (LL) from 3131 (assuming no information other than random shares) to "1036.9. The scholars argue that this improvement in the log-likelihood ratio is less than that for the standard MNL model, with the LL showing a decrease to "1088.57.

The elasticities (Table 2) defined as the influence that a percentage change in an explanatory variable (or its functional presence) has on the percentage change in the probability of selecting a particular outcome, *ceteris paribus*. The direct elasticity between all variables appears to have logical and consistent signs for both the error component logit and standard MNL models. For example, the excess market returns variable for the non-failure category has a positive direct elasticity, indicating that a percentage increase in this variable increases the probability of

Table 2
Direct Elasticities for Final Multinomial Error Component Logit and Standard Multinomial Logit (MNL) Models; HENSHER *et al.* (2007)

Variables	Alternative	Multinomial error component logit	MNL
Excess market returns	Non-failure	0.0188 (0.4067)	0.000049
Cash resources to total assets	Non-failure	0.0322 (0.4198)	0.00057
Four periods of negative CFO	Non-failure	-0.231 (0.8148)	-0.097
Retained earnings to total assets	Insolvency	-0.440 (1.079)	-0.139
Retained earnings to total assets	Distressed merger	-0.752 (2.11)	-0.232
Working capital to total assets	Distressed merger	0.132 (0.298)	0.029
Log of total assets	Distressed merger	0.737 (1.34)	0.023
Log of total assets	Outright failure	-1.62 (2.87)	0.031
Retained earnings to total assets	Outright failure	-0.701 (1.92)	-0.214
Cash resources to total assets	Outright failure	-0.370 (0.536)	-0.298
Total debt to operating cash flow	Outright failure	0.0421 (0.163)	0.036
Firm age (in existence 6 years or less)	Outright failure	0.0427	0.013
Sample size		2259	2259

Note: Standard deviation of elasticities in parentheses. CFO, operating cash flows.

non-failure, *ceteris paribus*. This result indicates that deteriorating financial health is impounded into stock prices (through lower excess market returns) of struggling companies well before the announcement of failure to the market. In this case, the authors found that excess market returns are statistically significant 14 months prior to the actual failure announcement by firms. In addition to these affects, the error component logit model has identified further contextual impacts as interactions or decompositions of the means and standard deviation of random parameters, and identified state-specific random and systematic firm-specific heterogeneity.

5. CONCLUSION & FUTURE RESEARCH

The review of literature reveals some key insights into the relationship between financial markets and the merger & acquisition activity. Firstly, different nations react differently to market conditions. Russia has reacted to financial crisis by formulating regulations to survive in the slowdown and took up the M&As to create value. Australia faced the tough times thrown by the market distress to prevent the companies from bankruptcy by getting into mergers. An important question for future research is how companies can add extraordinary value by adopting innovative methods of doing business during financial crisis. If M&A is the first step to survive or at most can create value during a crisis, do companies have scope for innovation in crisis times? Theory conflicts with the practice. Top management teams have already advocated that firms should not do anything except sustain themselves during a crisis (Madhavi, 2010). Will innovation involve a huge opportunity cost during a financial crisis period? Secondly, though changes in macro-economic conditions are difficult to anticipate, scholars have tried to

quantify and measure the impact by developing models that consider the variables playing in the financial markets. Future research can attempt to study and manipulate these variables to avert a crisis; and can advocate a means to convert the theoretical framework into business practice. Finally, markets too get influenced by the merger & acquisitions as seen in the case of banking firms themselves that are the key players in the financial markets. The interest rates and transaction costs that affect the efficiency of financial markets change as the banks merge and give rise to positive abnormal bidder returns associated with mergers between banks and insurance companies. Future research can explore the extent of impact of M&As on financial markets in terms of whether it is sufficient to cope with an impending crisis. Can financial markets exploit M&As to avert a crisis or to handle a global slowdown?

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