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SHAREHOLDER WEALTH EFFECTS OF EUROPEAN TAKEOVERS: 1997-2004

A thesis presented in partial fulfilment of the requirements for the degree
of Masters of Business Studies in Finance at Massey University

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Abstract

This study provides an empirical analysis of the returns to acquirers and targets in European mergers and acquisitions. An event study has been carried out to test the announcement effect of a merger on the bidding and target company stock prices over the period, January 1, 1997 to December 31, 2004, for twenty-three markets in Europe. This is the first comprehensive study, the author is aware of, to complete such that includes transactions throughout all of Europe, including Eastern Europe and countries from the former Soviet Union. This thesis tests the hypothesis that the incentive mechanisms created by investor protection rights, along with the strength of legal enforcement across countries, affects the value created and destroyed by managers in domestic and cross-border acquisitions within Europe. Thus, the relative difference in corporate governance rules between nations is a source of value for merged firms in and of itself. Prior studies have found significant variation in the gains to acquiring and bidding firms as a function of the nationality of the bidder, but the ultimate source of this international variation in returns has not been satisfactorily addressed. It is argued that a firm's legal and corporate governance environment provides a partial explanation for the observed variation in returns for domestic and cross-border acquisitions and it is tested across all European countries, something that has not been done before. The results suggest that countries with stronger investor protection rules generate larger returns to target shareholders. The better accounting standards increase disclosure, helping acquirers identify potential targets. This reduces the cost of capital and thus increases the competition among bidders and the premium paid by the winning bid. Similarly, target shareholders in strong investor protection and disclosure regimes also experience a price drift in 30 days leading up to a takeover announcement. The sophistication of legal rules requires substantial legal and financial consultation resulting in leakages in the market. The analysis also looks at the difference between domestic and cross-border transactions, and confirms that targets in cross-border deals generate higher returns, implying that targets benefit from expanding into foreign marketplaces. However, acquirers receive lower benefits in cross-border deals than in national transactions, signalling that acquiring firms are to some extent penalized for engaging in a cross-border merger.

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Introduction

Throughout the past 150 years the actions of mergers and acquisitions have had a dramatic impact on the way businesses operate. The first European merger wave occurred during the second industrial revolution (1880-1904). Over these years, the railroads insatiable demand for steel and new technologies such as petroleum refining, and the ever expanding electricity industry fuelled dramatic economic growth in the U.S. and Europe. In search for monopoly profits, consolidation resulted in many of these industries, creating the world's first giant corporations such as U.S. Steel, General Electric, and Bayer AG.

To curb these companies' monopoly power, the United States government implemented the Sherman Act as the world's first antitrust legislation. It prohibited the combination of entities, with regard to trade and commerce that would have the effect of restraining trade. However, this legislation led to vertical integration within industries erupting in a second merger wave from 1919-1929. This caused lawmakers to impose extremely strict rules and regulations over competition and mergers. From 1930 until the 1950's the U.S. legal system deemed all mergers as illegal acts of collusion by corporations to gain monopoly profits. Consequently, merger activity remained stagnant for decades.

However, in the 1950's economists revisited the merger debate. Harry Markowitz's (1952) portfolio theory firmly established the benefits of diversification. While the antitrust legislation virtually banned horizontal mergers, it allowed the joining of unrelated companies. As a result, from 1955-1965, a third merger wave erupted where companies attempted to take advantage of the benefits of diversification. Corporations believed that the creation of large conglomerates was needed to remain competitive in the new, global marketplace.

At the same time, contrary to popular beliefs about mergers, economists also showed that traditional horizontal mergers could be a useful economic tool. Specifically, economists hypothesized that most horizontal mergers have nothing to do with either the creation of market power or the realization of scale economies. They are merely an

alternative to bankruptcy or voluntary liquidation that transfers assets from falling to rising firms (Manne, 1961). Manne (1961) points out that if perfect capital markets exist, and a merger conferred no monopoly power, a rising firm would be indifferent towards expansion through traditional means and by merging. Furthermore, he shows that the conventional approach to the merger problem identifies corporations merely as decision making unit. This view ignores all other benefits from merging and consequently, dictates a ban on horizontal mergers almost by definition. However, while changes to legislation had not yet taken place, Manne (1961) set the groundwork for change by showing that mergers are instrumental to all economies, ever present, market for corporate control.

While economists had established the benefits of merger activity, antitrust legislation was strictly enforced until the 1980's when legislative authorities adopted a looser interpretation of the Sherman Act. Consequently, this increased legal freedom, combined with the inefficiencies of the 1960's conglomerates, resulted in a fourth merger wave running from 1983-1989. This combined with the vastly expanding areas of biochemistry and the technology, and the development of new financial instruments and markets resulted in an unprecedented number of hostile bids. Many of those mergers involved in the acquisition of unrelated businesses that were targeted for their break-up value or designed to generate cash for corporate raiders.

However, by the end of the 1980's, conditions affecting mergers had changed. Debt financing became more expensive as interest rates rose. Furthermore, higher stock prices made potential targets more expensive. The scandal of high-profile financiers such as Drexel Burnham soured the junk bond market and the collapse of several large leveraged buyouts (LBO) made banks more cautious about participating in such deals. Furthermore, U.S. federal regulators restricted the participation of savings and loans, as well as insurance companies, in such buyouts. In addition to this, U.S. state legislatures and courts came down firmly on the side of targets, enhancing their negotiating position. Thus, by 1989, the culmination of these things resulted in the death of the 1980's takeover binge.

Nevertheless, in 1993 the most recent wave erupted with the total dollar value paid for target firms in the United States and Europe doubled after four consecutive years of

decline in merger activity (Goergen & Renneboog, 2004). This sharp turnaround coincided with the development of new European stock exchanges (such as the European New Markets and EASDAQ) and a substantial boom in the internet and telecommunications industries, resulting in sustained merger activity. A steady increase in merger business remained until 1996 when the total value of U.S. and European acquisitions rose substantially to \$1,117 million, with Europe accounting for 37% of the worldwide value of merger deals. From 1996 to 2000 this value tripled to \$3,451 million, with 43% of this occurring in Europe. 1999 was remarkable for the European merger marketplace. In this year Europe accounted for 47% of merger activity and 12% of the deals were in excess of \$100 million U.S.D making the European market was now nearly large as the United States. To add to this, during the same year in Europe the number of hostile bids jumped to 369 compared to only 14 in 1996 (Goergen & Renneboog, 2004). However, this boom was not to last. In 2001, the collapse of consumer confidence in the “tech industries” as well as the overcapacity in the traditional sectors caused for a revaluation of the stock market, resulting in an abrupt reduction in merger activity.

While the European merger market was as large as the U.S., factors emerged in Europe that impacts the returns to target and acquiring shareholders. Considering a whole continent, containing over 20 countries, as a single market meant that a countries legal history, shareholder protection legislations and executive disclosure laws, and cross-border transactions impacted the resulting merging returns. La Porta et al (1998) find that English Common Law countries had dramatically stricter legal rules over those with the traditional French, German, and Scandinavian Civil Code countries. In further studies they showed that legal background would have an impact on the strength of a countries capital markets, the ownership structure of a company, and the quality of a countries government¹. These issues have an impact on corporations financing, and strategic, operations. Thus, legal background has predictive value in and of itself. Furthermore, Rossi and Volpin (2004) also showed that the premium paid to target shareholders in a merger transaction was impacted by legal history.

¹ See La Porta et al (1997-2005) for further investigation

While the predictive value of legal history is now embedded in current research, no broad based European study has been done to investigate the wealth effects of mergers in Europe, and the differences in returns among different legal regimes. As such, this thesis investigates the wealth effects of the 1990's European merger wave, and how a country's legal history contributes to differences in merger returns throughout Europe. Given that most M&A research concentrates on the U.S. and UK markets and, most studies concentrate on merger activity within a single country, a European wide study including Eastern Europe adds dramatically to the research in this area. The sample consists of all available intra-European mergers and acquisitions, in 24 countries reported in Zephyr database over the period 1997-2004.

The rest of the study is separated into four parts. An extensive review of the literature relating to mergers and acquisition is in Part One. Chapter One is an overview of mergers and acquisitions. It looks deeply at the theoretical justifications for M&A with and without perfect capital markets. Chapter Two then discusses mergers as a means for corporate control and the impact that legal tradition has on company shareholders. Finally Part One is concluded in Chapter 3 with a discussion of the M&A wealth effects in the U.S., Europe, and the corresponding differences between domestic and cross-borders transactions.

Part Two presents the data, methodologies used in this study, and the results. Event study methodology is described in Chapter Four, while Chapter Five describes in detail the summary data and its impact on the study. Chapter Six include and analyze the merger returns within Europe, and how legal tradition and cross-border transactions can impact these returns. The conclusions from the empirical analysis carried out in Chapter Six are presented in Chapter Seven, which summarises the study's major findings and give directions for further research.

PART ONE:

LITERATURE REVIEW

An extensive review of literature relating to merger activity is provided in part one. Mergers performance within Europe is the focus of this thesis. The literature review creates the context within which this area of finance has been developed. The literature in this area has flourished over the past two decades as the theoretical motivations for mergers and acquisitions could be readily testable. Chapter One deals with the theoretical motivations for mergers. Chapter Two is an analysis of the mergers and the market for corporate control. It deals with issues relating to mergers around Europe such as investor protection legislation, legal backgrounds, and takeover regulation. Chapter Three is an analysis on the performance of mergers within the U.S. and Europe and the differences between domestic and cross-border transactions.

Chapter 1: Mergers and Acquisitions

Overview

The reasons why firms undertake mergers and acquisitions can sometimes be difficult to identify as there are many motives and factors affecting their success. Chapter 1 discusses the reasons for and against mergers and acquisitions by applying the different financial and business rationalizations. This can be considered the foundation as to why firms undertake the expensive process of taking over another company.

Research has identified five wealth-increasing motivations for corporate takeovers. First, acquisitions can increase efficiency by creating economics of scale, or by disciplining inefficient management (Martin & McConnell, 1991). Second, takeovers can exploit asymmetric information between acquiring-firm managers and target shareholders (Jensen, 1986). Third, acquisitions can mitigate agency problems associated with the firm's free cash flows. Fourth, takeovers can enhance the firm's market power. Fifth, acquisitions can utilize tax credits (Walker, 2000). While firms' objectives may differ, one common goal is to improve performance and increase firm value by capturing potential synergistic benefits. In a perfect world, if these objectives are realized, M&A activities will create wealth for both the shareholders of the target and acquiring firm (Choi & Tsai, 2002).

Bruner (2002) identifies a specific benchmark for measuring performance: investors' required returns. This is commonly defined as the return investors' could have earned on other investment opportunities of similar risk. Against this benchmark, three outcomes can be defined:

1. Value Conserved: This is when investment returns are equal to the required return. Shareholders get just what they require. In other words, the investment has a net present value of zero. Under this scenario, wealth will grow at the rate investors require. Economically speaking, the investor should be satisfied because they earn normal returns.

2. Value Created: This happens when the returns on the investment exceed the returns required. The investment has a positive net present value; the investor's wealth grew at a rate higher than that was required. "Given competition in the markets, it is difficult to earn "supernormal" returns, and very difficult to earn them on a sustained basis" (Bruner, 2002, p. 49).
3. Value Destroyed: In this case, the investment returns are less than what is required by investors. The investor could have done better investing in a different opportunity of similar risk. Thus, the investor is justifiably unhappy when this occurs.

Notions of success or failure should be linked to these measurable events. In economic terms, an investment is successful if it does anything other than destroy value (Bruner, 2002).

1.1: Financial Theory of M&A Transactions

Under most circumstances, mergers and acquisition transactions can be extremely difficult to rationalize. According to financial theory, the value of any asset is equal to the present value of its future cash flows. Thus, any publicly held corporation can be considered a bundle of cash flows expected to be received in the future. In addition, investors are assumed to hold a broadly diversified portfolio containing the value-weighted share of all firms in the economy. In this world, M&As do not necessarily add value because they merely combine the rights to cash flows that are already held by diversified investors. Consequently, investors should be indifferent between receiving the future cash flow stream from two separate firms or, receiving it from a merged firm of two separate companies. Since mergers and acquisitions are extremely expensive, there is a good possibility that investors will be worse off following an M&A transaction.

However, perfect markets finance theory relies on a number of strict assumptions. Among these is the absence of transaction 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 mergers have the potential to create value (Cummins & Weiss, 2001). Furthermore, economic production theory offers other explanations for firm

combinations such as economies of scale and scope that can provide economic justifications for mergers and acquisitions that are not inconsistent with financial theory. However, it is imperative to remember that cash flows determine value, when considering the arguments regarding the economic rationale for M&As. In other words, for an M&A transaction to create value, it must have favourable impacts on the amount, timing, or risk of cash flow in the combined firm over those of the separate companies.

1.2: Economic Production Theory of M&A Transactions

In the world of the economic production theory, firms operate with cost, revenue, and profit functions, all of which could be affected by mergers and acquisitions. Often a reason cited for M&A transactions is that they improve a company's economies of scale, usually resulting in lower cost. The usual argument is that "firms operating in suboptimal scale may be able to achieve scale gains more quickly through M&As than through organic growth, and, in fact, scale economies are almost always given as rational for M&As in most industries" (Cummins & Weiss, 2001, p. 221). However, in some industries, most research has failed to demonstrate that economies of scale provide the justification for an M&A transaction. For example, Cummins and Xie (2003) find that the U.S. property-liability insurance industry failed to generate significant gains in scale economies. Furthermore, the pure production theory argument fails to recognize that the costs arising from the post-merger integration can offset any economies of scale generated from the merger. In many cases, organic growth is a superior method of achieving economies of scale, and, other types of inefficiency (for example technical inefficiency), are often much more significant than scale inefficiency (Cummins & Weiss, 2001).

Economies of scope provide another production theory rationale for mergers and acquisitions. According to Berger, Weiss, Cummins and Zi (2000), scope economies can be present for cost, revenues, and for profits. Cost economies of scope generally arise from the joint use of inputs such as managerial expertise, customer list, computer technologies, and brand names; revenue economies of scope are often said to arise from reductions in customer search costs and improvements in services. "If cost (revenue) economies of scope are present, the costs (revenues) of producing two

outputs jointly in a single firm will be lower (higher) than if the outputs are produced by two separate firms” (Cummins & Weiss, 2001, p. 222). However, production theory arguments generally do not recognize that the economies of scope are often eliminated by the problems resulting from integrating the corporate cultures of two previously separate firms.

Potential gains in efficiency provide another production-based rationale for M&As. Inefficiency occurs when firms fail to operate on the optimal cost, revenue, or profit frontier due to suboptimal performance. Some major types of inefficiency include failing to operate with constant returns to scale, failing to choose cost minimizing inputs, and failing to minimize costs. A potential important justification for a merger transaction is to improve the efficiency of the target company, for example, by replacing management who fails to act on the interests of shareholders. However, this efficiency rationale has been shown to be stronger for focusing rather than diversifying M&As. “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 management of the acquiring firm already have considerable expertise in the types of operations conducted by the target” (Cummins & Weiss, 2001, p. 223).

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, when banks merge in the same geographical area, the elimination of a number of branches and employees can occur without hindering customer service (Goergen & Renneboog, 2004). Thus, when applied to a broader scope, the market effect for domestic mergers should be higher from those of cross-border counterparts. However, to achieve these returns, the efficiency gains must outweigh the premium that the acquiring company pays.

1.3: Justifications for M&A When Markets Are Not Perfect

Another organizational justification for M&As is that consolidation allows firms to acquire monopoly power, and thus increase cash flows by raising prices. This applies most strongly to mergers that increase concentration within specific geographic or product markets. However, Berger (1995) shows that within the U.S. banking market

there is some support for the market power hypothesis, especially for large banks, but the actual quantitative effect on bank profits tend to be minimal.

When the assumptions of perfect markets are relaxed, other rationalizations for mergers and acquisitions arise. One of the important assumptions is the absence of the cost of financial distress. In the real world, however, firms face significant financial distress costs. As a consequence of a company having considerable business risk, they incur higher regulatory costs and potential operating restrictions. Added to this, many customers may also switch to competitors. Thus, deteriorating financial condition is likely to trigger financial downgrades while accompanying a higher cost of capital. Finally, firms with relatively high insolvency risk also face the loss of key employees and suppliers. For example, since large, insurance companies have been shown to have lower probabilities of insolvency, mergers can be beneficial to the extent that increases in scale are accompanied by reductions in income volatility due to enhanced diversification (Cummins, Grace, & Phillips, 1999). This reasoning applies to within-industry mergers as well as also to cross-industry mergers as long as the rationale for both focusing and diversifying exists. The potential benefit on expected bankruptcy costs is generally called the earnings diversification hypothesis.

Also, the existence of corporate income taxation also provides a rationale for M&As as a possible method to increase net cash flows. Firms are able to reduce tax liability by reducing the earning volatility to the extent that the corporate tax schedules are convex or the extent that they can exploit inter-country tax arbitrage or utilize tax loss carry forwards (Cummins & Weiss, 2001). However, the extent to which consolidation reduces taxes in Europe is not clear and is in need of further research.

Another justification for mergers and acquisitions when the assumption of perfect markets is relaxed is the creation of internal capital markets. Informational asymmetries between management and the public make capital markets somewhat inefficient in allocating capital among alternative uses, resulting in a higher cost of capital. Managers are able to use their knowledge of the firm's opportunities to allocate capital efficiently among projects, thus maximizing firm value. However, theoretical work by Scharfstein and Stein (2000), and the extensive literature about the diversification discount (Comment & Jarrell, 1995), casts doubt as to the validity

of the internal capital markets hypothesis. Within the European market place, this theory may be applicable because “European firms have relied more heavily on bank financing and less on capital markets than firms in the United States, suggesting that capital markets may be somewhat less efficient in Europe. However, based on existing empirical and theoretical evidence... the internal capital markets hypothesis is not convincing” (Cummins & Weiss, 2001, p. 225).

1.4: Non-Value Maximizing Reasons for Takeovers-Agency Motive

There are also non-value-maximizing motives for consolidation. Contrary to perfect markets hypothesis, there is considerable evidence that real world managers do not always act on behalf of shareholders interests and, make decisions to maximize their own interest. Instead of acting to maximize firm value, managers may act to maximize their own income, to consume excessive perquisites, and to take other actions that are inconsistent with shareholders interests (Damodaran, 2001). Several reasons have been advanced to explain this divergence. This includes the diversification of management’s personal portfolio (Amihud & Lev, 1981), use of free cash flow to increase the size of the firm (Jensen, 1986), and acquiring assets that increase the firm’s dependence on the management (Morck, Shleifer, & Vishny, 1988). The basic idea in most of these explanations is that acquisition result in the extraction of value from the acquirer shareholders by acquirer management. For example, these agency conflicts may lead managers to forgo profitable, but risky, projects that may threaten job security (Amihud, Kahan, & Sundram, 2004). Since managers enter non-value-maximizing projects, mergers and acquisitions can be expected to have adverse effects on firm value.

The important aspect of the above argument for this analysis is that the target firm has been identified by the acquirer management as the one that is most suited to increase its own welfare (Berkovitch & Narayanan, 1993). As a result, target shareholders, realizing their value to the acquirer management, will attempt to obtain some of this value. “To the extent that target shareholders have some bargaining power, they will succeed in doing so, and the value they obtain will increase with the amount that the acquirer management can appropriate” (Berkovitch & Narayanan, 1993, p. 350). Consequently, the target company’s gain is directly correlated to the severity of the

agency conflict within the acquirer. Since greater appropriation by acquirer management also results in lower total gain, there is an inverse relationship between total and target gains. Moreover, since the acquirer gains are inversely related to the severity of the agency problem, the target and acquirer gains are inversely related (Gondhalekar & Bhagwat, 2003). For example, Bliss and Rosen (2001) show that on average, acquisitions significantly increase CEO compensation even after an average announcement date stock price decline. While the decline in existing wealth partially offsets some of the subsequent salary gains, the vast majority of mergers still increase the overall wealth of the CEO, at the expense of shareholders.

1.5: Non-Value Maximising Reason for Takeovers-Hubris Motive

The hubris hypothesis maintains that acquisitions are motivated by managers' mistakes over possible synergy gains. If the acquiring management is equally likely to over or under estimate a merger, it will only engage in takeovers when it has overestimated the future synergy (Gondhalekar & Bhagwat, 2003). In other words, when targets are evaluated, potential bids are abandoned whenever the acquiring firm's valuation of the target firm is below that of the current market price. Consequently, bids are rendered whenever the valuation exceeds the price. "Since the synergy is presumed to be zero, the payment to the target represents a transfer between the target and the acquirer. It follows that the higher the target gain, the lower the bidder gain, and that the total gain zero" (Berkovitch & Narayanan, 1993, p. 351). Thus, if there are no gains in takeovers, hubris is necessary to explain why managers do not abandon these bids. Furthermore, an abandonment of these bids would suggest that such bids are likely to represent positive errors in valuation (Roll, 1986).

Finally, mergers and acquisitions also may reduce firm value because managers fail to integrate into firms properly. 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 (Jones & Miskell, 2005).

1.6: Summary

The result of this analysis is that the theoretical prediction with regard to market value of M&A is ambiguous. There are many factors that affect the success of any given M&A transaction, thus making any generalized predictions is extremely difficult. “One general result that does emerge though from past empirical work is that focusing mergers are somewhat more likely to create efficiency gains than diversifying mergers” (Cummins & Weiss, 2001, p. 226). Moreover, it can be predicted that domestic and within industry mergers are more likely to create value than activity or geographically diversifying.

The next section discusses the use of mergers as a control mechanism for management and aims to link this with profit motives for M&A transactions.

Chapter 2: Mergers and the Market for Corporate Control

The issue of mergers as a mean for corporate control came into prominence with the seminal article of Henry Manne (1961). Chapter 2 reviews some of the most important articles to appear in the early literature. A review of the early literature establishes the reasons why mergers are an important part of the market for corporate control. This is extended with recent literature and research over investor protection law and merger activity. While this chapter deals with mergers and the market for corporate control, it is important to note implicitly, that these issues will have an impact upon the different returns throughout Europe.

2.1 Development of Mergers as a Means for Corporate Control

When most academics and politicians criticized mergers within society, Henry Manne (1961) developed the ideas whereby merger and acquisition activity had a definitive place within an economy. He expands the groundwork laid by Professor Donald Dewey that most “most mergers have virtually nothing to do with either the creation of market power or the realization of scale economies. They are merely a civilized alternative to bankruptcy or the voluntary liquidation that transfers assets from falling to rising firms” (Manne, 1961, p. 111). He advances these thoughts by explaining that control of corporations may constitute a valuable asset within a special market that is independent of any interest in either gaining economies of scale or monopoly profits. The fundamental premise underlying the market for corporate control is the existence of a high positive correlation between managerial efficiency and market price. If a company is poorly managed, in the sense of not making a feasible return for the shareholders as could be accomplished under other feasible managements, the price of the share declines relative to the market as a whole (Manne, 1961). This phenomenon has dual importance for the market for corporate control.

Firstly, a lower share price facilitates any effort to take over high paying managerial positions. The compensation of upper executives is usually made up of salary, bonuses, pensions, expense accounts and stock options. Furthermore, it takes the form

of information of the inner workings of the company that can be used to benefit from the trading of shares (legally or illegally). However, he believes it is extremely doubtful that the full compensation recoverable by executives for managing their corporations explains more than a small fraction of outsider attempts to take control because the take-overs of corporations are “too expensive generally to take the purchase of management compensation and attractive propositions” (Manne, 1961, p. 113).

It is more likely that another type of reward provides the primary motivation for most takeover attempts. The stock price does more than measure the price as to which executive's compensation could be sold. Share price also measures the potential capital gain of an inefficient company. “The lower stock price, relative to what it could be with more efficient management, the more attractive the takeover becomes to those who believe that they can manage the company more efficiently...and the revitalization of a poorly run company can be enormous” (Manne, 1961, p. 113). However, the greatest benefit of the takeover is that it provides an objective standard of managerial efficiency. Since the courts, as indicated by the business judgement rule, are reluctant to second-guess business decisions, the take-over scheme provides some assurance of competitive efficiency among corporate managers and thereby affords strong protection to the interests of vast numbers of small, non-controlling shareholders (Manne, 1961). In other words, “the market serves as a court of last resort that plays an important role in...protecting shareholders when the corporation's internal controls and board level the control mechanisms are slow, clumsy or defunct” (Jensen, 1986, p. 8). Thus those firms that maximise corporate performance will survive, and those that do not will either be taken over or eliminated.

Jensen (1988) visualizes the market for corporate control as one where alternative management teams compete with each other for the right to manage corporate assets owned by the shareholders. The management team that attaches the highest value to the corporate assets or in other words, promises the highest returns to shareholders, takes over the right to control the asset until it is replaced by another management team that can attribute a higher return to shareholders. This whole process continues independent of the volition of consultation of the incumbent management team (Sinha, 2004).

The research on this mechanism has been extensive and thorough. Hermalin and Weisbach (1988) find that “when firms perform poorly, they tend to remove insiders and add outsiders to the board” (p. 604). Morck, Schleifer, and Vishny (1988) advance this by showing that internally generated CEO turnover is more likely to occur when firms in healthy industries underperform their industry counterparts, whereas hostile takeovers are concentrated in poorly performing industries. Drawing similar conclusions, Franks and Mayer (1996a), find that a large percentage of the top management team is replaced subsequent to a takeover bid. Similarly, Shivdasani’s (1993) study on hostile bids conclude that the takeover market acts in those instances in which internal ‘governance mechanisms’ fail to control management whose behaviour is non-value-maximising to shareholders.

However, Franks and Mayer (1996b) find evidence of high board turnover and significant levels of post takeover restructuring. Large gains are anticipated, as reflected in high bid premiums paid to target shareholders. However, using a number of different benchmarks, they find little evidence of poor performance prior to bids. They therefore reject the view that hostile takeovers perform a disciplinary role. Instead, they argue that opposition to bids by incumbent management reflects disagreement over the price the bidder is willing to pay and the bidding company’s intention to restructure the company (Franks & Mayer, 1996b).

Furthermore, Rajeev Sinha’s (2004) recent article challenges many of the traditional views on mergers as a market for corporate control. Sinha believes that takeovers have two distinct roles within the market of corporate control. Firstly, takeovers can be the mechanism for downsizing and exit in the Schumpeterian process of ‘creative destruction’. The creative destruction may be the combined outcome of secular technological and political developments (Jensen, 1993). “More importantly, since a separation of ownership and control exists among most companies, hostile takeovers can also be a corporate governance mechanism to restrain managerial slack and opportunism” (Sinha, 2004, p. 1292). The great majority of empirical analysis on hostile takeovers has been gathered without making this distinction. Thus, hostile takeovers and internal governance have been treated as substitutes. Similar to Franks and Mayer (1996b), Sinha (2004) does not find underperformance in firms as a

significant factor in the likelihood of a hostile takeover and believes that the findings of the literature reporting a significant influence of underperformance in hostile takeovers appear to be the outcome of a model misspecification.

2.2: Takeover Regulation

To assist in the market for corporate control, takeover regulation has been put into place in the majority of countries around the world. It can be seen as a mechanism to facilitate efficient corporate restructuring (Burkart & Berglof, 2003). The regulation is also important “in terms of mitigating conflicts between the diverse company constituencies such as management, shareholders and stakeholders” (Goergen, Martynova, & Renneboog, 2005, p. 6). It not only curbs conflicts on interests related to transfers of control, but also has a dramatic impact on aligning the agency conflict between management and shareholders, minority and majority investors, and stakeholders. Thus, it is an important foundation of the corporate governance system as a whole. However, its corporate governance role depends on other characteristics of the governance system such as ownership and control (Goergen et al., 2005).

When ownership is dispersed the role of takeover regulation is to restrain managerial behaviour. Since small shareholders cannot monitor management effectively because of incentive issues, they have to rely on the market for corporate control. The role of takeover regulation is then to establish rules and “provide instruments that minimize the costs and inefficiencies associated with the takeover mechanism and there by facilitate a transfer of control towards more productive owners and management” (Goergen et al., 2005, p. 7).

However, a hostile takeover may be an extremely disruptive and expensive mechanism for aligning management and shareholders interests. Numerous studies ((Gregory, 1997); (Dickerson, Gibson, & Tsakalotos, 2001); (Rau & Vermaelen, 1998); (Ghosh, 2001); and (Louis, 2004)) show that the vast majority of hostile takeovers do not produce the anticipated returns. Also, Goergen et al (2005) shows that there is no evidence that hostile takeovers are able to create more long term synergistic value than friendly ones and hostile acquisitions tend to more disruptive

than friendly ones. Therefore, even in the U.S. and UK where widely-held firms prevail, hostile takeovers are relatively rarely used.

“Over the 1990’s 239 hostile takeovers were announced in the U.S. and 158 in the UK. This constitutes 2.3% and 6.55 of the total number of announced tender offers respectively. There were only 67 hostile bids in the 14 EU countries (excluding UK), representing 1.3% of all tender offers announced during this period (Thomson Financial Securites Data (2004). In most other countries the occurrence of hostile takeovers is even rarer”(Goergen & Renneboog, 2004, p. 21).

As a consequence, takeover regulation must have other functional purposes.

Alternatively, in a system of concentrated ownership, takeover regulation functions as a corporate governance device aiming at protecting minority shareholders’ interests. The concentration of ownership and control is seen as alternative mechanism that can mitigate the conflict of interests between management and shareholders (Goergen et al., 2005). In this case large block shareholders have great incentives to monitor management closely and replace it when they perform poorly (Franks, Mayer, & Renneboog, 2001). The advantage of monitoring by blockholders is that it occurs on a continual ongoing basis (Bolton & Thaden, 1998). Alternatively, external disciplining only occurs in crisis situations. However, the presence of a controlling shareholder is also associated with potential opportunistic behaviour towards minority shareholders. This turns out to be crucial because, in many countries, expropriation of minority shareholders and creditors by the controlling shareholders is extensive. This expropriation can take many forms.

“In some instances, the insiders simply steal the profits. In other instances, the insiders sell the output, the assets, or additional securities in the firm they control to another firm they own at below market prices. Such transfer pricing, asset stripping, and investor dilution, though legal, have largely the same effect as theft....Overall insiders use profits to benefit themselves rather than return the money to outside investors” (La Porta, Lopez-de-Dilanes, Shleifer, & Vishny, 2000b).

While there exists a number of legal techniques to resolve conflicts between the large shareholder and minority shareholders, takeover regulation plays an important role, as it can provide minority shareholders with an exit on fair terms opportunity (Goergen

et al., 2005). For example, provisions such as mandatory bid rule or equal treatment principle ensure ample exit opportunities for minority shareholders.

The details of the takeover regulation are in place to manage transactions and regulate the conflict of interests between management and shareholders of both the target and acquiring company. Goergen et al (2005) describe the two agency problems that may emerge during the bidding process. Firstly, control transfers may run the target's incumbent shareholders into minority shareholders. Secondly, the management of the target company may be tempted to implement unduly defence measures to obstruct the takeover, even if it clashes with shareholder interests. Takeover regulation should aim at minimizing both conflicts. The strength of this regulation though has been varied depending on the countries historical legal system.

Initiated by, La Porta, Lopez-de Silanes, Shleifer, and Vishny (1998, p. 6), the nature and effectiveness of the financial systems around the world can be traced back to “the differences in investor protections against expropriation by insiders, as reflected by legal rules and the quality of their enforcement”

2.3: Legal Origins

The recent research on international corporate governance has addressed three important questions for finance scholars. “What determines the extent of legal protection for shareholders and creditors around the world? Does the legal protection of investors matter for financial and economic development? And how should countries reform their rules to better protect investors” (Johnson & Shleifer, 2002, p. 1).

Scholars have understood that legal systems differ in many different ways. The civil (or Romano-Germanic) legal tradition is the most influential and widely distributed around the world. It originates in Roman law, and uses statutes and comprehensive codes as a primary means of ordering legal material. It also relies heavily on legal scholars to ascertain and formulate its rules (La Porta et al., 1998). Scholars typically identify three common families of laws within the civil law tradition: French, German, and Scandinavian.

“The French Commercial Code was written under Napoleon in 1807, and brought by his armies to Belgium, the Netherlands, part of Poland, Italy, and the Western regions of German” (La Porta et al., 1998, p. 8). Napoleon constructed these rules to eliminate the role of a corrupt judiciary, solidify state power, and restrain courts from interfering with State policy. Over time State dominance produced a legal tradition that focuses more on the rights of the State and less on the rights of the individual investors (Beck, Demirguc-Kunt, & Levine, 2002). In France’s colonial era, France expanded their civil code around the world including the near east, parts of Africa, South East Asia, Oceania and the Caribbean. French legal influence has also been significant in Luxembourg, Portugal, Spain, some of the Swiss cantons, and Italy (Glendon, Gordon, & Osakwe, 1992).

“The German Commercial Code was written in 1897 after Bismarck’s unification of Germany, and perhaps because it was produced several decades later, was not as widely adopted as the French Code” (La Porta et al., 1998, p. 9). It has an important influence on legal theory and practise in Austria, Czechoslovakia, Greece, Hungary, Italy, Switzerland, Yugoslavia, and parts of Asia.

The Scandinavian family is also viewed as part of the civil law tradition although its ties to ancient Roman law are weak compared to the French and German traditions (Glendon et al., 1992). While the Scandinavian countries have had civil codes as far back as the 18th century, these codes are not used anymore. Most writers describe the Scandinavian laws as similar to each other but distinct so it is imperative to keep them as a separate family (La Porta et al., 1998).

Finally, the common law family includes the laws of England and those modelled on English law. The common law is made by judges who have to resolve specific disputes. Precedents form judicial decisions, as opposed to contributions by scholars, shape the law that is subsequently incorporated into legislature. This system evolved to protect private property owners against the crown (Merryman, 1985). As a result, this facilitated the ability of private property owners to transact confidently, with positive results on financial development (North & Weingast, 1989). These traditions

spread around the world during Britain's colonization and currently are the basis's for legal systems in the United States, Canada, New Zealand, and many other countries.

The eastern European transition economies vary considerably in history and current institutional setup, but they do share certain important features. They all have large sector of former state-owned enterprises that are in the process of restructuring or phasing out. These countries also need new enterprises to emerge in underdeveloped parts of the economy, in particular the service sector (Berglof & Von Thaden, 1999). These two sectors of the economy bring different governance problems. Furthermore, the transition economies inherited problematic legal systems that, in many cases, have had to construct from scratch. These institutions were prepared under influence from Western advisors. For example, within the countries of the former Soviet Union, the drafters of the law clearly recognized the limited capacity of the "Russian" legal system and the need for flexibility. Thus, "they focused on self-enforcing legal rules that left large holes in the text to be filled by case law" (Berglof & Von Thaden, 1999, p. 25).

2.4: Coasian Ideals

For many years, the influential work by Ronald Coase established the principle that the precise nature of legal rules does not matter in economic outcomes (Coase, 1960). He explains the conditions where private firms and individuals should be able to make contracts as they please. "As long as the enforcement costs of these contracts were nil, individuals do not need the law or can find ways to contract around the law" (Johnson & Shleifer, 2002, p. 4). There still remains enormous support, and research, in law and economics for the three Coasian positions: "law does not matter; law matters, but other institutions adapt to allow efficient private contracts; and finally, while law matters and domestic institutions cannot adapt enough, firms and individuals can write international contracts that achieve efficiency" (Johnson & Shleifer, 2002, p. 4).

These arguments have great influence and impact over the research and discussions concerning corporate finance. For example, Easterbrook and Fischel (1991) explain that capital constrained firms can treat investors properly through a variety of mechanisms. And, the law may complicate these mechanisms, but all parties can

always reach efficient outcomes. If this view is extrapolated, all countries should be able to achieve similar and efficient financial arrangements for firms (Johnson & Shleifer, 2002).

Also Berglof and von Thadden (1999) argue that civil law countries in Europe have developed institutions that allow companies to enter enforceable contracts with investors. They explain that when the law has its shortcomings, political process and firm specific actions can generate methods of providing effective guarantees to investors such as establishing particular ownership structure or dividend policy (Berglof & Von Thaden, 1999). Consequently, transplanting U.S. type institutions into Europe would not be helpful and could even be disruptive. In their view, the arrangements may differ across countries, but in most cases external finance would still be accessible.

Even among scholars who are convinced that legal rules matter, there is scepticism as to their long term effects (Johnson & Shleifer, 2002). Coffee (1999a,b) argues that while U.S. firms derive many important advantages from the U.S. legal system, most countries are not changing their rules to mimic those of the U.S. (presumably because of the inherent political and legal difficulty). However, many firms converge functionally by adopting U.S. type private contracts such as American Depository Receipts.

While these Coasian arguments are extremely powerful, they are rejected by the current research. "Many recent studies have shown that legal rules protecting investors matter in many ways, that other institutions cannot adapt sufficiently, and that changing domestic legal rules can have a big impact" (Johnson & Shleifer, 2002). La Porta et al (1997) show that protection for minority share holders is weaker in countries with civil law traditions. Berglof and Von Thaden (1999) extend this and explain how "the cumbersome procedures and weak enforcement powers of the Russian legal system deter investors from bringing forward suits. This lack of case law means that the large holes in the legal text remain, and investor protection remains weak" (p. 25).

2.5: Investor Protection

The major research completed by La Porta, Lopez, Schleifer, and Vishny (1998) shows the importance of laws around the world. They show that systematic differences in the legal rights of investors across countries exist. La Porta et al (1998) establish six ways to evaluate the extent of protection of minority shareholders against expropriation by insiders. First, some countries allow proxy voting by mail, which makes it easier for minority shareholders to exercise their voting rights. Second, the law in some countries blocks the shares for a period prior to a general meeting of shareholders, which makes it harder for shareholders to vote. Third, the law in some countries allows some type of cumulative voting, which makes it easier for a group of minority shareholders to elect at least one director of their choice. Fourth, the law in some countries incorporates a mechanism that gives the minority shareholders who feel oppressed by the board the right to sue or otherwise obtain relief from the board decision. In the United States this can take form of a class action suit (Johnson & Shleifer, 2002). Fifth, in some countries the law gives minority shareholders a preemptive right to a new issue, which protects them from dilution by the controlling shareholders who could otherwise issue new shares to themselves or to friendly parties. For example, the regulatory body can control the size of the private placement, restrict what parties may receive, and decide at what price the issue may be completed at. Sixth, the law in some countries requires relatively few shares to call an extraordinary shareholder meeting, at which the board can be challenged or replaced. La Porta et al (1998) uses these six dimensions of shareholder protection to create an anti-director rights index by adding one when the law is protective along one of the dimensions and zero when it is not.

The La Porta et al (1998) study concluded that common law countries have a substantially higher average investor protection score of 4. Comparatively, French legal origin and German legal origin countries score substantially lower with an average score of 2.33. Furthermore, there is no association between a country's level of economic development and its anti-director rights score, but a strong association between the score and the size of its stock market relative to GDP (Johnson & Shleifer, 2002). La Porta et al (1998) also find that the legal enforcement of contracts

are weaker in countries with a civil law tradition. A country's legal origin therefore affects investor protection both through the rights available in the laws and the ease of enforcement.

Extending this research, Johnson and Shleifer (1999) look in detail at two Eastern European countries not included in the sample of La Porta et al (1998), Poland and the Czech Republic. "They find that the Polish commercial code protected investors more than the Czech code, but the most important difference was in the design and implementation of securities law" (Johnson & Shleifer, 1999, p. 33). As argued by Coffee (1999a), the protection given by the commercial code can be considered complementary to protection under securities law. Similarly, Slavova (1999) extends this analysis to twenty-one former communist countries of Eastern Europe and the former Soviet Union. Rather than looking directly at the laws, she uses a survey to ask local legal professionals what specific rules are in place and how they are enforced. Her work confirms La Porta et al (1998) on the general relationship between shareholder protection and the stock market development.

There is some discussion as to whether legal origin is a fundamental exogenous variable or whether it was a determined process. Rajan and Zingales (2003) believe that there is an important underlying process. Similarly Beck, Kunt, and Levine (2002) show that both legal systems brought by colonizers is an important determinant of financial development. "Specifically, the law and finance theory shows that countries that inherited the British Common law tradition obtained a legal tradition that tends to emphasize property rights and support financial development to a much greater degree than countries that obtained the French Civil law tradition" (Beck et al., 2002, p. 34). Furthermore, they also show that a country's legal origin explains the cross-country differences in financial development even when controlling for the openness and competitiveness of the political environment (Beck et al., 2002). Similarly, Acemoglu, Robinson, and Johnson (2001) find that legal origin is exogenous and has explanatory power with respect to current institutions. However, they also find explanatory power in the way countries were colonized, particularly the environmental feasibility of a settlement. For example; in places where Europeans faced high mortality rates they were more likely to set up extractive states (rather than permanent colonies) that transferred resources back to the mother country.

The conclusion reached by scholars is that these measures of investor protection matter for economic outcomes. Subsequently, there is a direct effect on the development of external capital markets. For example, La Porta, Lopez, Shleifer and Vishny (1997) provide evidence that both stock and debt markets are less developed in countries of French civil code origin. Chinn and Ito (2005) adds to this by finding that financial openness contributes to equity market development, but only after “a threshold of general development of legal systems and institutions has been attained. Furthermore, financial development – measured as stock market activity – appears to depend on capital account openness both individually and interaction with the government” (p. 38). Overall, they conclude that the general level of legal development matters more than the level of “finance specific” legal and institutional development.

Out of the ten largest publicly traded non-state firms in each country in 1996, La Porta et al (1997) find that French legal origin countries have significantly lower market capitalization relative to sales and cash flow. La Porta, Lopez, Shleifer and Vishny (2002) show that when minority shareholders rights are better protected outside investors are willing to pay more for financial assets such as debt and equity. They pay more because “they recognize that, with better legal protection, more the firm’s profits would come back to them interest or dividends as opposed to being expropriated by the entrepreneur who controls the firm. By limiting expropriation, the law raises the price that securities fetch in the marketplace” (La Porta et al., 2002, p. 1149). In addition to this, La Porta, Lopez, and Shleifer (2005) find that securities law matter because they facilitate private contracting rather than provide for public regulatory enforcement. Specifically, “they find that the several aspects of public enforcement do not matter...but both extensive disclosure requirements and standards of liability facilitating investor recovery are associated with larger stock markets. In turn, this enables more entrepreneurs to finance their investments through external resources, thus leading to the expansion of financial markets”.

Furthermore recent research by Levine and Zervos (1998), and Beck et al (2002) find that legal background is correlated with growth. In addition, Durnev and Kim (2005) document that a firm’s choice of governance and disclosure practices are positively

related to the need for external financing, growth opportunities and the concentration of ownership. Furthermore, these relationships are somewhat stronger in countries with weaker legal frameworks like the French civil code. "Apparently, good investment opportunities provide more incentives to improve governance practises among firms in countries with weaker legal frameworks" (Durnev & Kim, 2005, p. 6). The demands of external financing also have a substantial impact on the governance of a firm in these countries because those firms are subject to the damaging effects of weak investor protection when they attempt to raise external capital. Furthermore, Wurgler (2000) shows that there is better allocation of capital to industries with more developed financial sectors.

There is also evidence that countries with weaker investor protection suffer greater adverse effects when hit by a shock. Johnson, Boone, Breach, and Friedman (2000) present evidence that the weaker corporate governance laws had an adverse effect on the degree of depreciation and stock market decline in the Asian crisis. Overall, corporate governance provides a convincing explanation as to the extent of exchange rate depreciation and stock market decline as any or all other macroeconomic arguments (Johnson & Shleifer, 2002). Similarly, Johnson (1999) show that when the legal system is weaker a company's debt/equity ratio will usually be higher, even though this will increase their probability of collapse. For example, under weak investor protection legislation regimes managers are more likely to pursue activities that maximize their own self-interests, over those of the shareholders. Since it has been shown that manger compensation packages are linked to the asset size of the company, when investor protection is weak, management is encouraged to increase asset base at the expense of shareholders. For example, management can use debt fund expansion, like a leverage buyout, thus increasing the firm's overall risk.

Similarly, Mitton (2002) shows that within the five most affected countries in the Asian financial crisis firms with larger inside ownership and less transparent accounting suffered larger depreciation of their stock prices. He also finds more diversified firms suffer a greater fall, particularly if they have more uneven investment opportunities. This is consistent with the view that firms with weaker corporate governance face a larger loss of investors confidence (Johnson & Shleifer, 2002). Additionally, Scharfstein and Stein (2000) suggest that more diversified firms

are less able to allocate investment properly due to internal politics, and these political problems become worse in a downturn.

Since studies have shown that legal rules matter, governmental or private institutions should adapt to protect investors in countries that have weak investor protection laws. The political process can produce investor protection or it may be the outcome of reasonable private negotiation between firms and investors. Three mechanisms have been suggested in recent research. Firstly, the government may force or put pressure on companies to treat investors properly, even if the law does not require it. The argument made by Bergloff and von Thadden (1999) for European countries is that if firms mistreat investors, they can lose other rights such as favourable tax treatments or rights to operate. Also, the government could monitor firms by directly owning and running banks. This has been shown to be the case by La Porta et al (2005) where government ownership of banks is significantly higher in French origin civil code countries. However, problems can result because this approach requires an honest and effective government, which itself is a result of a country's legal institutions. This is shown by La Porta et al (1999) where countries with civil law traditions have higher corruption and less effective government administrations.

Secondly, company ownership around the world may develop in a different manner to that of the United States and the United Kingdom. Particularly, highly concentrated outside ownership may result in a more effective way to control management. As shown by Johnson and Shleifer (2002), most civil law countries have concentrated ownership. Furthermore, La Porta, Lopez-de-Silanes, and Shleifer (1999) provide evidence that connected, conglomerate firms are more common than stand-alone firms in most countries. These groups are usually controlled by one or more companies that are publicly traded and a number of companies that are privately held without any outside investors. This type of organization has been shown to be extremely common in emerging markets where the protection of minority shareholders interests is weaker (La Porta et al., 1998). Gorton and Schmind (2000) find that within the predominately civil code based countries in Europe, firms with large block holders are valued higher. Also Lins (2003) finds that within eighteen emerging markets, firms with large block holders increase firm value. However, problems do result from using this approach as minority shareholders are still

unprotected (La Porta et al., 1997). If large shareholders control management, small minority shareholders are not protected from expropriation. Coffee (1999b) shows that within the weak investor protection environment of the Czech Republic, it is easy to gain control over a firm and strip it of its value.

Thirdly, firms may act in such a way to enhance their reputation. “For example, by paying higher dividends, companies in civil law countries could establish a reputation for treating shareholders properly. In principle, repeated interaction between managers and shareholders could establish that management can be trusted, and this should increase their ability to raise more capital”(Johnson & Shleifer, 2002, p. 11). However, there is an inherent weakness within this argument. Managers will be willing to act in the interests of shareholders when the economy is strong, but this does not imply that these actions will continue during times of economic downturn. Likewise, La Porta et al (2000a) shows that companies in common law countries pay higher dividends than companies in civil code based countries.

2.6: Legal Reforms

Due to the vast expansion and integration of economies around the world (notably the European Union and NAFTA within the Americas), academics have expressed the need for legal reform. Coffee (1999a) argues that there is an important progression towards functional convergence, where firms are adopting U.S.-type mechanisms to protect investors. A common way that this is occurring is through the use of American Depositary Receipts. Lins, Strickland, and Zenner (2005) show that the sensitivity of investment to cash flow falls when an ADR is issued by a company from a country with a weak legal system and a less-developed capital market. Reece and Weisbach (2002) show that companies in civil law countries are more likely to list American Depositary Receipts on exchanges within the U.S., thus forcing greater transparency upon themselves. However, these mechanisms will not protect the interests of minority shareholder interests. The trouble is that ADRs may help companies opt into a regime of greater disclosure, but they do not stop expropriation as long as it was disclosed (Johnson & Shleifer, 2002). The result is that there are legal reforms occurring in many countries and the evidence suggests that some of these efforts have important effects on investor protection and the financing of firms.

Table 1: Takeover Reforms

Reforms of takeover regulation and their expected impact on ownership and control within a particular corporate governance system

| Initial Characteristics of the System | Takeover Regulation Reforms | Effect on the Ownership Structure |
|---|---|-----------------------------------|
| Low Investor Protection (High managerial discretion) | Decrease in private benefits of control | Remains concentrated |
| High Investor Protection (Effective external monitoring of managers) | Decrease in private benefits of control | More dispersed |
| Low Private Benefits of Control | Improve investor protection | More dispersed |
| High Private Benefits of Control | Improve investor protection | Remains concentrated |

Stock markets throughout Europe have had problems attracting initial public offerings. The main problem is that established firms enjoy the benefits of the status quo (Hellwig, 1999). It allows firms to raise capital on favourable terms because they do not have to compete with new firms raising equity. Established firms also have strong relationships with some financial institutions, such as banks. However, since the mid 1990's Germany has established a new segment of the stock market dedicated specifically to start-up companies.

The "Neurer Markt" represents a dramatic shift in the rules protecting minority shareholders in Germany. The resulting change is twofold, greater disclosure and requiring U.S. GAAP or IAS rules for company accounts. The management of the exchange emphasizes the necessity of transparent and regular disclosure which includes briefings for analysts (Johnson & Shleifer, 2002). Conversely, the established market retains German accounting principles and the old culture of non-disclosure and non-transparency. While all the stock market is governed by the same rule of law, the Neuer Markt offers new legal rules, in the form of private contracts, to those companies willing to participate. The results have had a dramatic impact on the ability of new technology based companies to raise capital through the public offering (Johnson & Shleifer, 2002). The success of this has resulted in broader changes in the legal protection of shareholders in Germany (Balz, 1999). Other industrialized countries with strong legal systems are adopting changes similar to those made by Germany. For example, changes have also been implemented in France but the results are as yet inconclusive (Johnson, 2002).

In countries with weak legal systems investors are harmed in a more direct way such as theft, transfer pricing, failure to report earnings properly, and failure to disclose relevant information when issuing securities. Current research suggests that strong regulators can protect the rights of investors. Johnson (2002) explains that the idea of focusing on the regulation of securities markets on intermediaries is credited to James Landis, one of the writers of the 1933 and 1934 U.S. Securities Acts. Landis believes that the U.S. Securities Commission could not monitor fully the trading practises of all participants on the stock exchange. Rather, the Commission could regulate intermediaries (accountants, brokers, advisors) who could in turn attempt to assure compliance with regulatory requirements by the issuers and traders. Thus, by maintaining substantial power over the intermediaries through its administrative relationships (such as the power to revoke licences) the Commission could force them to monitor market participants.

Johnson and Shleifer (1999) find that within Poland, the rigid, and strictly enforced, regulations have stimulated large growth within the securities market. In contrast, the weak regulations within the Czech Republic have resulted in the “stagnation of markets, the delisting of hundred of privatized companies from the stock exchange, and no listing of new companies”(Johnson & Shleifer, 2002, p. 15). While the Czech Republic is attempting to make changes to curb this problem, many of the countries within the former Soviet Union are stuck in a cycle of weak law and enforcement. Specifically, Johnson, Kaifmann, and Shleifer (1997) argue that many of the countries of the former Soviet Union drove firms underground through high taxation, corruption, and regulation. This undermined the tax base of the government and made it harder to provide reasonable rule of law. Consequently, without a strong rule of law, there is much less incentive to become a registered firm and pay taxes. Thus, most countries of the former Soviet Union are trapped by a weak law enforcement, a large unofficial economy, and a low tax base (Johnson & Shleifer, 2002).

2.7: Impact on Mergers and Acquisitions

These dramatic legal differences among the countries of Europe will have a substantial impact on merger returns. In a recent article, Rossi and Volpin (2004) look at the determinants of mergers and acquisitions around the world. In this paper they

analyze a sample of mergers and acquisitions announced in the 1990's and completed by the end of 2002. They discover that differences in laws and enforcement explain the intensity and pattern of mergers and acquisitions around the world. Their findings indicate that a more active market for mergers and acquisitions is the outcome of a corporate governance regime with stronger investor protection. Rossi and Volpin (2004) also show that hostile deals are relatively more likely in countries with better shareholder protection.

Next they provide evidence on cross border M&A. They show that the probability that a given deal is cross border rather than domestic decreases with the investor protection of the target's country. Even after controlling for bilateral trade, relative GNP per capita, and cultural geographical differences, the results show that targets are typically from countries with poorer investor protection compared to acquirers (Rossi & Volpin, 2004). Within developing countries the actual or potential role of external finance is not as accessible. Finance, internal or external, will only help when firms have access to profitable projects with low enough risk because of the high risk premium in developing countries. This is a consequence of the weakness in investor protection, the rule of law, poor enforcement and transparency. Furthermore, such external markets must be available, either generated within the country or supplied from foreign sources. However, this is not always obvious in developing countries. In particular, "most people will not have excess savings to invest in stocks and bonds, or place in bank accounts, and the people with the capital may not be interested in investing in other people's businesses" (Berglof & Von Thaden, 1999, p. 22). Thus making an investment, including mergers, is inherently more difficult.

Furthermore, the determinants of the takeover premium and the method of payment in individual transactions are investigated. They show that the premium is higher in countries with higher shareholder protection, although this result is driven by deals with U.S. and British targets. In addition to this, they find that the probability of an all-cash bid decreases with the degree of shareholder protection in the acquirer country, indicating the acquisitions paid with stock require an environment with high shareholder protection (Rossi & Volpin, 2004). These factors will have a large impact on the returns generated among the various countries within the study. The following section discusses further these factors and how they impact merger returns.

Chapter 3: Merger Announcement Effects

The profitability of merger and acquisition activity has generated a small mountain of research over the past 30 years. With each passing decade, more scientific evidence emerges, enabling more concrete conclusions to be reached. It is appropriate to consider the latest findings along with earlier studies in order to generate some insights from the literature. Reviews of the scientific evidence were published in 1979, 1983, 1987, 1992, and 2002 (Bruner, 2002). Within all of these studies the common idea is to find if mergers are a beneficial activity to shareholders.

3.1: Measurement of M&A Profitability

The ability to analyze the merit of the profitability of M&A depends critically on the confidence in the methods and measures from which insights are extracted. Bruner (2002) offers four approaches to measure M&A profitability:

1. Survey of Executives: This is simply asking managers whether acquisition created value. These present a sample of executives with a standardized questionnaire, and aggregate across the results to yield generalizations from the sample
2. Clinical Studies: These focus on one transaction or a small sample in great depth, usually generating insights from interviews with knowledgeable observers. By drilling down into detail and factual background the researchers can induce insights.
3. Accounting Studies: These examine the reported financial results of the acquirer before, and after, acquisitions to see how financial performance has changed. "The best studies are structured as matched sample comparisons, matching acquirers with non-acquirers based on industry and size of firm. In these studies, the question is whether the acquirers outperformed their non-acquirer peers" (Bruner, 2002, p. 50).
4. Event Studies: These examine the abnormal returns to shareholders in the period surrounding the announcement of the transactions. The raw return for one day is simply the change in share price and any dividends paid, divided by the closing share price the day before. The abnormal return is simply the raw

return less a benchmark of what investors required that day. Further analysis of event studies will be discussed in the methodology section.

Since this thesis will be looking at the impact of mergers and acquisition using event study methodology. All other performance related measures, while important, will be ignored.

3.2: Drivers of Merger Performance

Regulation

Studying the market value effects of European mergers is important for a number of reasons. Analysing whether M&As create value has implications for future regulatory policy in Europe. “The objective of regulatory changes in Europe was to move away from a restrictive regulatory system that focused primarily on solvency toward a system that enhanced economic efficiency and provided better value for customers by harnessing market forces” (Cummins & Weiss, 2001, p. 219). Because M&A activity is costly, serious questions would be raised about the efficiency effects of regulatory policy if the resulting M&As failed to create value or actually destroyed value for firms involved in the transactions.

Antitrust Policy

Studying M&A transactions also has implications for antitrust policy. Value creation can have both positive and negative effects from an antitrust perspective. On the one hand, if merged firms gain value because they create market power that allows them to charge obscene prices, then positive gains in the market value from mergers might be adverse from an antitrust 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 antitrust regulators. Determining whether any gains in market value from M&As are due to market power or to more economically desirable effects is beyond the scope of this study.

Managerial Implications

Finally, studying European mergers has important implications for managers. If mergers tend to be value creating, then it may be worthwhile for managers to devote scarce time and resources to further consolidation activities. If, however, mergers have little or no impact on value or possibly destroy value, then managerial efforts might be directed more profitably toward other activities such as improving efficiency and productivity. Also, information on whether some types of transactions are more likely to create value than others should help managers formulate M&A strategies.

Houston, James, and Ryngaert (2001) look at the forecasted cost savings and revenue gains involved in bank mergers and find a large significant association between the present value of these benefits and the announcement day returns. "This shows that the market appears to discount the value of these benefits, however, and applies a greater discount to revenue-enhancing synergies and a smaller discount to cost-reduction synergies" (Bruner, 2002, p. 60). In addition to this, Gregory (1997) has reported that when firms announce they are undertaking a series of acquisitions in pursuit of some strategic objectives, their price rises significantly. This suggests that M&A have value creating properties.

Diversifying vs. Focusing Mergers

Previous research has come up with a number of interesting insights about the determinants of M&A profitability. On the one hand it has been shown that diversifying transactions destroys value, while focusing mergers create it. Berger and Ofek (1995) find an average loss in value from diversification of between 13 and 15% with the degree of relatedness between businesses positively correlated with returns. This makes sense if synergies or savings arise from the economics of the two firms. On the other hand, conglomerate deals are associated with the poorest returns. Furthermore, diversifying mergers tend to be associated with worse performance than related mergers. Maquieira, Magginson, and Nail (1998) find negative returns to buyers in conglomerate deal. However, they also find positive and significant returns to buyers in non-conglomerate deals. .

Furthermore, DeLong (2001) shows that when mergers focus on both activity and geography, acquiring firm shareholder's stock price increases by 2-3% more than other types of mergers. Similarly, Ravenscraft and Scherer (1987) reveal that efforts to enhance market position through mergers does not increase performance. Also, Eckbo (1983) find that share price movements of competitive rivals of the buyer do not conform to increases in market power by buyers. This suggests that the sources of gains from merger activity are not the result of anticompetitive combination of firms.

Deal Structure

However, these returns can be impacted on the characteristics of the bidding firm or deal structure. Rau and Vermaelen (1998) find that post-acquisition underperformance by buyers is associated with "glamour" companies (companies with high book-to-market ratios). Value acquirers (companies with low book-to-market ratios), earn significant abnormal returns 8% in mergers and 16% in tender offers, while glamour acquirers earn a significant -17% in mergers and 4% in tender offers. Mergers are usually seen as friendly affairs that are negotiated between the acquirer and targets management. However, tender offers are structured as one-time proposals sent directly to the target firm's shareholders. This tactic has shown to produce higher returns than that of friendly negotiations (Rau & Vermaelen, 1998) (Gregory, 1997) (Campa & Hernando, 2005). These findings are consistent with the view that hostile acquirers are "entrepreneurs who have uncovered special value-creating insights about the target firm. By making an unsolicited bid, the buyer seeks to retain value for itself, rather than give it up in a negotiation" (Bruner, 2002, p. 61).

Another characteristic that can impact the deal value deals with means of payment. Yook (2003) finds that stock-based deals are associated with negative returns at deal announcements, whereas cash deals are zero or slightly positive. This is consistent with theories that managers time the issuance of shares to stock to occur at the high point in the cycle of the company's fortunes, or in the stock cycle (Bruner, 2002). Thus, the announcement of the payment with shares could be taken as a signal that managers believe the firm's shares are overpriced by the market. Also, cash rich firms have the choice of returning cash to shareholders through dividends, or reinvesting it through such activities as M&A. Gregory (1997) show that stocks react negatively to

announcements of M&A transactions by firms with excess cash. Bruner (1988) shows that pairing of slack-poor and slack-rich firms create value. Before merger, acquirers have more cash and lower debt ratios than non-acquirers. This results in an increasing return to buyers' shareholders with the changes in the buyer's debt ratio as a consequence of the merger.

Finally, studies have shown that returns to buyer firms' shareholders are associated with larger equity interests by managers and employees. While looking at how deal characteristics impact performance, Healy, Palepu and Ruback (1997, p. 55) conclude, "while takeovers were usually break-even investments, the profitability of individual transactions varied widely...the transactions characteristics that were under management control substantially influenced the ultimate payoff from takeovers". Similarly, it has been shown that leveraged buyouts (LBO) create value for buyers. The sources of these returns are not only from tax savings due to debt and depreciation tax shields, but also from efficiencies and greater operational improvements implemented after the LBO (Bruner, 2002).

3.3: Returns to Bidders and Acquirers in Event Studies-U.S.

Until recently, the majority of research concerning mergers and acquisitions concentrated on the U.S. This is a consequence of the economic market structure within the U.S. and the availability of data. Thus, the majority of research on M&As stems from transactions within the U.S. The most statistically reliable evidence on whether mergers create value for shareholders comes from traditional short-window event studies. In the U.S., the market is efficient with respect to public information; stock prices quickly adjust following a merger announcement, incorporating any expected value changes. Hence, the entire wealth effect of the merger should be incorporated into stock prices by the time uncertainty is resolved, namely, by merger completion. Therefore, two commonly used event windows are the three days immediately surrounding the merger announcement, and one that starts several days prior to the merger and ending many days after the announcement.

The consensus in finance literature is that merger and acquisition transactions create wealth for the acquired targets, but this is less certain for the acquiring firms. Target firm shareholders enjoy returns that are significantly positive. A sample of eleven studies in Table 2 summarizes these findings. They reveal that positive returns to targets are material and significant, despite variations in time, period, and observations period. The conclusion reached is that, on average, the target shareholders receive average abnormal returns in the 15-30% range. However, these returns have been decreasing continuously through time. Similarly Bruner (2002) finds over the period 1960-2000 and average range in target returns of 20-30%. Furthermore, he also shows that returns have been shown to be higher in the 1960s and 1970s than in the 1980s and 1990s, except for deals in technology and banking, where bidders increase in the 1990s. In short though, the M&A transaction delivers a premium return to targets.

The pattern of findings about the market-based returns among acquirers is more problematic. Among eleven studies, four have significantly positive returns, while seven have negative returns to bidders. Similarly, Bruner (2002) reports twenty studies with negative returns, while twenty-four report positive returns from 1960 to 2000. In short, the findings are distributed rather evenly: one-third show value destruction, one-third show value conservation, and one third, show value creation. Similarly, among the studies that consider returns well after the transaction, half report negative and significant returns. Caves (1989) believes that these findings are due to second thoughts by bidders' shareholders or the consequence of new information about the deal being released to the marketplace. The interpretation of longer-returns following a merger is also complicated by other confounding events that have nothing to do with the transaction (Bruner, 2002).

Jarrell, Brickly, and Netter (1988) find a decline in the positive gains from U.S. domestic M&As for acquirers in the 1960's and 1970's, but the wealth effects completely disappear in the 1980's. They believe that the decline and eventual disappearance of the wealth gains is the result of the dramatic increase in competition in the domestic market for corporate control. In other words, overbidding by competing firms can wipe out any potential synergistic gains. Ravenscraft and Scherer

(1989) find similar results from 1957-1977 when looking at mergers within the U.S. manufacturing industry.

Table 2: Returns to Bidders and Targets in U.S. merger deals

This table summarizes the returns to bidders and targets involved in U.S. domestic merger transactions.

| Study | Time period | #Targets | #Bidders | Window | Target % | Bidder % | Combine % |
|---------------------------|-------------|----------|----------|------------|----------|----------|-----------|
| Bradley et al (1988) | 1963-1984 | 236 | 236 | (-5,+5) | 31.77 | 0.97 | 7.43 |
| Servaes (1991) | 1972-1987 | 704 | 384 | (-1, end) | 23.64 | -1.07 | 3.66 |
| Kaplan & Weishbach (1992) | 1971-1982 | 209 | 271 | (-5,+5) | 26.90 | -1.49 | 3.74 |
| Schwert (2000) | 1975-1996 | 2296 | 1286 | (-63, 126) | 22.0 | -1.0 | N/A |
| Walker (2000) | 1980-1996 | 278 | 278 | (-2,+2) | N/A | -0.77 | N/A |
| Mulherin and Boone (2000) | 1990-1999 | 281 | 281 | (-1,+1) | 20.2 | -0.37 | 3.56 |
| Houston et al (2001) | 1985-1996 | 64 | 64 | (-4,+1) | 20.8 | -3.47 | 1.86 |
| Andrade et al (2001) | 1973-1998 | 3688 | 3688 | (-1,+1) | 16.0 | -0.7 | 1.8 |
| Moeller et al (2005) | 1980-2001 | 12023 | 12023 | (-1,+1) | N/A | 1.1 | 1.135 |
| Bhagat et al (2005) | 1962-2001 | 1018 | 1018 | (-1,+1) | 24.47 | 0.28 | 4.28 |
| Song and Walkling (2005) | 1985-2001 | 2573 | 2573 | (-1,1) | N/A | 0.04 | N/A |

The evidence documenting the destruction of value to the shareholders of acquiring firms came as no surprise to industrial-organization economics. For more than thirty years they have studied the effects of mergers on issues such as accounting profitability, market share and growth. Mark Sirower (1997), in his PhD thesis, furthers the ideas of hubris described by Roll (1986). He shows the synergies resulting from an acquisition are non-existent. Since managers of the acquiring firm fail to recognize this, they incorrectly value the target company and pay a premium that far exceeds the company's true value. The result of this misevaluation is that consistently, acquiring firms are big losers in the acquisition game. Consistent with this, Jarrell et al (1988) shows that the premiums paid in mergers increased dramatically from an average of 16% in the 1960's, to well over 30% in the 1980's. Furthermore, Sirower (1997) also shows that the post acquisition decrease in profitability at the line-of-business level, and impact market share and future growth for years into the future.

The findings of positive abnormal returns to target firms and breakeven/negative returns to the acquiring firm raises the question over the net economic gain of the event. This can be challenging because many transactions involve a buyer that is

substantially larger than that of the target. A number of studies have examined this by forming a portfolio of the buyer and target firms and examining either their weighted average returns. The definitive majority of the studies report positive combined returns. These findings suggest that M&A does pay the investors in the combined buyer and target firms.

3.4: Returns to Bidders and Acquirers in Event Studies-Europe

While merger research has been thorough and extensive within the U.S., within Europe it has not been the case. Until recently, the majority of research in Europe has concentrated on the UK market and, similar to studies that focus on U.S. markets, the stock price return of bidding firms is inconclusive. Table 3 shows that stock price returns to shareholders within Europe are similar to that in the U.S. Target firm shareholders enjoy returns that are significantly positive in all cases. However, returns to target shareholders are lower than that in the U.S. Target shareholders within Europe receive premiums ranging from 3.44% to over 12%. This is dramatically lower than returns to target shareholders in the U.S. who receive 15-20%.

Of these thirteen studies, eight show positive returns while five show negative returns to bidders. However, Beitel, Schiereck and Wahrenburg (2004) identify thirteen drivers of M&A success within Europe. They separately analyze the success of the M&A transactions from the viewpoint of target shareholders, bidding shareholders, and the combined entity of the bidder and target. They were able to identify a number of factors that significantly explain M&A success. They show that successful bidders can be identified by looking at their choice of target. Successful bidders choose smaller and faster growing targets with bad relative efficiency measures (Beitel et al., 2004). They also find a large difference in the cost efficiency between target and bidder as well as poor stock performance of the target prior to the transaction as significant factors of value-creating transaction for the targets' shareholders. Also, "bidders tend to be more successful when they take over qualitatively better managed targets that at the same time provide of a sufficient synergy and profit efficiency potential. Successful bidders therefore do not search for real turnaround candidates" (Beitel et al., 2004, p. 137).

Table 3: Returns to Bidders and Targets in European merger deals

This table summarizes the returns to targets and bidders involved in domestic European merger transactions.

| Study | Time period | # Target | #Bidder | Window | Target % | Bidder % | Market |
|------------------------------|-------------|----------|---------|----------|----------|----------|-------------|
| Dodds and Quek (1985) | 1974-1976 | 70 | 70 | (0,+30) | N/A | -0.002 | UK |
| Limmack (1991) | 1977-1986 | 462 | 448 | (0,+30) | 6.16 | -0.002 | UK |
| Cybo-Otto and Murgia (2000) | 1988-1997 | 54 | 54 | (-1,+1) | 12.09 | -0.19 | 14 Europe |
| Cummins and Weiss (2001) | 1990-2002 | 164 | 499 | (-1,+1) | 3.88 | -0.14 | 17 Europe |
| Lowinski et al (2004) | 1990-2001 | 104 | 104 | (-1,+1) | N/A | 0.32 | Switzerland |
| Doukas et al (2002) | 1980-1995 | 101 | 101 | (-1,+1) | N/A | -0.52 | Sweden |
| Goergen and Renneboog (2004) | 1993-2000 | 136 | 142 | (-1,0) | 9.01 | 0.7 | EU |
| Aw and Chatterjee (2004) | 1991-1996 | 79 | 79 | (0,+100) | N/A | -0.81 | UK |
| Beitel et al (2004) | 1985-2000 | 98 | 98 | (-1,+1) | 12.39 | -0.01 | 17 Europe |
| Conn et al (2005) | 1984-1998 | 576 | 403 | (-1,+1) | N/A | 0.59 | UK |
| Campa and Hernando (2005) | 1998-2002 | 120 | 120 | (-1,+1) | 3.24 | -0.87 | EU |
| Campa and Hernando (2005) | 1998-2001 | 262 | 262 | (-1,+1) | 3.24 | 0.44 | EU |
| Karceski et al (2005) | 1993-2000 | 27 | 33 | (-3,0) | 14.38 | 0.34 | Norway |

3.5: Returns to Bidders and Acquirers in Cross-border Studies

Similarly, event study research in cross-border mergers has been a recent addition in finance literature. Table 4 shows the returns to bidders and targets in cross-border deals and, the results generated are quite inconclusive. Firstly, within current research there have been minimal studies looking at the returns to target. Of the ten papers looking at cross-border returns only four have examined the returns to target shareholders and the range is from 2.97% to 13.51%. Similar to results in U.S. and Europe, the returns to bidding shareholders are inconclusive. Of the ten studies, seven show positive returns while only three show negative returns. The range among these returns is quite dramatic as well since returns range from -3.8% to 3.09%.

3.6: Asymmetries and Imperfections in International Asset Markets

Theories based on industrial organization suggest a powerful motive for cross-border deals. The work of Errunza and Senbet (1981) and Scholes and Wolfson (1990) attribute the industrial organizational based theories of foreign direct investment to imperfections in the markets for goods, services and factors of production. These theories suggest that firms entering foreign markets can capture rents that are not

competitively priced due to imperfect international products and factor markets. “If the market for these specialized resources is inefficient, cross-border expansion allows the firm to internalize the market for the resource and transfer it overseas” (Kuipers, Miller, & Patel, 2002, p. 12).

Table 4: Returns to Bidders and Targets in cross-border merger deals

This table summarizes current research to bidders and targets involved in cross-border mergers.

| Study | Time period | #Targets | #Bidders | Window | Target % | Bidder % | Market |
|---------------------------------|-------------|----------|----------|----------|----------|----------|--------|
| Cummins and Weiss (2001) | 1990-2002 | 56 | 56 | (-1,+1) | 2.97 | 0.07 | Europe |
| Choi and Tsai (2002) | 1992-2000 | 369 | 369 | (-1,+1) | N/A | 0.83 | U.S. |
| Goergen and Renneboog (2004) | 1993-2000 | 118 | 118 | (-2,+2) | 13.51 | 3.09 | Europe |
| Aw and Chatterjee (2004) | 1991-1996 | 41 | 41 | (0,+100) | N/A | -3.8 | Europe |
| Lowinski et al (2004) | 1990-2001 | 104 | 104 | (-1,+1) | N/A | 1.26 | Swiss |
| Faccio et al (2005) | 1996-2001 | 3211 | 4429 | (-1,+1) | N/A | -0.38 | Europe |
| Moeller and Schlingemann (2005) | 1991-1995 | 281 | 281 | (-1,+1) | N/A | 0.15 | U.S. |
| Campa and Hernando (2005) | 1998-2001 | 211 | 211 | (-1,+1) | 4.08 | 0.05 | Europe |
| Campa and Hernando (2005) | 1998-2002 | 52 | 52 | (-1,+1) | 3.82 | -0.39 | Europe |
| Conn et al (2005) | 1984-1998 | 100 | 100 | (-1,+1) | N/A | 0.38 | Europe |

Firstly Scholse and Wolfson (1990) show that differential tax systems between nations can impact on the marginal productivity on foreign direct investment through acquisitions. Similarly, Servaes and Zenner (1994) show strong evidence that taxes effect the abnormal returns earned by U.S. targets of foreign acquisitions. Specifically, they showed that the Economic Recovery Tax Act, with its investment tax credits and accelerated depreciation schedules, substantially increased the tax incentives for acquisitions of U.S. assets by domestic purchasers, with a consequent implicit tax imposed on foreign acquirers as a result (Kuipers et al., 2002). “Conversely, the Tax Reform Act, featuring reduced marginal corporate tax rates in the U.S. and deferred tax payments until their ultimate repatriation, increased the value of U.S. assets to foreign investors domiciled in higher tax jurisdictions” (Kuipers et al., 2002, p. 14). Additionally, Servaes and Zenner (1994) show strong support for the relative taxation argument in the form of a regime shift in the gains to target and acquirer firms in cross-border takeovers of U.S. assets. However, Harris and Ravenscraft (1991) do not find support for tax regime effects in the returns to cross-border takeover.

Alternatively, another important argument for expecting the returns of cross-border acquisitions to be higher than those in domestic acquisitions is based on the gains from diversification when businesses seek synergies arising from information based assets (Conn et al., 2005). A likely candidate for internalization of technical assets is a firm's research and development program, or alternatively, the firm's portfolio of intangible assets. Foreign acquirers can use geographic diversification to extract monopolistic rents from these specialized resources via foreign direct investment or, through the outright acquisitions. Conn et al (2005) show that this expansion permits the internalization of synergies from intangible information that is based on assets that would otherwise be lost because of various market failures. They also provide evidence that R&D, and intangible asset, intensity is related to the observed gains from cross-border takeovers. Similarly, firms with superior managerial talent may be able to monetize their abilities by expanding overseas in related industries, and thus be willing to pay higher premiums for targets in the same sector (Kuipers et al., 2002).

In addition to product and factor market imperfections, informational asymmetries and structural barriers to integrated capital markets can create differential valuation of assets across borders. Froot and Stein (1991) provide a model where the existence of informational asymmetries prevents entrepreneurs from purchasing assets solely with external funds. Consequently, external funds are needed to complete the acquisition. Since the net worth of the foreign acquirer relative to a domestic asset acquirer varies with the real exchange rate, foreign bidders are at an advantage when the real value of their currency rises versus the domestic currency.

3.7: The Legal Environment and Shareholder Protective Rights

In addition to product and factor market imperfections, differences in takeover legislation and regulations may contribute to the differences in wealth effects of domestic and cross-border acquisitions (Kuipers et al., 2002). As stated earlier, La Porta et al (1997) introduced the notion that differences in external corporate governance mechanisms, as they relate to investor protection against expropriation by management, along with strict legal standards within countries, dramatically impacts the effectiveness of capital markets around the world. Better protection leads to more valuable firms (La Porta et al., 2002) and more profitable investment programs

initiated by management (Wurgler, 2000). This can mitigate the agency cost of the firm stated by Jensen (1986). However, direction and significance of the valuation effect of international corporate governance rules in the context of cross-border takeovers is not obvious. Under the classical agency cost framework this argument points to the prediction that it is expected that managers in countries with strong investor protection rights maximize shareholder wealth and only enter transactions within countries with weak shareholder rights. "In effect, the agency cost contracting hypothesis predicts that a formal corporate governance structure that protects shareholders reduces the classical contracting costs of disciplining poor management" (Kuipers et al., 2002, p. 7).

Alternatively, managers in countries with weak shareholder rights may consider acquisitions in strong investor protection countries, as an opportunity to opt into a stronger corporate governance structure at a later date, thus creating value for their shareholders (La Porta et al., 2002). Furthermore, Rossi and Volpin (2004) also show that strong accounting standards help acquirers identify potential targets and; there are more potential targets in countries with better shareholder protection and accounting standards. In other words, firms opt out of weak governance regimes via cross-border deals. This shows that the international market for corporate control helps generate convergence in corporate governance regimes across countries. Thus, this predicts a negative relations between that acquirer returns and the degree of shareholder rights protections when targets are in high investor protection countries (Gilson, 2000).

Additionally, investor protection can affect the volume of mergers and acquisitions because it impacts the magnitude of inefficiencies in the target country (Rossi & Volpin, 2004). To measure this, La Porta et al (2000b) develops an index of quality of the accounting standards, an index of shareholder protection that combines an index of the quality of law enforcement and an index of the rights of shareholders have with respect to management. They also note that the presence of common law background is important. Using this methodology, Rossi and Volpin (2004) conclude that an active market for M&A is the outcome of a corporate governance regime with stronger investor protection. With weak shareholder protection, there is large benefits of control, thus the market for corporate control does not operate frictionless (Dyck &

Zingales, 2004). On the contrary, with strong investor protection, the private benefits of control are minimal, and there is an active market for corporate control.

Similarly, credit protections can impact gains to acquiring shareholders when foreign firms acquire companies in strong legal backgrounds. Strict creditor rights can encourage management to act in risk-minimising activities that benefit debt holders at the expense of shareholder gains. For example, asset diversification through cross-border acquisition can reduce the variability of firm cash flows and lower default risk thereby expropriating shareholder wealth for the benefit of debt holders (Kuipers et al., 2002). Managers may also pursue risk minimizing activities to reduce their employment risk at the expense of shareholders (Amihud & Lev, 1981). Consequently, this predicts a negative relationship between the strength of creditor protections and shareholder gains in cross-border takeovers.

This thesis tests the hypothesis that the incentive mechanisms created by investor protection rights, along with the strength of legal enforcement across countries, affects the value created and destroyed by managers in domestic and cross-border acquisitions within Europe. Thus, the relative difference in corporate governance rules between nations is a source of value for merged firms in and of itself. Prior studies find significant variation in the gains to acquiring and bidding firms as a function of the nationality of the bidder, but the ultimate source of this international variation in returns has not been satisfactorily been addressed. It is argued that a firm's legal and corporate governance environment provides a partial explanation for the observed variation in returns for domestic and cross-border acquisitions and it is tested across all European countries, something that has not been done before.

PART TWO:

DATA & METHODOLOGY

Part two provides both a description of the data and the methodologies to be used in the empirical analysis in this study. Chapter four describes event study methodology in detail and presents any problems that arise when it is used. Chapter five describes the merger data, stock price data, and stock index data used when analysing post merger performance. The different countries are described and classified by their legal background.

Chapter 4: Event Study Methodology

In Chapter 4 the data set used for the empirical testing in this study are introduced. An event-study analysis is used to determine the market value effects of the transactions included in the sample. Specifically, stock prices data were obtained the market reaction to the M&A transactions for both the target and acquirer firms in a series of event windows surrounding the transaction dates are obtained. The use of market data is more powerful than other approaches in studying the effects of events such as mergers and acquisition because market prices immediately reflect the market's assessment of new information on the target and acquiring firm (Cummins & Weiss, 2001). In effect, conducting an event study captures the market's expectation of the net effect of an M&A transaction on the present value of the expected future cash flows of firms involved in the transaction and thus determine whether M&As tend to create value for shareholders. Although M&As clearly have other effects, studying the effect of the transactions on stock prices provides one important measure value creation or destruction, resulting from the trends in European merger. The following chapter explains methodology, problems, and modifications used in event studies.

4.1: Event Study Methodology Introduction

Economists and academics frequently attempt to determine the measurable effect an economic event has on firm value. Using financial market data, an event study measures the impact of a specific event on the value of a firm. The usefulness of such a study comes for the fact that, the effects of an event will be immediately reflected in the firms stock prices (MacKinlay, 1997). Thus, a measure the event's impact can be created using stock prices observed over a relatively short time frame. In contrast, profitability measures may require many months or years of observations (MacKinlay, 1997).

Within accounting and finance, the event study has many applications. It has been applied to numerous firm specific and economy wide events. Some examples include mergers and acquisitions, earnings announcements, issues of new debt or equity, and announcements of macroeconomic variable. Furthermore, event studies have also

been applied to other fields such as law (G. William Schwert, 1981). Consistently the focus is the effect of an event on the price of a particular class of securities of a firm, most often common equity.

Event studies have been used by economists for many decades. According to MacKinlay (1997) the first published study was by James Dolley in 1933. In this study he examines the price effects of stock splits. Over the decades from the early 1930's until the late 1960's the sophistication of the event study increased dramatically. MacKinlay (1997) notes that this included "removing general stock market movements and separating out confounding events" (p. 14). However, in the late 1960's work done by Ray Ball, Philip Brown, and Eugene Fama introduced the same methodology that is used today (Binder, 1998).

Since these pioneering studies were introduced, a number of modifications have been developed. These are related to the violation of statistical assumptions used in the early work and work to adjust the design to accommodate more specific hypothesis (Binder, 1998). A few useful papers that deal with the practical importance of many of the complications and adjustments are the work of Brown and Warner. In their early work (Stephen J Brown & Warner, 1980) they considers the implementation issues for data sampled at a monthly interval. In their later work (Stephen J. Brown & Weinstein, 1985), they deal with the issues involved with using daily data.

4.2 Models for Measuring Normal Performance

The assessment of the event's impact requires a measure of the abnormal return. The abnormal return is the actual return of the security over the event window minus the normal return of the firm over the same period. The normal return is defined as the expected return without conditioning on the event taking place.

Equation 1:

$$AR_{it} = R_{it} - E(R_{it} | X_t)$$

A number of approaches are available to calculate the normal return of a security. The approaches available can be categorized into two groups—statistical and economic.

Models within the first category are driven from the statistical assumptions concerning the behaviour of asset returns and do not dependant on economic arguments. On the contrary, models within the second category are reliant upon the assumptions concerning investors' behaviour and are not solely a consequence of statistical assumptions (Binder, 1998). However, MacKinlay (1997) notes that, the use of economic models is not independent of statistical assumptions. "The potential advantage of economic models is not the absence of statistical assumptions, but the opportunity to calculate more precise measures of the normal return using economic restrictions" (p. 19).

For the statistical models, the assumption that asset returns are jointly multivariate normal and independently and identically distributed is imposed (Binder, 1998). This distribution assumption is a sufficient condition to allow for the constant mean return model and the market model to be correctly specified. While this assumption is strong, in practise it generally does not lead to problems because the assumption is empirically reasonable and inferences using the normal return models tend to be robust to deviations from the assumption. Also one can easily modify the statistical framework so that the analysis of the abnormal returns is autocorrelation and heteroskedasticity consistent by using a generalized methods-of-moments approach (MacKinlay, 1997).

4.2.1: Constant Mean Return Model

Let μ be the constant mean return for asset i . If this is the case then the constant mean model is:

Equation 2:

$$R_{it} = \mu_i + \xi_{it},$$

$$\text{where } E(\xi_{it})=0 \text{ and } \text{var}(\xi_{it})=\sigma_{\xi_{it}}^2.$$

R_{it} is the period- t return on security i and ξ_{it} is the time period t disturbance term for security i with an expectation of zero and variance of $\sigma_{\xi_{it}}^2$ (MacKinlay, 1997).

While the constant mean model is the simplest model it has been shown by Brown and Warner (1980) to generate similar results to those of more sophisticated models.

The lack of sensitivity to the model can be attributed to the fact that the variance of abnormal returns is not reduced by more sophisticated models (MacKinlay, 1997). When using daily data the model is typically applied to nominal returns. However, when monthly data is used, the model can be applied to nominal returns, real returns or the returns in excess of the nominal risk free return generally measured using the U.S. Treasury Bill with one month to maturity.

4.2.2: Market Model

The market model is a statistical model, which relates to return of any given security to the return of the market portfolio. The model's linear specification follows from the assumed joint normality of asset returns (MacKinlay, 1997). For any security i the market model is:

Equation 3:

$$R_{it} = \hat{\alpha}_i + \beta R_{mt} + \varepsilon_{it},$$

where $E(\varepsilon_{it})=0$ and $\text{var}(\varepsilon_{it})=\hat{\sigma}_{\varepsilon_i}^2$.

R_{it} and R_{mt} are the period- t returns on security i and the market portfolio, respectively, and ε_{it} is the zero mean error term. $\hat{\alpha}_i$, β , and $\hat{\sigma}_{\varepsilon_i}^2$ are the parameters of the market model (MacKinlay, 1997). In applications, a broad based stock index is used for the market portfolio, with the S&P 500 Index, the CRSP Value Weighted Index, and the CRSP Equal Weighted Index being popular choices.

The market model is a potentially dramatic improvement over the constant mean return model. MacKinlay (1997) explains, "By removing the portion of the return that is related to variation in the market's return, the variance of the abnormal return is reduced. This in turn can lead to increased ability to detect event effects". The benefit from using the market model will depend on the R^2 of the model regression. The higher the R^2 the greater is the variance reduction of the abnormal return, and the larger is the gain.

4.2.3: Other Statistical Models

A number of other statistical models have been proposed by academics for modelling an assets return. A general type of statistical model is the factor model. Factor models are motivated by the benefits of reducing the variance of the abnormal return by explaining more of the variation in the normal return. The market model is an example of a one factor model. Other multifactor models include industry indexes, and macroeconomic indicators, in addition to the market (Elton, Gruber, Brown, & Goetzmann, 2003). For example, Chen, Ross, and Roll (1986) provide discussion of index models with factors based on industry classification. A further type of factor model is one which calculates the portfolio return by taking the difference between the actual return and a portfolio of firms of similar size, where size is measured by the market value of equity. In this approach typically ten size groups are considered and the loading on the size portfolios is restricted to unity. Thus, this procedure implicitly assumes that expected return is directly related to market size (MacKinlay, 1997).

The gains from using multifactor models for event studies are limited. Binder (1998) explains that the reason for these limited gains is due to empirical fact that the marginal explanatory power of additional factors results in a minimal reduction in the variance of abnormal returns. However, the variance reduction will usually be the greatest where the sample firms have a common characteristic, for example industry, market capitalization. In these cases the use of a multifactor model does warrant consideration (MacKinlay, 1997).

The use of other models is dependant and dictated by the amount of available data. An example of a normal performance return model implemented in situations with minimal and limited data is the market-adjusted return model (MacKinlay, 1997). In some cases it is not feasible to have a pre-event estimation period for the normal model parameters, and a market-adjusted abnormal return is used. The market adjusted return model can be viewed as a market model where the parameters are restricted ($\alpha=0$ and $B=1$). Because the model coefficients are pre-specified, an estimation period is not needed. This is used by Ritter (1991) in his study of initial public offerings. A general recommendation is to only use such restricted models if

absolutely necessary, and if necessary, consider the possibility of biases arising from the imposition of the restrictions (Binder, 1998).

4.2.4: Economic Models

Economic models are used as restrictions on the statistical models to provide tighter constrained normal return models. The most common economic and financial models which provide restrictions are the Capital Asset Pricing Model (CAPM) and the Arbitrage Pricing Theory (APT). Established by, Markowitz (1952), Sharpe (1964), and Lintner (1965), CAPM is an equilibrium theory where the expected return of a given asset is determined by its covariance with the market portfolio. Alternatively, as a consequence of Stephen A Ross (1976), the Arbitrage Pricing Theory (APT) is an asset pricing theory where the expected return of a given asset is a linear combination of multiple risk-factors.

The use of the Capital Asset Pricing Model was extremely common in event studies in the 1970s. However, Fama and French (1996) provide evidence that deviations from CAPM exist, thus implying that the validity of the restrictions imposed by CAPM on the market model is questionable. Consequently, it is highly probable that the results of these studies may be sensitive to the CAPM restrictions. Because this potential can be avoided at little cost by using the market model, the use of the CAPM has almost ceased.

Similarly, the use of multifactor normal performance models, motivated by the APT, can also be used in event studies. The common finding is that with APT the most important factor behaves like a market model and the remaining factors add little or no explanatory power (Binder, 1998). Thus, the gains from using an APT model versus the market model are small (Stephen J. Brown & Weinstein, 1985). The potential gain from using a model based on the arbitrage pricing theory is to eliminate the biases involved in the CAPM model. However, because the statistical models, like the market model, also eliminate these biases, for event studies they dominate research.

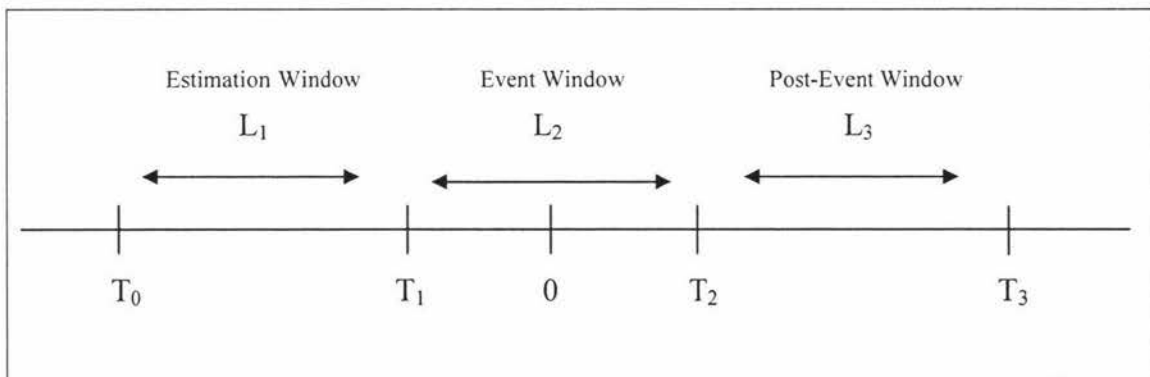
4.3: Measuring and Analysing Abnormal Returns Introduction

In this section the framework for measuring and analysing abnormal returns is considered. Since the market model is the dominant model in research, it is used as the normal performance return model. If the constant mean model is used, the analysis is virtually identical to that of the market model (MacKinlay, 1997).

In event studies the estimation period, event window, and post-event period need to be defined. Returns within the study will be indexed in event time using “ τ ”. Defining $\tau=0$ as the event date, $\tau=T_{1+1}$ to $\tau=T_2$ represents the event window, and $\tau=T_{0+1}$ to $\tau=T_1$ constitutes the estimation window. Let $L_1=T_1-T_0$ and $L_2=T_2-T_1$ be the length of the estimation window and the event window. Even if the event considered is announced on a given date it is common practise to set the event window length to be larger than one. This facilitates the use of abnormal returns around the event date in the analysis (MacKinlay, 1997). When applicable, the post-event window will be from $\tau=T_2+1$ to $\tau=T_3$ and of length $L_3=T_3-T_2$. The time sequence is shown below in a time line in Figure 1.

Figure 1: Event Study Time Periods

This diagram shows the breakdown of the time sequence for estimation and analysis using event study methodology.



It is typical for the estimation window and the event window not to overlap. This design provides estimators for the parameters of the normal return model which are unaffected by the returns around the event. When the event window is included in the estimation of the normal parameters could lead to the event returns have a dramatic influence on the normal return measures (MacKinlay, 1997). In this situation both the normal returns and the abnormal returns would capture the event impact. This would

be extremely harmful to the event study because the methodology is reliant upon the assumption that the event impact is captured by the abnormal returns. Occasionally the post event window data is included with the estimation window data to estimate the normal return model. The main goal of this approach is to increase the robustness of the market return measure to gradual changes in its parameters (MacKinlay, 1997).

4.3.1: Estimation of the Market Model

Under general circumstances, ordinary least squares (OLS) is the proper estimation procedure used for the market model and given the assumptions provided earlier, OLS can be considered efficient. In order to draw overall inferences on the event, the abnormal returns must be aggregated through time and across all securities. However, a necessary understanding of the concept of cumulative abnormal return is necessary to accommodate a multiple period event window. MacKinley (1997) defines $CAR_i(\tau_1, \tau_2)$ as the sample cumulative abnormal return (CAR) from τ_1 to τ_2 where $T_1 < \tau_1 < \tau_2 < T_2$. The CAR from τ_1 to τ_2 is the sum of the included abnormal returns.

Since the null distributions of the abnormal return and the CAR, tests of the null hypothesis can be conducted. However, since tests with only one observation are not useful it is necessary to aggregate. Thus, it is important that there is not any overlap in the event window of the included securities. When there is not any overlap and the distributional assumptions are maintained, it implies that the abnormal returns and the cumulative abnormal returns will be independent across all securities.

The total aggregate of the securities returns can be calculated using AR_{it} from for each event period, $t = T_1 + 1, \dots, T_2$. Using these estimates, the abnormal returns for any event period can be analyzed (MacKinlay, 1997). Using the same approach as that was used to calculate the cumulative abnormal return for each security i , the average abnormal returns can then be tallied over the event window. Similarly, the CAR's can be calculated security by security and then aggregate through time.

For the variance estimators the assumption that the event windows of the N securities do not overlap is used to set the covariance term to zero. The inferences about the

cumulative abnormal returns can then be reached by testing the null hypothesis to see if the abnormal returns are zero.

Changes and modifications of the basic approach are used in this thesis. James Patell (1976) introduced a common modification to the market model. Each of the returns is standardized using an estimator of each standard deviation. This standardization process ensures that no single firm in the sample dominates the results of the analysis and helps to improve the power of the test statistics (Cummins & Weiss, 2001). Furthermore, a precision weighted cumulative average abnormal return is reported. The precision weighted average will always have the same sign as the corresponding Z score and preserves the portfolio interpretation that CAAR offers but average SCAR does not (Cowan, 2002).

4.4: Problems Encountered in Event Studies

Up to this point, the analysis has assumed that the event windows of the included securities do not overlap in calendar time. This assumption allows for the calculation of the variance and sample CAR without concern about the covariance across securities because they are zero. However, when the event windows overlap and the abnormal returns will not be zero, the parameters and distributional results are no longer applicable. For instance Binder (1998) explains that often the abnormal return estimators 1) are cross-sectionally (in event time correlated), 2) have different variances across firms, 3) are not independent across time for a given firm or 4) have greater variance during the event period than in the surrounding periods.

These problems have been identified in a thorough body of past research. The first two problems have been, i.e. that the market model prediction errors for different firms do not have identical variance and that they may not be independent across firms was initially discovered by Jaffe (1974). Similarly, Fama (1977) identified that the residual variances are different across all firms. Furthermore, Meyers (1973) shows that the residuals of the market model are contemporaneously correlated for firms in related industries. The problems related to clustering is discussed by Victor Bernard (1973). He examines the effects of cross-correlation and unequal variance across firms on hypothesis tests in the event study context. Bernard concludes that in

some instances, considerable bias is introduced when these problems are not correlated.

Frequently, the residual variance estimate from the market model is used to estimate the variance of the abnormal returns estimator because the prediction errors have a greater variance than the regression disturbances. This is a result of the prediction errors being a function of estimation error in the parameters, as well as disturbance variance (Patell, 1976). Binder (1998) notes that there are two simple solutions to this problem. The first is to use the correct equation, based on the residual variance and the matrix of independent variables, to calculate the precision of the prediction errors. Or, a sample of data before (after) the event period can be used to generate a separate series of prediction errors used solely to calculate the variance of the event period prediction error (Binder, 1998).

A second method to handle clustering is to analyze the abnormal returns without aggregation. Testing whether the null hypothesis of the event has no impact using unaggregated security-by-security data can also be considered. This is commonly applied when there is total clustering, that is, there is an event on the same day for a number of firms. Collins and Dent (1984) develop this approach by proposing a generalized least squares technique when the variance of each firm's abnormal return estimator increases proportionally during the event window. The advantage of this approach is that, unlike the portfolio approach, an alternative hypothesis where the firms can have positive or negative abnormal returns can be accommodated for. However, MacKinlay (1997) notes that this approach has two drawbacks—frequently the test statistic will have poor finite sample properties except in special cases and, often the test will have little power against economically reasonable alternatives. It should also be noted that, the multivariate framework and its analysis is similar to the analysis of multivariate tests of the asset pricing modes.

Research has also identified a problem with time series dependence. Under the hypothesis that returns are given by the market model with stationary parameters, the market model is efficient, and the disturbances in the market model are independent across time (Fama, 1977). However, in many event studies these hypotheses have been violated. Mikkleson and Partch (1988) shows that it is standard result in

econometrics literature that regression residuals are correlated since they are based on the same parameter estimates.

Karafiath (1991) analyze the bias in hypothesis tests about the cumulative average abnormal returns when the estimators are estimated. The degree of bias depends on the number of observations in both the estimation period L_1 and the event window L_2 . When L_2 is small relative to L_1 , the uncorrelated test statistic will be very close to the correlated one. However, when L_2 is relatively large, he shows that the bias is dramatic and substantial. For example when $L_2 = 5$ and $L_1=100$ the uncorrected test statistic is expected to exceed the corrected one by 1.6. However, when $L_2=60$ and $L_1=100$, the figure is 25.2 %. Event windows of this relative magnitude or longer are not uncommon in studies with daily or monthly data (Binder, 1998).

While the potential statistical problems seem dramatic in size, it should be noted that they are all solvable. Often many of the problems can be ignored due to the fact that in practise they are quite minor. For instance, cross-sectional dependence is not a problem when the event periods are randomly dispersed through calendar time (Stephen J Brown & Warner, 1980). Also cross-sectional dependence will be only a minor problem when event time is the same as calendar time but securities are randomly chosen from different industries and market model abnormal estimates are used (Chandra & Balachandran, 1992). Similarly, when the event period is short, relative to the estimation period, time series dependence in the average abnormal returns will be unimportant (Binder, 1998).

4.5: Modifying the Null Hypothesis

Thus far the focus has been on the hypothesis that the given event has no impact on the behaviour of returns. Consequently, either a mean effect or a variance effect will be considered a violation of the null hypothesis. However, in most applications testing for the mean effect is necessary. In these cases, the null hypothesis must be adapted to allow for changing variances. To allow for changing variances, it is pertinent to eliminate the reliance on the past returns to estimate the variance of the aggregated CAR's. The simplest solution to the problem of heteroskedasticity is discussed by Boehmer, Musumeci and Poulsen (1991). The heteroskedasticity is accounted for by

using the cross section of cumulative abnormal returns to form an estimator of the variance for testing the null hypothesis.

The cross sectional approach to estimating the variance can be applied to the average cumulative abnormal return $\overline{CAR}(\tau_1, \tau_2)$. When the cross-section is used to form an estimator of the variance the result is:

Equation 4:

$$\text{var}(\overline{CAR}(\tau_1, \tau_2)) = \frac{1}{N^2} \sum_{i=1}^N (CAR_i(\tau_1, \tau_2) - \overline{CAR}(\tau_1, \tau_2))^2$$

For this estimator to be consistent, the abnormal returns need to be uncorrelated in the cross-section. An absence of clustering is sufficient for this requirement. Given this variance estimator, the null hypothesis that the cumulative abnormal returns are zero can then be tested using the previous methods. If impact of the event on the risk of the firm is needed, the risk measure must be defined before it can be addressed. One choice as a risk measure is the market model beta which is consistent with the Capital Asset Pricing Model being appropriate (Binder, 1998). Given this choice, the market model can be structured to allow the beta to change over the event window, and the stability of the risk can be examined.

4.6: Analysis of Power

An important consideration when setting up an event study is the ability to detect the presence of non-zero abnormal returns. The inability to distinguish between the null hypothesis and interesting alternatives demands for the modification of the test design. In this section likelihood of rejecting the null hypothesis for a specified level of abnormal return is associated with an even is examined.

Consider a two-sided test of the null. Since it is assumed that the abnormal returns are uncorrelated across securities the variance of \overline{CAR} is $\frac{1}{N^2} \sum_{i=1}^N \sigma_i^2(\tau_1, \tau_2)$. Because

the null distribution is standard normal, for a two sided test of the size α , the null hypothesis will be rejected if θ_1 is in the critical region, that is,

$$c\left(1 - \frac{\alpha}{2}\right) < \theta_1 < c\left(\frac{\alpha}{2}\right)$$

where $c(x) = \phi^{-1}(x)$. $\phi(x)$ is the standard normal cumulative distribution function (CDF) (MacKinlay, 1997).

Given the specification of the alternative hypothesis H_A for this alternative, the power of a test of size α can be tabulated using the power function:

Equation 5:

$$P(\alpha, H_A) = pr\left(\theta_1 < c\left(\frac{\alpha}{2}\right) \subset H_A\right) + pr\left(\theta_1 < c\left(1 - \frac{\alpha}{2}\right) \subset H_A\right)$$

The distribution of θ_1 under the alternative hypothesis considered below will be normal. The mean will be equal to the true cumulative abnormal return divided by the standard deviation of \overline{CAR} and the variance will be equal to one.

According to MacKinlay (1997), to tabulate the power one must have economically plausible scenarios. The alternative hypothesis considered has four levels of abnormal returns, 0.5 percent, 1.0 percent, 1.5 percent, and 2.0 percent and two levels of the average variance for the cumulative abnormal return of a given security over the event period, 0.0004 and 0.0016. The sample size, that is the number of securities for which the event occurs, is varied from one to 200. The power for a test with a size of 5 percent is documented. With $\alpha=0.05$, the critical values calculated using $c(\alpha/2)$ and $c(1-\alpha/2)$ are -1.96 and 1.96. In practise, the power of the test must be considered when selecting the size. Furthermore, MacKinlay (1997) notes that if the distributional assumptions are inappropriate then the results may differ. However, Brown and Warner (1985) consider this possible difference and find that the analytical computations and the empirical power are very close.

It is difficult to make general conclusions concerning the adequacy of the ability of event study methodology to detect non-zero abnormal returns. MacKinlay (1997) state that it is best to evaluate the power given the parameters and objectives of the study. If the power is sufficient then one can proceed, otherwise it is necessary to search for ways of strengthening it. This can be done by increasing the sample size, shortening the event window, or by developing more specific predictions to test.

4.7: Nonparametric Tests for Event Studies

When the assumptions over the distributions of abnormal returns are violated, alternative approaches are needed which are non-parametric in nature and free of the specific, restrictive assumptions concerning the distribution of returns. Common parametric tests for event studies are the sign test and the rand test. These tests are discussed next.

4.7.1: The Sign Test

The sign test is based on the sign of the abnormal returns and requires that the cumulative abnormal returns are independent across securities and that the expected proportion of positive abnormal returns under the null hypothesis is 0.5. The basis of this test is that it is equally probable that the CAR will be positive or negative. To calculate the test statistic it is necessary to have the number of cases where the abnormal return is positive, N^+ and the total number of cases, N . Letting Θ_2 be the test statistic,

Equation 6:

$$\theta_2 = \left[\frac{N^+}{N} - 0.5 \right] \frac{\sqrt{N}}{0.5} \sim N(0,1)$$

According the Binder (1998), this distribution result is asymptotic. For a test size $(1 - \alpha)$, H_0 is rejected if $\theta_2 > \Phi^{-1}(\alpha)$. MacKinlay (1997) mentions that a weakness of the sign test is that it may not be well specified if the distribution of abnormal returns is skewed as can be the case with daily data.

4.7.2: Nonparametric Rank Test

As a response to the possibility of skewness in the data, Charles Corrado (1989) proposes an alternative nonparametric rank test for abnormal performance in event studies. Consider a sample of L_2 abnormal returns for N securities. In order to implement the rank test, for each security it is necessary to rank the abnormal returns from one to L_2 . Define $K_{i\tau}$ as the rank of the abnormal return of security i for event time period τ . If τ ranges from T_1+1 to T_2 and $\tau=0$ is the event day. The rank test uses the fact that the expected rank of the event day is $(L_2+1)/2$ under the null hypothesis. The test statistic for the null hypothesis of no abnormal return on event day zero is:

Equation 7:

$$\theta_3 = \frac{\frac{1}{N} \sum_{i=1}^N \left(K_{i0} - \frac{L_2 + 1}{2} \right)}{s(K)}$$

where

Equation 8:

$$s(K) = \sqrt{\frac{1}{L_2} \sum_{\tau=T_1+1}^{T_2} \left(\sum_{i=1}^N \left(K_{i\tau} - \frac{L_2 + 1}{2} \right) \right)^2}$$

Tests of the null hypothesis can be implemented using the result that the asymptotic null distribution of Θ_3 is standard normal.

Under most circumstances, the nonparametric tests are not used in isolation but combined with their parametric counterparts. The inclusion of the nonparametric tests provides a check of the robustness of conclusions based on parametric tests (MacKinlay, 1997).

4.8: Other Issues in Event Studies

A number of other further issues often arise when conducting an event study. These issues include the role of sampling interval, event date uncertainty, robustness, and some additional biases.

4.8.1: Role of Sampling Interval

Stock return data is available at different sampling intervals, with daily and monthly being the most common. Given the availability of various intervals, prior research has investigated the gains from using more frequent sampling. MacKinlay (1997) shows that the power for a 5 % test using daily data is 0.94, whereas the power using weekly and monthly data is 0.35, and 0.12. The clear message is that there is a substantial payoff in terms of increased power from reducing the sampling interval.

It must be noted that sampling of one day is not the shortest interval possible. Given the ever increasing availability of transaction data, recent studies have used observation intervals of less than one day. However the net benefit of intervals less than one day is unclear and some complications are introduced (MacKinlay, 1997).

4.8.2: Inferences with Event-Date Uncertainty

While under most circumstances the event date is easily identifiable, in some studies it is difficult to identify the exact date. A common example is when collecting event dates from financial publications. When the event announcement appears in the paper one cannot be certain if the market was informed prior to the close of the market the prior trading day. When this is the case, then the prior day is the event day, if not then the current day is the event day. The common method in research to handle this problem is to expand the event window to include two days—day 0 and day +1. While there is a cost to expanding the event window, the power properties are still good suggesting that the costs are worth bearing, rather than to take the risk of missing the event (MacKinlay, 1997).

Lee and Varela (1997) and Ball and Torous (1988) investigate the issue of multiple event days. Ball and Torous (1988) develop a maximum likelihood estimation procedure that accommodates event date uncertainty and examine results of their explicit procedure versus the informal procedure of expanding the event window. They discover that the informal procedure works well and there is only minimal gain from the more elaborate estimation framework.

4.8.3: Robustness

The statistical analysis of the abnormal returns is based on the assumption that returns are jointly normal and temporally independently and identically distributed. The normality assumption is important for the exact finite sample results to hold (Stephen J. Brown & Weinstein, 1985). However, this is generally not a problem for event studies because for the test statistics, convergence to the asymptotic distributions is rather quick (MacKinlay, 1997).

4.8.4: Other Possible Biases-Nonsynchronous Trading

A number of other possible biases can occur when conducting an event study. Nonsynchronous trading can introduce bias when prices are taken at time intervals of one time length, when in fact they are recorded at time intervals of other possibly irregular lengths. MacKinlay (1997) describes an example of nonsynchronous data on p. 35,

“The daily prices of securities usually employed in event studies are generally “closing” prices, prices at which the last transaction in each of those securities occurred during the trading day. These closing prices generally do not occur at the same time each day, but by calling them “daily” prices, one is implicitly and incorrectly assuming that they are equally spaced at 24-hour intervals. This non-trading effect induces biases in the moments and co-moments of returns.”

The influence of the non trading effect on the variances and covariance's of individual stocks and portfolios naturally feeds into a bias for the market model beta. Estimators for beta in this scenario have been discovered. Scholes and Williams (1977) present one on the assumption that the true return process follows a random walk. They also present some evidence which shows the non-trading-adjusted beta estimates of thinly traded securities to be approximately 10 to 20 percent larger than adjusted betas. However, for actively traded securities, the adjustments are generally small and unimportant. However, while Jain (1986) notes that the differences are minimal when the distribution of the Scholes-Williams (1977) abnormal returns are compared to the distribution of the abnormal returns using the ordinary least square estimates, they are still used prominently throughout current econometric event study research.

Furthermore, it has been shown that thin trading problems arise when studying Continental European firms. Goergen and Renboog (2004) note that this is a problem should not be solved on the level of the stock exchange but on the level of the firm. For example, it would be inappropriate to apply thin the trading correction to all the firms traded in Paris and not to those traded in London as there are some French firms which do not suffer from thin trading and some UK firms which do. Therefore, the thin trading correction is applied, in this thesis to all firms. “For those firms where thin trading is not an issue, the contemporaneous return covariance with the market return will be the highest and the lagged and leading betas will not contribute to the systematic risk. For those firms where thin trading does matter, the lead and lagged betas determine systematic risk (Goergen & Renneboog, 2004, p. 18). The adjusted Beta is defined as:

Equation 9:

$$\hat{B}_j^* = \frac{\hat{B}_j^- + \hat{B}_j^+}{1 + 2\hat{\rho}_m}$$

As in OLS, the intercept estimator forces the estimated regression line through the sample mean:

Equation 10:

$$\hat{\alpha}_j^* = \bar{R}_j - \hat{B}_j^* \bar{R}_m$$

4.8.5: Other Possible Biases-Upward Bias

Furthermore, the methodology used to compute the cumulative abnormal return can induce upward bias. This bias is the result of the observation by observation rebalancing to equal weights implicit in the calculation of the aggregate cumulative abnormal return combined with the use of transaction prices which can represent both the bid and the offer side of the market (Binder, 1998). MacKinlay (1997) shows, that it can be important for studies using low market capitalization firms which have, in percentage terms, wide bid offer spreads. When this occurs, the upward bias can be eliminated by addressing the cumulative abnormal returns with “buy-and-hold” strategies.

4.9: Difference of Means

When conducting an event study it is often necessary to test as to whether different samples of data generate different results. This can be done using both parametric and non-parametric tests.

Two Sample T-Test:

This parametric test is a hypothesis test for answering questions about the mean. To use this test several assumptions must be observed. The first and most critical one is that the two samples are independent. This means that the two samples are drawn from two different populations and that the elements of one sample are unrelated to those of the second sample (Ott & Mendenhall, 1990). If this assumption is not valid, then, the significance of the test will likely be an error. The second assumption, assumes that the sample is drawn from normal populations, however, this is less critical for modest sized populations. The third and final assumption is that the two population variances are equal. Many efforts have been made to investigate the effects of deviations from the equal variance assumption on the t-methods for independent samples. The general conclusion reached is that for equal sample sizes, population variances can differ by as much as a factor of three and the t-methods will still apply (Ott & Mendenhall, 1990). When the sample sizes are different, the most serious case is when the smaller sample size is associated with the larger variance. In this situation, and in others where sample variances are unequal, there is an approximate t-test using the test statistic: Percentage points of a t-distribution with modified degrees of freedom are used to set the rejection region of $H_0: \mu_1 - \mu_2 = D_0$ (Ott & Mendenhall, 1990).

Equation 11: t-test statistic

$$t = \frac{\bar{x}_1 - \bar{x}_2 - D_0}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$$

Wilcoxon's Signed Rank Test:

The Wilcoxon non parametric, signed-rank test, which makes use of the sign and magnitude of the rank of the difference between pairs of measurements, provides a way to compare two populations when the variable of interest is measured on an ordinal scale. As with the sign test, Wilcoxon's signed rank test also provides an alternative to the paired t-test. "Utilizing the pairs of measurements with a nonzero difference, the differences are ranked from lowest to highest, ignoring the signs. If two or more measurement have the same non-zero difference (ignoring sign), each difference is assigned a rank equal to the average of the occupied ranks. The appropriate sign is then attached to the rank of each difference" (Ott & Mendenhall, 1990, p. 613).

Equation 12: Wilcoxon's Signed Rank Test

$$Z = \frac{T - \mu_T}{\sigma_T}$$

Kruskal-Wallis Test:

The Kruskal-Wallis test is an extension of the Wilcoxon test, used to compare three or more samples, and can be used to test the hypothesis that a number of unpaired samples originates from the same population. It is used to test that all populations have identical distribution functions against the alternative hypothesis that at least two of the samples differ only with respect to location, if at all. It is analogue to the F-Test in analysis of variance. While ANOVA tests depend of the assumptions that all populations under comparison are normally distributed, Kruskal-Wallis's test place no restrictions on the comparison (Ott & Mendenhall, 1990).

Equation 13: Kruskal-Wallis Test

$$H = \frac{12}{n(n+1)} \sum_{i=1}^k \frac{R_i^2}{n_i} - 3(n+1)$$

Chapter 5: Descriptive Data

From 1993-2004, deregulation and other economic drivers led to an unprecedented wave of mergers within Europe. These consolidations occurred domestically and across borders as firms sought to consolidate their position within national markets and to take advantage of the deregulation to expand their markets into neighbouring countries. In spite of the dramatic changes within the European financial markets, there has been minimal research on the impact of these developments. The purpose of this thesis is to remedy this limitation in existing literature by analysing the market value effects of mergers and acquisitions throughout Continental Europe and the UK. This section looks in detail at the sample selection criteria for this thesis used to analyze the market value effects of a merger or acquisition.

5.1: Sample Selection

The sample is defined as including all transactions where the target company is a publicly listed corporation and the acquirer is either a public or private company. The sample contains all mergers and acquisitions announced between January 1, 1997 and December 31, 2004 and reported by Zephyr, a database from Bureau Van Dijk electronic publishing. It is the combination of high quality M&A data provided by Zephyr and the software from Bureau van Dijk Electronic Publishing. Zephyr offers complete coverage for rumoured, announced and completed deals. There is no minimum deal size for inclusion on ZEPHYR. The database has been global since January 2003 covering any merger, acquisition, planned IPO, IPO or private equity / venture capital backed deals. Historical coverage dates back to January 1997 with Pan European deals and US domestic deals since January 2001. Researchers at Zephyr source data from all of the following:

- Magazines and newspapers
- Factiva (8000 global publications)
- Reuters News
- Edgar SEC filings
- Corporate websites (3000+ sources)
- Private Equity & Venture Capital websites (2000+ monitored)
- Stock exchanges of the world
- Annual reports

The Zephyr database extensive array of information sources is such that its coverage is likely to be superior throughout all of Europe, and especially in the information poor Eastern European countries.

Because this thesis wishes to examine transactions clearly motivated by control, it will concentrate on acquisitions of majority interests, when the acquirer owns less than 50% of the target company's stock before the deal and more than 50% of after the deal. A further reason for this sample selection is that the coverage of transfers of minority stakes (below 50%) is likely to be severely affected by the cross-country differences in disclosure requirements. By selecting only transfers of above 50%, these biases are minimized. However, it must be noted in interpreting the results, that the availability and quality of the data might be better in some countries (such as the UK). Also, a related concern is that the coverage of small countries improves over time.

In the original sample, there are a substantial number of listed deals that are listed multiple times. Because the Zephyr database uses media sources to generate its list of mergers, some of the transactions are listed, or do a substantial amount of business, in more than one country. In these circumstances a takeover bid is listed as a separate transaction. As a consequence, one transaction has the possibility be listed in every country in which it was incorporated. To eliminate these doubles the country where the company was originally incorporated was identified and all other remaining transactions were eliminated. Furthermore, Zephyr lists multiple bids by a bidder as separate transaction.

The original bid was identified and all other bids were eliminated from the sample. This ensured that the original price reaction from the takeover bid was identified and measured. The company stock price and market index data was obtained from the DataStream database. Using the Zephyr sample as the transactions database, all transactions were included when either the acquirer or target also were present in DataStream. This process involved looking matching Zephyr transactions and the DataStream stock price's manually by name and identification number. As a result of problems stemming from this matching process, only fraction (for example, 54% were

eliminated for targets) of the total transactions reported by Zephyr could be included in the event study.

Table 5: Country and Index Information

This table shows the source of all index price information. Countries are separated by their legal background in order of highest to lowest for investor protection rules and accounting standards as defined by La Porta et al (2000b).

| Country | Index |
|-------------------------------------|--|
| English Common Law Countries | |
| United Kingdom | DataStream Market-Price Index-Price Index |
| Ireland | DataStream Market-Price Index-Price Index |
| Scandinavian Civil Code | |
| Sweden | DataStream Market-Price Index-Price Index |
| Norway | DataStream Market-Price Index-Price Index |
| Denmark | DataStream Market-Price Index-Price Index |
| Finland | DataStream Market-Price Index-Price Index |
| German Civil Code | |
| Austria | DataStream Market-Price Index-Price Index |
| Germany | DataStream Market-Price Index-Price Index |
| Switzerland | DataStream Market-Price Index-Price Index |
| French Civil Code | |
| Belgium | DataStream Market-Price Index-Price Index |
| France | DataStream Market-Price Index-Price Index |
| Greece | DataStream Market-Price Index-Price Index |
| Italy | DataStream Market-Price Index-Price Index |
| Netherlands | DataStream Market-Price Index-Price Index |
| Portugal | DataStream Market-Price Index-Price Index |
| Spain | DataStream Market-Price Index-Price Index |
| Eastern Europe | |
| Bulgaria | Sofia Stock Exchange-All Shares Index |
| Czech Republic | Prague Stock Exchange-All Share Index |
| Hungary | Budapest Stock Exchange-All Shares Index |
| Lithuania | National Stock Exchange of Lithuania-All Shares Price Index |
| Romania | Bucharest Stock Exchange-All Shares Price Index |
| Russia | Russian Securities Market- News-All Price Shares Price Index |
| Slovakia | Bratislava Stock Exchange-All Shares Price Index |
| Slovenia | Ljubljana Stock Exchange-All Shares Price Index |

Firstly, in many instances the name for the corporation changed after the merger. This resulted in many firms from being excluded because insufficient data was available. Another common practise was for DataStream to delete old stock prices once they

were de-listed from a stock exchange. Not all appear to be added to DataStream's dead stock list, making old transaction data difficult to find. Finally, bids were also eliminated if there was no index information for the company. Consistent with Cummins and Weiss (2001) the DataStream General Market Index for the country of the target and acquiring firm were used to estimate market model parameters. If the DataStream General Market Index was unavailable, the all shares price index where the company was listed was used as shown in Table 5. If no index information was unavailable, the merger was eliminated from the sample.

After an initial sample of 1205 deals, lack of share price and/or accounting information reduced the sample to 546 offer announcements in 24 countries. Out of these 546 bids 441 are of domestic nature while 105 are across borders. Table 6 below shows such changes and the details of the overall sample.

Table 6: Sample Selection Criteria

This table shows the selection criteria for the study and how many firms were eliminated under each step.

| | Domestic Targets | Cross-Border Targets |
|--|------------------|----------------------|
| Initial Sample: | 955 | 250 |
| less doubles | 12 | 26 |
| less multiple bids | 57 | 26 |
| less no bid information | 31 | 7 |
| less no stock price or index information | 414 | 86 |
| Final Sample | 441 | 105 |

5.2: Raw Data Details

Following the methodology of Goergen and Renboog (2004), the deal sample composition is separated into payment types. Table 7 shows that over 56% of the sample was financed solely by cash and cash formed part of the method of payment for 76%. Approximately 22% of the sample was entirely financed with equity. Leveraged buyouts were a minority throughout from 1997-2004 with less than 8% of the M&As in the sample being financed, at least partially, with debt. This compares to Moeller and Schlingemann (2005), who find that 63% of European and North American mergers (1985-1995) contain cash in the method of payment, and is more in line with Goergen and Renboog (2004) who find that 82% of European mergers from 1993-2000 contain cash in their method of payment, and 23% are entirely equity

financed The remainder of the bids was financed by a combination of cash, equity, debt, and loan notes.

Table 7: Method of Payment (Zephyr Classifications)

This table shows the method of payments used by acquirers.

| Payment Method | M&A (number) |
|----------------------------|-------------------------|
| Cash | 308 |
| Cash + Debt | 13 |
| Cash + Debt + Loan Notes | 2 |
| Cash + Equity | 68 |
| Cash + Equity + Debt | 4 |
| Cash + Equity + Loan Notes | 8 |
| Cash + Loan Notes | 11 |
| Debt | 2 |
| Debt + Convertible Debt | 1 |
| Equity | 118 |
| No info | 11 |

Because of the possible predictive value of legal origin when dealing with mergers and acquisitions, the countries included in the sample are categorised by their legal background. While some of the Eastern European countries legal system are based upon those of established legal systems (Poland and the Czech Republic legal systems are based on German Civil Code), they are extremely less developed (Slavova, 1999). Thus these, former communist states are all categorized as “Eastern European”. Table 9 shows that 30% of targets are within English Common Law countries. This is inline with that of Goergen and Reboog (2004) where 39% of targets are UK firms.

The improvement of this sample size is generated through the use of the Zephyr database, which does not have a mandatory deal size, and has a broader sample of European countries. This results in a sample three times as large as Goergen and Renboog (2004) and twice the size of Campa and Hernando (2004).

Similar to Campa and Hernando (2004), Table 9 also shows that 79% of the European M&A bids launched from 1997-2004 targeted a firm in the same country as that of the bidder. However, while 44% of all domestic bids occurred among companies within English Common Law countries, they are relatively less involved in cross-border transactions (with 15% of the total bids). With 50% of all cross-border bids, the largest proportion of target companies are located within Scandinavian Civil Code and French Civil Code countries. However, the mean deal size is largest when a UK firm is a target.

Table 8: Final Sample

This table displays the total number of takeover announcements by country. For each country the number of listed target and bidder firms is shown, as well as the countries legal origin. These merger announcements all took place among publicly traded firms in Europe during the period 1997-2004.

| Country | # Acquirers | #Targets |
|--------------------------------|--------------------|-----------------|
| English Common Law | | |
| UK | 175 | 208 |
| Ireland | 5 | 3 |
| Total English Common Law | 180 | 211 |
| Scandinavian Civil Code | | |
| Sweden | 36 | 46 |
| Norway | 11 | 21 |
| Denmark | 10 | 11 |
| Finland | 10 | 13 |
| Total Scandinavian Civil Code | 67 | 91 |
| German Civil Code | | |
| Austria | 7 | 6 |
| Germany | 28 | 48 |
| Switzerland | 17 | 13 |
| Total German Civil Code | 52 | 67 |
| French Civil Code | | |
| Belgium | 6 | 10 |
| France | 26 | 37 |
| Greece | 21 | 24 |
| Italy | 11 | 25 |
| Netherlands | 16 | 19 |
| Portugal | 3 | 5 |
| Spain | 12 | 13 |
| Total French Civil Code | 95 | 133 |
| Eastern Europe | | |
| Bulgaria | 0 | 3 |
| Czech Republic | 0 | 4 |
| Hungary | 0 | 4 |
| Lithuania | 1 | 6 |
| Poland | 7 | 14 |
| Romania | 1 | 2 |
| Russia | 3 | 6 |
| Slovakia | 0 | 1 |
| Slovenia | 4 | 4 |
| Total Eastern European | 16 | 44 |

The average deal size varies dramatically over sample countries. While the average domestic deal value is over €900 million, it ranges from €300M, in Scandinavian civil code countries, to €2.3 billion in French civil code countries. Similarly, the average cross-border deal is over €700 million, the values range from over €135 million in Eastern Europe to €1.425 billion in the UK and Ireland. It is also worthy to note that the deal values are skewed towards large transactions. This can be seen by the substantially lower median values across all investor protection regimes. This average is lower than that of recent studies or Goergen and Renboog (2004), and Campa and Hernando (2004) who chose to restrict deals to larger than € 100 million. While the average is € 891 million, there appear to be differences in deal values between domestic and cross-border transactions. This is especially pertinent in Scandinavian and French civil code countries where cross-border transactions are dramatically larger in size, while in contrast domestic deals seem to be on average twice the size of domestic mergers in German Civil Code countries.

Table 9: Deal Size

This table shows the average bid value of domestic and cross-border bids for each legal background. Legal backgrounds are separated by investor protection, ranging from highest to lowest (La Porta et al., 2000b). (Source: calculations based on data supplied by Zephyr database, are reported in 000's).

| | Target Bid Averages | | | | | |
|---------------------------|----------------------------|-------------------|---------------------|--------------------------|-------------------|---------------------|
| | Domestic Bids | | | Cross-border Bids | | |
| | N | Mean Value | Median Value | N | Mean Value | Median Value |
| All Countries | 441 | € 937,688 | € 63,145 | 105 | € 706,425 | € 89,746 |
| English Common | 195 | € 560,534 | € 61,245 | 16 | € 1,425,803 | € 49,685 |
| Scandinavian Civil | 64 | € 329,456 | € 32,347 | 27 | € 831,877 | € 229,760 |
| German Civil | 49 | € 425,814 | € 174,390 | 18 | € 229,863 | € 43,097 |
| French Civil | 105 | € 2,351,751 | € 94,248 | 28 | € 631,230 | € 145,550 |
| Eastern Europe | 28 | € 841,538 | € 25,531 | 16 | € 135,692 | € 30,093 |

PART THREE:

RESULTS & ANALYSIS

The results from the empirical testing conducted in this study are presented in part three. The event study results are presented in Chapter Six. Firstly, the returns of all targets and acquirers are analyzed. Secondly countries are separated into legal backgrounds to test whether there are any differences among countries with different legal systems. Finally, the returns are tested to see if there are any differences between domestic and cross-border returns. Chapter Seven provides the conclusions from the results.

Chapter 6: Results

This section looks at the value generated to shareholders by the announcement of mergers and acquisitions involving firms throughout all of Europe over the period of 1997-2004. Cumulative abnormal returns to shareholders due to the announcement of a merger or acquisition reflect a change in the expected value resulting from future synergies of wealth distribution among stakeholders. Target firms on average receive a statistically significant cumulative average abnormal return of 10.5% return in a one-month window centred on the announcement day. However, acquirers' cumulative abnormal returns are zero on average. A major issue of this study shows that legal background impacts merger returns in and of itself. Targets in strong investor protection regimes receive larger premiums; however, they also experience a substantial price run-up in the 30 days prior to an announcement. This can be attributed to companies in these regimes being more widely held, and the substantial involvement of profession advisors causing leakages into the marketplace. In addition, acquirers in weaker legal regimes seem to benefit more from a takeover announcement. The increased bidding competition in strong investor protection countries appears to destroy potential synergies from a merger. When takeovers are separated into domestic versus cross-border, returns to targets involved in cross-border transactions receive larger premiums, but acquirers are better off if the deal stays within borders. This evidence is consistent with the existence of obstacles to the successful conclusion of the transaction. Cultural differences may make integration very difficult and time consuming, consequently destroying any possible synergies. These issues decrease the probability of the merger from being completed as announced, and therefore, reducing the transactions expected value.

6.1: All Data

Cumulative abnormal returns from the announcement of a merger or acquisition are calculated for windows of varying lengths around the announcement date. Different windows in the calculation of the cumulative average abnormal return are used to obtain some insight into the timeframe within which the returns are on average generated and, to check for the robustness of the results to the specified window. Five

different windows are considered: a window of the announcement with a 30-day price run-up (t_{-30}, t_{+1}), a short-time window around the announcement day ($t_{=0}$), ($t_{=0}, t_{+1}$), and (t_{-5}, t_{+5}); and one window coming post announcement returns (t_{+2}, t_{+30}). The measure of the cumulative abnormal return is computed as the difference between the return to the shareholders during the window, and the expected return to the shareholders on the basis of the market-price index model relative to each firm's domestic stock index, with the beta parameter estimated using observations corresponding 200 days prior to the initial date of the considered window. Two measures of cumulative abnormal returns are calculated: those that accrue to the shareholders of the target firm, and cumulative abnormal returns to the shareholders of the acquiring firm.

Table 10: Total Short Term Wealth Effects for Takeovers

This table shows cumulative abnormal returns measured over several event windows for target and bidder firms. Abnormal returns are calculated as the difference between shareholder returns and expected shareholder returns, measured using the market model.

| | CAAR (%) | Patel Z-Score | Generalized Sign Z |
|------------------------------------|----------|---------------|-----------------------|
| Panel A: All Target Firms | | | |
| [-1,0] | 4.07 | 42.13*** | 4.84*** |
| [0,+1] | 4.40 | 35.68*** | 5.53*** |
| [-5,+5] | 6.09 | 19.95*** | 6.05*** |
| [-30,-1] | 4.88 | 11.91*** | 3.47*** |
| [+2,+30] | 1.67 | 4.20*** | -0.13 |
| Observations | 546 | | |
| Panel B: All Acquirer Firms | | | |
| [0,0] | 0.04 | 2.82*** | 0.371 |
| [0,1] | -0.01 | 1.36 | 0.471 |
| [-5,+5] | -0.25 | -3.14*** | 1.267 |
| [-30,-1] | -1.02 | -3.26*** | 0.073 |
| [2,+30] | -0.92 | -1.44 | 1.068 |
| Observations | 410 | | |

The symbols*, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively, using a 1-tail test

The results for the entire sample of mergers are consistent with those generally found in event study literature analysing market-based returns to merging firms' shareholders around the announcement date. Table 10 shows that the announcement of a takeover bid causes substantial positive abnormal returns for the shareholders of the target. While on the event day an abnormal return of 4.07% is realized with 56% of targets showing positive returns, when the window is extended, to one month prior to the event day, a return of 8.95% is generated. This is consistent with the results of Campa and Hernando (2004). These show that targets in Europe generate a return of

3.93% around the announcement date (t_{-1}, t_{+1}) and a return of 8.93% in two months surrounding a takeover announcement. Similarly, throughout the 1990's Goergen and Renboog (2004) find European targets get a return of 9.01% on the event day and 21.66% for a period starting two months before the announcement and ending two months after. While recent results are lower than the average of 20-30% found in the U.S. from 1960-1990 by Bruner (2002), they have been consistently lower in Europe and, have been declining over time (Conn et al., 2005).

Figure 2: Target Cumulative Returns over the Event Window

This graph shows the cumulative abnormal return to target shareholders 30 prior to a merger announcement to 30 trading days after the announcement.

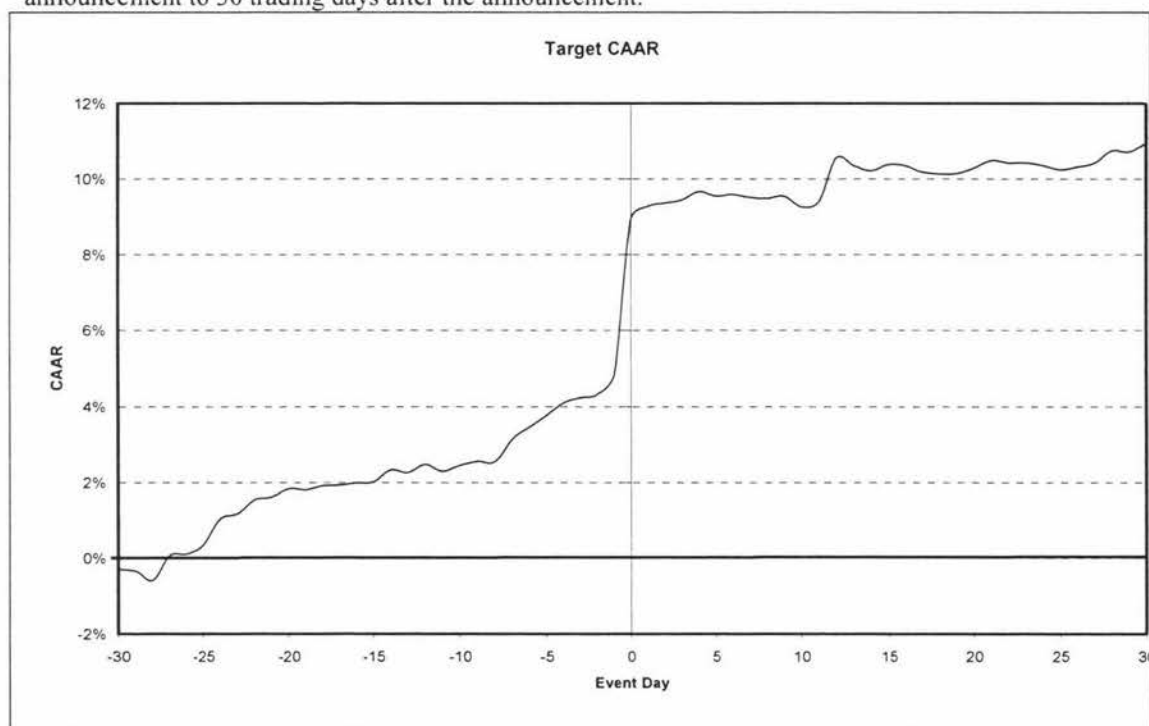


Table 10 also shows that the effect of the merger announcement on the bidding shareholder is small with an abnormal return of 0.04% (significant at the 1% level using a parametric test). However, for the ten day window centred on the event day, there is a statistically significant return of -0.25%. These results are consistent with the widespread result in literature that bidders generally break even or lose small amounts at the time of the acquisition (Song & Walkling, 2005). Similarly, recent research on the wealth effects for bidders in acquisitions in Europe corroborates the

results for earlier research that such operations do not generate any gain (or loss) for the bidding shareholders (Conn et al., 2005).

Figure 3: Acquirer Cumulative Returns over the Event Window

This graph shows the cumulative abnormal return to acquiring shareholders 30 prior to a merger announcement to 30 trading days after the announcement

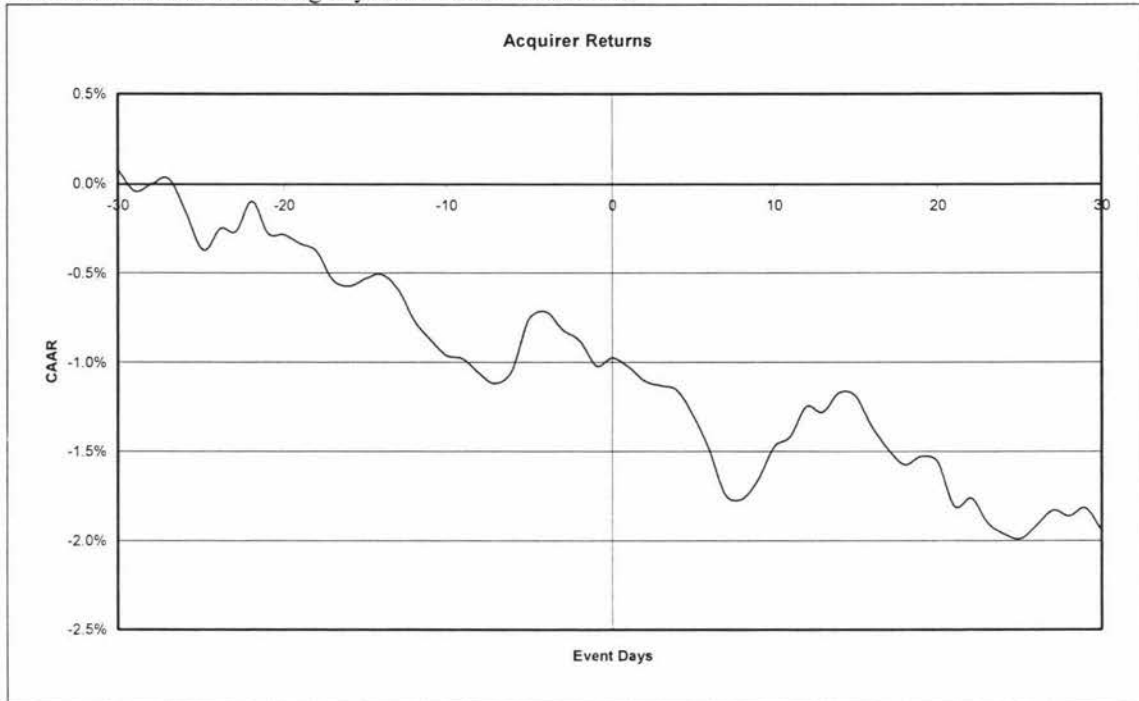


Figure 2 shows, a significant price run-up is seen in the 30 trading days prior to the takeover announcement due to possible insider trading or rumours in the market. Furthermore, a post event drift of 1.67% is also present in the 30 days after the takeover announcement. This drift is largely due to the spike 10 trading days after the initial bid. This is probably the result of a subsequent offer by the bidding company or by another party, however, cannot be tested in this study because the multiple bid date was not identified in the dataset. On average, investors owning shares in the target company earn 10.62% over the period starting 30 trading days prior to the event date and selling 30 days after. However, Goergen and Renboog (2004) mention that returns after 30 trading days decrease substantially as a result of unsuccessful bids. Similarly, a long period to finalise the offer raises doubt about the ultimate success of the negotiations resulting in a sell-off by investors. For acquirers, Figure 3 shows that in the two months surrounding a takeover, their returns decrease by -1.95%.

6.2: Country Specific Returns

When looking specifically at the returns to targets and acquirers at the country level, there is great variation among the countries within the sample. Returns to target shareholders range from as high as 10.0% in Finland to -1.26% in Romania. To gain further insight, countries with a large number of M&As from each investor protection regime will be compared to those in previous studies.

English Common Law-United Kingdom Targets

Table 11 and Table 12 show that the announcement of a takeover bid causes substantial positive abnormal returns for the shareholders of the 211 target firms in the UK. Returns to target shareholders range from 4.97% on the announcement day to 7.78 % in the ten days around the merger announcement. Similar to Danbolt (2004), in the 60 trading days surrounding the merger, target shareholders earn a significant 15.99%. Danbolt (2004) shows that gains to UK targets, from 1986-1991, tend to be only about half as large as those observed for US. targets, earning from 20.64% from 60 trading days before the announcement to 30 trading days afterwards. Furthermore, Danbolt (2004) also shows that domestic acquisitions substantially underperform in the during the pre-bid period, with negative abnormal returns in every month from t_{-8} to t_{-3} .

Scandinavian Civil Code-Norwegian Targets:

Norwegian companies were also quite active in the merger market throughout the years of the study. Tables 11 and 12 describe the returns to the target shareholders of the 21 targets as the result of a merger announcement. Norwegian target shareholders generated abnormal profits of 2.68% upon the announcement of a merger or acquisition. They also received returns of 5.26% in the ten days surrounding the announcement. These results are similar to a recent study by Karceski et al (2005). They show that in the banking industry, shareholders of Norwegian targets 6.96% in the 15 days surrounding the announcement day.

Table 11: M&A Target Wealth Effects around Event Day

This table shows the cumulative average abnormal returns to target firms over various even windows. Abnormal returns are calculated as the difference between shareholder returns and expected shareholder returns, measured using the market model.

| | Target | | | | | | | | | |
|--------------------------------|---------------|---------------|----------|-----------------------|-----------------|----------|-----------------------|-------------------|----------|-----------------------|
| | Event Periods | | | | | | | | | |
| | N | Return [0] | Patel Z | Generalized Sign Z | Return [0,1] | Patel Z | Generalized Sign Z | Return [-5,+5] | Patel Z | Generalized Sign Z |
| English Common Law | | | | | | | | | | |
| UK | 208 | 4.97% | 40.25*** | 3.66*** | 5.27% | 34.71*** | 4.08*** | 7.78% | 20.01*** | 3.52*** |
| Ireland | 3 | 0.21% | 0.06 | 0.73 | 0.29% | 0.12 | 0.73 | 1.43% | 0.23 | 0.73 |
| Scandinavian Civil Code | | | | | | | | | | |
| Sweden | 46 | 9.91% | 15.33*** | 2.83*** | 10.06% | 12.57*** | 2.83*** | 9.93% | 5.59*** | 3.42*** |
| Norway | 21 | 2.68% | 5.25*** | 2.18** | 5.26% | 6.43*** | 2.18** | 3.73% | 2.33** | 1.75* |
| Denmark | 11 | 6.54% | 17.18*** | 0.51 | 5.73% | 10.86*** | 0.51 | 5.78% | 4.61*** | -0.08 |
| Finland | 13 | 10.00% | 16.05*** | 1.82** | 9.96% | 10.89*** | 1.82** | 10.19% | 4.30*** | 1.26 |
| German Civil Code | | | | | | | | | | |
| Austria | 6 | 0.49% | 1.11 | -0.81 | 0.87% | 1.26 | 0.00 | -1.55% | -0.31 | 0.81 |
| Germany | 48 | 3.56% | 7.58*** | 1.95* | 4.50% | 7.71*** | 2.82*** | 7.88% | 5.01*** | 1.95* |
| Switzerland | 13 | -0.46% | -0.86 | -1.24 | 1.30% | 0.56 | -0.67 | 1.17% | -0.18 | -0.10 |
| French Civil Code | | | | | | | | | | |
| Belgium | 10 | -0.35% | -0.05 | -1.72** | -2.09% | -0.58 | 0.17 | -6.50% | -1.16 | 0.17 |
| France | 37 | 2.80% | 5.04*** | 0.49 | 3.52% | 4.91*** | 0.82 | 10.49% | 4.94*** | 1.48 |
| Greece | 24 | -0.20% | -0.22 | -0.79 | -0.50% | -0.86 | -0.79 | 1.55% | 0.84 | 2.48** |
| Italy | 25 | 0.96% | 2.75*** | 1.53* | 0.93% | 1.80* | 0.32 | 1.74% | 1.42* | 1.13 |
| Netherlands | 19 | 3.59% | 4.48*** | 0.37 | 3.68% | 3.42*** | 0.37 | 3.34% | 0.76 | -0.08 |
| Portugal | 5 | 0.86% | 1.29 | 0.23 | 1.95% | 1.59* | 1.13 | 7.63% | 2.68*** | 2.03** |
| Spain | 13 | 1.85% | 2.82*** | 0.23 | 1.81% | 1.99** | 0.79 | 4.12% | 1.82** | 0.23 |
| Eastern Europe | | | | | | | | | | |
| Bulgaria | 3 | 8.02% | 1.24 | 1.35* | 1.32% | 0.09 | 1.35* | 1.77% | 0.12 | 1.35* |
| Czech Republic | 4 | 4.37% | 2.41*** | 1.20 | 0.87% | 0.60 | 1.20 | -2.94% | -0.17 | 0.19 |
| Hungary | 4 | -0.06% | -0.23 | -0.69 | 1.75% | 1.46* | 1.34* | 0.94% | 0.32 | 0.32 |
| Lithuania | 6 | 2.40% | 2.60*** | 1.13 | 1.89% | 1.99** | -0.51 | 6.68% | 2.48** | 0.31 |
| Poland | 14 | 0.94% | 2.42** | -0.16 | 1.65% | 2.99*** | -1.24 | -1.21% | -0.23 | -0.70 |
| Romania | 2 | -1.26% | -0.86 | 0.08 | -0.54% | -0.26 | 0.08 | 1.69% | 0.38 | 1.50* |
| Russia | 6 | 2.44% | 3.28*** | 0.95 | 2.06% | 2.10** | 0.13 | -3.18% | -0.61 | 0.13 |
| Slovakia | 1 | 6.05% | 1.93* | 1.29 | 9.07% | 2.05** | 1.29 | 9.46% | 0.90 | 1.29 |
| Slovenia | 4 | 0.39% | 0.35 | 0.53 | 1.61% | 0.85 | 0.53 | 3.03% | 0.36 | 0.53 |

The symbols *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively, using a 1-tail test

German Civil Code-German Targets:

The returns to German target shareholders are also shown in Tables 11 and 12. These returns range from 3.56% on the event day to 8.39% in the 60 days around the announcement date for the 48 targets in the study. While the German marketplace is one of the world's largest, merger activity traditionally has not been as pronounced as in the UK and in North America. This has been shown to be the result of traditionally weaker disclosure laws and higher bank involvement². However, a number of studies have examined the returns that target shareholders generate from a merger announcement. This result is similar to the results of Kling (2000) who find a statistically significant return to German targets of 5.47%. Similarly, Lowengrub et al (2004) show that CAAR for German targets in the early 1990's generate returns of 16.55%.

French Civil Code-French Targets:

Similar to the UK, French targets received significantly large returns to target shareholders. On average, shareholders of the 37 targets in France receive a large significant return of 10.49% in and around the event day. Also these shareholders also experience a large price run up in the 30 trading days preceding the announcement day (see: Tables 11 and 12).

Eastern European Targets:

The research examining the post merger performance of all emerging market economies is new and developing. The returns to target shareholders within these countries are also quite broad. Tables 11 and 12 show that the shareholders of the 14 targets in Poland receive a statistically significant 0.94%, however shareholders of the four targets in the Czech Republic earn 4.37% on a takeover announcement. Comparatively, Beitel, Schiereck, and Wahrenburg (2004) show financial targets shareholders in emerging markets receive 12.39% (t_{-1}, t_{+1}).

² For further research on this see Lowengrub, Luedecke, and Melvin (2004).

English Common Law-United Kingdom Acquirers:

Table 13 and 14 show that following the announcement of a takeover bid acquiring shareholders experience negative returns between -0.33% to -1.4%. While these results are statistically insignificant, they do generate statistically significant negative returns of -1.96% for the 30 trading days following the announcement. These results are inline with work done by Beitel et al (2004) who find a significant return of -0.2% in the ten days in and around a merger announcement.

Table 12: M&A Target Wealth Effects for pre and post event drift

This table shows the target returns during the 30 days leading up to the event and the 30 days after the announcement. Abnormal returns are calculated as the difference between shareholder returns and expected shareholder returns, measured using the market model.

| | Target | | | | Event Period | | |
|--------------------------------|--------|--------------------|----------|-----------------------|-------------------|----------|-----------------------|
| | N | Return [-30,-1] | Patel Z | Generalized Sign Z | Return [2,+30] | Patel Z | Generalized Sign Z |
| English Common Law | | | | | | | |
| UK | 208 | 6.38% | 10.03*** | 2.55*** | 4.34% | 6.42*** | 1.02 |
| Ireland | 3 | -1.02% | -0.03 | -0.42 | 5.90% | 1.02 | 0.73 |
| Scandinavian Civil Code | | | | | | | |
| Sweden | 46 | 3.89% | 3.56*** | 1.64* | 0.31% | 0.14 | -0.12 |
| Norway | 21 | 0.23% | 0.70 | 0.00 | 5.92% | 2.32** | 0.00 |
| Denmark | 11 | -4.51% | -0.27 | -0.69 | -2.29% | -2.37*** | -1.29 |
| Finland | 13 | 2.01% | 0.75 | 0.71 | -2.12% | -1.06 | 0.15 |
| German Civil Code | | | | | | | |
| Austria | 6 | 47.70% | 13.62*** | 2.45** | -12.49% | -3.03*** | -0.81 |
| Germany | 48 | 3.85% | 2.24** | -0.06 | 0.49% | 1.06 | -0.93 |
| Switzerland | 13 | 0.00% | -0.01 | 0.45 | -4.97% | -1.14 | -1.24 |
| French Civil Code | | | | | | | |
| Belgium | 10 | -1.18% | -0.02 | -0.46 | 7.57% | 1.85* | 0.80 |
| France | 37 | 15.23% | 5.20*** | 1.81 | -0.21% | -0.91 | 1.81** |
| Greece | 24 | 4.27% | 2.28** | 2.07** | 1.43% | 0.75 | 0.43 |
| Italy | 25 | 4.78% | 2.51** | 1.13 | -0.95% | -0.01 | -0.88 |
| Netherlands | 19 | -1.91% | -0.08 | 0.37 | 2.11% | 0.11 | -0.54 |
| Portugal | 5 | 6.53% | 1.37* | 1.13 | 2.55% | 0.63 | 0.23 |
| Spain | 13 | 1.36% | 1.06 | 0.23 | 0.41% | 0.07 | -0.32 |
| Eastern Europe | | | | | | | |
| Bulgaria | 3 | 49.23% | 0.52 | 1.35* | -3.23% | -0.30 | 0.10 |
| Czech Republic | 4 | -17.98% | -1.78* | 0.19 | -0.79% | -0.64 | 0.19 |
| Hungary | 4 | -4.60% | -0.62 | -0.68 | -5.08% | -0.92 | -1.69** |
| Lithuania | 6 | 1.97% | 1.09 | 0.31 | -5.18% | -0.22 | -1.33 |
| Poland | 14 | -6.99% | -0.66 | -0.70 | -0.38% | -0.72 | 0.36 |
| Romania | 2 | -1.65% | -0.17 | 0.08 | 0.46% | 0.04 | 0.08 |
| Russia | 6 | -6.18% | -0.31 | -1.49 | -3.44% | -0.51 | 0.67 |
| Slovakia | 1 | 1.32% | 0.07 | 1.29 | -2.20% | -0.14 | -0.79 |
| Slovenia | 4 | -2.77% | -0.23 | 0.49 | -6.11% | -1.33 | -1.53 |

The symbols *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively, using a 1-tail test

Scandinavian Civil Code-Swedish Acquirers:

In contrast to UK firms, Swedish acquirers generate significantly positive returns of 1.32% in the ten days surrounding a merger (see: Table 13 and Table 14). This is also contrary to results found by Doukas et al (2002) who so that Swedish firms lose 2.37% over the ten days surrounding the announcement. However, these results are more in line with Floreani and Rigamoni (2001) who find significantly positive returns of 3.65% within the European insurance industry over the same period.

German Civil Code-German Acquirers:

The results to German acquirers are more ambiguous than that of other countries. In the days around the takeover announcement they earn significantly (at the 1% level) positive returns of 1.23% and 2.93% respectively. However, in the ten day window that centres on the announcement day, they earn significantly negative abnormal return of -0.03%. The pre event period also has a significantly negative return at the 1% level of -5.5%. Similar results were found by Kling (2000) and Lowengrub et al (2004) who find a significantly positive returns of 2.03% and 0.02% on the announcement day. Furthermore, Lowengrub et al (2004) also finds a similar post event negative return of -0.054%.

Eastern European Acquirers:

Table 13 shows that acquirers in Eastern European countries show that following a takeover announcement experience positive returns. However, in the pre bid and post announcement period seem to experience significantly negative returns. Beitel et al (2004) also shows that acquirers within developing countries experience significant returns of 0.42% in the 10 days around a takeover announcement.

Table 13: M&A Acquirer Wealth Effects around Event Day

This table shows the cumulative average abnormal returns to target firms over various even windows. Abnormal returns are calculated as the difference between shareholder returns and expected shareholder returns, measured using the market model.

| | Acquirer | | | | | Event Periods | | | | |
|--------------------------------|----------|---------------|---------|-----------------------|------------------|---------------|-----------------------|-------------------|-----------|-----------------------|
| | N | Return [0] | Patel Z | Generalized Sign Z | Return [0,+1] | Patel Z | Generalized Sign Z | Return [-5,+5] | Patel Z | Generalized Sign Z |
| English Common Law | | | | | | | | | | |
| UK | 175 | -0.33% | -1.27 | -0.48 | -1.00% | -4.59*** | -1.09 | -1.40% | -1.25 | -0.17 |
| Ireland | 5 | 1.03% | 1.79** | 0.26 | 1.60% | 1.77** | 0.26 | 0.15% | 0.57 | 1.16 |
| Scandinavian Civil Code | | | | | | | | | | |
| Sweden | 36 | 1.02% | 1.61* | -0.46 | 1.67% | 1.73** | -0.12 | 1.32% | 0.45 | 0.20 |
| Norway | 11 | -0.32% | -0.39 | -1.20 | -0.19% | -1.54 | 0.01 | 0.07% | 0.62 | 0.61 |
| Denmark | 10 | 0.52% | 1.54* | 1.42 | -0.32% | -0.08 | 0.78 | 2.30% | 1.24 | 1.42 |
| Finland | 10 | -1.02% | -1.06 | 1.26 | -2.02% | -1.97** | -0.67 | -0.76% | -0.52 | -0.02 |
| German Civil Code | | | | | | | | | | |
| Austria | 7 | -0.09% | -0.03 | -0.92 | -0.07% | -0.39 | -0.17 | -0.09% | -0.28 | -0.17 |
| Germany | 28 | 1.23% | 9.23*** | 1.04 | 2.91% | 8.76*** | 2.17** | -0.03% | -12.43*** | 0.66 |
| Switzerland | 17 | -0.89% | -1.14 | -1.61 | -1.01% | -0.70 | -1.12 | -3.91% | -1.62 | -1.12 |
| French Civil Code | | | | | | | | | | |
| Belgium | 6 | -0.42% | -0.81 | 0.11 | 0.33% | 0.03 | -0.70 | 3.18% | 0.76 | 0.93 |
| France | 26 | -0.04% | -0.44 | -0.04 | 0.60% | 0.97 | 0.34 | 2.18% | 0.91 | 0.73 |
| Greece | 21 | 0.11% | 0.99 | -0.09 | -0.14% | -0.17 | 0.78 | 0.28% | 0.31 | 1.22 |
| Italy | 11 | 0.97% | 1.56 | 1.62* | 1.22% | 1.38 | 1.62 | 1.01% | 0.52 | 1.62 |
| Netherlands | 16 | -0.24% | -1.07 | -0.80 | 0.20% | 0.16 | 0.21 | -0.07% | -0.16 | -0.29 |
| Portugal | 3 | -1.06% | -1.11 | 0.38 | -2.66% | -1.39 | -1.94** | 3.35% | 1.14 | 0.38 |
| Spain | 12 | -0.31% | -0.78 | 0.13 | -0.41% | -0.73 | 0.13 | -0.13% | -0.64 | -0.44 |
| Eastern Europe | | | | | | | | | | |
| Bulgaria | 0 | | | | | | | | | |
| Hungary | 0 | | | | | | | | | |
| Czech Republic | 0 | | | | | | | | | |
| Lithuania | 1 | 7.42% | 2.17** | 0.93 | 27.32% | 5.69*** | 0.93 | 55.08% | 4.89*** | 0.93 |
| Poland | 7 | 1.32% | 1.50* | 2.68*** | 2.62% | 2.32** | 2.68*** | 0.17% | 1.99** | 1.17 |
| Romania | 1 | -2.18% | -0.15 | -0.70 | -7.53% | -0.37 | -0.70 | -1.99% | -0.03 | -0.70 |
| Russia | 3 | 1.47% | 1.74** | 0.73 | 2.47% | 2.17** | 1.88** | -0.85% | -0.44 | 0.73 |
| Slovakia | 0 | | | | | | | | | |
| Slovenia | 4 | 1.75% | 2.67*** | 1.28 | 0.54% | 0.82 | -0.73 | -1.52% | -0.61 | -0.73 |

The symbols *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively, using a 1-tail test

Table 14: M&A Acquirer Wealth Effects for Run-Up and post-event period

This table shows the target returns for t_{-30} to t_{-1} and t_{+2} to t_{+30} windows. Abnormal returns are calculated as the difference between shareholder returns and expected shareholder returns, measured using the market model.

| | N | Target | | | | | |
|--------------------------------|-----|--------------------|-----------|-----------------------|-------------------|----------|-----------------------|
| | | Event Period | | | | | |
| | | Return [-30,-1] | Patel Z | Generalized Sign Z | Return [2,+30] | Patel Z | Generalized Sign Z |
| English Common Law | | | | | | | |
| UK | 175 | 0.35% | 1.51* | 0.89 | -1.10% | -1.96** | 1.51 |
| Ireland | 5 | -25.02% | -5.8*** | -1.52 | 11.55% | 2.48** | 1.16 |
| Scandinavian Civil Code | | | | | | | |
| Sweden | 36 | 5.40% | 1.98** | 0.87 | 0.67% | 0.20 | -0.46 |
| Norway | 11 | -8.13% | -2.39*** | -2.41** | -7.83% | -1.01 | -0.59 |
| Denmark | 10 | -3.86% | -0.96 | -0.47 | 5.49% | 4.59*** | 2.68** |
| Finland | 10 | 0.00% | 0.07 | -0.02 | -3.10% | -0.90 | -0.67 |
| German Civil Code | | | | | | | |
| Austria | 7 | 5.22% | 1.35* | 1.34 | -4.31% | -0.18 | -0.17 |
| Germany | 28 | -5.50% | -11.36*** | -1.23 | 0.06% | 3.50*** | -0.47 |
| Switzerland | 17 | -12.01% | -2.39*** | -1.61 | -7.39% | -1.72* | -1.61 |
| French Civil Code | | | | | | | |
| Belgium | 6 | -4.23% | -0.96 | -1.52* | 1.96% | 0.47 | 1.74* |
| France | 26 | 1.06% | 0.33 | -0.04 | 4.18% | 1.08 | 0.73 |
| Greece | 21 | -0.44% | -0.39 | 1.22 | -0.78% | -0.66 | -0.53 |
| Italy | 11 | -0.15% | -0.22 | 1.02 | 0.68% | 1.41 | -0.78 |
| Netherlands | 16 | 2.38% | 2.04** | 0.21 | -1.55% | -0.40 | 0.21 |
| Portugal | 3 | 1.01% | 0.07 | 0.38 | 8.22% | 1.35 | 1.54* |
| Spain | 12 | -0.67% | -0.40 | 0.71 | 1.07% | 0.59 | 1.29 |
| Eastern Europe | | | | | | | |
| Bulgaria | 0 | | | | | | |
| Czech Republic | 0 | | | | | | |
| Hungary | 0 | | | | | | |
| Lithuania | 1 | -8.78% | -0.49 | -1.07 | 4.37% | 0.24 | 0.93 |
| Poland | 7 | -6.01 | -0.21 | 0.42 | -14.42% | -0.56 | 0.42 |
| Romania | 1 | -43.19% | -0.55 | -0.70 | -18.64% | -0.24 | -0.70 |
| Russia | 3 | -0.60% | -0.21 | -0.42 | -4.75% | -1.11 | -1.58 |
| Slovakia | 0 | | | | | | |
| Slovenia | 4 | -6.93% | -1.72** | -0.73 | -10.94% | -3.04*** | -1.74* |

The symbols *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively, using a 1-tail test

6.3: Impact of Different Legal Systems

In this section the impact that legal background has on price reaction to bidding and target shareholders for all of Europe is examined thoroughly for the first time. Historically, according the Manne (1961) and Jensen (1993), if the market for corporate control works efficiently, firms with poor corporate governance become targets of takeovers from more efficient firms. If this argument is extended across all countries within Europe, the volume of M&A activity and the premium paid should be greater in countries with lower investor protection (Rossi & Volpin, 2004). A

related issue is that a deal can be motivated by the agency and hubris problems of the acquirer rather than by the desire to improve the governance regime and extract synergy from the target company. As a consequence, no value would be created by the merger.

However, recent work done by Rossi and Volpin (2004) and La Porta et al (1997-2005) contradicts this traditional view. La Porta et al (2000b) argues that a more active market for mergers and acquisitions is the outcome of a corporate regime with stronger investor protection. With low shareholder protection, there are large private benefits of control (Dyck & Zingales, 2004), thus the market for corporate control does not operate freely. On the contrary, with high investor protection, there are low benefits of control, and there is an active market for corporate control. Furthermore, countries with better accounting standards increase disclosure, thus helping acquirers identify potential targets. This reduces the cost of capital and thus increases the competition among bidders and the premium paid by the winning bid. Similarly, countries with better shareholder protection and accounting standards should have more potential targets. This view generates the testable hypothesis that returns to target shareholders should increase with better shareholder protection and accounting standards and, the volume of M&A activity should also be greater among those countries with stronger legal rules. Thus, within this study English Common Law countries should have the highest returns, followed by Scandinavian and German Civil Code countries, and the lower investor protection countries from Eastern Europe or with French Civil Code traditions should generate the lowest returns to target shareholders.

Following the same logic, acquirers in all investor protection regimes will receive no positive benefits as a result of a takeover announcement. In high investor protection regimes the competitive bidding process will make acquisitions inherently more expensive, while in weak regimes the acquirers have a high cost of capital, making financing extremely expensive. Consequently, for bidding firms the acquisition game is an expensive process where synergies are difficult to extract. This has been shown by Campa and Hernando (2004) and Goergen and Renboog (2004) where acquirers' in Europe cumulative abnormal returns are zero on average. Thus if these hypotheses are correct, there should be no difference between acquirer returns in different

investor protection regimes and the chance of making an abnormal profit would not exist.

6.3.1: Announcement Day Target Returns

Table 15 displays the returns to target shareholders when they are separated by their legal origin. In general, the announcement of a takeover bid causes substantial positive abnormal returns for the shareholders of the target firms. Similar to Rossi and Volpin (2004), targets in English Common countries exhibit the largest significantly positive returns of 7.69% on, and around, a takeover announcement and 15.83% in the 60 days surrounding the announcement. This is not surprising since 85% of the companies listed on the London Stock Exchange are widely held and, there is an active market for corporate control and where companies are continually up for auction (Goergen & Renneboog, 2004). Surprisingly, shareholders in Scandinavian countries received larger premiums as the result of a takeover on and around the announcement day than those in the UK. As shown in Table 15, shareholders in English Common Law countries earn a significant 5.2% on, and around, the announcement day while shareholders in Scandinavian countries receive 8.42% over the same period.

Like La Porta et al (2002), targets in German and French Civil Code countries receive significant premiums during a takeover, however these premiums seem to be smaller than those in the UK and Scandinavian markets. This is not surprising since in Continental European firms the number of listed firms is much lower and most listed firms (around 85-90% for Germany and France) have concentrated ownership (Goergen & Renneboog, 2004). As a consequence hostile acquisitions are rare in Continental Europe. Hence, targets in German and French Civil Codes receive a premium of 5.73% and 4.20% on and around the merger announcement day. Overall, in the 60 days centred on the announcement day, targets within French Civil Code countries exhibit returns of 8.63% while targets in German Civil Code countries receive 16.31%.

Targets in Eastern European countries also receive significantly positive returns around the announcement day. Table 15 shows that these targets get a significant

return of 2.02% on the announcement day. This is consistent with Rossi and Volpin (2004) who show that target countries with weaker shareholder protection, accounting standards, and less developed financial systems receive significantly lower premiums and Lins (2003) who shows that companies in emerging markets have dramatically lower firm values.

While there are differences among the returns to target shareholders it is important to see if these differences are statistically significant. The following section investigates the differences in target returns between the different legal regimes based on ten broad hypotheses. These hypotheses are tested and compiled in Table 16 and examined in turn below in detail below.

Differences between Strong and Weak Shareholder Protection Regimes:

Hypothesis 1: There are no differences in returns between English Common Law and French Civil Code Targets.

Following La Porta et al (1998) rankings, English Common Law countries have a high degree of disclosure, has a very liquid and well-developed equity market, and stronger investor protection and accounting over French Civil Code countries. As such, it is to be expected that target shareholders returns will be substantially greater for English Common Law targets, thus it is expected that Hypothesis 1 will be rejected.

Result:

As shown in Table 16, returns to target shareholders in English Common Law countries earn significantly greater returns than French Civil Code shareholders at the 1% confidence level. As such, the null hypothesis is rejected.

Table 15: Target Returns when separated by Legal History

This table shows the cumulative average abnormal returns to targets within different legal backgrounds. Abnormal returns are calculated as the difference between shareholder returns and expected shareholder returns, measured using the market model.

| Legal History Target | | | |
|-----------------------------|-----------------|--------------------------------|---------------------------|
| | CAAR (%) | Patel Z-Score | Generalized Sign Z |
| English Common | | Strong Legal Protection | |
| [0,0] | 4.90% | 39.95 ^{***} | 3.72 ^{***} |
| [0,1] | 5.20% | 34.43 ^{***} | 4.13 ^{***} |
| [-5,+5] | 7.69% | 19.89 ^{***} | 3.58 ^{***} |
| [-30,-1] | 6.27% | 9.96 ^{***} | 2.48 ^{**} |
| [2,+30] | 4.36% | 6.50 ^{***} | 1.10 |
| Observations | 211 | | |
| Scandinavian Civil | | | |
| [0,0] | 7.84% | 25.72 ^{***} | 3.93 ^{***} |
| [0,1] | 8.42% | 20.05 ^{***} | 3.93 ^{***} |
| [-5,+5] | 8.03% | 8.37 ^{***} | 3.72 ^{***} |
| [-30,-1] | 1.76% | 3.03 ^{**} | 1.19 |
| [2,+30] | 0.94% | 1.43 | -0.48 |
| Observations | 91 | | |
| German Civil | | Medium Legal Protection | |
| [0,0] | 2.50% | 6.49 ^{***} | 0.87 |
| [0,1] | 3.55% | 7.24 ^{***} | 2.10 ^{**} |
| [-5,+5] | 5.73% | 7.24 ^{***} | 2.10 ^{**} |
| [-30,-1] | 5.73% | 4.32 ^{***} | 1.85 [*] |
| [2,+30] | 7.03% | 6.05 ^{***} | 0.87 |
| Observations | 67 | | |
| French Civil | | Weak Legal Protection | |
| [0,0] | 1.62% | 6.75 ^{***} | 0.37 |
| [0,1] | 1.68% | 5.01 ^{***} | 0.89 |
| [-5,+5] | 4.20% | 4.58 ^{***} | 2.81 ^{***} |
| [-30,-1] | 5.92% | 5.29 ^{***} | 2.63 ^{***} |
| [2,+30] | 1.03% | 0.52 | 0.72 |
| Observations | 133 | | |
| Eastern Europe | | | |
| [0,0] | 2.02% | 4.871 ^{***} | 1.534 |
| [0,1] | 1.72% | 4.363 ^{***} | 0.621 |
| [-5,+5] | 0.60% | 1.678 [*] | 0.926 |
| [-30,-1] | -1.79% | -0.771 | -0.597 |
| [2,+30] | -2.63% | -1.647 [*] | -1.510 |
| Observations | 44 | | |

The symbols *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively, using a 1-tail test

Hypothesis 2: There are no differences in returns between English Common Law and Eastern European Targets.

Similarly, there are dramatic differences in the strength of investor protection legislation and accounting standards between English Common Law and Eastern European countries. Consequently, the returns to target shareholders in English Common Law countries are expected to be substantially greater than those in Eastern Europe. As such, it is expected that Hypothesis 2 will be rejected

Result:

As expected, Table 16 shows that returns to target shareholders in English Common Law countries earn significantly greater returns than target shareholders in Eastern European countries at the 1% confidence level. The null hypothesis is rejected, and it is concluded that there is sufficient evidence to indicate that the mean CAR of English Common Law targets is significantly higher than the mean CAR of Eastern European targets. As such, support La Porta (1998) and Rossi and Volpin's (2004) argument that investors in high investor regimes experience higher returns.

Hypothesis 3: There are no differences in returns between Scandinavian Civil Code targets and French Civil Code targets.

La Porta et al (1998) showed that Scandinavian countries have the strongest rule of law and substantial investor protection rights compared to French Civil Code targets. Thus, since investor protection legislation is stronger among Scandinavian Civil Code countries, announcement returns are expected to be greater within these countries. Consequently, it is expected that Hypothesis 3 will be rejected.

Result:

Returns to target shareholders in Scandinavian Civil Code countries earn significantly greater returns than target shareholders in French Civil Code countries at the 1% confidence level (see: Table 16). Consequently, the null hypothesis is rejected, and it is concluded that there is sufficient evidence to that that the mean CAR of Scandinavian Civil Code targets is significantly higher than the mean CAR of French Civil Code targets.

Hypothesis 4: There are no differences in returns between Scandinavian Civil Code targets and Eastern European targets.

There are dramatic differences in disclosure laws and strength of investor protection legislation between Scandinavian Civil Code and Eastern European countries (Lins, 2003). Thus, returns are expected to be dramatically greater in Scandinavian Civil Code countries. Consequently, Hypothesis 4 is expected to be rejected.

Result:

In this scenario, returns to target shareholders in Scandinavian Civil Code countries earn significantly greater returns than target shareholders in Eastern European countries at the 1% confidence level (see: Table 16). As a result, the null hypothesis is rejected since there is sufficient evidence that that the mean CAAR of Scandinavian Civil Code targets are significantly higher than the mean CAAR of Eastern European targets.

Table 16: Target Returns Differences between Legal Backgrounds

This table shows the differences in cumulative abnormal returns among targets within the different investor protection regimes. Abnormal returns are calculated as the difference between shareholders returns and the expected shareholder returns, measured using the market model. Each column of the table reports the statistics for the distribution of abnormal returns over five intervals around the announcement date. Note: E=English Common Law Countries, S=Scandinavian Civil Code Countries, G=German Civil Code Countries, F=French Civil Code Countries, & EE=Eastern European Countries. St=Strong Legal Backgrounds, Med=Mediums Legal Backgrounds, and Wk=Weak Legal Backgrounds

| Legal | Returns [0] | t-test | Wilcoxon Test | Returns [0,+1] | t-test | Wilcoxon Test | Returns [-5,+5] | t-test | Wilcoxon Test |
|------------|----------------|---------|------------------|-------------------|---------|------------------|--------------------|---------|------------------|
| St vs. Wk | | | | | | | | | |
| E-F | 3.28% | 2.72*** | 3.25*** | 3.52% | 2.73*** | 3.43*** | 3.49% | 1.76* | 2.00** |
| E-EE | 2.88% | 1.50 | 1.40 | 3.48% | 1.50 | 2.20** | 7.09% | 2.59*** | 2.53** |
| S-F | 6.22% | 3.99*** | 3.90*** | 6.74% | 4.44*** | 3.88*** | 3.83% | 1.47 | 1.79* |
| S-EE | 5.82% | 2.41** | 2.13** | 6.70% | 2.76*** | 2.81*** | 7.43% | 2.32** | 2.43** |
| St vs. Med | | | | | | | | | |
| E-G | 2.40% | 1.47 | 1.91* | 1.65% | 0.96 | 1.07 | 1.96% | 0.82 | 1.41 |
| S-G | 5.34% | 2.55** | 2.79*** | 4.87% | 2.24** | 1.93* | 2.30% | 0.74 | 1.40 |
| Med vs. Wk | | | | | | | | | |
| G-F | 0.88% | 0.80 | 0.45 | 1.87% | 1.48 | 1.55 | 1.53% | 0.49 | 0.08 |
| G-EE | 0.48% | 0.38 | -0.37 | 1.83% | 1.15 | -1.19 | 5.13% | 1.49 | 1.00 |
| St vs. St | | | | | | | | | |
| E-S | -2.94% | -1.63 | -1.36 | -3.22% | -1.72* | -1.45 | -0.34% | -0.11 | 0.17 |
| Wk vs. Wk | | | | | | | | | |
| F-EE | -0.40% | -0.32 | 0.88 | -0.04% | -0.02 | 0.24 | 3.60% | 1.28 | 1.31 |

The symbols *, **, and *** denote statistical significance at the 10%, 5%, 1% and 0.1% levels, respectively, using a 1-tail test

Differences between Strong and Medium Shareholder Protection Regimes:

Hypothesis 5: There are no differences in returns between English Common Law and German Civil Code Targets.

English Common Law countries have a high degree of disclosure, a liquid and well-developed equity market, and have higher investor protection and accounting standards compared to German Civil Code countries (La Porta et al., 1998). Consequently, it is expected that hypothesis 5 will be rejected, and returns will be greater for targets in English Common Law counties.

Result:

Table 16 shows that there is some significant evidence to show that targets in English Common Law targets receive larger premiums on the announcement day compared to those in German Civil Code countries. While the differences are only significant over (0, 1) window, the differences over all windows lean towards higher returns among UK targets.

Hypothesis 6: There are no differences in returns between Scandinavian Civil Code targets and German Civil Code targets.

La Porta et al (1998) show that the strength of the investor protection legislation, accounting standards, and rule of law is stronger in Scandinavian Civil Code counties compared to those in German Civil regimes. As such, it is expected that the null hypothesis will be rejected and targets in Scandinavian regimes will earn significantly higher returns as a result of a takeover announcement.

Result:

As expected, Table 16 shows that the returns to target shareholders in Scandinavian Civil Code countries earn significantly greater returns than shareholders in German Civil Code countries. As such, the null hypothesis is rejected, and it is concluded that there is sufficient evidence to that that the mean CAR of Scandinavian Civil Code targets is significantly higher than the mean CAR of German Civil Code targets.

Differences between Medium and Weak Shareholder Protection Regimes:

Hypothesis 7: There are no differences in returns between German Civil Code targets and French Civil Code targets.

La Porta et al (1998) show that there are significant differences in investor protection legislation, and legal strength between German and French Civil Code targets. Thus, as a result of stronger investor protection legislation among German Civil Code countries, it is expected that returns will be greater for targets in German Civil Code countries. As such, it is expected that Hypothesis 7 will be rejected.

Result:

Table 16 indicates that there are no differences in returns to target shareholders as a result of a takeover announcement. Consequently, the null hypothesis cannot be rejected. While the differences are significant between strong and weak regimes, they are not as pronounced when the legal strength is less dramatic. These insignificant differences may also be the result of changes in France, which implemented stronger executive disclosure requirements in late 1990's (Johnson & Shleifer, 1999). As such, there is insufficient evidence to show that German Civil Code targets experience higher returns than French targets from 1997-2004.

Hypothesis 8: There are differences in returns between German Civil Code targets and Eastern European targets.

The strength of investor protection and legal rules is dramatic German Civil Code and Eastern European countries (Slavova, 1999). Consequently, returns are expected to be greater in German Civil Code countries. It is expected that Hypothesis 8 will be rejected.

Result:

Again, Table 16 indicates that there is insufficient evidence to show that German Civil Code targets experience higher returns than targets in Eastern European countries from 1997-2004. As such the null hypothesis cannot be rejected since t values are <1.645 over all event windows.

Differences between Strong and Strong Shareholder Protection Regimes

Hypothesis 9: There are no differences in returns between English Common Law and Scandinavian Civil Code targets.

As there is a high degree of disclosure, a liquid and well-developed equity market, and high degree of shareholder protection within the English Common Law and among Scandinavian Civil Code countries, the announcement returns will be similar. As such, Hypothesis 9 is expected not to be rejected.

Result:

The results in Table 16 indicate that the null hypothesis cannot be rejected. The difference between returns is insignificant over most windows. While there is a significant difference at the 10% level over the (0,1) window using the parametric test, the non parametric test shows insignificant differences. Hence there is insufficient evidence to show that English Common Law targets experience higher returns than Scandinavian targets around the event day.

Differences between Weak Shareholder Protection Regimes:

Hypothesis 10: There are no differences in returns between French Civil Code targets and Eastern European targets

Investor protection legislation and accounting standards are more developed in Europe than those within Eastern European countries (Slavova, 1999). However, La Porta et al (1998) shows that French Civil Code countries have a weak legal system with poor investor protection legislation. Thus, the returns to targets shareholders are expected similar between targets in French Civil Code and Eastern European countries. As such, it is expected that Hypothesis 10 will be rejected.

Result:

As expected, Table 16 shows that the differences between the returns to target shareholders in French Civil Code and Eastern Europe are insignificant. Consequently, the null hypothesis is not rejected.

While the differences between the different legal regimes are apparent, on and around, the announcement period, the following section examines the pre and post announcement period to examine the effect legal background has on insider trading and post announcement drift.

6.3.2: Pre and Post Announcement Period Target Returns

High investor protection targets also exhibit a dramatic run up in the 30 trading days prior to a takeover. This is possibly the result companies in high investor protection regimes being widely held (Barca & Becht, 2001). Gaining control of a company that has a large number of shareholders, and under strict legal rules, is inherently more difficult. To gain control of the company a team of advisors, bankers, and lawyers is essential. Consequently, as the investor protection level increase, so does the possibility for leakage into the marketplace. Takeovers in English Common Law countries also seem to exhibit a significant drift in the 30 trading days after the announcement. Overall, shareholders within these countries generate a large and significant return of 15.83% in the period of one month before the announcement to one month after the announcement. However, the returns generated in the pre announcement period to targets in weaker shareholder protection regimes are smaller than those within stricter regimes. This is consistent with La Porta et al (2002) whereby companies are valued higher in countries with stronger investor protection.

Scandinavian targets still receive large premiums of 11.12% in the 60 days surrounding a takeover announcement, but the run-up in the 30 days prior to the announcement is minimal. Since La Porta et al (1998) shows Scandinavian Civil Code countries have the strongest rule of law, and are more closely held, a minimal price run-up with lower premiums is not surprising.

Targets in German Civil Code countries also experience a significant price run up. However, the effect is not as dramatic as in the UK. While German are closely held than, and valued lower than English Common Law targets, they do exhibit a large and significant price run up of 5.73% in the 30 trading days before the announcement. This significant run up could be the result of changes made in the mid 1990's whereby Germany implemented disclosure requirements similar to that of the UK and

the United States (Johnson & Shleifer, 2002). Also, stronger investor protection requires greater involvement of expert third parties such as lawyers and investment bankers, therefore increasing the chance of leakage to the market. Overall, in the one month preceding the announcement to one month afterward, target shareholders earn significant returns of 16.31%. This is similar to results found by Lowengrub et al (2004) who show that in the early 1990's German targets earn a significant return of 16.55%. However, different from Lowengrub et al (2004), these returns occurred around the announcement day, and did not have the significant price run exhibited in this study.

Similarly, targets in French Civil Code countries also receive significant returns of 5.92% in the 30 days leading up to a takeover announcement. Like Germany, France also implemented changes to increase the disclosure requirements of executives (Johnson & Shleifer, 2002) This price run up could also be the result of the increased disclosure requirements in these countries. However, there has been no research known to the author, to capture these changes.

However, unlike the trend occurring in Western Europe, there seems to be no price effect for targets in Eastern Europe in the 30 trading days before an announcement. This is not surprising since La Porta et al (1999) and (Dyck & Zingales, 2004) show that in countries with weak investor protection there are large private benefits of control, and these companies are usually owned by a small number of individuals. Thus, the chance of leakage into the marketplace would be extremely small resulting in a nonexistent price run up in the days preceding the announcement. There also seems to be a small, but significant, negative return in the month following a takeover. However, like Goergen and Renboog (2004), it seems that market price reactions to announcements in Eastern Europe are over optimistic and that returns are subsequently corrected in the following month.

While there were differences among the returns to acquirers it is important to see if these differences are statistically significant. The following section investigates the differences in target returns between the different investor protection regimes based on ten broad hypotheses. These hypotheses are tested and compiled in Table 17 and examined in turn below in detail below.

Differences between Strong and Weak Shareholder Protection Regimes:

Hypothesis 1: There are no differences in returns between English Common Law and French Civil Code targets in the pre and post event windows.

English Common Law countries have substantially stronger investor protection legislation and disclosure requirements (La Porta et al., 1998). Consequently, returns to target shareholders are expected to be substantially greater for English Common Law targets in these periods.

Result:

Table 17 shows that in the 30 days prior to the takeover announcement and in the one month after the announcement there are no differences between English Common Law and French Civil Code countries. As such, the null hypothesis cannot be rejected. This result may be the consequence of changes in disclosure requirements made by France during the late 1990's. According to Johnson (2002), France implemented disclosure laws in the late 1990's similar to those within UK. This result is a possible result of these changes.

Hypothesis 2: There are no differences in returns between English Common Law and Eastern European Targets in the pre and post event windows.

The degree of executive disclosure requirements, strength of investor protection legislation in English Common Law targets is substantially stronger than what is present within Eastern European countries. Consequently, the returns to target shareholders in English Common Law countries are expected to be substantially greater in the pre and post announcement period. As such, it is expected that Hypothesis 2 will be rejected.

Result:

Table 17 shows that, target shareholders in English Common Law countries receive significantly greater returns than those shareholders in Eastern Europe in the pre and post announcement period. The null hypothesis is rejected, and it is concluded that

there is sufficient evidence to that that the mean CAAR of English Common Law targets is significantly higher than the mean CAAR of Eastern European targets.

Hypothesis 3: There are no differences in returns between Scandinavian Civil Code targets and French Civil Code targets in the pre and post event windows.

Similarly, there are significant differences between Scandinavian and French Civil Code targets. Since Scandinavian Civil Code countries have a strict rule of law and stronger investor protection legislation target returns are expected to be greater in the pre and post announcement. As such, Hypothesis 3 is expected to be rejected.

Result:

In the 30 days prior to the takeover announcement and in the post announcement event period there appears to be no difference between Scandinavian and French Civil Code countries. However, while the results are statistically insignificant the sign of the results suggest that targets in French Civil Code countries experience a larger pre and post period drift. This is consistent with the strict rule of law in Scandinavian countries preventing insider trading and the increased disclosure laws in French Civil Code countries leaking information into the market. While the null hypothesis cannot be rejected, further research could suggest otherwise.

Hypothesis 4: There are differences in returns between Scandinavian Civil Code targets and Eastern European targets in the pre and post event windows.

Prior research has shown that Eastern European countries have weak investor protection legislation and disclosure requirements (Slavova, 1999). Consequently, target returns are expected to be greater in Scandinavian Civil Code countries in the pre and post announcement periods. As such, Hypothesis 4 is expected to be rejected.

Result:

Table 17 shows that through in the pre and post announcement period, the stricter legal rules and stronger investor protection legislation in Scandinavian countries leads to larger target returns in the pre and post announcement period.

Table 17: Differences in Pre and Post Returns for Targets

This table shows the differences in cumulative abnormal returns among targets within the different investor protection regimes. Abnormal returns are calculated as the difference between shareholders returns and the expected shareholder returns, measured using the market model. Each column of the table reports the statistics for the distribution of abnormal returns over five intervals around the announcement date.

| Legal Background | Return [-30,-1] | t-test | Wilcoxon Test | Return [2,+30] | t-test | Wilcoxon Test |
|----------------------|--------------------|--------|------------------|-------------------|--------|------------------|
| Strong versus Weak | | | | | | |
| E-F | 0.35% | 0.09 | 0.43 | 3.33% | 1.02 | 0.40 |
| E-EE | 8.06% | 2.16** | 2.80*** | 6.99% | 1.26 | 2.42** |
| S-F | -4.16% | -1.35 | -0.85 | -0.09% | -0.07 | -0.18 |
| S-EE | 3.55% | 0.86 | 1.71* | 3.57% | 1.26 | 1.77* |
| Strong versus Medium | | | | | | |
| E-G | 0.54% | 0.18 | 1.04 | -2.67% | -1.35 | -2.21** |
| S-G | -3.97% | -1.18 | 0.00 | -6.09% | -1.07 | -1.39 |
| Medium versus Weak | | | | | | |
| G-F | -0.19% | -0.20 | -0.85 | 6.00% | 0.93 | 1.73* |
| G-EE | 7.52% | 1.39 | 1.51 | 9.66% | 0.28 | 0.54 |
| Strong versus Strong | | | | | | |
| E-S | 4.51% | 1.74* | 1.25 | 3.42% | 0.84 | 0.65 |
| Weak versus Weak | | | | | | |
| F-EE | 7.71% | 1.72* | 2.61*** | 3.66% | 1.05 | 2.09** |

The symbols *, **, and *** denote statistical significance at the 10%, 5%, 1% and 0.1% levels, respectively, using a 1-tail test

Differences between Strong and Medium Shareholder Protection Regimes:

Hypothesis 5: There are no differences in returns between English Common Law and German Civil Code targets in the pre and post event windows.

Similarly, English Common Law countries have higher investor protection and disclosure requirements than German Civil Code countries. Consequently returns are expected to be greater for targets in English Common Law counties throughout the pre and post event period resulting in Hypothesis 5 being rejected.

Result:

As shown in Table 17, since $t < 1.645$, there is insufficient evidence to show that English Common Law targets earn larger returns over targets in German Civil Code countries in the month preceding and after a takeover announcement. However, there is some evidence that targets in German Civil Law countries earn greater excess returns in the 30 working days after the announcement of a merger.

Hypothesis 6: There are no differences in returns between Scandinavian Civil Code targets and German Civil Code targets in the pre and post event windows.

According to the La Porta et al (1998) rankings, the strength of the investor protection legislation and accounting standards in German and Scandinavian Civil Codes is similar. Thus, the differences in returns between these two legal backgrounds over the pre and post event period are expected to be insignificant. As such, it is expected that Hypothesis 6 will not be rejected.

Result:

Table 17 shows that in the 30 days prior to the takeover announcement and in the post announcement event period the null hypothesis cannot be rejected as $t < 1.645$ for both event window.

Differences between Medium and Weak Shareholder Protection Regimes:

Hypothesis 7: There are no differences in returns between German Civil Code targets and French Civil Code targets in the pre and post event windows.

La Porta et al (1998) also showed that there are significant differences in investor protection legislation and disclosure requirements between German and French Civil Code targets. As a result of stronger investor protection legislation within German Civil Code countries it is expected that returns to targets in the pre and post announcement period will be greater to targets in German Civil Code regimes. As such, Hypothesis 7 is expected to be rejected.

Result:

The results in Table 17 indicate that the null hypothesis cannot be rejected in the pre and post announcement period and $t < 1.645$ or most event windows. Hence there is insufficient evidence to show that German Civil Code targets experience higher returns than French targets. However, while the difference between them is insignificant, it is important to reiterate that both these regimes had large significantly positive returns in both the pre and post announcement periods and may be an outcome convergence in disclosure requirements.

Hypothesis 8: There are differences in returns between German Civil Code targets and Eastern European targets in the pre and post event windows.

There are dramatic differences in disclosure requirements and shareholder protection legislation between German Civil Code and Eastern European targets. As a consequence of a stricter legal regime returns are expected to be greater in German Civil Code countries. As such, Hypothesis 8 is expected to be rejected.

Result:

Table 17 indicates that the null hypothesis cannot be rejected since t values are <1.645 over all event windows. Consequently, there is insufficient evidence to show that German Civil Code targets experience higher returns than targets in Eastern European countries from 1997-2004.

Differences between Strong and Strong Shareholder Protection Regimes:

Hypothesis 9: There are no differences in returns between English Common Law and Scandinavian Civil Code targets in the pre and post event windows.

Based on La Porta et al (1998) rankings English Common Law has higher investor protection and accounting standards than the Scandinavian Civil Code. Therefore returns are expected to be greater for companies in English Common Law regimes resulting in Hypothesis 9 being rejected.

Result:

The results in Table 17 show that shareholders of targets in the UK receive statistically significant premiums of 4.41% greater in the one month leading up to an M&A announcement. This can be attributed to the highly active bidding market in the UK, and the stronger legal rules in Scandinavian Civil Code countries described by La Porta et al (1998). Furthermore, there is no difference in returns in the post announcement period. This is not surprising since both legal backgrounds have strong disclosure requirements and a strict legal or law. Information released to the market will be incorporated into the stock price in an efficient manner.

Differences between Weak Shareholder Protection Regimes:

Hypothesis 10: There are no differences in returns between French Civil Code targets and Eastern European targets in the pre and post event windows.

While both regimes have been shown as having weak corporate governance laws, investor protection legislation, and disclosure requirements have been strengthened within many French Civil Code countries over the past decade (Johnson, 2002). Thus, returns are expected to be greater in French Civil Code countries in the pre and post event period. As such, it is expected that Hypothesis 10 will be rejected

Result:

Table 17 shows that there is marginal significance that targets within French Civil Code countries generate greater returns in the 30 days leading up to the event. Similarly, targets in French Civil Code countries generate greater returns in the month after a takeover announcement.

Consistently, these results are in line with those reported by Rossi and Volpin (2004) and shows that the takeover premium, as reported in table 14 and 15, increases with better shareholder protection. It is shown that higher shareholder protection in the target company is associated with higher premiums within Europe. However, the effect is not as pronounced between English Common Law Countries and German/Scandinavian countries, as has been shown in the past. Nevertheless, the difference between high investor protection countries and low investor countries is still quite dramatic. Furthermore, the volume of M&A activity is also much greater in high investor protection countries than all others. When accounting information and investor protection is stronger, the risks of a merger decrease because the cash flows become more predictable. This has a large impact on the project's cost of capital, thus making it more affordable for companies to be involved in the acquisition game.

There does seem to be some convergence in investor protection legislation. The changes made by France, and German Civil Code countries in the mid 1990's, to increase the disclosure requirements of executives has resulted in information leakage into the marketplace. This effect has not been seen in other studies. These changes

have resulted in significant price run ups in the month preceding a takeover announcement. However, among countries that have not experienced such changes, these price run ups are nonexistent.

6.3.3: Announcement Day Acquirer Returns

Consistent with current M&A research,³ these results generally show returns to acquiring shareholders in high investor protection countries receiving negative or zero returns. Among acquirers in English Common Law countries, Table 18 shows that they earn negative returns in the first few days following a takeover announcement. This is consistent with the results of Cummins and Weiss (2001) who find negative returns for European mergers from in the early 1990's and Conn et al (2005) who finds negative returns to UK acquirers in domestic and cross-border takeovers. Furthermore, like Goergen and Renboog (2004), acquirers Scandinavian Civil Code countries exhibit positive, but insignificant returns. These results are consistent with the hypothesis that the market perceives that acquirers in high investor protection countries do not benefit from being involved in the acquisition game.

Contrary to this, Table 18 shows that shareholders in mid and low investor protection countries may exhibit some positive benefits from a takeover. On and around the announcement day acquirers in German Civil Code countries earn significant positive returns of 1.23%. Similarly acquirers in French Civil Code countries also display positive returns on and around the announcement day, but these returns are not statistically significant from zero. Additionally, acquiring shareholders in Eastern European countries receive a substantial return of 2.98% returns on and in the days following an announcement. These results are in line with Beitel et al (2004) who showed that European banks in developed and developing countries are able to make a significantly positive return on 0.18% in the five days around an announcement day.

While there were differences in among the returns to acquirers it is important to see if these differences are statistically significant. The following section investigates the differences in acquirer returns between the different investor protection regimes based

³ See Goergen & Renneboog, 2004; Mulherin & Boone, 2000

on ten broad hypotheses. These hypotheses are tested and compiled in Table 18 and examined in turn below in detail below.

Table 18: Acquirer Returns when separated by Legal History

This table shows the cumulative average abnormal returns to acquirers within different legal backgrounds. Abnormal returns are calculated as the difference between shareholder returns and expected shareholder returns, measured using the market model.

| Legal History Acquirer | | | |
|---------------------------|----------|---------------|--------------------|
| | CAAR (%) | Patel Z-Score | Generalized Sign Z |
| English Common | | | |
| [0,0] | -0.30% | -0.92 | -0.42 |
| [0,1] | -0.93% | -4.19*** | -1.03 |
| [-5,+5] | -1.36% | -1.12 | 0.02 |
| [-30,-1] | -0.36% | -0.42 | 0.62 |
| [2,+30] | -0.75% | -1.47 | 1.68* |
| Observations | 180 | | |
| Scandinavian Civil | | | |
| [0,0] | 0.42% | 1.23 | 0.20 |
| [0,1] | 0.52% | 1.24 | -0.03 |
| [-5,+5] | 0.95% | 0.91 | 0.94 |
| [-30,-1] | 0.99% | 0.00 | -0.52 |
| [2,+30] | -0.57% | -0.94 | 0.20 |
| Observations | 67 | | |
| German Civil | | | |
| [0,0] | 0.36% | 6.26*** | -0.49 |
| [0,1] | 1.23% | 6.31*** | 0.89 |
| [-5,+5] | -1.31% | -10.08*** | -0.21 |
| [-30,-1] | -6.19% | -9.30*** | -1.32 |
| [2,+30] | -2.96% | -3.49*** | -1.32 |
| Observations | 52 | | |
| French Civil | | | |
| [0,0] | -0.01% | -0.36 | 0.30 |
| [0,1] | 0.19% | 0.63 | 0.71 |
| [-5,+5] | 1.05% | 1.06 | 1.53 |
| [-30,-1] | 0.26% | 0.29 | 0.92 |
| [2,+30] | 1.30% | 1.54 | 1.12 |
| Observations | 95 | | |
| Eastern Europe | | | |
| [0,0] | 1.62% | 3.70*** | 3.03** |
| [0,1] | 2.98% | 4.35*** | 2.53** |
| [-5,+5] | 2.86% | 2.09** | 1.02 |
| [-30,-1] | -7.72% | -1.11 | -0.49 |
| [2,+30] | -10.83% | -1.67* | -0.99 |
| Observations | 16 | | |

The symbols *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively, using a 1-tail test

Hypothesis 1: The returns to acquirers of all legal backgrounds are not significantly different.

Past research has shown that it is difficult for acquirers in all investor protection countries to generate significantly positive returns when a takeover is announced⁴. While the strict accounting standards in English Common Law countries help identify potential targets, it also results in a competitive bidding process whereby potential synergies are eaten away. However, in weak legal regimes there are dramatic private benefits of control leading to agency motivated to bids and combined with weaker accountings standards, the greater possibility for hubris in the valuation process. Consequently, companies in these regimes are burdened with a high lost of capital making the merger market extremely expensive. As such, it is expected that Hypothesis 1 will not be rejected.

Result:

Table 19 indicates that, acquirers in the weak legal systems (French Civil Code and Eastern European countries) experience significantly greater (or less negative) returns on and around a takeover announcement as compared to those in stronger legal regimes. Specifically, when compared transactions in English Common Law countries, acquirers in French Civil Code and Eastern European countries experience significantly greater returns (2.41% and 4.22%) in the ten days surrounding an announcement.

Similarly acquirers in German Civil Code countries earn significantly greater returns of 2.61% over acquirers in the UK. However, when compared to acquirers in Eastern Europe, these acquirers in German Civil Law countries experience returns that are substantially smaller by 4.71% in the 10 days around the announcement. Furthermore, there appears to be no significant difference in acquirer returns when among legal systems of similar strength. Consequently, these results show that the impact of a higher cost of capital in weak legal systems is less burdensome than the increase in bidding competition in countries with stronger investor protection laws and stringent disclosure requirements. Acquirers within the weakest investor protection countries

⁴ For detailed analysis over the profitability of takeovers see: Campa and Hernando (2004), Bruner (2002)

are able to extract significantly higher returns over all other legal regimes. As such, it appears that the lack of bidding competition outweighs the higher weight average cost of capital.

Table 19: Announcement Day Differences for Legal Background

This table shows the differences in cumulative abnormal returns among acquirers within the different investor protection regimes on and around the announcement day. Abnormal returns are calculated as the difference between shareholders returns and the expected shareholder returns, measured using the market model. Each column of the table reports the statistics for the distribution of abnormal returns over five intervals around the announcement date. . Note: E=English Common Law Countries, S=Scandinavian Civil Code Countries, G=German Civil Code Countries, F=French Civil Code Countries, & EE=Eastern European Countries. St=Strong Legal Backgrounds, Med=Mediums Legal Backgrounds, and Wk=Weak Legal Backgrounds

| Legal Background | Return [0] | t-test | Wilcoxon Test | Return [0,1] | t-test | Wilcoxon Test | Return [-5,+5] | t-test | Wilcoxon Test |
|------------------|------------|----------|---------------|--------------|----------|---------------|----------------|--------|---------------|
| St vs. Wk | | | | | | | | | |
| E-F | -0.29% | -0.39 | -0.71 | -1.12% | -1.69 | -1.93* | -2.41% | -1.86* | -2.11* |
| E-EE | -1.92% | -1.59 | -2.87** | -3.91% | -2.47** | -2.88** | -4.22% | -1.50 | -1.11 |
| Med vs. Wk | | | | | | | | | |
| S-F | 0.43% | 0.73 | 0.13 | 0.33% | 0.48 | -0.58 | -0.10% | -0.03 | 0.42 |
| S-EE | -1.20% | -0.88 | -2.26** | -2.46% | -1.48 | -2.01** | -1.91% | -0.63 | 0.41 |
| G-F | 0.37% | 0.75 | 0.30 | 1.04% | 1.47 | -0.36 | -2.36% | -1.75* | -1.85* |
| G-EE | -1.26% | -1.23 | -2.19** | -1.75% | -1.00 | -1.68* | -4.17% | -1.33 | -1.12 |
| St vs. Med | | | | | | | | | |
| E-S | -0.72% | -0.91 | -0.77 | -1.45% | -1.67* | -0.86 | -2.31% | -1.57 | -1.31 |
| E-G | -0.66% | -0.81 | -0.82 | -2.16% | -2.29** | -1.80* | -0.05% | -0.24 | -0.21 |
| Med vs. Med | | | | | | | | | |
| S-G | 0.06% | 0.08 | 0.08 | -0.71% | -0.67 | -0.86 | 2.26% | 1.53 | 1.18 |
| Wk vs. Wk | | | | | | | | | |
| F-EE | -1.63% | -2.85*** | -2.72*** | -2.79% | -2.75*** | -2.22** | -1.81% | -0.70 | 0.18 |

The symbols *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively, using a 1-tail test

6.3.4: Pre and Post Announcement Day Acquirer Returns

Table 18 also describes the returns to bidding shareholders in the two months surrounding a takeover announcement. Unlike, target shareholders the evidence of trading on rumours, or insider trading is not as pronounce. However, bidding shareholders in German Civil Code countries experience large, significant losses in the month preceding and following a takeover (-6.19% and -2.96%). While there are differences in among the returns to acquirers it is important to see if these differences are statistically significant. The following section investigates the differences in acquirer returns between the different investor protection regimes. The hypothesis is tested and compiled in Table 20.

Hypothesis 1: There is no difference in pre and post announcement returns to bidding shareholders.

Goergen and Renboog (2004) find no evidence of trading on rumours or insider trading for bidding firms. Furthermore, they also find no difference in returns of bidders among UK and Continental firms. As such, it is expected that the there will be no difference in returns for bidding firms of different legal backgrounds.

Table 20: Acquirer Pre and Post Announcement Day Returns

This table shows the differences in cumulative abnormal returns among acquirers within the different investor protection regimes in the pre and post announcement periods. Abnormal returns are calculated as the difference between shareholders returns and the expected shareholder returns, measured using the market model. Each column of the table reports the statistics for the distribution of abnormal returns over five intervals around the announcement date.

| Legal Background | Return [-30,-1] | t-test | Wilcoxon Test | Return [2,+30] | t-test | Wilcoxon Test |
|-------------------|-----------------|----------|---------------|----------------|---------|---------------|
| Strong vs. Weak | | | | | | |
| E-F | -0.62% | -0.34 | -0.06 | -2.05% | -1.02 | 0.56 |
| E-EE | 7.36% | 1.65* | 1.50 | 10.08% | 2.43** | 1.80* |
| Medium vs. Weak | | | | | | |
| S-F | 0.73% | 0.26 | 0.39 | -1.87% | -1.08 | -0.72 |
| S-EE | 8.71% | 1.82* | 1.30 | 10.26% | 2.17** | 1.78* |
| G-F | -6.45% | -2.94*** | 2.59** | -4.26% | -2.31** | -1.83* |
| G-EE | 1.53% | 0.28 | -0.02 | 7.87% | 1.60 | 1.30 |
| Strong vs. Medium | | | | | | |
| E-S | -1.35% | -0.50 | 0.32 | -0.18% | -0.09 | -0.22 |
| E-G | 5.83% | 2.27** | 2.49** | 2.21% | 1.15 | 1.29 |
| Medium vs. Medium | | | | | | |
| S-G | 7.18% | 2.43** | 1.78* | 2.39% | 1.10 | 1.02 |
| Weak vs. Weak | | | | | | |
| F-EE | 7.98% | 2.28** | 1.37 | 12.13% | 3.02*** | 2.28* |

The symbols *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively, using a 1-tail test

Results:

Table 20 shows that for bidders in UK, Scandinavia, and French Civil Code countries the differences in bidding shareholder returns in the month before and after a takeover announcement are insignificant. However, among bidders in German Civil Code countries there are substantial differences. Bidders in German Civil Code, and Eastern European countries lose more (or gain less) than those in other regimes. For bidders in

German Civil Code countries, these differences are possibly the result of changes in disclosure requirements.

The increased disclosure causes greater insider trading, or rumoured trading, thus triggering a sell-off in the weeks prior to an announcement. Similarly, in the post announcement period the CAARs are not statistically different between most regimes, however the difference is quite pronounced for bidders in German Civil Code countries and Eastern Europe. Hence, in spite of the lower bid premiums by these bidders, it seems the market price reactions to the announcements are overoptimistic and the returns are subsequently corrected.

6.4: Domestic versus Cross-border Transactions

One of the goals of this study is to find out whether there are significant barriers to restructuring of corporate activity within Europe. The theories based on industrial organization suggest a powerful motive for cross-border deals. The work of Errunza and Senbet (1981) and Scholes and Wolfson (1990) show that cross-border acquisitions can capture imperfections in the markets for goods, services and factors of production. They suggest that firms entering foreign markets can capture rents that are not competitively priced due to imperfect international products and factor markets. Additionally, Servaes and Zenner (1994) show that cross-border acquisitions can have a dramatic impact on companies' taxes.

Further, Conn et al (2005) show that returns from cross-border acquisitions tend to be higher than those in domestic acquisitions from synergies arising from information based assets. Foreign acquirers can use geographic diversification to extract monopolistic rents from these specialized resources via foreign direct investment or, through the outright acquisitions. Conn et al (2005) also shows that this expansion permits the internalization of synergies from intangible information that is based on assets that would otherwise be lost because of various market failures. They also provide evidence that R&D, and intangible asset, intensity is related to the observed gains from cross-border takeovers. Similarly, firms with superior managerial talent may be able to monetize their abilities by expanding overseas in related industries,

and thus be willing to pay higher premiums for targets in the same sector (Kuipers et al., 2002)

While theory points towards cross-border acquisitions generating greater returns than that of domestic, the findings have not been so straightforward. Numerous studies from around the world have found conflicting evidence regarding the wealth effects between domestic and cross-border M&As for both target and bidder firms. For example, Cakici, Hessel, and Tandon (1996) show that foreign acquirers experience significantly positive returns when targeting firms in the U.S., while domestic acquirers have no such effect. On the contrary, Eckbo and Thorburn (2000) find that domestic acquirers receive larger abnormal returns over cross-border acquirers. Similarly among European countries, Campa and Hernando (2004) show that acquirers of domestic mergers earn significantly between 0.5% to 4.1% larger than domestic mergers. Among target firms, the results are also inconclusive. Campa and Hernando (2004) find that targets in cross-border deals receive a 0.2% to 2.0% larger premium than that of domestic mergers. However, Cummins and Weiss (2001) find that targets of cross-border acquisitions in Europe generate significantly smaller returns compared to domestic acquisitions.

However, the expansion of the EU and the integration of economies within Europe suggest that cross-border mergers should generate returns similar to their domestic counterparts. However, industrial structure of the EU is more concentrated within national borders than what a truly single market would suggest. Consequently, in the absence of these barriers, the announcement of cross-border merger should, on average, generate value equal to similar transaction involving two domestic firms. However, if the barriers are substantial, cross-border returns will generate larger returns than two domestic firms.

6.4.1: Domestic versus Cross-border-Target Returns

To determine the extent that M&A returns differ depending on the national or cross-border nature of the transactions, this section presents two broad hypotheses on the cumulative abnormal returns enjoyed by the shareholders of merging companies in domestic and cross-border acquisitions.

Hypothesis 1: There is no difference between the returns to targets in cross-border and domestic mergers.

Prior research has shown that returns to target shareholders have been significantly larger returns than cross-border transactions in Europe (Campa & Hernando, 2004). Consequently, it is expected that Hypothesis 1 will be rejected.

Result:

Like Campa and Hernando (2004), target returns in cross-border acquisitions are significantly higher over the 10 day window surrounding the announcement day at the 5% level and in the pre announcement period at the 1% level. Marginal significance is also found by the non-parametric in the (0, 1) window. These results suggest that throughout Europe, targets receive larger bid premiums from acquirers in other countries. However, to test if similar results are consistent throughout Europe, deals are analyzed by the countries legal background.

As such, when the sample is separated in this manner, again, targets in cross-border transactions are better off. Specifically, foreign targets in English Common Law, German Civil Law, and French Civil code countries all exhibit significantly larger returns on, and around the announcement day. These results are consistent with recent work by Danbolt (2004). However, the difference between foreign and domestic targets in Scandinavian Civil Code and Eastern Europe are not different from zero. Additionally, foreign targets in English Common Law countries receive significantly larger premiums in the 30 trading days leading up to an announcement. In relation to the overall target returns (See: Section 6.4 and 6.5), the returns to cross-border targets may possibly skew the earlier results. However, this will be minimal because the sample is weighed more heavily with domestic mergers.

There are three hypotheses as to why company cross-border returns are significantly higher. Firstly, shareholders have been shown to benefit from international portfolio diversification. For example, informational asymmetries may mean that a company is better informed than its investors, thus able to make better investment decisions. Consequently, the multinational corporation is performing a valuable service to investors in that it allows them to diversify their portfolios indirectly (Danbolt, 2004).

Table 21: Differences in target returns for domestic and cross-border mergers

Differences in cumulative abnormal returns to targets between national and cross border mergers are shown. Abnormal returns are calculated as the difference between shareholders returns and the expected shareholder returns, measured using the market model. Each column of the table reports the statistics for the distribution of abnormal returns over five intervals around the announcement date.

| | Domestic-Cross-border | t-test | Wilcoxon Test |
|---------------------------|-----------------------|----------|---------------|
| All Target Firms | | | |
| [0,0] | -1.10% | -0.89 | 0.94 |
| [0,1] | -2.10% | -1.56 | 1.80* |
| [-5,+5] | -4.10% | -2.06** | 1.18 |
| [-30,-1] | -6.70% | -2.51*** | 0.93 |
| [2,+30] | 0.74% | 0.24 | -0.43 |
| # Domestic=441 | | | |
| # Cross-border=105 | | | |
| English Common | | | |
| [0,0] | -5.80% | -1.71* | 1.38 |
| [0,1] | -5.30% | -1.47 | 1.27 |
| [-5,+5] | -5.20% | -1.13 | 1.15 |
| [-30,-1] | -11.60% | -2.11** | 1.28 |
| [2,+30] | 1.67% | 0.16 | 0.63 |
| # Domestic=195 | | | |
| # Cross-border=16 | | | |
| Scandinavian Civil | | | |
| [0,0] | 2.25% | 0.62 | -0.79 |
| [0,1] | 1.42% | 0.39 | -0.24 |
| [-5,+5] | -1.70% | -0.37 | 0.29 |
| [-30,-1] | -4.10% | -0.93 | 1.26 |
| [2,+30] | -0.80% | -0.19 | 0.62 |
| # Domestic=64 | | | |
| # Cross-border=27 | | | |
| German Civil | | | |
| [0,0] | -2.20% | -1.02 | 0.54 |
| [0,1] | -5.40% | -2.05** | 2.25** |
| [-5,+5] | -8.60% | -1.52 | 0.99 |
| [-30,-1] | -15.10% | -1.57 | 0.91 |
| [2,+30] | 3.30% | 0.72 | -0.72 |
| # Domestic=49 | | | |
| # Cross-border=18 | | | |
| French Civil | | | |
| [0,0] | -1.50% | -1.01 | 1.71 |
| [0,1] | -2.90% | -1.82* | 1.81* |
| [-5,+5] | -7.90% | -2.07** | 0.70 |
| [-30,-1] | -4.10% | -0.75 | -0.73 |
| [2,+30] | -7.50% | -1.62 | 0.38 |
| # Domestic=105 | | | |
| # Cross-border=28 | | | |
| Eastern Europe | | | |
| [0,0] | -0.30% | -0.15 | 0.01 |
| [0,1] | 0.00% | -0.05 | -0.25 |
| [-5,+5] | -1.80% | -0.44 | 0.62 |
| [-30,-1] | -13.10% | -1.48 | 1.32 |
| [2,+30] | 4.93% | 1.10 | -0.96 |
| # Domestic=28 | | | |
| # Cross-border=16 | | | |

The symbols *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively, using a 1-tail test

Furthermore, international takeovers may be motivated by a dramatic need to operate locally to avoid trade barriers. If market access is valuable to foreign bidders, they will be willing to pay a large takeover premium than bidders previously operating in these markets. Another possible explanation proposed is a result of exchange rate risk. However, since the majority of the countries involved in this study trade under the Euro, the benefits of holding assets in another currency as a hedging motive do not exist.

These larger returns to foreign bidders may be the result of managerial overconfidence in the synergies resulting from a merger, or managers of cross-border bidders pursuing the maximization of personal utility, rather than the maximisation of shareholder wealth more than do domestic bidders (Danbolt, 2004). However, to explicitly test for this would require the data on remuneration and shareholders of the manager of the overseas acquiring company's, however this data is not available for the current research project.

6.4.2: Domestic versus Cross-border-Acquirer Returns

Hypothesis 1: Acquirers in cross-border M&As receive no larger returns than in targets domestic mergers.

The integration of country economies in Europe suggests that cross-border and domestic mergers should generate similar returns. Consequently, in the absence country barriers, the announcement of cross-border merger should, on average, generate value equal to similar transaction involving two domestic firms. Thus it is expected that Hypothesis 1 will not be rejected.

Result:

Table 22 shows that among all acquirers, the returns are not significantly different when involved in either a domestic or foreign acquisition. Similarly results are found, when acquirers are separated into the legal origin of their country. Most acquirers throughout Europe receive no added benefit from purchasing a foreign firm. However, acquirers in Eastern European countries receive substantially larger significant returns when then are involved in a cross-border transaction.

Table 22: Differences in acquirer returns for domestic and cross-border mergers

Differences in cumulative abnormal returns to acquirers between national and cross border mergers are shown. Abnormal returns are calculated as the difference between shareholders returns and the expected shareholder returns, measured using the market model. Each column of the table reports the statistics for the distribution of abnormal returns over five intervals around the announcement date.

| Event Window | Domestic -Cross-border | t-test | Wilcoxon Test |
|---------------------------|------------------------|---------|---------------|
| All Acquirer Firms | | | |
| [0,0] | 0.42% | 0.82 | -0.58 |
| [0,1] | -0.40% | -0.64 | 0.63 |
| [-5,+5] | -0.80% | -0.74 | 0.53 |
| [-30,-1] | 2.24% | 0.74 | -1.02 |
| [2,+30] | 0.13% | 0.69 | -0.05 |
| # Domestic=331 | | | |
| # Cross-border=79 | | | |
| English Common | | | |
| [0,0] | 0.02% | 0.02 | -0.43 |
| [0,1] | -1.00% | -0.53 | 0.11 |
| [-5,+5] | 1.32% | 0.47 | 0.13 |
| [-30,-1] | 3.09% | 0.61 | -0.22 |
| [2,+30] | -4.10% | -0.94 | 1.22 |
| # Domestic=169 | | | |
| # Cross-border=11 | | | |
| Scandinavian Civil | | | |
| [0,0] | 1.47% | 1.13 | 0.09 |
| [0,1] | 1.37% | 0.98 | 0.12 |
| [-5,+5] | 1.41% | 0.68 | -0.25 |
| [-30,-1] | 2.82% | 0.71 | -0.35 |
| [2,+30] | 0.19% | 0.06 | -0.42 |
| # Domestic=44 | | | |
| # Cross-border=23 | | | |
| German Civil | | | |
| [0,0] | 1.21% | 1.15 | -1.23 |
| [0,1] | 1.86% | 1.19 | -1.02 |
| [-5,+5] | 1.15% | 0.51 | 0.01 |
| [-30,-1] | 1.86% | 0.41 | -0.67 |
| [2,+30] | 7.45% | 2.60*** | 2.02** |
| # Domestic=30 | | | |
| # Cross-border=22 | | | |
| French Civil | | | |
| [0,0] | 0.49% | 0.97 | -0.64 |
| [0,1] | 0.17% | 0.26 | -0.05 |
| [-5,+5] | -1.90% | -1.00 | 0.22 |
| [-30,-1] | -1.20% | -0.42 | 0.98 |
| [2,+30] | -1.80% | -0.69 | 0.81 |
| # Domestic=75 | | | |
| # Cross-border=20 | | | |
| Eastern Europe | | | |
| [0,0] | -1.50% | -1.01 | 0.40 |
| [0,1] | -9.00% | -2.18** | 0.18 |
| [-5,+5] | -18.40% | -1.74* | 0.40 |
| [-30,-1] | 3.51% | 0.24 | -0.94 |
| [2,+30] | -15.90% | -0.83 | 1.47 |
| # Domestic=13 | | | |
| # Cross-border=3 | | | |

The symbols *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively, using a 1-tail test

These results confirm that economic borders have been eliminated among EU countries. However, shareholders in Eastern Europe receive large benefits by entering new markets in Europe and by capturing imperfections in the markets for goods, services and factors of production. This suggests that Eastern European firms entering the EU market can capture rents that are not competitively priced due to imperfect international products and factor markets. In the case of acquirers, the difference in abnormal returns between domestic and cross-border acquisitions is insignificant throughout EU countries.

This lack of significance is not surprising because acquirers need to make on average a sufficiently attractive offer for the existing shareholders to transfer ownership. Furthermore, lower cumulative abnormal returns to buyers in cross-border transactions suggest that buyers in cross-border mergers might face obstacles of a different nature that offset their advantages when entering new markets. These obstacles, such as culture and language, reduce potential returns. Alternatively, this insignificance could be the verification that economies within Europe are becoming more integrated, thus the impact of a domestic, and cross-border merger will be similar. However, within Eastern Europe, where more countries have not yet seen the benefits of EU involvement, receives a large benefit from diversifying internationally. Eastern European companies are willing to pay higher takeover premiums than those companies currently in it. This market access is extremely valuable to avoid the trade barriers of entering the EU. Hence, given the large spike in share price as a result of these takeovers, the projected change in future cash flows must be substantial given the high cost of capital in these low investor protection countries.

Chapter 7: Conclusion

The process of economic integration, the deregulation of economic activity in many sectors, and the financial integration of national economies throughout Europe during the last decade has stimulated significant restructuring of companies in the European Union, and particularly those countries belonging to the euro area. Nevertheless, this restructuring process has also been part of a broader wave of activity among all industrialized countries.

This thesis is an analysis of shareholder value creation upon the announcement of M&As involving firms in Europe. The stock price reaction as a consequence of a merger announcement reflects the changes in expected future cash-flows that will accrue to the shareholders of the firms involved, and show the expected value resulting from the merger. With the most comprehensive European sample to date, it is found that target shareholders receive on average a substantial positive and significant return of 4.40% as a result of a merger announcement. There also seems to be a significant stock price drift to targets in the 30 days before a takeover announcement. On average, target shareholders earn a 4.48% return in the month before the announcement. This is evidence that information is leaked, or insider trading occurs dramatically prior to an announcement.

To the author's knowledge, this thesis shows for the first time considerable differences in these returns among different legal regimes throughout all of Europe. Specifically, when targets are organized by the strength of their countries' investor protection legislation and disclosure laws, value creation from M&A activity differs among the legal regimes. Target companies from countries with strong investor protection legislation and stricter executive disclosure requirements received larger premiums than those in other countries. Targets in English Common Law countries exhibited the largest returns, followed by those in Scandinavian and German Civil Code countries, French Civil Code countries, and finally Eastern European countries. However, targets in countries with strict disclosure laws and stronger investor protection legislation received a substantial portion of these returns in the 30 days

prior to an announcement. As a result of these complicated laws and widely held ownership, specialized consultation is necessary which increase the possibility of leakage into the marketplace. Thus the pre announcement period drift in the full sample is a consequence of large proportions of the sample from English Common Law and German Civil countries. Furthermore, target companies that are closely held in countries, such as Scandinavian and French Civil Code and Eastern European backgrounds do not experience this pre announcement drift.

Acquiring shareholders experience a significant return of 0.04% as the result of a takeover announcement. This result is consistent with the widespread result in literature that bidders generally break even or lose small amounts at the time of the acquisition. Like target shareholders, acquirers also experience a drift in the 30 days leading up to a takeover. However, acquirers lose, on average, -1.09% in this time period.

When acquirers are organized by their legal history, companies in countries with weaker shareholder protection experience significantly positive returns on and around a takeover announcement. While there are no significant differences in acquirer returns within legal systems of similar strength, larger acquirer returns are within weaker investor protection regimes. This is evidence showing that the higher cost of capital in low investor protection countries is less burdensome than the highly competitive bidding process in countries with strict accounting and disclosure requirements.

One of the goals of this study is to find out whether there are significant barriers to restructuring of corporate activity within Europe. Foreign targets are shown to receive larger premiums in the UK, and within French and German Civil Code regimes. This can be attributed to the market access hypothesis. These countries in these regimes have large economic markets that are valuable to foreign bidders. Consequently, they are willing to pay a larger takeover premium than bidders previously operating in these markets, to gain access to these markets.

In the case of acquirers, the difference in abnormal returns between domestic and cross-border acquisitions is insignificant throughout Europe. This lack of significance

is not surprising because acquirers need to make on average a sufficiently attractive offer for the existing shareholders to transfer ownership. Also, lower returns to buyers in cross-border transactions show that buyers in cross-border mergers face obstacles, such as culture and language, which offset their advantages when entering new markets. Alternatively, this insignificance could be the verification that economies within Europe have integrated, thus the impact of a domestic, and cross-border merger will be similar.

There are a number of topics which future research in this area of the finance literature could consider. As the integration of the European economies continues, and the implementation of Europe-wide takeover and corporate governance regulation takes hold, the differences between traditional legal histories may disappear. However, currently the European Union has been unable to implement Europe wide takeover regulation. Furthermore, as economies of the Eastern Europe become stronger and more involved in the European Union, the sample of Eastern European companies will increase dramatically. It would be interesting to see if the difference in legal regimes holds once legal consolidation takes place. A similar study could be done if a free trade agreement of North American and South American is implemented, and as many of the Asian countries become more integrated.

Similarly, as other countries and economies become more integrated within Europe, the incidence of cross-border transactions will also increase. Thus, the research regarding multi-country cross-border has only scratched the surface. However, while the potential for research in this area is plentiful, it is reliant upon the availability of reliable data sources.

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