Mergers and Acquisitions (M&A) in the Global Insurance Industry: Information Asymmetry and Valuation Effects

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ABSTRACT

The objective of this paper is to determine whether M&As in the Global insurance market create value for shareholders by studying the stock price impact of M&A transactions on target and acquiring firms. Various hypotheses motivating M&A transactions are advanced, ranging from assumed market efficiency (no gain) to market power and regulatory hypotheses. Each hypothesis is conditioned by the relevant regulatory and economic/political environment in which the M&A activity took place.

We report an event study analysis of M&A transactions where an insurance firm was either the target or the acquirer. M&A transactions were identified using the Thomson Financial SDC Platinum database for the period 1990-2006. The stock price effect of M&As is measured by looking at abnormal returns on the transaction event day and surrounding days, i.e., by measuring the stock price impact on target and acquiring firms beyond what is predicted using a market model of stock returns. We also examine the cumulative average abnormal returns (CAARs) which accumulate the abnormal returns over event windows surrounding the M&A transaction dates. The number of transactions is limited to those where there was a change in control, defined as transactions resulting in the acquirer's ownership share in the target increasing from less than 50% to 50% or more.

The transactions were classified in terms of size of the deal, number of transactions per firm. The analysis is presented for the overall sample as well as by region and country and by industry sector breakdown. The market model approach to event study was followed whereby all share price return data and corresponding market index data was analyzed over various event windows from -15 to +15 days surrounding the announcement.

The analysis reveals that global M&As created small positive CAARs for acquirers (generally less than 1%) on average across various windows surrounding the transaction date. Targets, however, realized substantial positive CAARs in the range of 12% to 15%. For acquirers, there is no clear difference in performance between cross-border and within-border (domestic) transactions. For targets, both cross-border and within-border transactions led to substantial value-creation, thus providing evidence that geographical integration of financial services markets has been successful. Given that cross-border transactions are value-neutral for acquirers and value-creating for targets, these transactions seem to lead to clear economic gains. Asian M&As, excluding Japan, destroy value for acquirers, whereas acquirers from other regions show small market value gains. Market value gains for targets are highest in the U.S., the U.K., and Japan. Insurers that acquire banks and securities broker/dealers sustain significant market value losses, but intra-insurance industry transactions generate significant gains for the acquiring insurers. Only Canadian and US firm targets benefit significantly from acquisition activity when results are further broken down by size.

Even after controlling for other explanations, cross-sectional analysis of acquisition by deal value that cross-border and product focusing are of particular relevance to European firms, beta to UK firms and market value of equity to Asia-pacific firms. Post announcement abnormal returns immediately post take over announcements is negatively related to earnings, and positively associated with risk capital for UK and European firms. Thus, the results suggest that insurers should concentrate on product-focusing rather than product-diversifying transactions. Survivors of M&A activities reduce information asymmetry is related to probability of surviving a takeover and the cash position of the target firm.

1. Introduction

Perhaps the most important development in the financial services market of the past two decades is the integration of the previously separate segments of the financial services industry. Deregulation, advances in communications and information technology, and economic forces have led to the breakdown of the 'firewalls' that traditionally separated financial intermediaries such as commercial banks, thrift institutions, investment banks, mutual fund companies, and insurance companies.

The European Union gradually deregulated the financial services sector through a series of banking and insurance directives, culminating in the virtual deregulation of financial services (except for solvency) in the Second Banking Coordination Directive, implemented in the early 1990s, and the Third Generation Insurance Directives, implemented in 1994 (Group of 10, 2001). The objective of the banking and insurance directives was to create a single European market in financial services. The introduction of the Euro in 1999 also profoundly changed the economic landscape for financial services firms in the European market.

European deregulation in insurance was particularly important, because insurers traditionally had been limited to operating within specific European countries, with little or no price competition and cross-border transactions mainly limited to reinsurance and some commercial coverage. The Third Generation Insurance Directives introduced true price and product competition in European retail insurance markets for the first time.

The result of deregulation and other economic drivers of financial sector integration has been an unprecedented wave of mergers and acquisitions (M&As) of European financial institutions. These have also had knock on effects in North American and Asian markets, as European financial institutions became more aggressive in competing on a world-wide basis. However, there is little literature on this issue. In general, prior literature on the costs and benefits of M&As is equivocal as to their value-

creation effects. On the one hand, industry based studies (e.g., McKinsey and Company, 2007) assert that M&As are value destroying for both the acquirer and the target. On the other hand, Cummins and Weiss (2004) predict and find that M&A activity in the European insurance industry over the period 1990-1997 had no noticeable effect on the acquirers (i.e., M&As were value-neutral) and generally create market value for targets. They used an event study approach where cumulative abnormal returns of the acquirers' and targets' stock price around the announcement date, relative to the market index. However, their results did not account for country, industry or sectoral factors that might underlie variations in M&A value creation. There has been little analysis of international aspects of M&As for financial firms.

The objective of the study is to remedy this limitation in the existing literature by extending the Cummins and Weiss (2004) results to analyze the effects of M&A transactions on the market value of target and acquiring firms in the international insurance market. We analyze M&A transactions over the period 1990-2006, as reported in the Thomson Financial SDC Platinum Database. The analysis is defined as including all transactions where either the acquiring firm of the target firm is an insurance company. Included in the analysis are all transactions reported in SDC that involve a change in control, defined as an acquisition that increases the stake of the acquiring institution from less than 50% to 50% or more of the ownership shares of the target institution. Tests are conducted for differences in market value effects of mergers by country, by whether the transaction is focusing versus diversifying, and by whether the transaction is cross-border or within-border.

The study analyzes the market value impact of mergers and acquisitions (M&As) in the global insurance industry on both target and acquiring firms. We conduct an event study analysis to determine the market value effects of the transactions included in our sample. Specifically, we obtain stock price data from the Datastream database and study the market reaction to the M&A transactions on both

target and acquirer firms in a series of event windows surrounding the transaction dates. As argued by Schwert (1981), the use of market value data is more powerful than other approaches in studying the effects of events such as M&As because market prices immediately reflect the market's assessment of new information on the target and acquiring firms. In effect, conducting an event study enables us to capture the market's expectation of the net effect of an M&A transaction on the present value of the expected future cash flows of the firms involved in the transaction and thus to determine whether M&As tend to create value for shareholders. Although there are clearly other effects of M&As, such as the impact on prices, service quality, and product offerings to customers, studying the stock price effect of the transactions provides one important metric of the degree of value-creation or destruction resulting from global merger trends.

Studying the market-value effects of global insurance mergers is important for a number of reasons. Analyzing whether M&As create value has implications for future regulatory policy. The objective of the regulatory changes in Europe was to move away from a restrictive regulatory system that primarily focused on solvency towards a system that enhances economic efficiency and provides better value for consumers by harnessing market forces. Because M&A activity is costly, serious questions would be raised about the efficiency effects of regulatory policy if the resulting M&As fail to create value or actually destroy value for the firms involved in the transactions.

Studying M&A transactions also has implications for anti-trust policy. Value-creation can have both positive and negative effects from an anti-trust perspective. If merged firms gain value because of market power that allows them to charge super-competitive prices, then positive market value gains from mergers might be adverse from an anti-trust perspective. On the other hand, if firms gain value because they become more efficient and competitive and take market share away from less efficient rivals, then M&As would not be a serious concern for anti-trust regulators. Although determining

whether any market value gains from M&As are due to market power or more economically desirable effects is beyond the scope of the present study, our research contributes by providing evidence on whether market value gains are occurring and on the types of transactions that are most likely to lead to market value gains.

Finally, studying global insurance mergers has important implications for managers of financial services firms. If mergers tend to be value-creating, then it may be worthwhile for managers to devote scarce time and resources to further consolidation activities. On the other hand, if mergers have little or no impact on value or possibly destroy value, then managerial efforts might be more profitably directed towards other activities such as improving efficiency and productivity. Also, information on whether some types of transactions are more likely than others to create value should help managers in formulating M&A strategies.

This study contributes to the literature as the first paper to analyze the market value effects of global insurance mergers. There have been few market value studies of global insurance financial sector M&As of any kind. The leading study of European insurance mergers, Cummins and Weiss (2004), analyzed merger transactions in 17 European insurance countries over the period 1990-1997. In their sample, either the target or the acquiring firm had to be an insurer. Based on 52 deals that involved a change in control, they found significant market value for within-country, insurance to insurance transactions, and for transactions where banks acquired insurance companies. However, they did not find market value gains for cross-border transactions or transactions involving banks and securities firms.

Similar results for banks are reported by Cybo-Ottone and Murgia (2000) and for Lepetit et al. (20002). Delong finds that bank mergers in the US are activity and geographically focusing create value but that diversifying mergers do not create value. By contrast, Akhigbe and Madura (2001) find that

US insurance mergers are value-creating for both acquirers and targets, although the value-creating for targets is significantly larger than for acquirers.

Other papers (e.g. Cummins and Rubio-Misas, 2006, and Cummins, et al., 1999) analyse consolidation in the Spanish and U.S. life insurance markets using book value data to measure technical, cost and profit efficiency.[1] Both papers find that consolidation led to significant improvements in efficiency and to price reductions.

In the present paper, the market value impact of M&As is analyzed using an event study approach, i.e., we analyze the stock price performance of acquirers and target firms during various windows of time surrounding the dates of the M&A transactions. We develop and test hypotheses concerning the value creation arising from M&A transactions in the international insurance industry. Among the specific predictions examined in the study are the following:

- Do acquiring firms gain or lose market value as a result of M&As?
- Do target firms that continue to be traded following the analysis gain or lose value as a result of M&As?
- Are cross-border or within-border M&As more likely to be value creating for targets and acquirers?
- Are within-industry or cross-industry M&As more likely to create value for targets and acquirers? I.e., are transactions within the insurance industry more likely to create value than transactions where a non-insurance firm is the target or acquirer?
- Are within sector or cross-sector M&As more likely to create value, i.e., are transactions where both target and acquirer are life (non-life) insurers more likely to create value than those where one M&A partner is a life insurer and the other is a non-life insurer?
- Does the size of the target and/or acquirer have any impact on the likelihood of value-creation?
- Does the country of origin of the target or the acquirer have any relationship with value-creation?
- Do risk, return, size or cross-border or industry characteristics explain cross-sectional variation in deal value and abnormal stock returns for acquiring firms?

[1] Klumpes and Urdu (2007) also study European M&As during the 1999-2000 boom, using a book value approach, but include an analysis of embedded value of acquirers/takeovers and other economic contingent claims. They also use a novel approach by matching the acquirer and takeover in estimating efficiencies, rather than analyzing the efficiencies separately. Their results are similar to the studies reviewed above.

- Does experiential knowledge of takeover of surviving acquiring firms, as measured by frequency of takeovers, depreciation of knowledge affect the post-acquisition performance and probability of takeover by US, European or cross-border acquirers? What factors affect the ability of target firms to survive post-M&A?

The study discriminates among alternative neo-classical and behavioral explanations for M&A. It covers the most recent decade of M&As, 1990-2006. The study covers all major regions of the world, North America, Europe, Asia, and all types of insurance, both life and non-life M&A transactions. We predict that behavioral theories explain M&A in Asia and in non-life insurance sectors; and that the classical theories explain behavior in Europe, North America and life insurance operations. The results support the predictions. In examining these issues we also innovate by drawing on a range of measures and approaches used in the corporate finance, risk management and management learning literatures to develop and test metrics for information asymmetry, risk capital and depreciation related to the time elapsed following critical M&A activity. We are the first comprehensive study to examine these issues within the regulated and globally diversified insurance sector.

The findings support the general contention that M&A deals are more likely to be value creating for targets than for acquiring firms. However these results are not consistent when decomposed by country, region, industry and sector. Domestic deals, those based in Europe, and those involving private negotiation can lead to value creation for acquiring firms. By contrast, private negotiated deals and those involving insurance agents can be less value creating for target firms. We also find that cross-sectional variation in deal value for acquiring firms is associated with cross-border takeovers and abnormal returns is associated with risk, return and common industry characteristics for European firms. We also consider the experiential and learning aspects of M&A activities for surviving acquirer and target insurance firms and identify trends associated with cross-border and information asymmetry influences over the ability of firms to manage the M&A experience as part of their corporate strategy.

The remainder of the paper proceeds as follows. Section 2 discusses the relevant literature and

provides the theoretical and institutional antecedents. Section 3 develops predictions concerning the likely economic effects of mergers and acquisitions, identifies ways in which M&As create and destroy value, and specify our hypotheses. Section 4 explains our sample selection procedure and event study methodology. Section 5 presents the results, and section 6 analyzes the determinants of value creation. The conclusions are discussed in section 7.

2. Theoretical and Institutional Background

Mergers can be somewhat difficult to rationalize in terms of financial theory. According to financial theory the value of any asset is equal to the present value of its cash flows. Thus, a publicly held firm can be considered as a bundle of cash flows expected to be received in the future. Investors are assumed to hold broadly diversified portfolios including value-weighted shares of all firms in the economy (the "market portfolio"). In this construct, M&As do not necessarily add value because they merely combine the rights to cash flows that are already held by diversified investors. Hence, in theory, investors should be indifferent between receiving future cash flow streams from two separate firms rather than from one merged firm formed by combining the two separate firms. To the extent that M&As are costly, investors may actually be worse off following an M&A transaction.

Of course, perfect markets finance theory rests on a number of assumptions which hold only as approximations in practice. Among these are the absence of transactions costs, agency costs, other types of friction costs, informational asymmetries between investors and managers, taxation, and regulation. The existence of these and other market imperfections can lead to situations where M&As have the potential to create value. In addition, economic production theory offers other explanations for firm combinations such as economies of scale and scope that can provide economic justifications for M&As that are not inconsistent with financial theory. However, it is important to keep in mind the fundamental insight of finance – that cash flows determine value – when considering the arguments regarding the economic rationale for M&As discussed below. I.e., in order for a M&A transaction to create value, it must have a favorable impact on the amount, timing, or risk of the cash flow streams of the combined institution in comparison with those of the acquiring and target firms involved in the transaction.

.We compare the implications of the neoclassical theory to behavioral theories. Unlike neoclassical theories, behavioral theories take account of the inherent risk and uncertainty in reaching consensus on the fair value of insurance business. The four leading behavioral theories of M&As are hubris, market misevaluations, and agency and integration problems. These theories regard M&As as departures from neoclassical economic theories. We then introduce an alternative 'risk management' explanation for M&As, i.e. there is a demand for M&As purely to 'resolve' severe informational asymmetries in the valuation of insurance firms.

The winner's curse has a long history in the literature on auctions. When there are many bidders for an object of highly uncertain value, a wide range of bids is likely to result. For example, suppose that many insurance firms are bidding to take over a block of insurance business. Given the difficulty of estimating the actual amount of fair value of insurance business, the estimates of the insurance firm may vary greatly. The highest bidder will therefore typically bid in excess of the realized fair value of the insurance business embedded in the company. The winning bidder is, therefore, 'cursed' in the sense that its bid exceeds the value of the business, so the firm loses money. Roll (1986) analyzed the effect of the winner's curse in takeover activity. Postulating strong market efficiency in all markets, the prevailing market price of the target already reflected the full value of the firm. The higher valuation of the bidders (over the target's true economic value), he states, resulted from hubris – their excessive self-confidence (price, arrogance). Hubris is one of the main factors that cause the winner's curse phenomenon to occur in the acquisition market. Even if there were synergies, the actual or potential competition of other bidders could cause the winning bidder to pay too much.

Moeller et al. (2005) find that in a sample of large-loss acquirers ($1 billion or more); the majority had prior acquisition successes. They suggest this might be interpreted as consistent with hubris. However, Boon and Mullein (2006) find no significant differences in bidder returns between multi-bidder

auctions and one-on-one negotiations, inconsistent with roll's hubris conjecture.

Shleifer and Vishny (2003) present a stylized model of acquisitions that provides a framework for analyzing the relationship between short-run market misevaluation and the choice of stock or cash as a medium of payment. The misevaluation is a result of asymmetric information where managers have perfect information and investors are less informed. This leads to overvalued firms making acquisitions using their miss-valued stock as a payment instead of correctly-valued cash when markets misperceive the true value of the synergies generated by the acquisition.

The main implications of their model are that acquisitions for stock are more likely to occur when the market is overly optimistic about potential synergies and target managers have short-run horizons or are paid off to accept the offer. Both bidder and target firms may be over- or under-valued relative to fundamentals in stock deals. Cash deals, in contrast, are more likely when targets are undervalued relative to fundamentals and markets are overly pessimistic about potential synergies, according to Shleifer and Vishnu (2003).

In the Roll model the financial markets are efficient, but bidders are irrational. In the Shleifer-Vishney model, financial markets are inefficient, but bidders and targets have perfect information. Both the winners' curse theory of Roll and the stock market misevaluations of SV are types of behavioral finance theories. Different behavioral finance assumptions result in different models and predictions. The neo-classical theory of M&As is that they take place to help firms adjust to changing environments or to extend capabilities. The neo-classical theory predicts that the market will reward mergers that make economic sense and punish mergers that do not make economic sense.

Mitchell and Len (1990) show that market forces correct for merger mistakes. Their study uses a sample of 1,158 public corporations in 51 industries covered by Value Line, beginning at the end of 1981. Of their sample, acquiring firms were divided into two groups. 77 firms that made 113

acquisitions during 1982-1986 subsequently became acquired by other firms. 166 acquiring firms that made 232 acquisitions were not subsequently acquired. The event returns over various lengths of windows ranging from 3 days to 61 days were sharply different for the firms that were subsequently acquired and those that don't become future targets. The firms that were subsequently acquired had negative event returns significant t the 1% level. For the firms that were not subsequently acquired the event returns were significantly positive.

The neo-classical theory predicts that mergers that make economic sense will have positive event returns; those that do not have a sound basis will have negative event returns and will subsequently be taken over. Mitchell and Lehn (2001) show consistent with earlier theories; the financial markets perform a disciplinary role. The stock prices of firms that make sound mergers will rise, but 'bad bidders become good targets'.

Another branch of literature directly tests the market-timing prediction of the misevaluation theories against the industry shock prediction of the neoclassical theories by examining the causes of merger waves. Harford (2005) shows that merger waves cluster by industry following exogenous shocks, but only when accompanied by a sufficient degree of capital liquidity. Harford distinguishes this liquidity from market run-ups and find that after accounting for liquidity, market-timing variables have little explanatory power, rejecting the models of SV and the similar theoretical results presented in Rhones-Kropf et al. (2004). Harford also points out that Rhodes-Kropf et al's (2004) empirical tests of the market-timing theory of merger waves are equally consistent with alternative explanations of their evidence.

An agency problem arises when managers own only a fraction of the ownership shares of the firm (Jensen and Meckling, 1976). This partial ownership may cause managers to work less vigorously than otherwise and/or to consumer more perquisites because the majority owners bear most of the cost.

Furthermore, it is argued that in large corporations with widely dispersed ownership there is not sufficient incentive for individual owners to expand the resources enquired to monitor the behavior of managers. Hence, managers may use mergers to increase firm size to increase their own salaries, bonuses and perks. Also managers may be motivated to seek mergers because it enables them to cash in on substantial stock option arrangements.

Agency costs are also present in the free cash flow hypothesis (Jensen, 1986). Jensen defines free cash flow as cash flow in excess of the amounts required funding all projects that have positive net present values when discounted at their applicable costs of capital. Managers may seek to avoid declines in growth by investing free cash in industries they do not understand, resulting in negative NPV investments.

Aggarwal and Samwick (2003) find empirical evidence to support agency theory, consistent with a managerial desire to increase benefits through diversification.

The neoclassical theory states that potential M&As can help firms build capabilities and adjust to change. On e of the advantages of M&As is that they permit relatively rapid adjustments. But a major challenge of mergers is that they require that two formerly different organizations be combined. The integration of organizations and cultures can be difficult. Hence we would expect that M&As required by change forces will have uneven success rates.

Hazelkorn et al. (2004) emphasize the frequency distributions of excess stock returns for acquirers. The extending capabilities theory of M&As is supported by the data that shows that many firms that make many small acquisitions achieve superior performance. One advantage is the experience that is developed from making many acquisitions. Villalonga and McGahan (1995) find that prior acquisition experience in acquisition leads to a higher probability of completing future acquisitions. Another benefit is that smaller acquisitions can be in to the operations of the larger acquiring firms without

major restructuring of the organization.

3. Hypotheses

In terms of economic production theory, firms operate with cost, revenue, and profit functions, all of which could be affected by mergers and acquisitions. One rationale often given for M&As is economies of scale, usually associated with the cost function. The argument is that firms operating at sub-optimal scale may be able to achieve scale gains more quickly through M&As than through organic growth. Scale economies are almost always given as a rationale for M&As in the insurance industry and most other industries, usually without any supporting empirical evidence. Although M&As can permit firms to achieve scale economies, friction costs arising from post-merger integration problems potentially can offset any scale economy gains that may be realized. In many cases, organic growth may be superior to M&As as a method for achieving optimal scale; and other types of inefficiency such as technical and allocative inefficiency often are much more significant than scale inefficiency.

Economies of scope provide another production theory rationale for mergers and acquisitions. Scope economies can be present for costs, revenues, and (on net) for profits. If cost (revenue) economies of scope are present, the cost of producing two outputs jointly in a single firm will be lower (higher) than if the outputs were produced by two separate firms. Cost economies of scope generally arise from the joint use of inputs such as managerial expertise, customer lists, computer technologies, and brand names. Revenue economies of scope are often said to arise due to reductions in consumer search costs and improvements in service quality from the joint provision of related products such as life insurance and automobile insurance. This is the “one-stop shopping” argument often utilized to

justify financial sector mergers.

There is some empirical evidence for the existence of economies of scope in insurance, although findings suggest that economies may exist only for specific types of producers and specific sub-products within the insurance industry (Berger, et al., 2000). In addition, production theory arguments for scope economies generally do not recognize that achieving such economies through M&As can often be defeated by the frictions arising from integrating the corporate cultures of two previously separate firms offering different products, perhaps using different distribution systems and information technologies.

Potential gains in X-efficiency provide another production-based rationale for M&As. X-inefficiency arises when firms fail to operate on the cost, revenue, or profit frontier but rather incur higher costs or earn lower revenues because of various types of suboptimal performance. The principal types of inefficiency include technical inefficiency, failing to operate on the cost minimizing isoquant, allocative inefficiency, failing to choose cost minimizing combinations of inputs, and scale inefficiency, the failure to operate with constant returns to scale. Similar efficiency concepts can be defined with respect to the revenue frontier. A potentially important justification for a merger or acquisition transaction is to improve the efficiency of the merger target, e.g., by replacing inefficient managers or introducing superior technology possessed by the acquiring firm. The efficiency rationale for M&As may be somewhat stronger for focusing rather than diversifying M&As, however. If the objective is to improve technical or allocative efficiency of the target, it seems reasonable to expect that such improvements are more likely to be realized if the managers of the acquiring firm already have considerable expertise in the types of operations conducted by the target.

One important source of potential efficiency gains from mergers is the possibility of eliminating duplicate or overlapping production, delivery, or back office systems. For example, the merger of

banks operating in the same geographical area may permit a reduction in the number of branches and branch office employees without correspondingly degrading customer service. The same rationale may apply in insurance to the extent that the duplication of agencies, claims adjustment offices, and data processing facilities can be reduced. This rationale would seem to apply most strongly to intra-country and intra-industry mergers; although diversifying mergers that permit the sale of insurance through bank branches have the potential to realize economies of scope.

Another industrial organization hypothesis about M&As is that consolidation allows firms to acquire varying degrees of monopoly power, permitting them to increase cash flows by raising prices. This rationale would seem to apply most strongly to mergers that increase concentration within specified geographical or product markets. Empirical evidence based on U.S. banking provides some support for the market power hypothesis, especially for large banks, but the quantitative effect on bank profits tends to be small (Berger, 1995). Empirical evidence also has been presented that consolidation in the Spanish insurance market during the 1990s led to price reductions (Cummins and Rubio-Misas, 2006), contrary to the market power hypothesis.

If one relaxes the assumptions of perfect markets finance theory, some additional rationalizations for M&As are provided. One important assumption is the absence of costs of financial distress. In real world markets, especially in those such as financial services where stringent solvency regulation is the norm, firms face significant financial distress costs. Insurers that are over-leveraged or in weakened financial condition for other reasons incur increased regulatory costs and potential operating restrictions. Moreover, because buyers of insurance are especially sensitive to insolvency risk, insurers in deteriorating financial health are likely to lose their best customers to rivals. Deteriorating financial condition is also likely to trigger financial ratings downgrades with accompanying higher costs of capital. Finally, firms with relatively high insolvency risk also face the

loss of relationships with key employees and suppliers.

Because larger insurers are known to have lower insolvency probabilities, mergers can be beneficial to the extent that increases in scale are accompanied by reductions in income volatility due to enhanced diversification. This reasoning applies both to within-industry mergers and to cross-industry mergers between institutions such as insurers and banks, providing a possible rationale for both focusing and diversifying M&A activity. The potentially favorable effect of M&As on expected bankruptcy costs is generally called the *earnings diversification hypothesis.*

Deregulation also provides a potential motive for value enhancing M&A transactions. For example, the insurance industry in Europe traditionally was subject to stringent regulation affecting pricing, contractual provisions, the establishment of branches, solvency standards, etc. A separate market existed in every European country, and cross-border transactions were rare, except for reinsurance and some commercial coverage. Competitive intensity was generally low, with minimal price and product competition (Swiss Re, 2000). The implementation of the European Union's (EU's) Third Generation Insurance Directives, beginning on July 1, 1994, represented a major step in creating conditions in the EU resembling those in a single deregulated national market.

The Third Generation Directives have three key components: (1) The establishment of a single EU license (the "single passport"), whereby an insurer is required to obtain only one license to operate in the EU rather than being licensed in each member nation. (2) The principle of home country supervision, whereby an insurer is regulated only by the nation which issued its license and not by each host country where it operates. And (3) the abolition of "substantive insurance supervision," meaning that regulation is limited to solvency control and that pricing, contracting, and other insurer operations are effectively deregulated. Thus, insurers were allowed to engage in true price competition in personal lines for the first time and also to compete more freely in products and services.

The opening of the European market provided a powerful rationale for M&As as companies that previously operated in specific national markets sought to expand throughout the EU. Expanding into other national markets by acquiring firms located in this market is likely to be more effective than organic growth because local firms have superior knowledge of the language, culture, and legal system of their home country. Thus, cross-border M&As are likely to be value-enhancing. On the other hand, the "liability of foreignness" hypothesis suggests the opposite, i.e., those domestic companies are likely to have an advantage over foreign competitors, even if the foreign competitor acquires a domestic insurer.

The existence of corporate income taxation also provides a rationale for M&As as a possible mechanism for increasing net cash flows. Firms can reduce expected taxes by reducing earnings volatility to the extent that corporate tax schedules are convex or to the extent that they can exploit inter-country tax arbitrage or utilize tax loss carryovers.

Another rationale sometimes given for M&As based on relaxation of the assumptions of perfect markets financial theory is the creation of *internal capital markets*. The argument is that informational asymmetries between managers and capital markets tend to make capital markets somewhat inefficient in allocating capital among alternative uses and also may lead to higher costs of capital. Managers are said to be able to utilize their superior knowledge of the firm's investment opportunities to allocate capital efficiently among projects, thereby maximizing firm value. However, the extensive literature on the diversification discount, i.e., the tendency of diversified firms to have lower values than their subsidiaries taken independently, as well as theoretical research casts considerable doubt on the internal capital markets hypothesis.[2] This hypothesis may have a somewhat stronger justification in Europe

[2]The existence of a diversification discount has been widely documented in the literature. See, for example, Comment and Jarrell (1995) and Berger and Ofek (1995). Theoretical research on internal capital markets has been conducted by Scharfstein and Stein (2000).

than in the U.S. because European firms have traditionally relied relatively more on bank financing and less on capital market financing than U.S. firms, suggesting that capital markets may be somewhat less efficient in Europe. However, based on existing empirical and theoretical evidence, we do not find the internal capital markets hypothesis to be very convincing.

There are also non-value-maximizing motives for consolidation. Contrary to perfect markets finance theory, considerable evidence exists that real world managers do not always act in the best interests of shareholders but rather tend to pursue their own interests to varying degrees. Instead of taking actions to maximize firm value, managers may act to maximize their own net worth and income, engages in excessive perquisite consumption, and takes other actions not consistent with value maximization. These agency conflicts may lead managers to forgo profitable but risky projects that may threaten their job security. Moreover, and of special relevance for M&As, managers may engage in projects of questionable value that increase the scale of the firm to increase their compensation and prestige. Managers may also engage in defensive acquisitions designed to head off hostile takeovers of the firm that would threaten their jobs. To the extent that managers engage in non-value-maximizing acquisitions, M&As can be expected to have adverse market value effects.

M&As also may reduce value to the extent that firms are not very successful in conducting post-merger integration. Post-merger integration is likely to be especially difficult for cross-country and cross-industry mergers due to larger national and corporate cultural differences that must be overcome.[3]

The net result of this analysis is that the theoretical prediction with regard to the impact of M&As on market values is ambiguous. A large number of factors come into play which could affect the success of any given M&A transaction, making generalized predictions very difficult. One general result that emerges from the discussion as well as from past empirical work, however, is that focusing

[3]Evidence that difficulties in integrating data processing systems is an impediment to efficiency gains in some financial sector mergers is provided in Rhoades (1998).

mergers are somewhat more likely to create efficiency gains than diversifying mergers. Focusing can be defined either geographically or in terms of activities such as banking, life and non-life insurance, or securities operations. Thus, we first predict that within-industry and within-country mergers are more likely to create value than activity or geographically diversifying mergers. The predictions of the study are summarized in Table 1.

4. Methodology And Sample Selection

4.1. -Data and Sample Selection

We are not conducting a stratified random sample but rather are capturing the universe of all transactions during the sample period 1990 through 2006 where either the acquirer or target was an insurance company. We decided to use the universe of transactions rather than a sample because the statistical power of our tests will be improved with a larger sample size. The beginning of the sample period was selected to provide a few years of observations prior to the introduction of the European Union's Third Generation Insurance Directives in 1994, because many European countries introduced deregulatory measures prior to the Third Directives to provide time for their domestic insurers to prepare for the overall European deregulation.

The data on M&A transactions were obtained from the Thomson Financial SDC Database. To focus on insurance M&As, we identified all transactions in SDC in which an insurance company was either the acquirer or the target. Insurance companies were defined as all firms with two-digit Standard Industrial Classification (SIC) codes in the following categories:

SIC Codes Used For Selecting Acquirers and Targets

SIC code	Definition:
6311	Life Insurance
6321	Accident & Health Insurance
6331	Fire, Marine & Casualty Insurance
6399	Insurance Companies, NEC
6411	Insurance Agents, Brokers & Service

Because either the target or the acquirer (not both) had to be an insurer, transactions are included in the sample where insurers are acquired by non-insurance firms such as banks, other financial firms, and industrials, and where insurance firms acquire non-insurers, as well as within the insurance industry (insurer-to-insurer) transactions. The study focuses primarily on transactions in member countries of the European Union, in Western Europe, resulting in the exclusion of a small number of East European Transactions. We also study the North American (US and Canadian) market, resulting tin the exclusion of a small number of Latin American transactions. The Asian-Pacific study focuses on the six ASEAN countries, plus India, China, South Korea, and Taiwan. We excluded China due to the small number of transactions and the restrictions on foreign ownership. The countries included in the study are listed in Table 2.

The first pass through the SDC database produced a substantial number of transactions involving minority stakes. We decided that it was useful to include these transactions in order to parallel our results with those of the G10 (2001) and because we thought it would be interesting to look at the entire portfolio of transactions. However, we conduct the market value analysis using the sub-sample of transactions that represent a change in control, which we define as a transaction where the acquirer stake changes from less than 50% to 50% or more of the target firm's shares post-merger.

The stock price data for the event study are obtained from the DataStream Database. Using the SDC sample as the transactions database, we then identified all transactions where either the acquirer or the target firm was also was present in DataStream and obtained DataStream stock price data for the periods needed to conduct the event study.

4.2. Methodology Outline

The steps followed in conducting the study are summarized as follows:

(1) Identify M&A transactions using Thomson Financials SDC Platinum database.

The analysis included the countries shown in Table 2 and the SIC codes listed above.

(2) Identify M&A transactions where the target and/or the acquirer have corresponding stock price data in the DataStream database. Because some transactions are private, this step significantly reduces the sample size. This step is very time consuming because SDC Platinum and DataStream do not use the same company identification codes. Thus, the companies had to be matched by company name.

(3) Conduct tabular analysis of SDC data (pivot tables of company characteristics) to provide summary statistics on the extent of M&A activity.

(4) Conduct standard event study to measure the market value effects of M&As. The results are summarized by country, for cross-border and within-border transactions, for cross-industry and within-industry transactions, etc.

As discussed above, we are capturing the universe of M&A transactions that are reported in SDC Platinum, and we conduct the market value analysis on the subset of firms for which DataStream data are present.

4.3. Event Study Methodology

The standard market model event study methodology is used. For each transaction included in the study, the event study methodology computes the *abnormal return* associated with a specified event, controlling for the predicted return on the stock on the same day. The predicted return is computed using the *market model*. The procedure is described in more detail in the remainder of this section.

The event study approach assumes that the returns of the underlying securities are jointly multivariate normal and independently and identically distributed through time (MacKinlay, 1997). The analysis involves computing the returns for each of the transactions in our sample using data from the

DataStream database. Using this approach, the expected return of any given insurer security is obtained from the market model, defined as follows:

$$R_{jt} = \alpha_j + B_j R_{mt} + \varepsilon_{jt} \quad (1)$$

where R_{jt} is the actual dividend-adjusted return on security j on day t [log((Price$_t$ + Dividend$_t$)/Price$_{t-1}$], R_{mt} is the rate of return on the DataStream General Market Index for the country of the target or acquiring firm, α_j is the idiosyncratic return on security j, B_j is the beta coefficient of security j, and ε_{jt} is the error term of the regression. Under the assumption of joint normality and independently and identically distributed returns, the error of the regression is well-behaved, i.e.

$$E(\varepsilon_{jt}) = 0 \quad Var(\varepsilon_{jt}) = \sigma^2_{\varepsilon_j} \quad (2)$$

The market model (equation (1)) is estimated for each of our companies based on the security's returns over the 250 trading-day period ending 30 days prior to the event date. Using the parameters estimated from this market model and the movement of the market index during the event period, we compute the expected return on each stock during each day of the event window. The daily unexpected or abnormal return (AR) for each security is obtained by subtracting the expected return from the actual return on each day. We utilize several event windows for the study, extending a maximum of 15 days before and after the event date. The notation for an event window extending m days prior to the event date and p days following the event date is (-m,+p), with the event date as day 0.

Thus, the abnormal return on day t in the event window for security j can be expressed as the estimated disturbance term of the market model calculated out of sample as follows:

$$AR_{jt} = R_{jt} - (\hat{\alpha}_j + \hat{\beta}_j R_{mt}) \quad (3)$$

where R_{jt} = the rate of return on security *j* on event day *t*, and

R_{mt} = the rate of return on the value-weighted index on event day *t*.

We compute daily abnormal returns for each firm over various windows during the period *t* = -15 to t = +15. The cumulative abnormal return (CAR) over the event window (-m,+p) is defined as:

$$CAR_j = \sum_{t=-m}^{p} AR_{jt} \tag{4}$$

The mean cumulative abnormal return for a sample of N stocks is:

$$CAR = \frac{1}{N} \sum_{j=1}^{N} CAR_j \tag{5}$$

The mean cumulative abnormal return is expected to be zero in the absence of abnormal performance. The Dodd and Warner (1983) mean standardized cumulative abnormal return can be used to test the significance of any prediction error. This test statistic is calculated by standardizing the daily prediction by its standard deviation (s_{jt}):[5]

$$SAR_{jt} = {AR_{jt}}/{s_{jt}} \tag{6}$$

And then cumulating the standardized abnormal return over the period K to J:

$$SCAR_{jt} = \sum_{t=K}^{L} \frac{SAR_{jt}}{\sqrt{L-K+1}} \tag{7}$$

For a sample of *N* securities, the appropriate test statistic is:

$$z = \sum_{j=1}^{N} \frac{SCAR_j}{\sqrt{N}} \tag{8}$$

SAR_{jt} and *z* will be normally distributed with a unit root if there is no abnormal performance.

5. Empirical Results

This section reports the empirical analysis. Section 5.1 describes the data in more detail. Section 5.2 presents the results of the event study analysis. Section 5.3 provides sensitivity tests. Section 5.4 reports the results of cross-sectional regressions on the determinants of acquirer deal value and post-announcement abnormal returns.

5.1. Insurance M&As: Descriptive Statistics, Deals and Deal Volume

The number of deals by year is shown in Figure 1. The deals shown in the figure are those where the acquirer held at least 50% of the stock of the target following the transaction, i.e., these are transactions involving a clear change of control. There are at least 150 deals in each year of the sample period with a total of 4,068 deals over the entire sample period. The number of deals peaked during the mid-1990s with more than 300 transactions taking place each year from 1996 through 2000. The number of transactions in the market value study is significantly smaller because many of the deals reported by SDC do not have traded stocks that appear in DataStream. The deal volume in millions of U.S. dollars is shown in Figure 2. Deal volume exceeded $120 billion per year from 1997-2001 and exceeded $100 billion in 2003, 2005, and 2006. The total deal value for the entire period covered by the study is more than $1.3 trillion.

The number of deals by region is shown in Table 3. The largest number of transactions was within the Americas (2,149). The next largest number, 1,152, were within Europe. Overall, there were 3,712 within-region transactions and 301 cross-region transactions. However, at this level of aggregation, the tabulation masks a significant number of cross-border transactions within the principal regions.

The number of deals by country of the acquirers and targets is shown in Table 4, Panel A.

Acquiring countries are shown as rows in the table, while targets are shown in columns.[4] Only the largest 13 countries are shown; M&A transactions in other countries are too small to be separately listed and are classed under 'other.' As expected, the largest number of transactions were within the United States (51%), followed by transactions within the United Kingdom (11%), Canada (4.7%), and France (2.7%). Cross-border deals dominate M&A activity only in Switzerland, the Netherlands, and Bermuda. Overall, 82.6% of the transactions were within-border and 17.4% were cross-border. The total number of cross-border transactions is 344.

Table 3, Panel B shows the value of deals in millions of U.S. dollars by country of the acquirers and targets. Relative to the results reported in Panel A, the United States dominates with just over 51% of total worldwide deal value, followed by the United Kingdom (10%) and France (5%), followed by Italy (2.3%), Belgium (2%), the Netherlands and Canada (1.7%), and Switzerland (1.5%). Again, cross-border deals by value dominate in only in Switzerland, the Netherlands, Germany and Bermuda. The analysis also suggests that cross-border deals are much more common in Europe and Australia than in the North American markets. Overall, 77.7% of the deal volume ($568.5 billion) represented within-border transactions.

Table 3 also reports on M&A deals broken down by industry type; where either the acquirer or takeover target must be an insurance firm. Panel A reports the results by number of deals; panel B reports results by deal value. The analysis in Table 3 reveals that just fewer than 40% of all deals by number and 60% by value involve life insurance acquirers. Of these, 43% by number and 50% by value involve within business transactions. Interestingly, 17% of all deals by value involve life insurance firms acquiring commercial banks, although these are only 1.5% by number. Conversely, 6% of all deals involve commercial banks acquiring life insurers, which is the highest proportion of all deals

[4] The total number of deals is smaller than shown in Figure 1 because the region of the target and acquirer is not reported for some transactions.

involving non-insurance acquirers during the study period.

5.2. Event Study Results: Overview

The first stage in the event study analysis was to match SDC transactions with DataStream codes in order to capture the DataStream data on M&As for traded insurers in the overall SDC sample. The latest SDC search indicates that there were 10,532 transactions involving insurance companies in our sample. The latest SDC search indicated there were 10,532 transactions involving insurance companies in our sample countries from 1/1/1990 to 12/31/2006.

This means that there were a maximum of 21,064 (10,532*2) companies involved in these transactions, since each transaction has an acquirer and a target. After eliminating countries that were not in our sample and cross-checking with our existing database, the number of companies left to look up was reduced to 9,890. Further cross-checking reduced the sample further to 8,035 companies. Elimination of transactions in which at least 50% control was not achieved reduced the sample of companies to be looked up to 7,047 companies. This is the final sample of companies used to begin the DataStream analysis.

To provide an initial overview of the results, Table 9 reports the 1-day post announcement CARs across the sample by country (Panel A) and by line of business (Panel B).[5] The averages are reported separately for acquirers and for targets. The minimum and maximum CARs and the number of transactions are also shown in Table 9. The transactions shown summarized in the table are those resulting in a change in control.

The targets have substantially higher average CARs than acquirers in all countries and business lines (except for commercial banks), and most of the acquirer CARs are not statistically significant. However, the maximum CARs show that it is possible for acquirers to gain significant value from M&A transactions. The country level analysis shows that there is little variation in average (0,+1)

[5] I.e., the results in Table 9 are for the (0,+1) window.

event window CARs for acquirers. By contrast, the average (0,+1) day window CARs for targets varies considerably with US, Swiss, and Dutch targets benefiting considerably from the M&A transactions.

The line of business level analysis by contrast indicates that acquirers classed as other financial institutions and other insurers experienced slightly negative 1 day CARs. However, for the other categories of insurers and agents, M&As appear to be close to value-neutral for acquirers. On the other hand, bank acquirers registered statistically significant market value gains of 2.6% on average for the (0,+1) window.

5.3. Event Study Results: Detailed Analysis

This section provides a more detailed analysis of the event study results. The discussion is confined here to the major geographical variations; further analysis of results by line of business is also briefly reported in the appendix. This analysis investigates several additional event windows besides the (0,+1) window discussed above. The results also are broken down by country, by industry, and in terms of cross-border versus within border transactions. The study focuses only on transactions that resulted in a change in control, i.e., where the buyer's ownership share in the target increased from less than 50% to 50% or more as the result of the transaction. Prior research has shown that change in control transactions provide the most meaningful results in the analysis of M&As.

Table 4 (5) provides a regional breakdown of acquirers (targets). The panels report on regional effects North America (Canada/US; Panel A) and Europe (UK/Non-UK; Panels B) and Asia (Panel C). In interpreting these results, it is important to keep in mind that the levels of statistical significance are likely to drop off considerably due to the reductions in sample size in many of the regions analyzed.

Panel A of Table 4 suggests that the North American market appears to generate some positive effects for acquirers, although these effects dissipate over longer-event windows. When the US is included, there is a statistically negative effect in some windows including the period prior to the

takeover (not reported, suggesting some negative information leakage prior to the events. The U.S. market itself appears to generate slightly positive CAARS for acquirers over all (0, +x) windows; and the results are statistically significant. However, once again, there appears to be some negative information leakage prior to the event (e.g., in the (-10, 0) window).

The European takeovers (panel B) are positive and statistically significant only for relatively short windows surrounding the event (e.g., the (-1,+1) and (-2,+2) windows). However, the European results for most windows are not statistically significant. The results are slightly stronger when the U.K. is included (panel J). The U.K. results (not reported) imply that there are significant positive results for U.K. acquirers over short windows (e.g., (0,+1), (0,+5), and (0,+10)); but these effects dissipate and become negative over longer horizons, although the negative returns are not statistically significant.

The analysis for Asia Pacific is somewhat equivocal. Based on the region as a whole, including or excluding Japan (panel C), takeovers appear to generate negative value for acquirers; but the effects are not statistically significant. When Australia is also excluded, the negative effect of takeovers becomes statistically significant over the (0,+10) and (0,+15) windows. The acquirers results for Australia (not reported) are basically insignificant. The only Asian transactions that appear to generate significant value gains are the Japanese transactions (not reported). E.g., Japanese acquirers gain 3.97% in the (0,+10) window.

Table 5 provides the equivalent regional and country breakdown by target. The action in North America (Panel A) is in the U.S. transactions, which show substantial and significant positive CAARs in all windows. U.S. targets are the world leaders in terms of market value gains from M&A transactions. European targets also benefit from M&A activity, with results significant across all windows (Panel B). These results are even more pronounced in the U.K. (not reported), with positive

and statistically significant results across all event windows. In fact, the U.K. transactions show larger market value gains than the Continental European transactions in nearly all windows.

Panel C shows significant gains for Asian targets, with positive information leakage prior to the event. E.g., shows a gain of 7.12% in the (-15,+15) window and a gain of 4.66% in the (0,+15) window. The highest gains for Asian transactions are in Japan (not reported), but it is important to point out that only four Japanese transactions are included in the target analysis. Thus, the U.S. and Japanese transactions appear to be the most profitable in terms of market value gains for targets.

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5.4. Determinants of Deal Value and Post-announcement abnormal returns

In this section we report further results of cross-sectional variations in both deal value and abnormal stock price returns for acquiring firms. We first report the results of univariate tests of the entire sample, and then examine, for a sub-sample of firms for which market data is available, the determinants of takeover. We then discuss further results of the analysis of surviving acquirers and targets.

5.4.1. Univariate tests

Table 6 reports univariate tests of major characteristics of the deal according to various factors. We consider three key characteristics of the deal; the one-day abnormal return, the difference between the one-day return and the average of the subsequent two to ten days return, and the deal value. Our measure of information asymmetry is intended to capture variations in market knowledge about the firm in the period immediately following the acquisition date.[6] Various factors are then posited to explain variations in the characteristics, such as whether the firm remained active post the deal, the age of the

[6] Our measure of information asymmetry differs from the standard bid-ask spread and other liquidity measures used to evaluate information asymmetry. This is because of the unique and specialised nature of the insurance industry.

deal, business type, acquirer and target geographical location, and cross-border and frequency of deals. We also measure the age of the deal, where we define the dot.com bubble burst of March 2001 as the first signal of recession-related problems with the stock market.

These univariate tests capture the statistical significance of variations in data that are reported in tables 4 and 5 and in the appendix. Table 6 reports univariate tests separately for acquirers (Panel A) and for targets (Panel B).

For acquirers (Panel A), the one-day abnormal return is associated with whether the firm is active and the age of the deal, as well as whether the firm is an Asian target. By contrast our measure of information asymmetry is not associated with any characteristic. The deal value is associated with whether the firm is active, the age of the deal, whether the firm is a general insurance firm, whether the acquirer is an insurer, and whether there is an Asian acquirer or target involved. This implies that Asian deals, at least during our study period, are significantly less material than North American and European deals.

For targets, Panel B shows the equivalent univariate tests of various factors associated with the abnormal return, information asymmetry and valuation aspects of the M&A decision. For the abnormal returns, abnormal returns are significantly higher for firms that are active, are general insurers, are insurance targets, and for North American acquirers and targets, respectively. By contrast, abnormal returns post-acquisition are significantly lower for European acquirers and targets. Information asymmetry is significantly higher for post-March 2001 deals, non-American and European acquirers, and US and European targets. Deal values for targets are significantly higher for non-insurance targets, and for non-Asian acquirers and targets.

5.4.2. Listed acquiring firms

An important issue raised by our research is the relationship between abnormal returns and various financial and risk characteristics of the acquiring firms. Specifically, we examine whether risk (proxied by Beta, leverage and risk capital), investment opportunity sets (Tobin's Q) size of acquirer (market value of equity) and profitability (as measured by return on equity). We also control for dummy variables associated with the degree of commonality of the acquirer and target, number of takeovers, and cross-border effects.

In order to control for reliability of continuous data for surviving firms, the cross-sectional analysis focuses only on the most recent five year period of takeovers (2001-2006). Acquiring firms were only included in this analysis if they had sufficient financial, credit rating and stock price data available on Compustat. This reduced the sample size to 143 firms, of which 70 were US, and 73 European (of which 15 are UK). We did not analyze the small sample of Asian acquirers that met our selection criterion.

Table 6 reports the descriptive statistics. For the listed acquirers. The beta, Tobin's Q, market value of equity, leverage, earnings, risk capital are all higher for the US listed acquirers, while the deal value and post-1 day takeover return is higher for European firms. There is a much her percentage of insurance acquires and targets in Europe than in the US, while the percentage of cross-border takeovers is also much higher.

Table 8 shows the correlation among variables. For US firms (Panel A), there is a high correlation between market value and both beta and Tobin's Q, while there is a significant high association between leverage and profitability. By contrast, for European firms (Panel B), Tobin's Q is significantly positively related to beta, leverage and market value of equity. Earnings are also associated with leverage and market value of equity.

Table 8 reports the results of the OLS regressions used to examine the factors associated with abnormal return and deal value, both for the entire sample and for regional samples. Model 1 reports the results of the determinants, while model 2 incorporates dummy variables representing acquirer and/or target characteristics. The overall results support the proposition that deal value is positively associated with both Tobin's Q and the cross-border takeover. However these results are subject to regional variations. While none of the factors affect North American deal size, Tobin's Q, and return are relevant to deal size European firms; and cross-boarder takeovers and the commonality of the acquirer and target when industry controls are included. Table 6b reports the results for determinants of acquirer abnormal returns immediately following the takeover. Factors explaining cross-sectional variations in abnormal returns are only significant for European firms. Profitability is negatively associated with abnormal returns, while there is a positive association with risk capital and the extent of commonality between acquirer and target. For UK firms, there is negative association between abnormal returns and risk, as measured by beta and risk capital.

5.4.3. Survival firm analysis

An important qualification to the analysis reported above is that we could not control for the success or otherwise of the takeover behavior of acquirers and target firms. A large number of the largest insurance firms engaged in repeated takeover activities over study period, while other firms engaged in single M&A transactions. The organizational learning literature have sought to explore whether acquisition activity is successful for targets and acquirers, and whether the success leads to future acquisitions (e.g. Finkelstein and Haleblian, 2002; Zollo and Singh, 2004, Shaver et al., 1997; Vermeulen and Barkema, 2001). In this section, we examine the characteristics of those firms that remained active for a period both before and subsequent to the takeover activity are more likely to

exhibit factors associated with experience or learning benefits from M&A transactions than firms which did not survive. In particular we posit that firms that accumulate acquisition experience develop expertise in this area and are therefore more likely to subsequently perform successful acquisitions.

Analysis of post-takeover experience and learning requires insurers to be active post-acquisition for at least five years of a common duration. To qualify for further analysis as a surviving acquirer, a firm had to participate in M&A with another insurer or non-insurer at least once during the entire period 1990-2004, and survive during the post-takeover period 2004-2008. Of the entire sample, only 38 (3%) of acquiring firms survived the takeover period as an active business selling insurance, for the post-takeover period 2004-2008. Similarly, only 32 (10%) of the target firms survived and continued to be active selling insurance post their takeover date. A critical event, defined here as the takeover deal with the largest value was defined for each identified acquiring firm and the 'depreciated' value associated with the time elapsed after that critical even was measured consistent with the learning literature.

Table 10 reports the OLS regression of takeover survival and learning factors associated with one-day abnormal returns, information asymmetry and deal value of surviving acquirers (Panel A) and targets (Panel B), respectively. These variables, together with those identified in table 6 as well as change in premiums, claims, reserves and surplus were measured for each acquirer and target post the deal date.

For the surviving acquirers, Table 10 (Panel A) reports that one day abnormal returns are negatively associated with life assurance acquisitions, and with change in claims, while as predicted, information asymmetry is significantly negatively associated with one-day abnormal returns. Information asymmetry is negatively associated with both abnormal returns as predicted, and with depreciation related to the time elapsed from the critical deal date. Deal value is significantly negatively related to North American, European and Asian targets, and with cross-border activity.

Panel B, Table 10 shows the equivalent results for surviving target firms. One day abnormal returns are significantly positively associated with the solvency ratio. The information asymmetry is also significantly positively associated with the solvency ratio, and negatively associated with US and European targets. There are no factors associated with the deal value for target firms.

Finally, we also report the relation between survival characteristics and the probability of type of takeover acquirer. Table 11 reports the logistic regression of whether survival characteristics are associated with the probability of being a North American or European acquirer. For surviving acquirers (Panel A), North American acquirers are negatively associated with a change of surplus. Information asymmetry and solvency also are negatively, and positively, respectively, associated with the probability of being either a North American or European acquirer.

Panel B, Table 11 reports the equivalent characteristics associated with a target firm surviving post-acquisition, conditioned on being taken over by either a North American or cross-border acquirer. The probability of surviving a US acquisition is positively associated with the solvency ratio, return on equity and cash position of the target firm. Survival of a cross-border acquisition is also positively associated with cash position.

The results overall imply that survival probability is positively associated with information asymmetry and deal value effects for acquiring firms, and with solvency and cash position effects for surviving target firms. The findings appear to be consistent with the prediction that takeover experience and frequency of takeover can reduce information asymmetry among market participants.

6. Conclusions

This paper presents a comprehensive empirical analysis of M&A transactions in the global insurance sector. The M&A transactions included in the study are those where either the acquirer or the target is in the insurance industry. We consider the valuation, information asymmetry and abnormal returns arising from the universe of transactions reported in the Thomson SDC Platinum database for which stock return data exist in the DataStream international stock price database. We examine the effect of M&A transactions on both the acquiring firm and the target firm by analyzing how market prices of the equity of the relevant entity behaved by reference to the overall market during the period immediately preceding and following the announcement, over various event windows. The analysis extends across the global insurance market and breaks down the results by country/region, by line of business, and by whether the transaction was intra or inter-industry. We also consider the effects of experience and learning on both acquiring and target firms that survived the takeover experience.

In addition to confirming evidence in the broader M&A literature, we also contribute by developing a new measure of information asymmetry, develop a measure of risk capital and consider the strategic implications for evaluating the performance of firms that engage in the takeover experience. We are the first to examine these issues within an intra-industry setting of a sector that is becoming important in the global transformation of capital and risk.

The findings of the event study analysis can be summarized as follows:

- An analysis of all acquirers shows small value gains surrounding the event day (approximately 0.5%). Thus, M&As are modestly value-enhancing for acquirers on average.

- The analysis of all targets shows substantial and highly significant market value that is sustained in the widest event windows included in the analysis. E.g., on average targets show market value gains of 12.8% in the (-10,+10) window.

- For acquirers, there is no clear difference between cross-border and within-border (domestic) transactions. In both cases, there are small market value gains in short windows surrounding the events but the gains dissipate in the wider windows.

- For targets, there is no clear difference between cross-border and domestic transactions – targets

tend to realize large, statistically significant market value gains from both types of transactions. This provides evidence that geographical integration of the financial services sector has been successful.

- Regional analysis of the results shows that M&As tend to destroy value for acquirers in Asia, when Japan and Australia are excluded from the analysis. M&As create value for Japanese acquirers, although the results are based on only a few transactions. For Canada, the U.S., Continental Europe, and the U.K., there are small, statistically significant value gains in short windows surrounding the events, but these gains are not sustained in the wider windows.

- Regional analysis also shows that market value gains for targets are highest in the U.S., the U.K., and Japan, although the Japanese sample is very small. Continental European and other Asian targets also show significant market value gains, but Canadian targets register market value losses.

- Cross-industry analysis provides virtually no evidence that insurance companies gain value by acquiring non-insurance firms. However, insurance agents and brokers gain significant value by acquiring non-insurance targets.

- Non-insurance target acquired by insurance companies and agents show large and significant market value gains. The gains are especially large when the acquirer is a non-life insurance company.

- Transactions where banks acquire insurance companies or agents generate significant market value gains for the acquiring banks in short windows surrounding the event date, but these gains are not sustained over the wider windows. However, insurers that acquire banks sustain significant market value losses. This provides some evidence that more synergies are generated when banks expand into the insurance industry through M&As than when insurers expand into banking.

- Both bank and insurance targets gain significant market value in cross-industry transactions. However, bank targets acquired by insurers gain significantly more value than insurance targets acquired by banks, suggesting that insurers may be overpaying in their acquisitions of banking firms.

- Insurance companies that acquire securities broker/dealers sustain significant market value losses, providing further evidence that insurers should stick with focusing transactions.

- Intra-insurance-industry transactions generate significant market value gains for acquiring insurance companies, reinforcing the conclusion that product focusing transactions are better than diversifying transactions for insurers. Transactions between non-life insurers are more likely to create value for the acquirer than transactions between life insurers. The results for insurance agent-to-agent transactions are much weaker than for insurance companies and are negative for several windows.

- All types of intra-insurance-industry M&A transactions generate significant market value gains

for targets. However, market value gains to targets are generally larger for life-to-life insurance transactions than for non-life-to-non-life transactions.

- Further subdividing the overall sample of acquirers, we find that acquirers sustain significant market value losses when the target is a private company but achieve significant market value gains when the target is a subsidiary of another company. This may reflect information asymmetries such that more information is available on subsidiaries of public firms than on private firms.

- The size of the acquirer and/or target also affects the extent to which M&A activity. Large US and Asian firms acquiring other large firms, and small US and small UK firms taking over other small firms. Only Canadian and US target firms consistently benefit from takeover activity when results are broken down by size. By contrast, only large Asian firms appear to benefit significantly from being taken other by other large firms, while only large European and UK targets appear to benefit significantly from being taken over by small firms.

- For European firms, cross-sectional variations in deal value are associated with cross-border deals and the extent of commonality between acquirer and target. Cross-sectional variations in abnormal returns are more associated with both risk and return characteristics of the acquirer for European firms and commonality of acquirer.

- Surviving acquirer and target firms exhibit behavior consistent with learning over time. Experience and frequency of takeover is associated with market presence and leads to reduced information asymmetry effects.

Our research findings are subject to the various limitations associated with the research method used. Further research is also needed to identify the longer-term effects of M&A transactions and to incorporate some information concerning the level of disclosure; regulation and management corporate governance effectiveness immediately during and after the deals were effected.

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Table 1: Predictions of the Study

No.	Relationship	Predicted effect
1	Do acquiring firms gain or lose market value as a result of M&As	H1 Acquiring firms lose value
2	Do target firms that continue to be traded following the transaction gain or lose value as a result of M&As	H2 Target firms gain value
3	Are domestic or cross-border transactions more likely to create value?	H3a: Domestic transactions more likely to create value for acquirers
		H3b: Cross-border transactions more likely to create value for targets
4	Are within industry or cross-industry M&As more likely to create value?	H4a: Cross-industry M&As are more likely to create value for bank acquiring insurance firms
		H4b: Within industry M&As are more likely to create value for insurance firms acquired by banks
5	Are within sector or cross-sector M&As more likely to create value?	H5a: Within sector M&As are more likely to create value for acquirers
		H5b: Cross-sector M&As more likely to create value for targets
6	Does the size of the target and/or acquirer have any impact on the likelihood of value creation?	H6a: Relatively large targets are more likely to create value for acquirers
		H6b: Relatively small acquirers are more likely to create value for targets
7	Does the country of origin of the target or the acquirer have any relationship with value creation?	H7a: European firms taking over cross-border firms is more likely to create value for acquirers
		H7b: European firms taking over Asian firms is more likely to create value for targets

APPENDIX

This appendix reports the results of further analysis of the cumulative abnormal returns discussed in section 4.3 of the main text.

A1. Cross-Industry Analysis

To investigate whether the sources of value creation in M&As are related to within- industry or cross-industry sources, this section presents the results for cross-industry M&A transactions. We first consider the broadly defined case where the acquirer is within the insurance industry and the target is in some other industry and then consider inter-industry transactions involving insurance acquisitions of banks and securities broker dealers and bank and broker/dealer acquisitions of insurance firms.

Table 15 presents the results for acquirers where the acquirer is an insurance firm and the target is a non-insurance firm. Panel A shows the results for transactions where the acquirer is an insurance company and the target is not. The mean CAARs are negative for most windows and are rarely statistically significant. Thus, insurance company acquirers do not show significant gains or losses from non-insurance acquisitions.

The results differ when the acquirer is an insurance agent or broker and the target is a non-insurance firm (panel B of Table 15). Here there is evidence of significant value creation for the acquirers, which tends to occur primarily prior to the event day. E.g., the (0,+1) window shows a significant market value gain of 0.37%, while the (-1,+1) window shows a significant gain of 1.12%. Hence, there is some evidence that cross-industry transactions can be beneficial for insurance agents and brokers.

Panel C of Table 15 shows the CAARs for cases where non-life insurance companies acquire non-insurance firms. Here there is some evidence of market value gains in short windows surrounding the event day. However, the results become negative for the (0,+10) and (0,+15) windows. Hence,

there is not much evidence that cross-industry transactions are beneficial for non-life insurance acquirers.

Table A2 shows the CAAR results for targets for transactions where the acquirer is within the insurance industry and the target is not. The results reveal substantial market value gains across the board for the non-insurance target firms. Focusing on the widest window (-15,+15), the results are especially strong for non-insurance targets acquired by non-life insurers, where the mean CAAR is 22.8%. The corresponding results for targets acquired by insurance companies in general and by insurance agents and brokers are 14.0% and 12.0%, respectively. This may provide some evidence that insurance firms over-pay for non-insurance acquisitions.

Table A3 considers bank-insurance and insurance-bank transactions. The results in Table A3, panel A, suggest that transactions where banks acquire insurance companies or agents tend to generate positive market value gains for the acquirers in relatively short windows surrounding the acquisition date (panels A and B). However, the effects dissipate over the longer windows shown in the table. However, when insurance companies acquire banks (panel C and D), market value losses are generated for the acquiring insurers, and the effects are statistically significant in many of the windows. These results support the contention in hypothesis H4a that insurers are more likely to lose value when acquiring banks but banks are less likely to lose and may gain value when acquiring insurance firms. This is most likely because sales of insurance products, especially annuities and life insurance, are a natural extension of their normal operations for banks, whereas banking is a relatively unfamiliar activity for insurers.

Table A4 reports the equivalent effects for targets where either banks or insurance companies are acquirers in cross-industry transactions. As the overall results show, there is strong evidence that targets gain market value as the result of being acquired in an M&A transaction. However, the main

message from Table A4 is that bank targets acquired by insurance companies gain substantially more value than insurance targets acquired by banks (compare panels A and C). For example, in the (-15,+15) window, insurers acquired by banks register market value gains of 4.16%, whereas banks acquired by insurers register gains of 7.90%. The provides suggestive evidence that insurers may be overpaying when trying to enter the banking market through acquisitions.

A2. Within-Insurance-Industry Analysis

This section discusses the results when the transactions occur within the insurance industry. Because this paper focuses on insurers, the within-industry analysis does not consider transactions where both the acquirer and target was a bank and/or securities broker/dealer.

Table A5 reports the acquirer results for within-insurance-industry deals, i.e., where both the acquirer and target belong to the insurance sector. Panel A of Table A5 reports the results for the sector as a whole (i.e. insurance companies and/or insurance agents). The overall results indicate value creation for acquirers, especially over the (0,+x) windows. Similar results are obtained when insurance agents are excluded from the analysis (panel B). Combined with the results of Table A2 on insurer acquisitions of banks, these results provide evidence that focusing transactions are more likely to create value than diversifying transactions. However, panel C of Table A5 shows that the within-sector results are driven primarily by insurance company to insurance company transactions. The results for insurance agent-to-agent transactions are much weaker and are negative for several windows.

Panels D and E of Table A5 repeat the analysis for acquirers within the non-life and life sectors, respectively. This analysis considers only insurance companies, not agents or brokers. The results imply that transactions within the non-life insurance sector of the industry are more likely to create value than transactions within the life insurance sector. The non-life results (panel D) show significant market value gains in most windows for the acquirers, whereas the life insurance industry results (panel

E) are significant in fewer windows and generally smaller than the non-life insurance gains.

Table A6 present the within-insurance-industry analysis for the targets. The results show significant market value gains for targets in all comparisons shown in the table. The results are especially strong for broker-to-broker transactions (panel C), but the findings are based on only three transactions. Consequently, it is not clear that they generalize to future transactions. Panels D and E show that market value gains are generally stronger for life insurer to life insurer transactions than for transactions when both the target and acquirer are non-life insurers. However, large market value gains are generated by both types of transactions.

Table 2: Deals by Country – Insurance Acquirer or Target: Deals Involving a Change in Control

Panel A: Number of Deals

Target Country	Bel	Ber	Dnk	Fin	Fra	Ger	Ire	Itl	Net	Nor	Oth	Por	Spa	Swe	Swi	UK	US	Total
Belgium	9				4	2			2						3	1		21
Bermuda		9													1		6	18
Denmark			17														1	18
Finland				9														
France	5	3			53	2		4	1						3	4	6	82
Germany					2	39		1	3						2	4		51
Ireland							3								2		1	
Italy						4		47	2						7	3	1	64
Netherlands	4		2		3	1			12						2	1	1	27
Norway										4					1			
Other	2	1			10	4			4		76		1		3	15	12	134
Portugal												4			1			
Spain								4	3				11	1	4		1	
Sweden		1	2	3										4	1			
Switzerland		1			1	3		4							14			23
UK		2	1		2	1	1		5		2			1	7	222	29	274
USA	1	16			3	3		3	5		3		2		11	17	1,010	1,094
Total	23	32	22	12	75	59	4	63	38	4	81		14	6	62	278	1,072	1,836

Panel B: Deal value (USD millions)

Target Country	Bel	Ber	Dnk	Fin	Fra	Ger	Ire	Itl	Net	Nor	Oth	Por	Spa	Swe	Swi	UK	US	Total
Belgium	14,845				3,524	45			36						175	8		18,633
Bermuda		5,600															913	4,061
Denmark			4,465															4,465
Finland				4200													0	
France	8	1,213			23,915	5,118		1,139	0						1,283	2,147	525	35,361
Germany						1,859		5075	2,337						90	417	791	4,703
Ireland							3115									909	13	
Italy						1,308		17,281							397	74	0	19,160
Netherlands	1,473				1,311				12,765						284	53		15310
Norway										640						27	0	
Other		451			1,380	637			829		17,521		3		7	1227		35,152
Portugal												407				0	603	
Spain								49	71				433	433		425		
Sweden		442	509	2067										1483		5993		

Switzerland		441			236			1,224							10,906			12,807
UK		172			1,961	105	35		663		843			808	40,027	75,189	3,642	119,272
USA	2,629	8,025			60	7,080		322	23423		1		0		16,036	3,223	377,817	437,951
Total	18,956	13,449	4,975	6267	32,387	16,152	3150	25091	41754	640	18,365	407	436	2725	69,743	89695	384,306	706309

Table 3: Deals by Industry: Insurance Acquirer or Target: Deals Involving a Change in Control

Panel A: Number of Deals

	Comm Bank	Oth Fin	Life Ins	P&L Ins	Oth Ins	Ins Agent	Oth Ind	Total
Commercial Bank	-	-	48	23	3	5	-	81
Other Financial	-	-	1	8	8	4	-	23
Life Insurance	75	28	361	52	47	37	64	664
P&L Insurance	4	3	30	35	24	13	17	126
Other insurance	3	1	65	18	54	8	40	189
Ins Agency	82	25	88	27	20	113	66	421
Other Industries	-	-	136	23	78	37	-	274
Total	164	56	728	191	231	223	187	1,780

Panel B: Value of Deals ($Millions)

	Comm Bank	Oth Fin	Life Ins	P&L Ins	Oth Ins	Ins Agent	Oth Ind	Total
Commercial Bank	-	-	128,856	13,058	5	43	-	141,964
Other Financial	-	-	0	362	440	248	-	1,050
Life Insurance	41,706	22,629	220,724	46,501	8,220	323	6,798	346,903
P&L Insurance	2,524	39	17,826	30,606	3,815	231	12,500	67,544
Other Insurance	0	0	8,050	22,988	52,181	315	5,160	88,697
Ins Agency	165	102	19,955	584	3,542	5,448	1,161	30,960
Other Industries	-	-	17,483	10,010		2,447	-	40,281
Total	44,395	22,770	412,898	124,122	78,530	9,132	25,622	717,471

Table 4: Cumulative Abnormal Returns Across Event Windows: Acquirer Transactions by Region/Country, Market Model, Equally Weighted Index

Panel A: Acquirers: US Transactions for Al Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	1000	0.43%	0.29%	515:485	2.798**	2.238*	3.013*
(-2,+2)	1000	0.53%	0.01%	506:494	0.115	0.055	2.443**
(-5,+5)	1000	0.25%	-0.50%	499:501	-2.380*	-0.538	1.999*
(-10,+10)	1000	-0.05%	0.70%	496:504	-2.513**	-0.637	1.809*
(-15,+15)	1000	0.05%	-0.56%	496:504	-1.866*	-0.545	1.809*
(-1,0)	1000	0.02%	0.00%	481:519	0.024	0.019	0.859
(-2,0)	1000	0.20%	-0.13%	482:518	-1.331$	-0.948	0.922
(-5,0)	1000	0.00%	-0.97%	487:513	-6.533***	-0.983	1.239
(-10,0)	1000	-0.18%	-1.00%	477:523	-5.047***	-1.025	0.605
(-15,0)	1000	0.11%	-0.92%	470:530	-4.133***	-1.006	0.161
(0,+1)	1000	0.50%	0.36%	515:485	4.315***	3.142***	3.013**
(0,+2)	1000	0.42%	0.21%	490:510	2.172*	1.284$	1.429$
(0,+5)	1000	0.34%	0.54%	533:467	3.755***	2.685**	4.154***
(0,+10)	1000	0.23%	0.38%	502:498	1.841*	1.630$	2.190*
(0,+15)	1000	0.03%	0.43%	499:501	1.704*	1.447$	1.999*

Panel B: Acquirers: Europe Transactions for Al Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	334	0.50%	0.38%	175:159	3.045**	2.342**	1.774*
(-2,+2)	334	0.37%	0.25%	166:168	1.678*	1.326$	0.788
(-5,+5)	334	0.13%	0.07%	162:172	0.347	0.324	0.349
(-10,+10)	334	0.05%	0.07%	168:166	0.224	0.211	1.007
(-15,+15)	334	-0.19%	-0.06%	151:183	-0.126	-0.116	-0.856
(-1,0)	334	0.44%	0.37%	174:160	3.716***	2.950**	1.664*
(-2,0)	334	0.43%	0.35%	174:160	2.850**	2.252*	1.664*
(-5,0)	334	0.16%	0.12%	170:164	0.716	0.633	1.226
(-10,0)	334	0.19%	0.11%	172:162	0.469	0.442	1.445$
(-15,0)	334	0.18%	0.13%	162:172	0574	0.529	0.349
(0,+1)	334	0.19%	0.11%	152:181	0.910	0.641	-0.695
(0,+2)	334	0.07%	0.01%	159:175	0.111	0.085	0.021
(0,+5)	334	0.10%	0.06%	146:188	0.326	0.298	-1.404$
(0,+10)	334	-0.01%	0.06%	157:177	0.282	0.258	-0.199
(0,+15)	334	-0.25%	-0.09%	152:182	-0.358	-0.325	-0.746

Panel A: Acquirers: Asia (Including Japan) Transactions for All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	57	0.10%	0.23%	30:27	0.416	0.382	0.933
(-2,+2)	57	0.72%	0.75%	35:22	1.062	1.121	2.261*
(-5,+5)	57	0.99%	1.23%	30:27	1.179	1.192	0.933
(-10,+10)	57	-1.03%	0.58%	23:34	0.393	0.436	-0.926
(-15,+15)	57	-0.65%	0.86%	27:30	0.594	0.614	0.136
(-1,0)	57	-0.15%	0.22%	24:33	0.386	0.428	-0.661
(-2,0)	57	-0.07%	0.46%	29:28	0.708	0.855	0.667
(-5,0)	57	-0.10%	0.75%	27:30	0.947	1.057	0.136
(-10,0)	57	-0.70%	-0.01%	22:35	-0.037	-0.049	-1.192
(-15,0)	57	-0.74%	-0.17%	30:27	0.075	0.086	0.933
(0,+1)	57	0.07%	0.07%	29:28	0.164	0.144	0.667
(0,+2)	57	0.60%	0.35%	31:26	0.787	0.800	1.198
(0,+5)	57	0.90%	0.54%	32:25	0.707	0.744	1.464$
(0,+10)	57	-0.51%	0.64%	24:33	0.591	0.599	-0.661
(0,+15)	57	-0.09%	1.09%	27:30	0.821	0.821	0.136

***Significant at 0.1% level, **Significant at 1% level, *Significant at 5% level, $Significant at 10% level
Key: CAAR = cumulative average abnormal return, SCS Z = standardized cross-sectional Z score, Generalized sign Z = non-parametric test statistic. Note: This table reports results for all transactions reported in the SDC Database for which corresponding Datastream stock returns exist, where the transaction resulted in a change in control. Results are for the entire sample period,

***Significant at 0.1% level, **Significant at 1% level, *Significant at 5% level, $Significant at 10% level
Key: CAAR = cumulative average abnormal return, SCS Z = standardized cross-sectional Z score, Generalized sign Z = non-parametric test statistic. Note: This table reports results for all transactions reported in the SDC Database for which corresponding Datastream stock returns exist, where the transaction resulted in a change in control. Results are for the entire sample period,

Table 5: Cumulative Abnormal Returns Across Event Windows: Target Transactions by Region/Country
Market Model, Equally Weighted Index

Panel A: Target: United States Transactions for Al Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	143	16.30%	15.30%	112:31	43.358***	8.892***	7.925***
(-2,+2)	143	16.84%	16.23%	116:27	35.532***	8.884***	8.596***
(-5,+5)	143	17.74%	16.90%	114:39	24.705***	8.687***	8.260***
(-10,+10)	143	17.20%	17.58%	110:33	18.235***	8.642***	7.589***
(-15,+15)	143	18.90%	19.62%	117:26	16.379***	9.224***	8.764***
(-1,0)	143	10.44%	9.92%	95:48	34.364***	6.599***	5.069***
(-2,0)	143	11.18%	10.90%	103:40	30.991***	6.821***	6.413***
(-5,0)	143	12.13%	11.59%	106:37	23.171***	7.038***	6.917***
(-10,0)	143	12.23%	12.48%	101:42	18.193***	7.347***	6.077***
(-15,0)	143	13.91%	14.46%	110:33	17.245***	8.053***	7.589***
(0,+1)	143	15.57%	14.77%	113:30	51.355***	8.594***	8.092***
(0,+2)	143	15.38%	14.72%	110:30	41.688***	8.586***	7.589***
(0,+5)	143	15.33%	14.69%	107:36	29.427***	8.345***	7.085***
(0,+10)	143	14.69%	14.49%	109:34	21.187***	8.133***	7.421***
(0,+15)	143	14.70%	14.54%	109:34	17.525***	8.117***	7.421***

Panel B: Target: Europe Transactions for Al Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	87	5.39%	5.60%	53:34	16.643***	3.707***	2.981**
(-2,+2)	87	6.26%	6.45%	50:37	14.814***	3.900***	2.334**
(-5,+5)	87	6.34%	6.93%	53:34	10.751***	3.659***	2.981**
(-10,+10)	87	8.37%	9.48%	54:33	10.479***	3.965***	3.196***
(-15,+15)	87	13.23%	12.22%	53:34	11.101***	4.124***	2.981***
(-1,0)	87	3.58%	3.99%	43:44	14.484***	2.924*	0.826
(-2,0)	87	4.13%	4.47%	51:36	13.261***	3.28***	2.550**
(-5,0)	87	4.11%	4.52%	48:39	9.587***	3.143***	1.903*
(-10,0)	87	5.05%	5.73%	52:35	8.894***	3.367***	2.765**
(-15,0)	87	5.31%	5.67%	50:37	7.305***	3.235***	2.334**
(0,+1)	87	5.25%	5.30%	50:37	19.513***	3.715***	2.334**
(0,+2)	87	5.58%	5.67%	46:41	17.023***	3.649***	1.472$
(0,+5)	87	5.67%	6.10%	47:40	12.840***	3.535***	1.688*
(0,+10)	87	6.77%	7.43%	52:35	111.596***	3.500***	2.765*
(0,+15)	87	11.37%	10.25%	55:32	13.174***	3.826***	3.412***

Panel C: Target: Asia (Including Japan) Transactions for All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	21	6.87%	6.41%	14:7	7.370***	2.741**	1.758*
(-2,+2)	21	8.82%	7.73%	14:7	6.774***	2.510**	1.758*
(-5,+5)	21	13.24%	10.23%	13:8	6.036***	2.724**	1.321$
(-10,+10)	21	10.28%	8.33%	12:9	3.432***	2.410**	0.884
(-15,+15)	21	7.12%	6.76%	14:7	2.089*	1.896*	1.758*
(-1,0)	21	2.23%	3.04%	14:7	4.339***	1.947*	1.758*
(-2,0)	21	2.41%	3.22%	13:8	3.731***	2.064*	1.321$
(-5,0)	21	6.04%	4.92%	13:8	3.968***	2.486**	1.321$
(-10,0)	21	6.42%	5.39%	13:8	3.177***	2.305*	1.321$
(-15,0)	21	3.90%	4.11%	11:10	1.756*	1.425$	0.447
(0,+1)	21	6.08%	5.61%	12:9	7.955***	2.299*	0.884
(0,+2)	21	7.86%	6.75%	12:9	7.671***	2.151*	0.884
(0,+5)	21	8.65%	7.55%	12:9	6.174***	2.192	0.884
(0,+10)	21	5.30%	5.18%	10:11	3.012***	1.782*	0.010
(0,+15)	21	4.66%	4.88%	10:11	2.342**	1.660*	0.010

***Significant at 0.1% level, **Significant at 1% level, *Significant at 5% level, $Significant at 10% level

Key: CAAR = cumulative average abnormal return, SCS Z = standardized cross-sectional Z score, Generalized sign Z = non-parametric test statistic. Note: This table reports results for all transactions reported in the SDC Database for which corresponding Datastream stock returns exist, where the transaction resulted in a change in control. Results are for the entire sample period,

***Significant at 0.1% level, **Significant at 1% level, *Significant at 5% level, $Significant at 10% level
Key: CAAR = cumulative average abnormal return, SCS Z = standardized cross-sectional Z score, Generalized sign Z = non-parametric test statistic. Note: This table reports results for all transactions reported in the SDC Database for which corresponding Datastream stock returns exist, where the transaction resulted in a change in control. Results are for the entire sample period,

Table 6
Entire Sample
Univariate tests

This table reports the mean and variance for the entire sample when classified by various characteristics. These include whether the firm is active in selling insurance, the age of the deal (defined as March 2001), the line of business (life versus general), the nationality of the acquirer or target (north America, Europe or Asia), frequency of deals, cross-border versus domestic. Independent sample t statistics are shown. Results are reported separately for acquirers (Panel A) and for targets (Panel B).

Panel A: Acquirers

Characteristic	Classification	Sample	ANWAR1	Infoasymmetry	Deal Value
Active	Active	122	-0.233 (0.039)	-0.005 (0.031)	627.44 (2480.50)
	Non-active	1634	0.007 (0.059)	-0.004 (0.069)	225.62 (1222.91)
	t-statistic		5.610***	-1.461	-3.176***
Age of deal	Pre March- 2001	913	0.002 (0.064)	-0.004 (0.066)	355.86 (1734.18)
	Post March- 2001	845	0.008 (0.065)	-0.028 (0.068)	158.63 (844.99)
	t-statistic		2.549***	0.396	-3.063***
Life	Life	1088	0.003 (0.045)	-0.004 (0.040)	217.13 (1377.01)
	Non-life	672	0.006 (0.065)	-0.004 (0.070)	312.40 (1307.75)
	t-statistic		1.142	-0.113	-1.436
General	General	402	0.004 (0.062)	-0.004 (0.077)	445.74 (2156.08)
	Non-general	1358	0.005 (0.057)	-0.003 (0.064)	196.47 (988.35)
	t-statistic		0.507	0.314	-3.256***
Insurer	Insurance acquirer	1333	0.005 (0.056)	-0.004 (0.057)	297.28 (1512.16)
	Non-insurance acquirer	423	0.005 (0.065)	-0.002 (0.092)	115.67 (593.56)
	t-statistic		0-0.17	-0.520	2.411***
American acquirer	North American acquirer	1120	0.005 (0.065)	-0.003 (0.080)	232.33 (1397.01)
	Non-North American acquirer	640	0.004 (0.044)	-0.004 (0.036)	290.69 (1267.71)
	t-statistic		0.812	0.772	0.384
European acquirer	European acquirer	583	0.005 (0.044)	-0.004 (0.036)	313.29 (1325.31)

	Non-European acquirer	1177	0.005 (0.064)	-0.003 (0.078)	223.99 (1363.68)
	t-statistic		0.043	0.380	-1.303
Asian acquirer	Asian acquirer	57	0.009 (0.040)	-0.001 (0.046)	60.313 (171.31)
	Non-Asian acquirer	1703	0.005 (0.058)	-0.004 (0.068)	1373.06 (260.02)
	t-statistic		0.532	0.824	4.955***
US target	US target	1106	0.005 (0.044)	-3.714 (0.080)	270.88 (1470.9)
	Non-US target	654	0.005 (0.065)	-2.972 (0.037)	224.16 (1120.72)
	t-statistic		-0.118	0.223	-0.700
European target	European target	571	0.006 (0.045)	-0.003 (0.037)	247.01 (1196.20)
	Non-European target	1189	0.005 (0.064)	-0.004 (0.078)	256.66 (1420.24)
	t-statistic		-0.292	-0.257	0.140
Asia target	Asia target	75	-0.001 (0.034)	-0.003 (0.042)	60.712 (173.20)
	Non-asia target	1685	0.005 (0.059)	-0.003 (0.068)	262.14 (1380.11)
	t-statistic		1.591*	-0.090	5.145***
Frequency	>1 takeover experience	1451	0.004 (0.056)	-0.004 (0.058)	278.04 (1444.06)
	One takeover only	274	0.011 (0.071)	-0.002 (0.105)	150.07 (814.63)
	t-statistic		1.958**	0.343	-1.424
Cross-border	Cross-border takeover	340	0.005 (0.039)	-0.002 (0.036)	293.29 (1276.12)
	Domestic takeover	1419	0.005 (0.062)	-0.037 (0.073)	244.20 (1369.51)
	t-statistic		-0.044	-0.357	-0.601

Table 6
Univariate tests (continued)

This table reports the mean and variance for the entire sample when classified by various characteristics. These include whether the firm is active in selling insurance, the age of the deal (defined as March 2001), the line of business (life versus general), the nationality of the acquirer or target (north America, Europe or Asia), frequency of deals, cross-border versus domestic. Independent sample t statistics are shown. Results are reported separately for acquirers (Panel A) and for targets (Panel B).

Panel B : Targets

Characteristic	Classification	Sample	ANWAR1	Infoasymmetry	Deal Value
Active	Active	94	0.102 (0.181)	0.002 (0.069)	2127.53 (4362.48)
	Non-active	211	0.111 (0.203)	-0.005 (0.090)	1044.26 (5371.64)
	t-statistic		-1.860*	-0.680	0.363
Age of deal	Pre March- 2001	175	0.111 (0.205)	-0.019 (0.087)	1443.95 (6029.02)
	Post March- 2001	130	0.104 (0.185)	0.004 (0.082)	1289.50 (3498.80)
	t-statistic		-0.279	-1.643*	-0.261
Life	Life	148	0.101 (0.196)	0.002 (0.077)	1783.39 (6682.11)
	Non-life	157	0.115 (0.196)	-0.007 (0.091)	996.09 (2880.99)
	t-statistic		0.602	-0.903	-1.322
General	General	74	0.157 (0.219)	-0.007 (0.089)	1603.67 (3994.37)
	Non-general	231	0.092 (0.186)	-0.001 (0.083)	1305.86 (5411.74)
	t-statistic		-2.280***	0.464	-0.437
Insurer	Insurance target	236	0.050 (0.126)	0.003 (0.088)	458.69 (1027.69)
	Non-insurance target	69	0.125 (0.208)	-0.004 (0.084)	1646.93 (5745.85)
	t-statistic		3.555***	-0.666	3.016***
American acquirer	North American acquirer	149	0.146 (0.229)	-0.013 (0.093)	1687.36 (6791.00)
	Non-North American acquirer	156	0.073 (0.152)	0.007 (0.076)	1082.76 (2605.71)
	t-statistic		-3.320***	2.063***	-1.018
European acquirer	European acquirer	132	0.073 (0.151)	0.009 (0.076)	1237.21 (2798.09)
	Non-European acquirer	173	0.135	-0.012	1485.63

			(0.222)	(0.089)	(6322.45)
	t-statistic		2.901***	-2.209***	0.461
Asian acquirer	Asian acquirer	24	0.068 (0.156)	-0.006 (0.071)	233.29 (523.15)
	Non-Asian acquirer	281	0.111 (0.199)	-0.003 (0.086)	1475.90 (5300.01)
	t-statistic		1.036	0.268	3.724***
US target	US target	154	0.1500 (0.227)	0.011 (0.077)	1774.35 (6715.83)
	Non-US target	151	0.063 (0.148)	-0.016 (0.090)	974.01 (2524.77)
	t-statistic		-3.796***	2.757***	-1.383
European target	European target	128	0.065 (0.147)	0.012 (0.078)	1107.46 (2713.56)
	Non-European target	177	0.139 (0.221)	-0.014 (0.088)	1573.85 (6285.97)
	t-statistic		3.304***	-2.705***	0.788
Asia target	Asia target	25	0.066 (0.154)	-0.005 (0.070)	233.72 (512.13)
	Non-asia target	280	0.112 (0.199)	-0.002 (0.086)	1480.30 (5308.99)
	t-statistic		1.393	0.172	3.739***
Cross-border	Cross-border takeover	46	0.106 (0.188)	0.004 (0.071)	1704.43 (3358.55)
	Domestic takeover	219	0.1013 (0.196)	0.001 (0.081)	1413.27 (5781.13)
	t-statistic		-0.169	-0.280	-0.330

Table 7
Descriptive Statistics
Listed Acquiring firms

This table summarises the results of further analysis of the sample of acquiring firms. To be included in the sample, acquiring firms had to be continuously listed on the Compustat database, and relevant stock price, market, financial and credit rating data had to be available. Data relates to over the study period 1 June 2001 to 30 April 2006. Deal value is the average deal values for all deals undertaken in study period. Beta is based on 60 month observations over the study period. Tobin's Q is defined as the relation of total market value of assets divided by replacement cost of assets. Market value of equity is the number of outstanding shares on issue multiplied by the adjusted share price of common stock averaged over the period. Leverage is defined as total long term debt divided by common shareholders equity. The EBITDA is defined as earnings before interest, taxes, amortization and depreciation and is averaged over the period. The Risk Capital% is defined as the smallest amount that can be invested to insure the net assets of the firm, as a percent of total shareholders equity. Following Merton and Perold (1993, 242), risk capital is approximated by 0.4 x the gross assets (invested at a risk free rate) x the volatility of percentage changes in the ratio of gross assets to long-term liabilities.

	North America (n=70)		Europe (n = 73)	
	Mean	Standard Deviation	Mean	Standard Deviation
1 day post takeover return	0.003	0.022	0.249	2.926
Deal value	283.03	1266.34	5249.85	14859.53
Beta	0.512	1.592	0.285	1.941
Tobin's Q	2.489	10.564	0.894	2.693
Market Value of Equity	6461	26158	5249.85	14859.53
Leverage	0.930	2.907	0.823	1.739
EBITDA/Equity	13.5%	61.2	7.67%	0.127
Risk Capital%	1.350	9.102	0.419	1.596
% Insurance acquirers	50.00%	0.502	59.26%	0.495
% Life insurance acquirer	33.72%	0.475	51.85%	0.504
% Insurance target	66.28%	0.475	85.19%	0.358
% Life insurance target	32.56%	0.471	75.93%	0.431
% Agent target	26.74%	0.445	16.67%	0.376
No. of takeovers in period	2.634	4.452	3.296	4.729
% common industry of acquirer and target	53.49%	0.502	74.07%	0.520
% cross-border takeovers	17.44%	0.381	40.74%	0.495

Table 8
Correlations Among Independent Variables – Listed Surviving firms

This table reports pearson correlations among the independent variables. Where Tobin's Q is defined as the relation of total market value of assets divided by replacement cost of assets. Market value of equity is the number of outstanding shares on issue multiplied by the adjusted share price of common stock averaged over the period. Leverage is defined as total long term debt divided by common shareholders equity. The EBITDA is defined as earnings before interest, taxes, amortization and depreciation and is averaged over the period. The Risk Capital% is defined as the smallest amount that can be invested to insure the net assets of the firm, as a percent of total shareholders equity. Following Merton and Perold (1993, 242), risk capital is approximated by 0.4 x the gross assets (invested at a risk free rate) x the volatility of percentage changes in the ratio of gross assets to long-term liabilities.

Panel A: US firm (n = 70)

	Tobin's Q	Beta	Leverage	MVE	EBITDA	Risk Capital
Tobin's Q	1.000					
Beta	0.502**	1.000				
Leverage	0.128	0.137	1.000			
MVE	0.984**	0.483**	0.147	1.000		
EBITDA	0.078	0.111	0.879**	0.089	1.000	
Risk Capital	-0.008	0.015	-0.016	-0.014	-0.056	1.000

Panel B: European firms (n = 73)

	Tobin's Q	Beta	Leverage	MVE	EBITDA	Risk Capital
Tobin's Q	1.000					
Beta	0.393**	1.000				
Leverage	0.237**	0.113	1.000			
MVE	0.456**	0.253**	0.563**	1.000		
EBITDA	0.473	0.180**	0.537**	0.395**	1.000	
Risk Capital	0.084	0.043	0.098	0.095	0.155	1.000

Table 9
Listed acquiring firms
OLS Regression

This table summarises the results of further analysis of the sample of acquiring firms. To be included in the sample, acquiring firms had to be continuously listed on the Compustat database, and relevant stock price, market, financial and credit rating data had to be available. Data relates to over the study period 1 June 2001 to 30 April 2006. Deal value is the average deal values for all deals undertaken in study period. Beta is based on 60 month observations over the study period. Tobin's Q is defined as the relation of total market value of assets divided by replacement cost of assets. Market value of equity is the number of outstanding shares on issue multiplied by the adjusted share price of common stock averaged over the period. Leverage is defined as total long term debt divided by common shareholders equity. The EBITDA is defined as earnings before interest, taxes, amortization and depreciation and is averaged over the period. The Risk Capital% is defined as the smallest amount that can be invested to insure the net assets of the firm, as a percent of total shareholders equity. Following Merton and Perold (1993, 242), risk capital is approximated by 0.4 x the gross assets (invested at a risk free rate) x the volatility of percentage changes in the ratio of gross assets to long-term liabilities.

Panel A: One Day Abnormal Return

	North America (n=70)		Europe (n = 73)	
	Model 1	Model 2	Model 1	Model 2
Beta	-0.039	-0.006	0.019	0.012
Tobin's Q	0.007	0.005	-0.028	-0.003
Market Value of Equity	-0.004	0.008	-0.004	-0.009
Leverage	-0.039	0.000	-0.017	0.049
EBITDA/Equity	0.088	0.002	-2.429	-3.724*
Risk Capital%	-0.004	0.000	1.307***	1.260***
% Insurance acquirers		0.005		-0.118
% Life insurance acquirer		-0.002		0.158
% Insurance target		0.006		-0.517
% Life insurance target		0.000		-0.007
% Agent target		-0.006		0.212
No. of takeovers in period		0.005		-0.022
% common industry of acquirer and target		0.000		1.294***
% cross-border takeovers		-0.012***		0.012
Constant	0.308	0.003	-0.052	-0.310
R^2	0.002	0.005	0.474	0.472

Panel B: Deal Value

	North America (n=70)		Europe (n = 73)	
	Model 1	Model 2	Model 1	Model 2
Beta	-0.879	65.636	-3.960	-7.329
Tobin's Q	59.610	41.995	150.793	160.823***
Market Value of Equity	-0.001	0.007	0.005	0.006*
Leverage	16.569	55.482	-85.077	-55.225*
EBITDA/Equity	-99.829	-235.52	113.564	1128.731***
Risk Capital%	-5.875	-1.747	-37.478	-5.283
% Insurance acquirers		253.967		-7.346
% Life insurance acquirer		140.544		-156.079
% Insurance target		198.252		-127.024
% Life insurance target		-143.320		46.399
% Agent target		258.244		82..321
No. of takeovers in period		-18.347		-9.961
% common industry of acquirer and target		-74.836		191.909**
% cross-border takeovers		111.458		136.597
Constant	404.037	243.362	457.074***	-14.368
R^2	0.135	0.238	0.044	0.628

Note: the dependent variable is deal value in USDM.***Significant at 1% level** Significant at 5% level* Significant at 10% level.

Table 10
Analysis of M&A survivors
OLS Regressions

This table reports OLS regressions of factors associated with the abnormal returns, information asymmetry and valuation aspects of M&A decision for M&A actively surviving firms. The decision to M&A is posited to be related to the status of the firm (life versus general), the regional affiliation of the target/acquirer (North America, Europe, Asia), the cross-border status and the frequency of takeover. For targets, takeover features are posited to be related to solvency. Results are reported separately for surviving acquirers (Panel A) and for surviving targets (Panel B).

Panel A: Surviving acquirers (n=38)

	Abnormal return	Information asymmetry	Deal Value
Constant	0.073 (0.067)	0.030 (0.055)	3163.55 (964.39)
Life (=1)	-0.054 (0.029)*	-0.007 (0.026)	-221.86 (553.27)
US acquirer (=1)	-0.013 (0.037)	0.006 (0.088)	-961.74 (608.45)*
EU acquirer (=1)	-0.017 (0.047)	-0.011 (0.032)	-903.85 (1150.6)
Asia acquirer (=1)	-0.051 (0.017)	-0.014 (0.054)	-903.85 (1150.6)
US target (=1)	-0.016 (0.001)	-0.009 (0.001)	-1686.67 (598.86)***
EU target (=1)	-0.041 (0.001)	-0.028 (0.001)	-2129.88 (627.44)***
Asia Target (=1)	0.014 (0.001)	0.005 (0.045)	-2683.85 (742.48)***
Cross border (=1)	0.006 (0.001)	0.033 (0.001)	4255.37 (557.43)***
Deal value	-0.006 (0.001)	-0.001 (0.001)	-
Abnormal return	-	-0.462 (0.152)***	-2105.47 (3984.0)
Information asymmetry	-0.708 (0.233)***	-	-5534.5 (4803)*
Multiple takes (=1)	0.002 (0.003)	0.003 (0.002)	154.16 (65.91)**
Depreciation	-0.006 (0.017)	-0.022* (0.013)	-333.404 (285.62)
Independent (=1)	-0.029* (0.017)	0.001 (0.015)	252.89 (311.37)

D claims	0.001* (0.001)	-0.008 (0.001)	-1.198 (3.563)
D surplus	0.001 (0.001)	0.001 (0.001)	-2.423 (7.492)
ROE	0.001 (0.001)	0.001 (0.001)	2.372 (6.335)
LnSize	0.003 (0.002)	0.001 (0.001)	-5.244 (40.611)
Listed (=1)	0.011 (0.013)	0.006 (0.011)	122.917 (233.371)
Adj R-square	0.307	0.267	0.772

Panel B: Surviving targets (n =32)

	Abnormal return	Information asymmetry	Deal Value
Constant	-0.438 (0.508)	0.074 (0.102)	673.27 (13484)
Life (=1)	0.181 (0.148)	0.024 (0.030)	4239 (3876)
US acquirer (=1)			
EU acquirer (=1)	-0.248 (0.367)	0.074 (0.072)	-1954 (9666)
Asia acquirer (=1)	0.027 (0.383)	-0.026 (0.076)	-435 (9982)
US target (=1)	0.328 (0.462)	-0.130 (0.089)*	-1289 (12181)
EU target (=1)	0.496 (0.718)	-0.160 (0.140)*	417 (18912)
Asia Target (=1)			
Cross border (=1)	0.336 (0.331)	-0.054 (0.067)	-292 (8837)
Deal value	-0.003 (0.001)	-0.002 (0.001)	-
Abnormal return	-	-0.050 (0.044)	-2231 (5949)
Information asymmetry	-1.252 (1.114)	-	-31552 (29052)
Solvency ratio	0.005 (0.003)*	0.001 (0.001)**	
Adj R-square	0.229	0.302	0.187

Table 11
Analysis of M&A survivors
Logistic Regressions or Probability of US acquirer (target)

This table reports logistical regressions of factors associated with the propensity of a takeover involving a US-based acquirer (target) firms or a cross-boarder transaction. The decision to M&A is posited to be related to the status of the firm (life versus general), the regional affiliation of the target/acquirer (North America, Europe, Asia), the cross-border status and the frequency of takeover. For targets, takeover features are posited to be related to solvency. Results are reported separately for acquirers (Panel A) and for targets (Panel B).

Panel A: Surviving acquirers (n=38)

Variable	US acquirer (n = 15)		EU acquirer (n = 23)	
	B	Standard Error	B	Standard Error
Constant	0.353	1.499	-0.895	7.245
Deal value	0.001	0.001	0.001	0.001
Abnormal return	33.66	23.77	-19.88	18.94
Information asymmetry	60.29	39.45*	-59.790	35.015*
Independent dummy = 1	-1.67	1.152	1.301	1.107
Listed dummy =1	1.02	1.071	-1.511	1.152
D claims	0.026	0.033	-0.010	0.026
D Surplus	-0.072	0.042*	0.001	0.020
Solvency ratio	-0.045	0.029*	0.041	0.026*
ROE	-0.15	0.003	0.036	0.059
LnSize	0.140	0.118	-0.059	0.271
Chi Squared	32.356		32.995	

Panel B: Surviving targets (n=32)

Variable	US acquirer (n = 21)		Cross-border acquirer (n = 10)	
	B	Standard Error	B	Standard Error
Constant	-0.486	22.037	-1.372	1.183
Deal value	0.001	0.001	0.001	0.001
Abnormal return	-3.798	3.586	2.853	2.675
Information asymmetry	-28.357	22.037	18.766	14.071
Profitability	-0.004	0.002	0.001	0.001
Solvency ratio	0.137	0.080*	-0.016	0.028
ROE	0.072	0.065**	-0.013	0.052
Cash position	0.001	0.001***	0.001	0.001*
Chi Squared	26.138		22.344	

Table A1: Cumulative Abnormal Returns Across Event Windows: Acquirer Cross-Sector Transactions
Market Model, Equally Weighted Index

Panel A: Acquirer: Acquirer is Insurance Company and Target is Not: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	491	-0.02%	0.12	239:252	0.987	0.676	0.821
(-2,+2)	491	0.32%	0.20%	245:246	1.136	0.933	1.364$
(-5,+5)	491	-0.49%	0.18%	246:245	0.678	0.608	1.454$
(-10,+10)	491	-0.71%	0.02%	228:263	-0.082	-0.073	-0.174
(-15,+15)	491	-1.25%	-0.44%	238:255	-1.030	-0.980	0.550
(-1,0)	491	-0.12%	-0.06%	247:244	-0.335	-0.228	1.545$
(-2,0)	491	-0.09%	-0.07%	245:246	-0.436	-0.338	1.364$
(-5,0)	491	-0.17%	0.03%	243:248	0.202	0.174	1.183
(-10,0)	491	-0.41%	-0.14%	238:253	-0.578	-0.523	0.731
(-15,0)	491	-0.94%	-0.55%	228:263	-1.882*	-1.598$	-0.174
(0,+1)	491	0.10%	0.22%	238:253	1.991*	1.199	0.731
(0,+2)	491	0.41%	0.30%	243:248	2.248*	1.644$	1.183
(0,+5)	491	-0.31%	0.18%	244:247	0.939	0.807	1.274
(0,+10)	491	-0.31%	0.19%	240:251	0.621	0.530	0.912
(0,+15)	491	-0.31%	0.14%	221:270	0.341	0.297	-0.807

Panel B: Acquirer: Acquirer is Insurance Broker or Agent and Target is Not: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	115	1.12%	1.19%	58:57	3.649***	2.537**	0.737
(-2,+2)	115	0.57%	0.95%	57:58	2.257*	1.586$	0.550
(-5,+5)	115	2.41%	1.95%	59:56	3.056**	2.296*	0.924
(-10,+10)	115	1.33%	0.97%	58:57	1.022	0.874	0.737
(-15,+15)	115	2.63%	1.75%	54:61	1.278	1.065	-0.010
(-1,0)	115	1.49%	1.33%	63:52	5.036***	3.124***	1.671*
(-2,0)	115	1.80%	1.47%	61:54	4.489***	3.171***	1.298$
(-5,0)	115	1.99%	1.49%	60:55	3.189***	2.549**	1.111
(-10,0)	115	2.14%	1.31%	61:54	2.016*	1.777*	1.298$
(-15,0)	115	4.13%	2.27%	59:58	2.486***	1.700*	0.924
(0,+1)	115	0.37%	0.74%	61:54	2.785**	1.752*	1.298$
(0,+2)	115	-0.49%	0.36%	58:57	1.183	0.772	0.737
(0,+5)	115	1.17%	1.34%	60:55	2.901**	2.018*	1.111
(0,+10)	115	-0.08%	0.54%	55:60	0.839	0.643	0.177
(0,+15)	115	-0.77%	0.36%	50:65	0.503	0.404	-0.758

Table A1 (continued): Cumulative Abnormal Returns Across Event Windows: Acquirer Cross-Sector Transactions
Market Model, Equally Weighted Index

Panel C : Acquirer: Acquirer is Insurance Company (excluding Life Insurance) and Target is Not: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	287	0.47%	0.65%	150:137	3.318***	2.474**	2.262*
(-2,+2)	287	0.81%	0.66%	154:133	2.555**	2.123*	2.736*
(-5,+5)	287	-1.00%	0.28%	141:146	0.656	0.591	1.195
(-10,+10)	287	-0.89%	0.25%	145:142	0.429	0.379	1.669*

(-15,+15)	287	1.67%	0.14%	149:138	0.058	0.052	2.143*
(-1,0)	287	0.25%	0.23%	147:140	1.681*	1.097	1.906*
(-2,0)	287	0.24%	0.23%	148:139	1.195	0.926	2.025*
(-5,0)	287	-0.59%	0.09%	135:152	-0.297	-0.266	0.484
(-10,0)	287	-0.50%	-0.14%	138:149	-0.342	-0.330	0.839
(-15,0)	287	-1.06%	-0.30%	138:149	-0.871	-0.864	0.839
(0,+1)	287	0.39%	0.72%	150:136	4.458***	3.003**	2.320*
(0,+2)	287	0.73%	0.74%	141:146	3.756***	2.648**	1.195
(0,+5)	287	-0.25%	0.67%	153:134	2.349**	1.942*	2.617**
(0,+10)	287	-0.22%	0.70%	149:138	1.787*	1.517$	2.143*
(0,+15)	287	-0.44%	0.75%	142:145	1.598$	1.292$	1.314$

***Significant at 0.1% level, **Significant at 1% level, *Significant at 5% level, $Significant at 10% level

Key: CAAR = cumulative average abnormal return, SCS Z = standardized cross-sectional Z score, Generalized sign Z = non-parametric test statistic. Note: This table reports results for all transactions reported in the SDC Database for which corresponding Datastream stock returns exist, where the transaction resulted in a change in control. Results are for the entire sample period,

Table A2: Cumulative Abnormal Returns Across Event Windows: Target Cross-Sector Transactions
Market Model, Equally Weighted Index

Panel A: Target: Acquirer is Insurance Company and Target is Not: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	93	10.62%	8.75%	66:27	23.195***	5.822**	5.232***
(-2,+2)	93	11.34%	9.44%	60:33	19.528***	5.746***	3.979***
(-5,+5)	93	11.01%	9.61%	64;29	13.254***	5.403***	5.023**
(-10,+10)	93	11.04%	10.23%	64:29	10.055***	5.108***	4.815***
(-15,+15)	93	13.99%	12.45%	62:31	9.903***	5.230***	4.397***
(-1,0)	93	8.99%	7.87%	58:35	25.671***	5.394***	3.561***
(-2,0)	93	9.68%	8.59%	60:33	23.044***	5.268***	3.979***
(-5,0)	93	10.15%	8.89%	64:29	16.735***	5.285***	4.815***
(-10,0)	93	10.74%	9.39%	61:32	12.937***	5.105***	4.188***
(-15,0)	93	11.62%	10.38%	62:31	11.788***	5.168***	4.397***
(0,+1)	93	9.82%	7.81%	62:31	24.456***	5.482***	4.397***
(0,+2)	93	9.85%	7.78%	61:32	20.847***	5.642***	4.188***
(0,+5)	93	9.05%	7.65%	60:33	14.471***	5.192***	3.979***
(0,+10)	93	8.49%	7.78%	66:27	10.840***	5.074***	5.232***
(0,+15)	93	10.56%	9.02%	67:26	10.255***	4.856***	5.441***

Panel B: Target: Acquirer is Insurance Broker or Agent and Target is Not: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	15	17.59%	16.42%	14:1	17.764***	4.200***	3.698***
(-2,+2)	15	20.42%	17.42%	13:2	14.570***	4.095***	3.180***
(-5,+5)	15	21.74%	18.22%	11:4	10.193***	4.166***	2.143*
(-10,+10)	15	13.56%	12.93%	11:4	5.148***	2.492**	2.143*
(-15,+15)	15	11.96%	12.14%	12:3	3.847***	2.480**	2.662**
(-1,0)	15	4.45%	5.96%	11:4	7.994***	1.991*	2.143*
(-2,0)	15	5.48%	6.44%	12:3	7.161***	2.230*	2.662**
(-5,0)	15	6.79%	7.49%	12:3	5.763***	2.421**	2.662**
(-10,0)	15	5.93%	6.46%	9:6	3.725***	2.116*	1.107
(-15,0)	15	5.43%	6.70%	11:4	2.949**	2.050*	2.143*
(0,+1)	15	16.71%	15.94%	13:2	21.041***	3.868***	3.180***
(0,+2)	15	18.52%	16.46%	12:3	17.702***	3.680***	2.662**
(0,+5)	15	18.53%	16.21%	12:3	12.439***	3.614***	2.662**
(0,+10)	15	11.21%	11.94%	10:5	6.600***	2.260*	1.625$
(0,+15)	15	10.10%	10.92%	10:5	5.017***	2.166*	1.625$

Table A2 (continued): Cumulative Abnormal Returns Across Event Windows: Target Cross-Sector Transactions
Market Model, Equally Weighted Index

Panel C : Target: Acquirer is Insurance Company (excluding Life Insurance) and Target is Not: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	48	17.00%	16.18%	38:10	26.258***	5.292***	5.057***
(-2,+2)	48	19.00%	18.26%	39:9	22.974***	5.201***	5.348***
(-5,+5)	48	17.63%	18.47%	37:11	15.495***	4.803***	4.766***

(-10,+10)	48	18.86%	18.80%	35:13	11.214***	4.764***	4.182***
(-15,+15)	48	22.79%	24.63%	38:10	11.829***	5.276***	5.057***
(-1,0)	48	13.05%	12.43%	32:16	24.768***	4.764***	3.308***
(-2,0)	48	14.70%	14.23%	36:12	23.353***	4.647***	4.474***
(-5,0)	48	14.56%	14.75%	35:13	16.868***	4.648***	4.182***
(-10,0)	48	16.18%	14.83%	32:16	12.471***	4.604***	3.308***
(-15,0)	48	16.26%	16.15%	34:14	11.149***	4.608***	3.891***
(0,+1)	48	16.80%	15.70%	38:10	31.261***	5.158***	5.057***
(0,+2)	48	17.16%	15.98%	38:12	25.982***	5.247***	4.474***
(0,+5)	48	15.92%	15.66%	34:14	18.049***	4.955***	3.891***
(0,+10)	48	15.53%	15.91%	37:11	13.385***	4.949***	4.765***
(0,+15)	48	19.39%	20.42%	38:9	14.004***	5.347***	5.348***

***Significant at 0.1% level, **Significant at 1% level, *Significant at 5% level, $Significant at 10% level

Key: CAAR = cumulative average abnormal return, SCS Z = standardized cross-sectional Z score, Generalized sign Z = non-parametric test statistic. Note: This table reports results for all transactions reported in the SDC Database for which corresponding Datastream stock returns exist, where the transaction resulted in a change in control. Results are for the entire sample period,

Table A3: Cumulative Abnormal Returns Across Event Windows: Acquirer Cross Industry Transactions: Insurance and Insurance Brokers v Banks Market Model, Equally Weighted Index

Panel A: Acquirers: Acquirer is Bank and Target is Insurance Company or Insurance Agent: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	193	0.44%	0.48%	109:84	2.731***	2.368**	2.440**
(-2,+2)	193	0.44%	0.50%	102:91	2.123*	2.076*	1.431$
(-5,+5)	193	0.54%	0.46%	101:92	1.315$	1.534$	1.287$
(-10,+10)	193	-0.23%	-0.21%	103:90	-0.453	-0.516	1.575$
(-15,+15)	193	-0.19%	-0.28%	94:99	-0.52	-0.61	0.278
(-1,0)	193	0.32%	0.32%	95:98	2.234*	1.959*	0.423
(-2,0)	193	0.36%	0.38%	95:98	2.060*	1.927*	0.423
(-5,0)	193	0.38%	0.40%	97:96	1.543$	1.570$	0.711
(-10,0)	193	-0.16%	-0.04%	93:100	-0.146	-0.170	0.134
(-15,0)	193	-0.33%	-0.24%	87:106	-0.581	-0.649	-0.731
(0,+1)	193	0.26%	0.24%	92:101	1.763*	1.434$	-0.010
(0,+2)	193	0.22%	0.19%	94:99	1.156	1.039	0.278
(0,+5)	193	0.31%	0.14%	102:91	0.602	0.655	1.431$
(0,+10)	193	-0.07%	-0.09%	98:95	-0.24	-0.25	0.855
(0,+15)	193	0.28%	0.04%	96:97	0.055	0.063	0.567

Panel B: Acquirers: Acquirer is Bank and Target is Insurance Company: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	95	0.91%	0.84%	53:42	3.569***	2.722**	1.578$
(-2,+2)	95	0.56%	0.61%	50:45	1.953*	1.814*	0.962
(-5,+5)	95	0.55%	0.56	49:46	1.170	1.365$	0.756
(-10,+10)	95	0.07%	0.04%	50:45	0.063	0.082	0.962
(-15,+15)	95	-0.50%	-0.38%	44:51	-0.301	-0.355	-0.271
(-1,0)	95	0.67%	0.56%	48:47	2.929**	2.409*	0.551
(-2,0)	95	0.65%	0.62%	49:46	2.590**	2.415**	0.756
(-5,0)	95	0.47%	0.52%	49:46	1.503$	1.544$	0.756
(-10,0)	95	0.05%	0.15%	49:46	0.306	0.395	0.756
(-15,0)	95	-0.23%	-0.19%	48:47	-0.098	-0.128	0.551
(0,+1)	95	0.54%	0.49%	40:55	2.628**	1.903*	-1.093
(0,+2)	95	0.20%	0.20%	44:51	0.872	0.682	-0.271
(0,+5)	95	0.39%	0.24%	51:44	0.735	0.724	1.167
(0,+10)	95	0.33%	0.10%	51:44	0.247	0.271	1.167
(0,+15)	95	0.03%	0.02%	48:47	0.058	0.070	0.561

Table A3 (continued): Cumulative Abnormal Returns Across Event Windows: Acquirer Cross Industry Transactions: Insurance and Insurance Brokers v Banks Market Model, Equally Weighted Index

Panel C: Acquirers: Acquirer is Insurance Company or Insurance Broker or Agent and Target is Bank: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	28	-0.01%	-0.13%	14:14	-0.256	-0.139	0.162
(-2,+2)	28	-0.88%	-0.78%	9:19	-1.297$	-0.715	-1.729*
(-5,+5)	28	-0.82%	-0.99%	12:16	-1.020	-1.010	-0.594
(-10,+10)	28	-1.26%	-1.74%	9:19	-1.356$	-1.719*	-1.729*
(-15,+15)	28	-4.48%	-4.45%	10:18	-2.843**	-2.849**	-1.351$
(-1,0)	28	0.30%	0.42%	13:15	1.149	0.841	-0.216
(-2,0)	28	0.09%	0.13%	12:16	0.288	0.211	-0.594
(-5,0)	28	0.31%	0.03%	12:16	0.068	0.066	-0.594
(-10,0)	28	0.36%	-0.68%	13:15	-0.780	-0.771	-0.216
(-15,0)	28	-2.28%	-2.76%	10:18	-2.500**	-2.208*	-1.351$
(0,+1)	28	-0.84%	-0.96%	7:21	-2.555**	-1.419$	-2.485**
(0,+2)	28	-1.51%	-1.31%	10:18	-2.858**	-1.805%	-1.351$
(0,+5)	28	-1.66%	-1.42%	9:19	-2.092*	-2.489**	-1.729*
(0,+10)	28	-2.16%	-1.46%	9:19	-1.587$	-1.836*	-1.729*
(0,+15)	28	-2.74%	-2.10%	9:19	-1.912*	-1.442$	-1.729*

Panel D: Acquirers: Acquirer is Insurance Company and Target is Bank: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	25	-0.09%	-0.14%	13:12	-0.271	-0.144	0.332
(-2,+2)	25	-0.88%	-0.74%	8:17	-1.241	-0.652	-1.669*
(-5,+5)	25	-1.55%	-1.31%	9:16	1.367$	-1.338$	-1.269
(-10,+10)	25	-2.99%	-2.50%	6:19	-1.958*	-2.908**	-2.469**
(-15,+15)	25	-5.81%	-5.11%	7:18	-3.273***	-3.308***	-2.069*
(-1,0)	25	0.30%	0.43%	12:13	1.176	0.816	-0.069
(-2,0)	25	0.02%	0.10%	10:15	0.241	0.167	-0.869
(-5,0)	25	-0.26%	-0.23%	9:16	-0.308	-0.297	-1.269
(-10,0)	25	-1.19%	-1.41%	10:15	-1.577$	-1.813*	-0.869
(-15,0)	25	-3.43%	-3.36%	7:18	-3.073**	-2.766**	-2.089*
(0,+1)	25	-0.92%	-0.96%	6:19	-2.569**	-1.424$	-2.469**
(0,+2)	25	-1.43%	-1.24%	9:16	-2.712**	-1.645*	-1.269
(0,+5)	25	-1.83%	-1.47%	8:17	-2174*	-2.468**	-1.669*
(0,+10)	25	-2.33%	-1.49%	7:18	-1.617$	-1.774*	-2.069*
(0,+15)	25	-2.90%	-2.14%	8:17	-1.954*	-1.394$	-1.669*

***Significant at 0.1% level, **Significant at 1% level, *Significant at 5% level, $Significant at 10% level

Key: CAAR = cumulative average abnormal return, SCS Z = standardized cross-sectional Z score, Generalized sign Z = non-parametric test statistic. Note: This table reports results for all transactions reported in the SDC Database for which corresponding Datastream stock returns exist, where the transaction resulted in a change in control. Results are for the entire sample period,

Table A4 Cumulative Abnormal Returns Across Event Windows: Target Cross Industry Transactions: Insurance and/or Insurance Agent v. Banks Market Model, Equally Weighted Index

Panel A: Target: Acquirer is Bank and Target is Insurance Company or Insurance Agent/Broker: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	16	2.47%	2.59%	11:5	3.971***	2.634**	1.870*
(-2,+2)	16	2.82%	2.74%	10:6	3.340***	2.259*	1.17
(-5,+5)	16	2.36%	2.48%	9:7	1.962*	1.764*	0.669
(-10,+10)	16	3.48%	4.37%	9:7	2.520**	1.347$	0.669
(-15,+15)	16	4.16%	4.91%	10:6	2.114*	1.512$	1.170
(-1,0)	16	1.89%	2.25%	8:8	4.245***	2.086*	0.169
(-2,0)	16	2.81%	2.95%	9:7	4.538***	2.428**	0.669
(-5,0)	16	2.94%	3.19%	9:7	3.396***	2.335**	0.669
(-10,0)	16	6.39%	5.40%	9:7	4.279***	2.043*	0.669
(-15,0)	16	6.33%	5.27%	9:7	3.295***	1.996*	0.669
(0,+1)	16	1.37%	1.43%	9:7	2.686*	1.603$	0.669
(0,+2)	16	1.01%	0.88%	7:9	1.519$	0.933	-0.332
(0,+5)	16	0.22%	0.38%	9:7	0.476	0.441	0.669
(0,+10)	16	-2.11%	0.05%	10:6	0.119	0.059	1.170
(0,+15)	16	-1.37%	0.73%	9:7	0.451	0.298	0.669

Panel B: Target: Acquirer is Bank and Target is Insurance Company: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	15	2.47%	2.59%	11:5	3.971***	2.634**	1.870*
(-2,+2)	15	2.82%	2.74%	10:6	3.340***	2.259*	1.17
(-5,+5)	15	2.36%	2.48%	9:7	1.962*	1.764*	0.669
(-10,+10)	15	3.48%	4.37%	9:7	2.520**	1.347$	0.669
(-15,+15)	15	4.16%	4.91%	10:6	2.114*	1.512$	1.170
(-1,0)	15	1.89%	2.25%	8:8	4.245***	2.086*	0.169
(-2,0)	15	2.81%	2.95%	9:7	4.538***	2.428**	0.669
(-5,0)	15	2.94%	3.19%	9:7	3.396***	2.335**	0.669
(-10,0)	15	6.39%	5.40%	9:7	4.279***	2.043*	0.669
(-15,0)	15	6.33%	5.27%	9:7	3.295***	1.996*	0.669
(0,+1)	15	1.37%	1.43%	9:7	2.686*	1.603$	0.669
(0,+2)	15	1.01%	0.88%	7:9	1.519$	0.933	-0.332
(0,+5)	15	0.22%	0.38%	9:7	0.476	0.441	0.669
(0,+10)	15	-2.11%	0.05%	10:6	0.119	0.059	1.170
(0,+15)	15	-1.37%	0.73%	9:7	0.451	0.298	0.669

Table A4 (continued): Cumulative Abnormal Returns Across Event Windows: Target Cross Industry Transactions: Insurance and/or Insurance Agent v. Banks Market Model, Equally Weighted Index

Panel C: Target: Acquirer is Insurance Company or Insurance Agent/Broker and Target is Bank: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	12	9.58%	5.95%	7:3	12.377***	2.875**	1.795*
(-2,+2)	12	9.12%	8.66%	10:2	8.886***	2.909**	2.372**
(-5,+5)	12	9.20%	8.78%	10:2	6.212****	2.281*	2.372**
(-10,+10)	12	10.18%	9.21%	10:2	4.657***	2.090*	2.372**
(-15,+15)	12	7.90%	6.81%	9:3	2.998**	1.602$	1.795*
(-1,0)	12	6.24%	5.45%	8:4	8.945***	2.084*	1.217
(-2,0)	12	6.30%	5.32%	8:4	7.098***	2.023*	1.217
(-5,0)	12	6.68%	5.33%	8:4	5.203***	1.834*	1.217
(-10,0)	12	7.15%	5.95%	8:4	4.209***	2.012*	1.217
(-15,0)	12	5.82%	4.56%	7:5	2.931**	1.501$	0.640
(0,+1)	12	9.67%	9.37%	9:3	15.311***	2.688**	1.795*
(0,+2)	12	9.16%	8.88%	9:3	11.825***	2.715**	1.795*
(0,+5)	12	8.86%	8.99%	9:3	8.682***	2.306*	1.795*
(0,+10)	12	9.37%	8.80%	10:2	6.271***	2.028*	2.372**
(0,+15)	12	8.41%	7.78%	10:2	4.492***	2.002*	2.372**

Panel D: Target: Acquirer is Insurance Company and Target is Bank: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	10	6.64%	5.95%	7:3	7.079***	2.427**	1.513$
(-2,+2)	10	6.50%	5.66%	8:2	5.714***	2.464**	2.147*
(-5,+5)	10	6.20%	5.33%	8:2	3.467***	1.487$	2.147*
(-10,+10)	10	7.36%	5.82%	8:2	2.705**	1.312$	2.147*
(-15,+15)	10	4.68%	3.09%	7:3	1.322$	0.791	1.513$
(-1,0)	10	6.75%	5.65%	7:3	8.238***	2.184*	1.513$
(-2,0)	10	6.88%	5.57%	7:3	6.603***	2.098*	1.513$
(-5,0)	10	7.07%	5.22%	7:3	4.599***	1.788*	1.513$
(-10,0)	10	7.66%	6.02%	7:3	3.770****	1.976*	1.513$
(-15,0)	10	6.00%	4.39%	6:4	2.479**	1.369$	0.878
(0,+1)	10	6.48%	5.77%	7:3	8.398***	2.237*	1.513$
(0,+2)	10	6.20%	5.55%	7:3	6.590***	2.237*	1.513$
(0,+5)	10	5.71%	5.57%	7:3	4.901***	1.564$	1.513$
(0,+10)	10	6.28%	5.26%	8:2	3.473***	1.266	2.147*
(0,+15)	10	5.26%	4.16%	8:2	2.210*	1.234	2.147*

***Significant at 0.1% level, **Significant at 1% level, *Significant at 5% level, $Significant at 10% level

Key: CAAR = cumulative average abnormal return, SCS Z = standardized cross-sectional Z score, Generalized sign Z = non-parametric test statistic. Note: This table reports results for all transactions reported in the SDC Database for which corresponding Datastream stock returns exist, where the transaction resulted in a change in control. Results are for the entire sample period,

Table A5: Cumulative Abnormal Returns Across Event Windows: Acquirer Within Sector Transactions
Market Model, Equally Weighted Index

Panel A: Acquirer: Acquirer and Target are Insurance Company or Insurance Agent/Broker: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	973	0.68%	0.53%	510:463	5.574***	4.213***	3.834***
(-2,+2)	973	0.47%	0.47%	481:492	3.535***	2.763**	1.969*
(-5,+5)	973	0.29%	0.41%	478:495	2.269*	1.989*	1.777*
(-10,+10)	973	-0.13%	0.43%	474:499	1.564$	1.412$	1.519$
(-15,+15)	973	-0.21%	0.56%	465:508	1.564$	1.482$	0.941
(-1,0)	973	0.32%	0.28%	495:478	3.945***	2.905**	2.870**
(-2,0)	973	0.17%	0.14%	474:499	1.652*	1.345$	1.519$
(-5,0)	973	0.02%	0.09%	478:495	0.772	0.686	1.777*
(-10,0)	973	-0.16%	0.08%	482:491	0.288	0.271	2.034*
(-15,0)	973	-0.33%	-0.01%	484:509	-0.215	-0.206	0.876
(0,+1)	973	0.72%	0.48%	512:580	6.329***	4.178***	3.994***
(0,+2)	973	0.66%	0.41%	490:483	5.500***	3.891***	2.548**
(0,+5)	973	0.62%	0.55%	593:480	4.152***	3.229***	2.741**
(0,+10)	973	0.39%	0.61%	483:480	3.258***	2.690**	2.098*
(0,+15)	973	0.48%	0.81%	486:487	3.564***	2.979**	2.291*

Panel B: Acquirer: Acquirer and Target are Insurance Companies: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	613	0.66%	0.54%	335:278	4.708***	3.450**	4.110***
(-2,+2)	613	0.48%	0.43%	305:308	2.989**	2.280*	1.681
(-5,+5)	613	0.18%	0.35%	307:306	1.594$	1.411$	1.843*
(-10,+10)	613	0.19%	0.60%	320:293	1.892*	1.736*	2.896**
(-15,+15)	613	-0.11%	0.71%	305:308	1.758*	1.626$	1.681*
(-1,0)	613	0.38%	0.32%	317:296	3.475***	2.546**	2.653**
(-2,0)	613	0.28%	0.22%	315:298	1.935*	1.555$	2.491**
(-5,0)	613	-0.02%	0.11%	308:305	0.688	0.578	1.924*
(-10,0)	613	-0.04%	0.17%	312:301	0.727	0.665	2.248*
(-15,0)	613	-0.32%	0.16%	301:312	0.519	0.488	1.357$
(0,+1)	613	0.61%	0.42%	319:293	4.463***	2.918**	2.854**
(0,+2)	613	0.53%	0.42%	300:313	3.708***	2.56**	1.276
(0,+5)	613	0.53%	0.45%	309:304	2.764**	2.186*	2.005*
(0,+10)	613	0.56%	0.64%	312:301	2.838**	2.499**	2.248*
(0,+15)	613	0.54%	0.75%	321:292	2.722**	2.375**	2.977**

Table A5 (continued): Cumulative Abnormal Returns Across Event Windows: Acquirer Within Sector Transactions
Market Model, Equally Weighted Index

Panel C : Acquirer: Acquirer and Target are Insurance Broker or Agent: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	147	1.03%	0.46%	68:79	1.797*	1.419$	-0.086
(-2,+2)	147	0.45%	-0.08%	68:81	-0.188	-0.162	-0.417
(-5,+5)	147	0.17%	-0.11%	57:90	-0.21	-0.209	-1.905*
(-10,+10)	147	-0.48%	-0.09%	58:89	-0.227	-0.228	-1.740*

(-15,+15)	147	-0.97%	0.02%	61:86	-0.130	-0.151	-1.244
(-1,0)	147	-0.06%	-0.11%	62:84	-0.381	-0.367	-0.913
(-2,0)	147	-0.43%	-0.57%	58:91	-2.090*	-1.941*	-2.070*
(-5,0)	147	-0.47%	-0.59%	62:85	-1.512$	-1.827$	-1.078
(-10,0)	147	-0.53%	-0.56%	64:83	-1.123	-1.265	-0.748
(-15,0)	147	-0.90%	-0.84%	65:82	-1.458$	-1.727*	-0.582
(0,+1)	147	1.16%	0.55%	78:69	2.605**	1.835*	1.567$
(0,+2)	147	0.96%	0.48%	73:74	1.770*	1.401$	0.741
(0,+5)	147	0.71%	0.45%	70:77	1.189	0.993	0.245
(0,+10)	147	0.13%	0.45%	61:86	0.825	0.685	-1.244
(0,+15)	147	0.01%	0.84%	56:81	1.251	1.138	-0.417

Panel D: Acquirer: Acquirer and Target are Insurance Companies Other than life insurers: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	131	0.54%	0.52%	74:57	1.808*	1.146	2.232*
(-2,+2)	131	0.88%	0.71%	68:63	1.839*	1.251	1.182
(-5,+5)	131	1.29%	1.32%	67:64	2.321*	1.949*	1.006
(-10,+10)	131	1.49%	1.46%	75:56	1.784*	1.775*	2.407*
(-15,+15)	131	1.28%	1.86%	68:63	1.655*	1.617$	1.182
(-1,0)	131	0.28%	0.30%	71:60	1.284$	0.877	1.707*
(-2,0)	131	0.48%	0.37%	71:60	1.223	0.946	1.707*
(-5,0)	131	0.79%	0.90%	69:52	2.095*	1.505$	1.357$
(-10,0)	131	0.97%	1.00%	73:58	1.680*	1.428$	2.057*
(-15,0)	131	1.11%	1.67%	67:64	2.088*	1.826*	1.006
(0,+1)	131	0.61%	0.58%	71:60	2.531**	1.373$	1.707*
(0,+2)	131	0.75%	0.71%	61:70	2.469**	1.382$	-0.044
(0,+5)	131	0.85%	0.78%	71:60	1.993*	1.365$	1.707*
(0,+10)	131	0.87%	0.82%	71:60	1.472$	1.330$	1.707*
(0,+15)	131	0.52%	0.56%	70:61	0.802	0.708	1.532$

Table A5 (continued): Cumulative Abnormal Returns Across Event Windows: Acquirer Within Sector Transactions
Market Model, Equally Weighted Index

Panel E: Acquirer: Acquirer and Target are Life Insurers: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	293	0.64%	0.45%	157:135	2.822**	2.203*	2.380**
(-2,+2)	293	0.28%	0.24%	141:152	1.250	1.021	0.507
(-5,+5)	293	0.07%	0.26%	150:143	0.819	0.744	1.561$
(-10,+10)	293	0.05%	0.87%	151:142	2.024*	1.835*	1.678*
(-15,+15)	293	-0.32%	0.77%	144:149	1.627$	1.563$	0.858
(-1,0)	293	0.41%	0.26%	148:145	2.011*	1.611$	1.327$
(-2,0)	293	0.23%	0.11%	148:145	0.679	0.582	1.327$
(-5,0)	293	0.05%	0.09%	153:140	0.309	0.308	1.912*
(-10,0)	293	-0.05%	0.30%	150:143	0.937	0.874	1.561$
(-15,0)	293	-0.36%	0.12%	148:145	0.566	0.559	1.327$
(0,+1)	293	0.50%	0.25%	146:147	1.852*	1.274	1.092
(0,+2)	293	0.32%	0.20%	138:155	1.274	0.994	0.155
(0,+5)	293	0.30%	0.24%	143:150	1.045	0.853	0.741
(0,+10)	293	0.38%	0.64%	148:145	2.082*	1.841*	1.327$
(0,+15)	293	0.32%	0.72%	151:142	1.927*	1.755*	1.678*

***Significant at 0.1% level, **Significant at 1% level, *Significant at 5% level, $Significant at 10% level
Key: CAAR = cumulative average abnormal return, SCS Z = standardized cross-sectional Z score, Generalized sign Z = non-parametric test statistic. Note: This table reports results for all transactions reported in the SDC Database for which corresponding Datastream stock returns exist, where the transaction resulted in a change in control. Results are for the entire sample period,

Table A6: Cumulative Abnormal Returns Across Event Windows: Target Within Sector Transactions
Market Model, Equally Weighted Index

Panel A: Target: Acquirer and Target are Insurance Company or Insurance Agent/Broker: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	147	13.94%	13.31%	108:39	46.586***	7.373***	6.869***
(-2,+2)	147	15.12%	14.56%	115:32	39.313***	7.850***	8.029***
(-5,+5)	147	16.01%	15.79%	113:34	28.657***	7.851***	7.697***
(-10,+10)	147	16.91%	17.12%	108:39	22.025***	8.083***	6.869***
(-15,+15)	147	18.65%	19.03%	112:35	19.849***	8.038***	7.532***
(-1,0)	147	9.54%	9.76%	98:49	41.812***	5.865***	5.212***
(-2,0)	147	10.24%	10.52%	109:38	36.837***	6.340***	7.034***
(-5,0)	147	10.87%	11.42%	106:41	28.242***	6.620***	6.537***
(-10,0)	147	11.86%	12.80%	106:41	23.110***	7.042***	6.537***
(-15,0)	147	12.62%	13.77%	109:38	20.466***	7.420***	7.034***
(0,+1)	147	13.24%	12.59%	105:42	54.198***	7.034***	6.372***
(0,+2)	147	13.73%	13.07%	107:40	45.819***	7.176***	6.703***
(0,+5)	147	13.98%	13.41%	104:43	33.301***	7.080***	6.206***
(0,+10)	147	13.90%	13.38%	103:44	24.244***	6.916***	6.040***
(0,+15)	147	14.87%	14.30%	104:43	21.410***	6.685***	6.206***

Panel B: Target: Acquirer and Target are Insurance Companies: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	132	13.44%	13.07%	98:34	44.375***	6.954***	6.627***
(-2,+2)	132	14.32%	14.21%	103:29	37.187***	7.292***	7.501***
(-5,+5)	132	15.33%	15.58%	100:32	27.430***	7.319***	6.976***
(-10,+10)	132	16.52%	17.11%	96:36	21.337***	7.593***	6.277***
(-15,+15)	132	18.66%	19.17%	101:31	19.479***	7.629***	7.151***
(-1,0)	132	8.99%	9.35%	88:44	38.779***	5.401***	4.879***
(-2,0)	132	9.50%	10.00%	98:34	33.975***	5.798***	6.627***
(-5,0)	132	10.22%	10.99%	93:39	28.345***	6.070***	5.753***
(-10,0)	132	11.59%	12.63%	96:36	22.085***	6.587***	6.277***
(-15,0)	132	12.52%	13.57%	98:34	19.668***	6.968***	6.627***
(0,+1)	132	12.73%	12.42%	95:37	51.939***	6.728***	6.102***
(0,+2)	132	13.10%	12.88%	96:36	43.785***	6.801***	6.277***
(0,+5)	132	13.40%	13.30%	94:38	32.034***	6.718***	5.927***
(0,+10)	132	13.21%	13.18%	92:40	23.203***	6.512***	5.578***
(0,+15)	132	14.43%	14.30%	94:38	20.781***	6.354***	5.927***

Table A6: (continued): Cumulative Abnormal Returns Across Event Windows: Target Within Sector Transactions
Market Model, Equally Weighted Index

Panel C : Target: Acquirer and Target are Insurance Broker or Agent: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	3	40.21%	24.37%	2:1	12.745***	1.627$	0.846
(-2,+2)	3	40.85%	25.52%	3:0	10.193***	1.856*	1.802*
(-5,+5)	3	44.07%	26.85%	3:0	7.172***	2.114*	1.802*
(-10,+10)	3	40.82%	25.54%	3:0	4.940***	2.832**	1.802*
(-15,+15)	3	44.96%	30.23%	3:0	4.631***	5.310***	1.802*
(-1,0)	3	15.58%	16.51%	2:1	10.540***	1.023	0.646
(-2,0)	3	16.65%	17.99%	2:1	9.408**	1.169	0.646
(-5,0)	3	19.06%	18.31%	3:0	6.719***	1.281	1.802*
(-10,0)	3	15.19%	17.38%	2:1	4.721***	1.391$	0.646
(-15,0)	3	19.04%	22.56%	3:0	4.871***	1.940*	1.802*
(0,+1)	3	36.99%	20.07%	2:1	12.884***	1.053	0.646
(0,+2)	3	36.56%	19.75%	2:1	10.247***	1.022	0.646
(0,+5)	3	37.37%	20.76%	2:1	7.527***	1.132	0.646
(0,+10)	3	37.99%	20.38%	2:1	5.451***	1.102	0.646
(0,+15)	3	38.29%	19.89%	2:1	4.376***	1.011	0.646

Panel D: Target: Acquirer and Target are Insurance Companies Other than life insurers: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	27	11.92%	11.58%	21:6	14.912***	4.010***	3.466***
(-2,+2)	27	10.71%	11.30%	23:4	11.159***	3.879***	4.241***
(-5,+5)	27	10.72%	12.06%	20:7	8.087***	3.995***	3.079**
(-10,+10)	27	10.42%	12.80%	18:9	6.077***	4.293***	2.305*
(-15,+15)	27	9.32%	13.59%	20:7	5.460***	4.646***	3.079**
(-1,0)	27	8.91%	8.00%	19:8	12.303***	2.811**	2.692**
(-2,0)	27	7.94%	7.80%	18:9	9.738***	2.736**	2.305*
(-5,0)	27	8.69%	9.08%	21:6	8.057**	3.161***	3.466***
(-10,0)	27	10.17%	10.91%	20:7	7.131***	3.671***	3.079**
(-15,0)	27	9.72%	11.62%	20:7	6.673***	3.893***	3.079**
(0,+1)	27	12.36%	12.23%	22:5	19.394***	4.247***	3.853***
(0,+2)	27	12.12%	12.15%	22:5	15.623***	3.924***	3.466***
(0,+5)	27	11.38%	11.63%	21:6	10.790***	3.924***	3.466***
(0,+10)	27	9.59%	10.53%	19:8	7.075***	3.569***	2.692**
(0,+15)	27	8.95%	10.62%	21:6	5.821***	3.873***	3.466***

Table A6 (continued): Cumulative Abnormal Returns Across Event Windows: Target Within Sector Transactions
Market Model, Equally Weighted Index

Panel E: Target: Acquirer and Target are Life Insurers: All Years 1990-2006

Days	N	Mean CAAR	Precision Weighted CAAR	Positive: Negative	Patel Z	SCS Z	Generalized Sign Z
(-1,+1)	73	13.11%	12.37%	50:23	34.929***	4.715***	4.098***
(-2,+2)	73	14.87%	14.05%	52:21	30.585***	5.224***	4.569***
(-5,+5)	73	16.50%	15.87%	53:20	23.166***	5.355***	4.805***
(-10,+10)	73	18.10%	17.38%	53:20	17.966***	5.593***	4.805***
(-15,+15)	73	21.07%	19.43%	54:19	16.473***	5.496***	5.040***
(-1,0)	73	8.37%	9.12%	44:29	31.543***	3.701***	2.686**
(-2,0)	73	9.37%	9.97%	53:20	28.189***	4.078***	4.805***
(-5,0)	73	10.14%	10.91%	49:24	21.846***	4.234***	3.863***
(-10,0)	73	11.58%	12.38%	52:21	18.032***	4.636***	4.569***
(-15,0)	73	12.14%	12.79%	53:20	15.441***	4.703***	4.805***
(0,+1)	73	11.93%	11.28%	48:27	39.307***	4.36***	3.157***
(0,+2)	73	12.69%	12.12%	48:25	34.265***	4.452***	3.627***
(0,+5)	73	13.55%	12.99%	48:25	25.854***	4.623***	3.627***
(0,+10)	73	13.72%	13.01%	47:26	19.004***	4.527***	3.392***
(0,+15)	73	16.12%	14.67%	49:”4	17.793***	4.492***	3.863***

***Significant at 0.1% level, **Significant at 1% level, *Significant at 5% level, $Significant at 10% level
Key: CAAR = cumulative average abnormal return, SCS Z = standardized cross-sectional Z score, Generalized sign Z = non-parametric test statistic. Note: This table reports results for all transactions reported in the SDC Database for which corresponding Datastream stock returns exist, where the transaction resulted in a change in control. Results are for the entire sample period,