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The Regulation of Takeovers in New Zealand

and

Returns to Shareholders

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ABSTRACT

Between 1 January 1996 and 30 June 2001 takeovers in New Zealand were governed by a set of regulations that formed part of New Zealand Stock Exchange ("NZSE") listing rules. The NZSE rules were relatively light in their approach to governing takeovers and received much criticism throughout their tenure. Prior to 1 January 1996 takeovers had been regulated by the Companies Amendment Act 1963.

We examine the returns to targets and bidders between 1 January 1990 and 30 June 2000 to determine how effective the rules were in promoting shareholder wealth. The change in regulations between 1995 and 1996 also presents an opportunity to examine the impact on returns from moving from a lightly regulated regime to one which is more regulated with a greater amount of required disclosure.

We find that returns to both targets and bidders were lower under the NZSE regime than under the Companies Amendment Act 1963. This result is attributed to several specific aspects of the Companies Amendment Act 1963 such as the ability of the target to recover defense costs from bidder and a set period for which the offer must remain open.

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1 INTRODUCTION

Takeovers are, and will continue to be, emotive and controversial events. They provoke a wide range of emotions from parties such as the general public, aggrieved shareholders, embattled management, the media, and politicians. This is understandable given the sums of money at stake are usually in the millions of dollars, and people's livelihoods are at stake since takeovers frequently lead to redundancies. Management can be aggrieved due to the belief that the takeover bid undervalues their company, or that projects that enhance shareholder value have not yet reached fruition. Alternatively they may simply be trying to retain their perquisites. Shareholders may be upset that they were not able to participate in the premium for control, or that they are effectively locked into the company at a discount after a partial takeover. Politicians view takeovers as causing large scale redundancies, or see valuable "national" assets being sold to foreign companies.

The takeovers debate in New Zealand has been raging for over a decade, and has been centered on the adequacy of the regulations controlling the process. There are two sides to the debate. One side argues that strategic parcels of shares are inherently more valuable, and thus should command a premium for control that other shareholders should not necessarily receive. This side argues that takeovers are economically important for any economy since they remove entrenched/inefficient management and re-deploy resources to higher valued uses. As such takeover regulation should promote, not restrict, takeovers. The other side of the debate argues that all shareholders own the assets of the company, thus all shareholders should have the opportunity to participate in takeovers. This side also argues that large shareholders often have an unfair advantage in being able to sell their shares in a takeover situation.

The debate has been sparked (periodically) by controversial takeovers. Arguably the two that have received the most attention were the takeover of Lion Nathan Limited by Kirin Breweries in 1997, and the takeover of Montana Group Limited by Lion Nathan Limited in 2001. Both were partial takeovers and in both cases minority shareholders felt aggrieved that they were not able to share in the premium for control. The result of the pressure has been for the current Labour Government to announce the enactment of a takeovers code, which took effect from 1 July 2001. This replaced rules governing

takeovers that were part of the New Zealand Stock Exchange listing rules. These rules were in effect from 1 January 1996.

There was a substantial amount of debate leading up to the announcement of the new takeovers code. One of the criticisms prior to its announcement was that there was no substantial evidence on the performance of the previous set of rules. The aim of this research is to fill that gap (albeit belatedly).

We examine control transactions between 1 January 1990 and 30 June 2000. Our principal finding is that the stock exchange rules ("the rules") did not appear to enhance shareholder wealth from takeovers. Post-announcement returns were found to be lower for both targets and bidders under the rules than prior to 1996. This is at least partially in contrast to our expectations. We predicted that returns would improve for targets but deteriorate for bidders due to the increased cost of making a bid. When the rules are examined in isolation it is found that stricter rules (Minority Veto) provide better returns than lighter rules (Insider Only). We also examine returns for full versus partial bids. Full takeovers are found to provide higher returns for both targets and bidders than partial acquisitions.

Several structural influences are also examined, namely toeholds, managerial and institutional shareholdings following research suggesting that they play a role in determining the selection of the takeover rule. These factors may then influence takeover returns. Toeholds are not found to provide substantially lower (higher) returns to targets (bidders), although returns are found to be higher for both bidders and targets when the bidder has a controlling stake than when it had no toehold or a toehold of less than 50%. Managerial and institutional shareholdings are found positively influence returns to targets and bidders, although the extent to which is mixed.

Given that our primary findings are

- (1) the rules did not appear to enhance shareholder wealth in the event of a takeover;
 - (2) that tighter regulations seem to increase shareholder wealth; and
 - (3) full takeovers are preferable to partial takeovers in terms of returns:
- the new takeovers code may provide benefits to shareholders of targets and bidders.

The remainder of this study is structured as follows: Section 2 outlines the rationale for this study and how it contributes to the existing literature on takeovers, both in a New Zealand and an international context. Section 3 provides an overview of takeover regulations in New Zealand. This section also covers the arguments for and against a mandatory bid rule. Section 4 reviews the existing literature on takeovers including various theories and empirical evidence. Previous New Zealand studies of takeovers are reviewed in Section 5. Section 6 then outlines the hypotheses tested by this paper. In section 7 we turn to the empirical methodologies used to test our theories. Sections 8 and 9 provide the results of the event studies and the cross-sectional regressions respectively. Section 10 analyses the results and the implications from a regulatory context and Section 11 outlines ideas for further research. Section 12 concludes.

2 CONTRIBUTION TO THE LITERATURE

Previous research on takeovers in New Zealand has concentrated on two areas. Firstly older literature examined returns generated by the takeover process and confirmed international evidence. Secondly, more recent papers have looked at factors that may have influenced the choice of the takeover regime under the rules.

This research will make a contribution to the existing literature on takeovers in New Zealand in the following ways:

2.1 The Impact of the NZSE Regulations

The main aim of this research is to examine the effect of the rules on returns to targets and bidders complementing several recent studies.¹ Takeover returns post-1996 will be compared to pre-1996 in order to determine the impact, if any, that the rules had on returns. The returns post-1996 will then be broken down according to the takeover rule that applied to the transaction. A previous study by Linklater (1998) looks at returns post-1996 versus returns pre-1996. However her research suffers from an excessively small sample, and she does not consider the impact of partial acquisitions. Linklater (1998) also does not consider each of the three stock exchange rules in isolation.

In recent years the NZSE rules have been subject to some intense criticism. The outcome of the debate has been the enactment of a new takeovers code, which came into force from July 1, 2001. However, whether or not the criticism of the NZSE rules was justified is unknown as there has been no research on the impact of the NZSE rules. This study hopes to shed some light on the relative performance of the now redundant stock exchange regulations that have governed takeovers in New Zealand to determine if there was substance behind the criticism.

This research is also important in the wider context with the recent introduction of a whole new set of rules for governing takeovers. We analyse the impact of the introduction of regulations on takeover returns (i.e. New Zealand went from a relatively unregulated takeover environment pre-1996 to a more regulated environment post-1996). Additionally, the three options within the NZSE rules allows us to compare the

effects on returns of relatively restrictive regulations versus liberal regulations in the same business environment and economic conditions.

2.2 Partial and Full Acquisitions

This study takes a broader look at takeovers than previous studies. It examines all change in control transactions (including increases) between 1 January 1990 and 30 June 2000. For the purposes of this study a change in control transaction has been defined in two ways:

1. An acquisition of stock that takes the acquirer above a total holding of 20%; and
2. The acquisition of five percent or more of shares in any given year if the acquirer already holds in excess of 20% shares outstanding.

These were known under the NZSE rules as a "restricted transaction". For the purposes of this research I define a partial acquisition as any acquisition of less than 100% that was a restricted transaction. By defining takeovers in these ways this research is able to take a broader examination of takeovers to include transactions where control of a company is passed, or strengthened.

Previous research in New Zealand has generally examined only takeovers for 100% of a company.² However when the purpose of the research is to examine the impact of regulations on returns to shareholders all change in control transactions should be considered in order to improve our understanding of the relationship between regulations and economic returns. In this study we are seeking to determine how takeover regulations affected shareholder returns, and control over the company's assets does not always change due to the purchase of 100% of the company's shares. If partial acquisitions are not considered then a vital piece of the jigsaw is missing.

Additionally, one of the criticisms of the rules leading up to the enactment of the takeovers code was that small shareholders tended to miss out on participating in changes in control. In New Zealand partial regulations historically have been governed by the same set of rules as full takeovers. Therefore any difference in returns between partial and full is due to factors other than regulations. Other countries such as Australia and Britain have rules that deal specifically with partial acquisitions. If returns from partial

¹ Tapping et al (1998) and Berkman and Navissi (2000).

acquisitions are substantially lower than from full acquisitions then separate rules governing partial takeovers become necessary.

2.3 Structural Influences and Takeover Regulations

The third contribution of this research is the examination several structural influences on returns to shareholders over the period 1 January 1990 to 30 June 2000. These are toeholds, managerial and institutional shareholdings. Whilst these factors are not new, previous New Zealand studies on takeover returns have not considered all of these influences within the same model. Several previous studies touch on one or the other³. The link between these factors and the regulatory aspect of this study are two previous studies⁴ in New Zealand which show that shareholder structure influences the choice of rule. These factors could affect returns in the takeover situation, and as such it is considered to be important that we cross-sectionally control for them.

² Firth (1997) briefly touches on partial takeovers but does not examine the differences between partial and full takeovers.

³ For instance Mandelbaum (1993b) examines toeholds only, Firth (1997) examines institutional and managerial shareholdings as part of his research.

⁴ Tapping et al (1998) and Berkman and Navissi (2000).

3 TAKEOVER LEGISLATION AND THE NEW ZEALAND ENVIRONMENT

In 2000 the Labour Government announced the implementation of a takeover code from 1 July 2001. This section seeks to give an overview of some of the current takeover rules that applied in New Zealand, and the new legislation.

3.1 Takeover Legislation

Why regulate the takeover process at all? It has been recognized that shareholders are vulnerable under a takeover situation. They may have incomplete or inadequate information as to the offer, pressure may be placed on the target shareholders to sell their shares, or shareholders may be subject to the prisoner's dilemma.⁵ On the other side, management may take measures to frustrate the takeover purely to retain their position in the company and defeat what would have otherwise been an economically rational takeover from a shareholder's point of view.⁶

Internationally the approaches to takeover regulation differ sharply. For instance, in the United States the tender offer process is highly regulated by legislation. There are few restrictions on placing a bid, but management has a wide range of defensive devices to frustrate a potential raider. In the UK on the other hand, the takeover process is not regulated by legislation. Takeovers are governed by the City Panel on Takeovers and Mergers, which is an unincorporated body. Although the panel's takeover code carries no legislative weight, it is supported by the courts. There are many restrictions on takeovers and partial takeovers are virtually prohibited. Defensive tactics are also heavily regulated.⁷

3.2 The Regulation of Takeovers in New Zealand

The takeovers debate has raged in New Zealand since the late 1980s. Arguments have surrounded the premium for control and the rights of the minority shareholder. In October 2000 the Labour Government announced that it would implement a formal

⁵ As noted by Bradley (1980). Two suspects of the same crime are placed in separate rooms. Neither knows if the other will confess to receive a lighter punishment.

⁶ Ogowewo (1996).

⁷ See De Mott (1988) and Ogowewo (1996) for further details on the similarities and differences of the two systems. A full analysis of the differences and similarities of the two systems is beyond the scope of this paper.

takeovers code to be supported by the Takeovers Act 1993.⁸ This code is intended to give minority shareholders a better deal in a takeover. Prior to the new regulation takeovers in New Zealand were principally governed by the following pieces of legislation and rules⁹:

3.2.1 The Companies Amendment Act 1963 (“the act”)

Prior to the takeovers code becoming operational, this was the only piece of legislation that directly applied to takeovers in New Zealand.¹⁰ It covered both listed and unlisted companies and applied to written offers to purchase shares where the bidder will control more than 20% of the voting rights. The legislation did not cover verbal offers or stands in the market.

The major provisions of the legislation were¹¹:

1. Prior notice to target: a takeover offer shall not be made unless the bidder has sent the target a notice in writing of the offer including terms of the bid.
2. Pause Period: the bidder must pause for at least 14 days between the date of the notice and the acceptance of shares.
3. Obligation of the target: the target company must ensure that all of its shareholders are notified of the bid.
4. Minimum acceptance period: the offer by the bidder to purchase shares must remain open for at least one month.
5. Defence can be financed by bidder: the target may recover the costs of its defence from the bidder.

The most common criticism of the act was that its provisions were very easily avoided as it does not cover stands in the market, oral offers, or offers to less than six shareholders. Watson (1996) notes that the Takeovers Panel described 39 listed companies in which control changed between February 1993 and April 1995, all of which avoided the act. Another criticism of the act relates to the provision that allows the costs of the targets'

⁸ Interested readers are referred to Fitzsimons (1996) and Watson (1996) for an excellent background to the development of takeover law in New Zealand.

⁹ Please note that the sections on regulations are descriptive in nature and are not intended to be a complete analysis.

¹⁰ Ibid Watson (1996)

defence to be recovered from the bidder.¹² This provision makes the takeover process more costly from the bidders' perspective and potentially lowers the probability of a takeover. The provision also increases the agency problem since it effectively aids the entrenchment of management. Finally, this provision also creates an incentive for target management to make the takeover as long and costly as possible as the costs will ultimately be borne by the bidder no matter what the outcome of the takeover contest.

3.2.2 Section 4 of the New Zealand Stock Exchange (“NZSE”) Listing Rules

Section 4 (hereinafter referred to as “the rules”) of the NZSE listing rules took effect from 1 January 1996 and were made obsolete on 1 July 2001 by the Takeovers Code. Companies listed on the NZSE were required to adopt one of three options available to govern the takeover process in their constitution. The underlying theme of the rules is that a company's shareholders have the choice of how corporate control is transferred. Shareholders can choose from an option that allows control to be passed easily with the controlling shareholder able to receive the full premium for control, an option that takes the middle ground, or an egalitarian option that requires the premium for control to be shared amongst all shareholders.

The rules governing takeovers were triggered either by:

1. an acquisition of greater than 20%, or
2. by a bidder who already has a stake greater than 20% and is increasing its shareholding by five percent or more in any one year.

The three options were:

(1) Notice and Pause: This was the standard provision governing a takeover. Bidders must give notice of their intention to bid and wait a set length of time before proceeding with the takeover. The bidder must give three days notice for a private bid, one-day notice for an on-market bid, and fifteen days for a bid by a company insider.

¹¹ Mandlebaum (1993c)

¹² Mandlebaum (1993c)

(2) Insider Only: This was the least restrictive of the rules and it was only applicable to takeovers made by company insiders. It is essentially a modification of the Notice and Pause regime. The only notice requirement under this rule is fifteen days in the case of a bid by company insiders.

(3) Minority Veto: This regime is the most restrictive of the rules. The name is misleading in that the minority can not veto the bid, instead this rule operates as an equal price clause. All bidders must give a fifteen-day notice period. Any partial offers must be on a pro-rata basis.

The Minority Veto regime is closest to the tender offers under the US system and to takeover rules in Australia, UK, and Canada. It should not come as a surprise that very few listed companies chose the Minority Veto option. Most stakeholders would wish to dispose of their stake at the highest premium achievable in the event of a bid. This set of rules could prevent large shareholders from receiving a larger control premium since any premium would have to be shared amongst all shareholders.

In addition, the NZSE rules made it difficult for this option to be chosen. In order to adopt the Minority Veto regime the provisions have to be approved by special resolution by two separate groups of shareholders with at least a 75% majority. The two groups are all shareholders with holdings of greater than ten percent and those with holdings of less than ten percent.

In addition to establishing regulations that lightly govern takeovers, the NZSE established a set of rules that tightly governs the means by which takeovers may be contested. These rules prevent defenses such as poison pills and poison puts.

In general, the rules are biased towards increasing the occurrence of takeovers by removing barriers to takeovers and reducing the costs of mounting a bid. Given that defensive tactics are prohibited as well, the playing field is tipped significantly in favour of the bidder. This is in contrast to the United States where there is little regulation governing bids, but targets, as stated earlier, have a wide range of methods with which to defend a bid. The United Kingdom on the other hand has laws to restrict how bids take place, but also restricts defensive activity.

Therefore it would appear that takeover legislation should take a stance on whether bids are restricted or not and whether defensive tactics can be employed or not. The two sides are mutually exclusive. Bids should not be heavily restricted and not defensive tactics, or visa versa (as is the case with the previous New Zealand rules).

3.2.3 The Takeovers Act 1993

Until 2001 this act had no legislative value in New Zealand since the takeovers code that accompanied it was deferred as a result of political pressure. The principle purpose of the act is to formulate a code to govern takeovers. The Act has five objectives, which are:

- 1) "to establish a Takeovers Panel to formulate a code for takeovers for specified companies";
- 2) "to empower the Panel to define the transactions where the Code applies and nature and content of the rules applying to those transactions";
- 3) "to empower the Minister of Justice to decide whether to advise the Governor-General to approve the Code or alternatively defer the decision";
- 4) "to provide the Code will have force of law if approved by the Governor-General";
- 5) "to provide for the administration and enforcement of any operative Code".¹³

3.3 The Takeovers Code ("the Code")

The Code was submitted by the Takeovers Panel in October 2000, and came into force on 1 July 2001. The Code applies to companies listed on the New Zealand Stock Exchange, and companies that have 50 or more shareholders and greater than \$20 million of assets.

The Code has stirred up a large amount of controversy.¹⁴ Proponents claim that it will enhance the rights of minority shareholders, strengthen the reputation of the New Zealand Stock Exchange and increase local investment in the New Zealand Stock Exchange. Proponents also blame the rather lack-lustre performance of the NZSE compared to its international counterparts on the lack of protection for minority

¹³ Ibid Watson (1996) pp 319 – 320

shareholders arising from having no takeovers legislation. This is a very strong statement to make and it would be extremely difficult, if not impossible, to prove or refute conclusively. However there has been some circumstantial evidence. A survey of institutional investors by Merrill Lynch suggested that a higher risk premium was placed on New Zealand stocks because there was no formal takeovers legislation in place.¹⁵

The key provision of the Code requires a mandatory bid be made to all shareholders when any party increases their shareholding above 20% of outstanding shares. The bid may be a full bid or a partial bid for at least 50% of the shares and the price offered must be the same for all shareholders. An equal offer must be made to all company shareholders on a pro-rata basis in the event of a partial bid. The Code also continues the prohibition on defensive activities by management of the target-company.

The Code is based on the code in force in Australia in an effort to align the takeover legislation of the two countries, and also to give minority shareholders a "better deal". The Code is also similar to that applying in the United Kingdom and various other EC countries such as Germany and Switzerland. The overriding principle of the Code is equal treatment. The principal of equal treatment is based on the premise that all shareholders own the company's assets and as such all shareholders should share in the premium for control. The Code also aims to increase the participation of shareholders in control transactions. In the letter to the Minister of Justice dated 8 June 1995 the Takeover Panel stated:

"As its principal thrust, the Code seeks to promote the contestability of corporate control through workable and effective takeover activity and, at the same time, provide an increased measure of participation and equal treatment for shareholders."¹⁶

A mandatory bid to all shareholders, whether on a pro-rata basis or a full basis, ensures that minority shareholders are able to participate in a change of control transaction. It is noted that bids below the 50% threshold are allowed if a shareholder vote approves the transaction. Additionally, an acquirer can purchase a block of shares that will take it into

¹⁴ There have been numerous articles in several newspapers citing these arguments. See for example The Dominion September 6, 2000 and The Dominion October 18, 2000.

¹⁵ Refer Guardian Trust's submission to the Takeovers Panel.

¹⁶ Letter to the Minister of Justice, 8 June 1995, page 5.

a majority position without making a formal offer to all shareholders if this transaction is approved by a majority of disinterested shareholders. This legislation allows all shareholders the ability to participate in change of control transactions.

3.4 Arguments for and against the Code

One of the main arguments against the Code is that it will increase the costs of a takeover both in terms of actual costs and the amount of the investment required since not all control transactions would have taken the acquirer to a holding at least 50%. Opponents argue that the Code will stifle takeover activity in New Zealand¹⁷, protect inefficient management from the threat of removal posed by takeovers, and result in resources being applied to less efficient uses. Opponents of the Code also argue that large shareholdings are worth more commercially, that large shareholders take greater risks, expend greater resources in researching the target, and make a proportionately larger contribution to the company. As such they should be entitled to greater returns.

There is little doubt that larger shareholdings are worth more commercially given that they frequently represent control over assets. However risk is defined as variance in returns, and thus all shareholders in a company are exposed to the same risk¹⁸. It could also be argued that the large shareholders' monitoring is also in their own best interests. This is because monitoring reduces their portfolio risk, and large shareholders are better informed as to when to make an investment or exit decision. One could also argue that small shareholders are more exposed to loss than institutional shareholders. This is because a) they could have a higher proportion of their wealth tied up in the shares, b) they lack the knowledge and sophistication of the institutional shareholders, and c) they could be inadequately diversified. It is noted that the above arguments do not fit into the economic model of rationality, however they are commonly observed in real life.

The opponents of the Code also argue that the US market does not have the mandatory bid provisions and takeovers work perfectly well without the provisions. However, as pointed out by the Takeovers Panel, the dispersion of ownership is higher in the US than in New Zealand. The NZSE in its submission to the Takeovers Panel stated that at least 75% of companies have one owner of greater than 20%, and 50% of listed companies

¹⁷ This point will be examined in greater detail in section 3.6

¹⁸ Of course unsystematic risk can be diversified away to some extent, but systematic risk cannot.

have one owner of greater than 40%. Therefore in the NZ context it is easier for control to pass without minority shareholders becoming involved. The Takeovers Panel also points out that controlling shareholders in the US have fiduciary duties to minority shareholders, and these are supported by courts. Equally important, and not seemingly recognized by the opponents of the Code, is the fact that US markets enable target management to undertake a wide range of defensive actions to frustrate the bid. Thus the US market also has legislation which could be seen to restrain takeover activity, or raise the costs of a takeover.

The center of the arguments is the premium for control. Should the premium for control be received by large investors or should it be spread amongst all shareholders in the company? This is one argument that is unlikely to be resolved in the near future as the two sides are polarized. Opponents of the Code claim that large parcels of shares are worth more, whilst proponents argue that all shareholders have claims to the assets of the company. One significant problem is that it has been observed in New Zealand that institutions with holdings that are not strategic in nature are often able to jump the queue. This was the case with the Lion Nathan / Montana takeover¹⁹ this year where institutions were able to sell at higher prices and ahead of many small shareholders. Critics are not able to justify this behaviour with the argument that larger shareholdings are worth more.

The mandatory bid provision could also have the effect of encouraging free-riding behaviour by minority shareholders to a greater extent than already exists. This is because the minority shareholders know in the event of a takeover occurring they will obtain a share of the returns. Therefore no incentive exists to undertake monitoring when these costs will be borne by larger shareholders. Previously they would probably have only participated in a takeover in the event of a full bid and even then they would not have been guaranteed receipt of the same price for their holding as the large shareholder(s)²⁰. One perceived problem with the mandatory bid rule is that if large shareholders are not able to exit at a premium it could encourage those shareholders

¹⁹ Section 11 provides some background on this controversial takeover.

²⁰ All shareholders would have definitely received the same price only if the target had the Minority Veto rule in place.

with effective control to undertake dilution²¹ to increase their own returns and thus reducing the value of the minority.

One of the key costs of the new Code will be that it will reduce the marketability of large blockholdings. Shareholders with holdings in excess of 20% will find it more difficult to sell those holdings since any purchaser will inevitably be forced to make a bid for the whole company. Even if the potential acquirer was to make a pro-rata bid for in excess of 50% it is unlikely that the existing major shareholder would be able to completely exit their investment. The last alternative is to have the transaction subjected to a vote of disinterested shareholders. It is conceivable that the transaction could go ahead in this event given shareholder apathy, or that the minority shareholders could see benefits associated with the new shareholder such as market power, economies of scale, expertise etc.

Another argument frequently advanced against the new Code is that it provides no shareholder choice. The NZSE rules give shareholders the choice of three regimes as outlined earlier. There is no choice under the Code, nor is there an opt-out provision. However to include an opt-out provision would be inconsistent with the very notion under-pinning the Code – fairness to all shareholders. Majority shareholders would be able to use their position to force an opt-out. In addition, the author is not aware of many places in the world²² where shareholders can choose their takeovers code. In general since “one size fits all” in other countries around the world with much larger companies, sharemarkets, and economies, why should New Zealand be an exception? It could be argued that New Zealand is a unique environment, however this equally applies to every country and most do not allow opt-out. In addition, one could also ask: just because I don’t like the speed limit because it is too slow, does that mean if enough other people also object should we be allowed to opt-out of that law?

²¹ In the sense of Grossman and Hart (1980).

²² It is noted that the Pennsylvania Senate Bill 1310 permits an opt-out decision. However it appears that the motivation behind the legislation was not so much as to promote fairness amongst shareholders, but to allow management to concentrate on long-term financial performance instead of short-term performance, and to protect shareholders, workers, and communities from the effects of hostile takeovers.

3.5 Arguments behind a mandatory bid regime.

Luttman (1992) notes four arguments in favour of a mandatory bid rule. These are (1) to prevent a “stampede” in the event of a partial takeover bid, (2) equal opportunity to receive the takeover premium, (3) to provide an exit option, and (4) the possibility of future dilution activities by new majority holder.

The first argument in favour of a mandatory bid proposed by Luttman (1992) is that partial bids can be highly coercive, especially when they are front-end loaded or two-tier bids, and when they are on a first come first served basis.²³ However this pressure can be removed simply by regulating the structure of partial bids, for instance prohibiting proportional partial takeovers and increasing disclosure requirements. Thus this argument does not create a necessary condition for the mandatory bid rule.

The second argument in favour of the mandatory bid rule is philosophical in nature. The argument rests on the principal that the company's assets are owned by all shareholders. Thus all shareholders should be entitled equal opportunity to participate in any premium received for those assets. The other side is the argument based on Grossman and Hart (1980), minority shareholders free-ride off the monitoring of the large shareholder, thus they incur none of the costs of monitoring but share in the gains. The equality principle is where the underlying philosophy of the regime in the US and UK depart.²⁴ Both jurisdictions have equal price provisions in place to ensure all tendering shareholders receive any increase in price. However the regime in place in the UK goes further by ensuring that all shareholders have equal opportunity to participate in the takeover premium, there is no such compulsion in the US.

The third argument in favour of the mandatory bid rule is that the new controlling shareholder may make changes to the company such as the line of business that the company operates in²⁵. The remaining minority shareholders may not necessarily agree to the structural change and wish to use their funds for another purpose. However after

²³ The coercive effects of a partial takeover bid will be further discussed in Section 4.5.5 of this paper.

²⁴ Refer to Ogowewo (1996).

²⁵ This has been a frequent occurrence in New Zealand. A recent example was the reverse takeover of New Zealand Petroleum Ltd (“NZP”) by Blue Cross Elder Care Ltd. The business of NZP was subsequently changed after the takeover from petroleum to operating retirement homes.

the takeover of the company has taken place their exit options may be severely limited due to lower share prices or reduced liquidity of the company's stock. This is especially relevant in the New Zealand market, which does not have the depth of most overseas markets, and where many stocks are only thinly traded. As a result dissenting shareholders may not be able to exit after a major change in corporate strategy. Luttman (1992) points out that an alternative solution of allowing shareholders to vote on the transaction could have the effect of blocking transactions that are economically rational. However she is referring to German corporate law which requires unanimous voting procedures. The alternative to this is to have non-interested parties vote with a majority rule decision. This argument creates strong grounds for participation of all shareholders in a change in control transaction.

The last argument proposed by Luttman (1992) in favour of the mandatory bid rule is based on the possibility that a new controlling shareholder may extract value from the company through activities such as selling assets to themselves at lower than market cost, or selling product to himself at favourable rates. Grossman and Hart term this as "dilution". The mandatory bid rule enables shareholders to exit if they think that the future value of the firm could be reduced as a result of the change in control.

3.6 Could the mandatory bid rule stifle takeover activity?

As mentioned in section 3.4, one of the arguments frequently advanced against the mandatory bid rule is that the market for corporate control provides a threat to management to perform or risk losing their position after the company is taken over. Any legislation that increases the costs of a takeover or makes it more difficult for a takeover to occur could lower the amount of takeover activity and reduce the effectiveness of the takeover as a means of corporate governance. This section provides arguments against that view.

3.6.1 Nothing New

The first counter argument is that the mandatory bid rule is nothing new. It is operational in the UK, Australia, Germany, Hong Kong and Singapore as well as other countries. This author is not aware of empirical evidence that the mandatory bid rule has reduced takeover activity in these countries. Indeed DeMott (1988) reports the observation that takeover activity had not decreased under the takeovers code operating in the UK.

3.6.2 Disciplining Inefficient Management

It is has been proven that takeovers do provide a means of disciplining poorly performing managers and reallocating resources to higher value uses. Although there is mixed evidence, Agrawal and Jaffe (1999) reach the conclusion that the inefficient management hypothesis²⁶ holds where the takeover is likely to be disciplining management. However, takeovers are frequently a last resort: shutting the gate after the horse has bolted. There have been many instances in New Zealand corporate history (and probably worldwide) of value being destroyed without companies being taken over such as Brierley Investments Limited and Fletcher Challenge. Although Fletcher Challenge is currently in the process of selling off divisions and returning funds to shareholders, this is being done voluntarily and not as the result of a hostile bid.²⁷ In addition, New Zealand is a much smaller market and has not witnessed takeover waves such as have occurred in the US.

3.6.3 Does Increased Costs Necessarily Mean Less Takeovers?

The other part of the argument against the mandatory bid rule, that it will increase costs of a takeover and reduce the number of takeovers occurring, can also be argued against. There is some empirical evidence in the matter of anti-takeover legislation and its impact on the frequency of takeovers, although it is all in the US setting. Pound (1987) provides evidence that the adoption of anti-takeover amendments adversely impacted on the frequency of takeovers. Pound (1987) examines a sample of 100 NYSE listed companies that adopted supermajority and classified board amendments between

²⁶ Agrawal and Jaffe (1999) have an excellent review of the literature on this topic in Appendix A of their paper.

²⁷ There has been a rather harsh criticism in the media that Fletcher Challenge is liquidating its assets because it is unable to provide its shareholders with an adequate rate of return.

1973 and 1979. He compares this to a control sample of firms in the same period and finds a significant difference in frequency of takeovers between the two groups.

However, in a more comprehensive study Comment and Schwert (1995) argue that antitakeover measures were not directly responsible for the decline in takeovers during the late 1980s, despite the widespread adoption of antitakeover devices.²⁸ Comment and Schwert (1995) estimate a probit model of takeover probability for a period from January 1977 to January 1991, and including 21,887 firm years. Their model yields positive coefficients for control share laws and business combination laws indicating that antitakeover laws do not deter takeovers.

²⁸ Comment and Schwert (1995) review the evidence of prior studies of takeover deterrence and find that the only consistent explanation of deterrence has been size. Other variables such as leverage, Tobin's Q etc have yielded mixed results.

4 LITERATURE REVIEW

4.1 Theories of Why Takeovers Occur

The following section covers five theories of why takeovers occur. These are: the inefficient management hypothesis, synergies between bidder and target, asymmetric information, agency problems, and the hubris hypothesis. There are many other theories of why takeovers occur. These include tax reasons (utilization of the target's tax losses), and market power theory (increase in firm size gives bigger market share). However the majority of the literature has been devoted to the theories covered here, and as such coverage of these "lesser" theories is excluded.

4.1.1 Inefficient Management Hypothesis

This hypothesis postulates that the target firm has become a candidate for a takeover due to inefficient managerial performance. This inefficient performance is reflected by negative abnormal stock returns in the period leading up to the takeover. A bidder makes the acquisition attempt in the belief that they can make gains if they take control of the company and replace the inefficient management with better managers.

4.1.2 Synergy

This theory argues that a takeover is motivated by a bidder being able to create value by the combination of two firms producing efficiencies that the two firms could not achieve alone. These efficiencies could be gained by producing complementary product lines, sharing head-office costs, economies of scale in production etc. Bradley et al (1983) note that the crucial factor of this theory is that gains to stockholders from the merger are a result of the transfer of control and the resulting reallocation of resources to value increasing operating strategies rather than the method in which the resources are deployed.

4.1.3 Asymmetric Information

The asymmetric information theory posits that gains to target shareholders are the result of the release of information into the market from the takeover bid. Bradley et al (1983) describes two variants of this theory, "sitting on a gold mine" and "kick in the pants". The

“sitting on a gold mine” theory argues that the takeover bid leads to the market realising that the target was undervalued, and the share price increases accordingly. The “kick in the pants theory” argues that the takeover bid results in target management realising that resources could be better utilised, which leads to higher value for shareholders. Both theories require that the bidder has information that the market does not and are supportive of semi-strong market efficiency.

4.1.4 Agency Problems

Jensen (1986) developed the free cash flow hypothesis of takeovers as an extension of agency theory (Jensen and Meckling (1976)). An agency conflict arises when there is separation between the ownership and control of resources. This situation exists in the firm because of the contract between shareholders and the management employed to operate the firm and make investment decisions. The agency problem exists because contracts cannot be perfectly written as all future states of the world are not foreseeable and monitoring of those contracts is not costless. Agency costs include the costs of writing, monitoring, and enforcing the contracts between management and the owners of the firm.

The free cash flow theory argues that in general, management are motivated by firm growth for increased perquisites. As such they are more likely to retain funds in the firm to invest in projects that are not necessarily motivated by increasing shareholder wealth rather than return the funds to shareholders. Distributions to shareholders reduce the amount of funds available to management, and this makes it more likely that the management of the firm will have to access capital markets for funds to invest. As a result management will become subject to increased monitoring from capital markets.

The theory states that debt is one method of correcting the problem. This is termed the “control hypothesis of debt”. Debt is associated with contractual payments that must be met or bankruptcy could be enforced, and as such it reduces the amount of discretionary cash flow available to be invested in unprofitable (negative NPV) projects. Dividends or other capital payments are more discretionary in nature and do not carry the same control effects. However, increased leverage could have a negative impact on firms that

are rapidly growing with profitable investment opportunities but without excessive free cash flow.

According to the free cash flow theory, takeovers are both a manifestation of and a solution to the free cash flow problem. The theory predicts that value destroying takeovers will be primarily undertaken by those companies operating in mature industries, producing excess cash flow, and which have few profitable (i.e. positive NPV) investment opportunities.²⁹ Shareholder value will be destroyed when those companies diversify into unrelated activities. However acquisitions within the mature industry will create value due to the elimination of excess capacity etc.

Under the free cash flow theory leveraged buyouts ("LBO's") are viewed positively due to the control hypothesis of debt. This is because the excessively high level of borrowings taken for an acquisition force the firm to restructure and divest under-performing divisions to reduce debt to a manageable level. Thus the free cash flow theory predicts that leverage-increasing hostile takeovers will take place in response to a breakdown in internal controls which have resulted in wasting cash flow on unprofitable diversification or projects with negative net present value. Targets are expected to be either companies that have weak stock price performance prior to the acquisition due to poor management, or companies that have excellent stock price performance prior to the acquisition but have not returned funds to shareholders.

4.1.5 The Hubris Hypothesis of Takeovers

This theory was proposed by Roll (1986). The hypothesis was inspired by the growing body of empirical evidence (at the time the paper was written) that generally showed that the gains from takeovers accrued to the shareholders of the target company, and the shareholders of the bidder either had small losses or did not gain significantly.

The hypothesis is based on the observation that if there are little or no gains to an acquisition, then the valuation can be considered a random variable, the mean of which is the current stock price of the target. If the bidder's valuation of the target is lower than the current market price no bid will occur. Obviously if the bidder's valuation of the target

²⁹ Examples given include the oil and tobacco industries.

is greater than a bid will be observed (i.e. bidder management expects gains). Thus, only valuations on the right hand side of the distribution will be observed.

If it is known that on average there will be no gains to a takeover, why do they occur? Roll's answer to this is the hubris hypothesis. According to this theory the management of the bidder believe that their valuation of the target is superior to the market's valuation because they have information that the market does not, and thus a takeover occurs. This belief is driven by pride or hubris.

According to Roll, because there are little or no gains to takeovers it is doubtful that bidder management does hold information that the market does not, and therefore the hubris hypothesis is consistent with strong form market efficiency where prices fully incorporate all available information. As Roll notes, the strong form of market efficiency is unlikely to exist. This makes the hubris hypothesis the null hypothesis of takeover theories. The drawback with Roll's theory is that markets are not always right in their assessment of value, and markets often exhibit signs of herd behaviour. In addition, asymmetric information frequently exists within markets.

For target firms the theory implies that share prices will increase on announcement of an unexpected bid and decline if that bid was unsuccessful and no further bids in the near future are expected. However the predictions for a bidder firm are dependent on the bid being unexpected and on it conveying no additional information about the bidder. If these conditions are true then we would expect the bidder's share price to fall on announcement of a bid, to increase if the bid failed or was withdrawn, and to decline if the takeover was successful. Overall the combination of the two firms would result in an aggregate net loss with the gains to the target partially offsetting the loss to bidder, and the costs of the takeover representing the net loss component.

4.2 Empirical Tests of the Theories

The following papers provide both direct empirical tests of the above theories, and indirect evidence. Note that many of the papers below simultaneously test for several hypotheses. To prevent repetition only the main finding is reported. The evidence tends to suggest that the primary motives for takeovers are potential synergy between bidder and target, and agency problems within the bidder. However this is not mean to say that

the hubris hypothesis is not valid. As Berkovitch and Narayanan (1993) note, agency problems, synergy, and hubris are likely to simultaneously coexist within many takeovers. We believe that hubris remains a valid explanation of takeovers as part of a bigger picture.

The problem in testing for the existence of hubris is twofold. Firstly, the assumption that no potential synergy exists between bidder and target is not likely to hold true. This is because there will always be some degree of synergy between bidder and target however small it may be. Head office costs for example can always be reduced from overlap of functions such as accounting. As a result it is going to be extremely difficult to capture pure hubris. The second potential problem lies in the fact that the very nature of the hypothesis is based on human nature. How can one empirically test this? In addition, the very nature of empirical testing is likely to result in no hubris being found. Since sample sizes are required to be reasonably large in order to draw statistically valid conclusions on average the existence of irrationality is likely to be canceled out by rationality.

Agency problems, such as investing excess cash flow into negative NPV projects rather than returning funds to shareholders by way of dividends or share buybacks and potential synergy between bidder and target, are also observable phenomena. Management decisions based on pride are not easily observable. One can make inferences about the validity of investment decisions, but learning true behavioural motivations is a considerably harder task. Thus the assertion that hubris is likely to exist is more an intuitive argument than one based on empirical data.

4.2.1 Inefficient Management Hypothesis

Agrawal and Jaffe (1999) provide a detailed summary of the literature investigating the inefficient management hypothesis. They review 12 previous papers and find that only two studies provide evidence that targets underperform prior to the takeover bid. In addition they find two papers that show positive abnormal returns prior to the takeover attempt, opposite to what is predicted by the hypothesis. Even when they break down the prior research into sub-samples of transactions where the likely motive is disciplining management (i.e. hostile takeovers, competing bids etc), there is little evidence to

support the inefficient management hypothesis. Agrawal and Jaffe (1999) also examine papers that use methods other than share price analytics. These too reveal little support for the theory.

The authors use a sample of 2,083 acquisitions between 1926 and 1996.³⁰ Agrawal and Jaffe (1999) find that for the whole sample there is no evidence to support the inefficient management hypothesis. The cumulative average abnormal return over the whole period 1926 to 1996 was just -1.93%.

As the authors point out, it is not surprising that the targets as a whole under-perform. There are many reasons for takeovers to occur, and replacing target management is just one. In a large sample the effects of inefficient management are likely to be canceled out in aggregate. Agrawal and Jaffe (1999) find marginal under-performance in the sub-samples of hostile bids and bids where management initially resist the takeover.³¹ The authors find that firms that resisted bids have a significant Cumulative Average Abnormal Return ("CAAR") of -9.19% over the period -100 months to -3 months. For un-resisted bids the CAAR is an insignificant 0.19%. Lastly, Agrawal and Jaffe (1999) find that the CAAR for multiple bids for -100 to -3 months is a significant -11.65%. The single bidder sub-sample however has an insignificant CAAR of 0.05% over the same period. Overall, Agrawal and Jaffe (1999) believe the evidence from the sub-samples supports the inefficient management hypothesis.

4.2.2 Synergistic Acquisitions

Bradley et al (1983) test the synergy hypothesis versus the asymmetric information hypothesis. The authors examine the returns to shareholders of firms that were the target of an unsuccessful bid, and firms that made an unsuccessful bid. The authors use a sample of 112 unsuccessful target firms and 94 unsuccessful bids from 91 bidders between 1963 to 1980. Bradley et al find that the share price of the target is re-valued

³⁰ Agrawal and Jaffe (1999) use an empirical method that is based on Lyons, Barber, and Tsai (1999). Their method accounts for size, book-to-market, and momentum to calculate long-run returns. Interested readers are referred to their paper for a full description of the method employed.

³¹ The authors note the difficulty of classifying a bid as hostile or friendly. Management may resist a bid as they think the price to be too low, however this does not necessarily mean the bid is hostile.

permanently only if another takeover bid occurs within 5 years. However the returns of those targets that do not experience another takeover within 5 years fall back to their pre-bid level within two years of the unsuccessful bid. These results are consistent with the synergy theory rather than the asymmetric information theory (i.e. a change in control is required to effect an increase in value as opposed to a general bid).

As mentioned previously, Bradley et al (1983) also examine the returns to firms that made unsuccessful bids. The authors find that when the target chooses to reject the bid in favour of retaining their current management the bidder tends to show no significant change in wealth. However, in the case where the bid is rejected in favour of another bid the losing bidder experiences a significant loss in value. This drop in value tends to occur around the time of the announcement of the competing bid. Bradley et al (1983) interpret this as being further evidence in favour of the synergy theory as value that could have been created from the combination of the two firms but did not occur.

A paper by the same authors, Bradley et al (1988), examines the synergies from acquisitions by matching pairs of bidders and targets in a sample of 921 successful tender offers between 1963 and 1984. They find that target shareholders obtain most of the gains, and that the average total return over the time period considered is 7.43%, which was significant at 1%. This evidence backs the synergy hypothesis and provides no support for the existence of hubris since this theory argues there will be no total gain to the takeover.

Berkovitch and Narayanan (1993) use a sample of 330 tender offers between 1963 and 1988 to test for the existence of the three theories of synergy, agency, and hubris. The authors test the relationship between total gains from takeovers and the returns to the target, and the correlation between the gains to the target and the gains to the acquirer. Berkovitch and Narayanan (1993) hypothesize that if the returns to the target are positively correlated to both total gains and bidder returns then takeovers would primarily be motivated by synergies.

However, if the returns between the target and bidder, and between total gains and target gains are negatively correlated then agency problems are apparent. This is because bidder management are more interested in protecting their position than

increasing the wealth of shareholders. The more negative the correlation, the more severe the agency problems. Finally, negative correlation between target and acquirer returns, and zero correlation with total gains would suggest evidence of hubris. This is because the hubris hypothesis assumes that there is no synergy in takeovers, and that takeovers only occur when acquirer management over-value the target. As a result the returns to the target are offset by the losses to the bidder.

The authors find that the correlation between target and total gains is positive and significant for the whole sample, providing evidence in support of the synergy hypothesis. For the sub-sample of positive total gains Berkovitch and Narayanan (1993) find a correlation between target gains and total gains that is both positive and significant, again providing evidence in favour of synergy. However this correlation is reversed for the sub-sample of negative total gains, which suggests these takeovers were primarily motivated by agency problems.

The regressions of target returns against bidder returns show negative correlations for the whole sample and both sub-samples. This supports the hubris hypothesis. However the correlation is only significant for the negative returns sub-sample, which does not provide much evidence to support hubris since both the agency and hubris hypotheses make the same predictions about the correlation between bidder and target returns. Given that target returns and bidder returns are not positively correlated in the sub-sample of positive total gains, which would back the synergy hypothesis, the authors conclude that there is weak evidence of hubris in the sample.

4.2.3 Agency Tests

Mitchell and Lehn (1990) investigate whether a company that has a history of making unprofitable acquisitions later becomes a takeover target itself in order to examine whether the agency conflict is apparent. They examine a sample of 401 acquisitions between 1982 and 1986. Mitchell and Lehn (1990) find that the negative stock price reaction of the bidder to an announcement of an acquisition tends to eventually result in that bidder itself being a target. This result supports the agency cost hypothesis.

Berger and Ofek (1996) show that the loss in value from diversifying into unrelated businesses is "significantly related to the probability of subsequent takeover, with greater value losses associated with higher takeover probabilities."³² Denis et al (1997) find a strong negative relationship between diversification by the firm and the level of ownership by management, and a strong positive relationship between decreases in diversification, takeover attempts, financial distress, and management turnover. Evidence from Berger and Ofek (1996) and Denis et al (1997) supports the agency cost hypothesis for diversification.

Opler and Titman (1993) examine a sample of leveraged buyouts ("LBOs") in order to determine whether the LBO phenomenon of the 1980s was driven by the free cash flow hypothesis or financial distress costs. The authors find that both theories are drivers of LBO activity, however the FCF theory appears to be the dominant factor since a high proportion of LBO firms used a level of debt greater than the taxation benefits that it would provide. Thus the role of debt is likely to be associated with correcting the problem of excess cash flow, supporting Jensen (1986).

Harford (1999) tests Jensen (1986)'s free cash flow theory that firms with large holdings of cash are most likely to engage in value decreasing acquisitions. The alternative hypothesis is that the replacement of those funds via the capital markets is too costly (i.e. Myers and Majluf (1984)). He examines a sample of 47 merger and acquisition bids between 1977 and 1993 to determine if firms with large cash holdings make poor investment decisions rather than returning cash to shareholders.

Harford (1999) finds that cash rich firms are more likely to become bidders. He also finds that the share price reaction to an announcement of a bid by a cash rich bidder is negative, and that this reaction is positively related to the level of cash held by the bidder. Furthermore, Harford (1999) finds some evidence that management shareholdings are lower in firms with higher cash holdings, suggesting that these firms face potentially higher agency problems. Together these results provide support for the free cash flow hypothesis.

³² Berger and Olek (1996) pg 1198

Safieddine and Titman (1999) examine the relationship between leverage and unsuccessful takeovers. They find that higher leverage deters takeover attempts because the increase in borrowings is associated with improvements in firm performance. Safieddine and Titman (1999) also find that targets of unsuccessful takeovers that have increased their leverage the most make performance-improving adjustments such as selling off under-performing divisions. Lastly the authors find the subsequent share price performance of firms that increased their leverage to a level which required asset sales to be better than those firms that had not increased their leverage as much. Thus the shareholders of these firms would have been better served by the takeover proceeding.

4.2.4 Hubris Hypothesis

Schwert (1996) uses a sample of 1,814 takeovers between 1975 and 1991 to examine two competing hypotheses regarding the pre-bid run up and post-bid mark up in share prices. The first hypothesis is termed the substitution hypothesis, each dollar of the pre-bid run up in share price is perfectly offset by a reduction in post-bid mark up. The opposing hypothesis, the mark-up pricing hypothesis, states that there is no off-setting effect between run-up and mark-up. This hypothesis has two possible implications. The theory supports both rational behaviour between bidder and target due to incomplete information about the price run-up, and it also supports the hubris hypothesis, as it implies that the bidder is over-paying for the target. Schwert (1996) finds evidence that provides support for the mark-up theory, however he finds no relation between the run-up in target share price and bidder share-price, providing no support for the hubris hypothesis.

4.3 The Free-rider Problem

The concept of the free-rider problem was introduced by Grossman and Hart (1980). Their model is based upon the separation of ownership and control. As Grossman and Hart (1980) state “a fundamental problem with this delegation is that no individual has a large enough incentive to devote resources to ensuring that the representatives are acting in the interest of the represented.”³³

³³ Grossman and Hart (1980) pg 42

In other words, the social good of monitoring the agents exceeds the individual's gain from doing so. Accordingly each individual will wish to free-ride on the monitoring of the agents. Similarly, in a company situation where there are many atomistic shareholders who view the success of the tender offer as being independent of their individual decision to tender, no individual shareholder will wish to expend resources to monitor management. This is because monitoring is a public good that other shareholders will wish to free-ride upon. Grossman and Hart show in their model that, left uncorrected, the free-rider problem will result in no takeovers occurring since the bidder faces a problem analogous to that of the shareholders' monitoring management.

The model makes the following assumptions. Firstly, shareholders in the target are atomistic (small and diffusely held), and as such all shareholders believe that they are not pivotal to the success of the bid. Secondly, no asymmetric information exists between target shareholders and the bidder regarding the wealth effects of the takeover. Thirdly, a takeover is deemed to be successful once 50% of the shares have been purchased.

For any given takeover offer p , target shareholders will not tender their shares to the bidder if $p < v$ (the value of the improvements to be brought about by change in control) and no takeover will occur. This result takes place since all shareholders believe their decision not to tender is not crucial to the success of the takeover bid, and they can do better by retaining their shares and free-riding on the value improvements. For shareholders to tender their shares the condition $p > v$ must occur, but since this will result in a loss to the bidder no offer will occur.

Takeover bids will only occur if the free-rider problem is overcome, thus there must be some difference in valuation between the target shareholders and the bidder. This is achieved in the model by allowing the bidder to dilute the value of the remaining shares after the successful bid. Dilution can occur by means such as the bidder selling assets from the target to itself at prices below their true worth, the sale of output from the target to the bidder at lower than market prices or other means of reducing the profitability of the target. This effectively breaks down the free-rider problem since remaining shareholders in the target are excluded from value improvements brought about by the

raider. For any given dilution factor, denoted as ϕ , a takeover bid will now succeed if $p \geq v - \phi$.

Grossman and Hart (1980) show that target shareholders' preferences for ϕ are opposite to societal preferences. Target shareholders will tend to prefer lower levels of dilution. A smaller ϕ will result in a higher premium paid by the bidder, but will lead to reduced numbers of bids occurring. On the other hand society prefers a higher ϕ since this increases the number of bids and makes target management more efficient which increases v . However p will be lower. Target shareholders will then have to rely on competing bidders to drive the tender price up to $v-c$ (where c is the cost of the bid) and $c > \phi$ holds true. In this case the societal benefits will be equal to the private benefits.

4.4 Returns to Shareholders

There have been many studies over time about the returns to shareholders of target firms. These studies show that returns to targets are positive and significant. However, studies of returns to shareholders in bidding companies have not provided clear results. Most studies tend to show insignificant positive returns or low negative returns. This section reports the results of several papers that tested the returns to targets and bidders.

4.4.1 Returns to Targets

Bradley, Desai, and Kim (1983) examine a sample of 112 unsuccessful takeover bids between 1963 and 1980 using monthly returns. The Cumulative Abnormal Return ("CAR") in the event month was found to be 37.38% for the whole sample. The sample was divided into targets that were subsequently taken over and those that were not subsequently taken over. The CAR in the event month for the targets that were subsequently taken over was found to be 40.86%, and 25.87% for those firms that did not later receive a successful takeover bid.

Huang and Walkling (1987) used a sample of 204 mergers and acquisitions over the period April 1977 to September 1982 to examine the returns to shareholders in target firms. The purpose of their study was to examine the relationships between payment method, type of acquisition, and managerial resistance. The authors found a significant

positive daily abnormal return on announcement of 9.3% and a CAR over the 50-day measurement period of 32.7%. Of this CAR, 14.3% was earned on the day prior to the announcement. The authors also found that 91% of the firms in the sample earned a positive abnormal return from the announcement of an acquisition.

Bradley et al (1988) examined the returns from 236 successful tender offers between 1963 and 1984. The five-day CAR for target firms was found to be 31.77% across the full sample. The returns of three sub-periods, 1963 – 1968, 1968 – 1980, and 1981 – 1984 were also examined. The returns to target firms were found to be highest in the 1981 – 1984 period at 35.34% compared to 18.92% for 1963 – 1968 and 35.29% for 1968 - 1980. Announcement returns to targets where there were competing bidders were found to be similar to returns where there were no competing bidders. However there was a substantial difference in returns over time between single bidder transactions and multiple bidder contests. By day +50 the CAR for single bidder takeovers was 25.80% compared to 45.47% for multiple bidder contests.

Stulz, Walkling and Song (1990) in an examination of the impact that the distribution of target ownership has on returns replicated the methodology used by Bradley et al (1988). The sample was 104 successful takeovers between 1968 to 1986. They found an eleven-day CAR of 39.34% for the whole sample. Stulz et al (1990) also confirm the results found by Bradley et al (1988) with respect to multiple bidder takeovers. The authors found an eleven-day CAR of 35.4% for single bidder takeovers and 45.58% for multiple bidder contests.

Schwert (1996) investigates the relationship between bid premiums and pre-announcement stock price increases. He uses a sample of 1,814 successful and unsuccessful takeovers between 1975 and 1991 for NYSE and AMEX listed targets. Schwert finds that the CAR tend to start to increase around day -42, and the largest rises in CAR occur between days -21 to -1. The CAR at announcement for successful takeovers was approximately 25% whilst for unsuccessful takeovers the announcement CAR was about 19%. This suggests that on average the market predicts which offers will succeed and which will fail. After the announcement Schwert finds that the CAR for successful bids rises to approximately 37%. However the CAR for unsuccessful bids drops to negative returns by day +252, confirming evidence from Bradley et al (1983).

4.4.2 Returns to Bidders

Bradley et al (1983) examine a sample of 94 unsuccessful bids between 1963 and 1980 using monthly data. The authors find a CAR at event day of 2.36% for the whole sample, 3.27% for the no change in control sub-sample, and 2.00% for the change in control sub-sample.³⁴ The CAR from -20 to +180 for the no change in control sub-sample was 1.20% as opposed to -8.18% for the change in control sub-sample. According to Bradley et al, the market perceives that the losing bidder lost an opportunity to make a value increasing investment and revises downward its share price.

Bradley et al (1988) find that the returns to successful bidders in their sample of successful takeovers between 1963 and 1984 was 0.97% and significant at the 1% level. Only 47% of bidders in the sample had positive returns compared to targets where 95% had positive returns. In addition, returns were found to decrease over time. For the 1963 – 1968 sub-period returns were an average of 4.09%, versus 1.30% and -2.93% for the 1968 – 1980 and 1981 – 1984 sub-periods respectively. The returns for the 1963 – 1968 and 1981 – 1984 subperiods were found to be significant at 1%. The 1968 – 1980 subperiod was not found to be significant.

Mitchell & Lehn (1990) examine a sample of 401 acquisitions between 1982 and 1986. They find an abnormal return for the entire sample of -0.21%, significant at 5%. The average abnormal return was found to be 0.70% and insignificant for the period -5 to +40. The sample was also split according to whether or not the bidder itself later became the subject of a bid by June 1988.

The announcement return for a bidder that later became the subject of a bid (friendly or hostile) was -0.78%, significant at 1%. This return declined to -3.46%, significant at 1%, over the period -5 to +40. In contrast, bidders that did not become the subject of a takeover bid had an insignificant announcement day return of 0.09%, and a return of 3.32% for the period -5 - +40, which was significant at 1%.

Loughran and Vijh (1997) examine wealth gains to shareholders of bidders over the long term by aggregating pre and post acquisition returns. Five-year returns to acquirers are

³⁴ Note that the change in control sub-sample refers to the returns of bidders who were defeated in their takeover attempt by an opposing bidder.

calculated for a sample of 947 firms delisted from the NYSE between 1970 and 1989. Abnormal returns are calculated as the difference between the 5-year holding period returns for the sample and a matching control sample chosen according to size and book to market variables. The 5-year returns for the whole sample were 88.2% compared to 94.7% for the matching sample. However this result was sensitive to both the method of acquisition and mode of payment. The authors found that tender offers tended to be wealth creating (i.e. the returns were higher than the matched sample) and were higher than for mergers, which were wealth destroying (i.e. the returns were lower than the matched control sample).

4.4.3 Division of Gains

Bradley et al (1988) show that the total return to shareholders (bidders and targets) in their sample was 7.43%, significant at 1%. Moreover, the total returns were reasonably constant over the three subperiods³⁵. The authors show that this return is primarily received by shareholders of the target. Furthermore, the returns to target shareholders are shown to increase in the event of a multiple bidder contest. The returns to bidder shareholders however were found to be insignificantly lower in a multiple bidder contest than in a single bidder contest.

Finally, the authors use two dummy variables to account for changes in the regulatory environment. Neither of these variables were found to be significantly different from zero. This led them to conclude that increased regulation and advances in investment banking have been a “zero sum game”³⁶ – that is, increased gains to shareholders in target firms have come at the cost of returns to shareholders in bidder firms.

4.5 Shareholding Structure and Takeover Returns: The Role of Managerial Ownership, Institutional Shareholders, and Toeholds.

As will be examined in section 5, Tapping et al (1998) and Berkman and Navissi (2000) relate the choice of the takeovers regime to the ownership structure of the company. Tapping et al (1998) refer to the role of ownership structure in the choice of the takeovers rule as their “Fait Accompli” hypothesis, whilst Berkman and Navissi

³⁵ Refer to sections 4.4.1 and 4.4.2.

³⁶ Bradley, Desai, and Kim (1988), page 30.

empirically test the influence of shareholding structure by regressing ownership variables against the choice of a takeovers regime. Both studies found that ownership variables were a key influence in which regime was selected.

If ownership plays a key role in the choice of which takeover regime is selected, then it may also affect returns to shareholders. Ownership structure of the firm is also an important factor in takeovers as it plays a key role in the success or failure of the bid. This section reviews the literature on managerial ownership, institutional shareholding, and toeholds.

4.5.1 Managerial Shareholdings

If managers hold a sizable proportion of the target's shares it is going to be more difficult for an acquirer to gain control, and a higher premium could have to be paid. However this result does not necessarily occur if the

shareholding is not high enough to block a takeover. Although if the transaction is a negotiated one between bidder and target then some relation between premium and managerial shareholding could still occur. The counter argument to the above is that takeovers are priced at a premium to the historical trading of the target's shares. This premium could provide a large enough incentive for the management of the target to sell out. Mikkelsen and Partch (1989) find that the control of shares by management was inversely related to the incidence of takeovers. However, a higher proportion of shares controlled by management was positively related to the probability of a successful bid.

Equally important is the potential loss of benefits for management if the takeover is successful. Thus management's decision to support the bid is also partially dependent on the tradeoff between the gains from the takeover premium and the losses due to relinquishing control.³⁷ Cotter and Zenner (1994) find that target management are less likely to resist an offer where they receive a greater wealth gain. The authors also find that the probability of success is positively linked to the size of managerial shareholdings. These findings tend to suggest that abnormal returns should be positively

³⁷ Control in this sense refers to managerial discretion over perquisites, remuneration, and investments. The tradeoff between managerial wealth and entrenchment has been suggested by Agrawal and Mandelker (1990) and Cotter and Zenner (1994) as well as others.

related to managerial shareholdings since the wealth effects would be higher for larger shareholdings.

However most evidence tends to show only limited evidence of a positive relationship between abnormal returns and managerial ownership. Stulz et al (1990) find a positive relationship between managerial ownership and returns. However this finding is strongest for the sample of multiple bidders, and insignificant for single bidder contests. The authors also find a positive relationship between the number of bidders and the size of managerial shareholding. The effect of managerial ownership is strongest in cases where management opposed the bid.

Bugeja and Walter (1995) find an insignificant negative relationship between abnormal returns and managerial ownership. However they also report a positive significant relationship for the sub-sample of multiple bidders. Firth (1997) finds no significant positive relationship between target returns and managerial shareholdings. Finally, Raad et al (1999) also find that managerial ownership in the target firm has no relationship to returns. The above evidence suggests that the impact of larger managerial shareholdings is to increase the probability of success, and takeover premiums are sufficient to induce management to sell. This view is also supported by Agrawal and Mandelker (1990). They find no relationship between anti-takeover amendments and managerial ownership.

In terms of the influence of managerial ownership of bidders one would expect a positive relationship between returns and managerial ownership. Jensen (1986)'s Free Cash Flow hypothesis³⁸ implies that firms with higher managerial ownership are more likely to have their interests aligned with general shareholders, thus the propensity to invest in negative NPV projects is reduced.

³⁸ See sections 4.1.4 and 4.2.3.

The evidence tends to show that, as with targets, there is also a limited effect on returns. Firth (1997) finds that higher managerial ownership of bidders is associated with lower losses from the bid in the New Zealand environment, whilst Raad et al (1999) find no significant effect.³⁹

4.5.2 Institutional Shareholders

There are two competing hypotheses about the role of institutional shareholders and the takeover process proposed by the literature.⁴⁰ The first hypothesis is the efficiency-enhancing hypothesis or active monitoring hypothesis. This hypothesis states that due to the large size of their investments institutional investors have greater incentives to carefully select the firms they invest in. Once the investment decision has been made the institutions take an active monitoring role in companies. This is because the amounts of money at stake give the incentive to monitor, and also because institutional investors have the resources and economies of scale to enable efficient monitoring. The implication of this is that managers of the firm are less likely to be entrenched and are more likely to make decisions consistent with maximising shareholder wealth. This is the basic proposition of Shleifer and Vishny (1986) which will be discussed further in Section 4.5.3.

The opposing hypothesis is known as the passive monitoring hypothesis or efficiency abatement hypothesis. Under this hypothesis institutional shareholders take a passive role in the monitoring of management. This is due to regulatory constraints, short term investment horizons by the institution (i.e. it is trying to outperform a local index in order to provide higher returns to its own investors), or because the institution has business dealings with the company. The implication of this hypothesis is that management are more likely to be entrenched and takeovers are less likely.

Agrawal and Mandelker (1990) examine the two hypotheses with respect to the selection of anti-takeover charter amendments. They find that the market reaction to the announcement of an anti-takeover charter amendment is more favourable if there is a higher institutional shareholding in the company, consistent with the active monitoring

³⁹ Raad et al (1999) report in their literature review that Amihud et al (1990) find bidders returns are positively related to managerial shareholdings.

hypothesis. This finding holds when the authors control for the type of anti-takeover amendment implemented by the firm. The authors find that companies are less likely to implement takeover defenses that are more damaging to shareholder wealth when there is a proportionally higher shareholding by institutions.

Duggal and Millar (1994) extend Agrawal and Mandelker (1990) to the takeover setting. The authors find that institutional shareholdings have no impact on the outcome of a takeover bid. The authors then break down the type of institutional investor into three categories, pressure-indeterminate investors, pressure-sensitive investors, and pressure-resistant investors. These types of investors vary to the degree to which they monitor management. Pressure-sensitive investors are likely to collude with management due a business relationship, or the possibility of forming one. Pressure-resistant investors are investors such as mutual funds and are more likely to monitor management. Pressure-indeterminate investors are investors whose incentives to monitor management are uncertain. The three categories are mutually exclusive.

Duggal and Millar (1994) find a positive relationship between ownership and the probability of a successful takeover for the pressure-resistant and pressure-sensitive institutional investors. However, the authors find that pressure-indeterminate investors have a negative relationship with takeover success. Duggal and Millar (1994) find that target firms are more likely to adopt anti-takeover defenses that reduce shareholder wealth when there is a higher ownership by pressure-indeterminate investors. Thus institutional investors do not play a homogenous part in the takeover process.

Stulz et al (1990) find a negative relationship between institutional ownership and target returns for successful bids between 1968 and 1986. The authors attribute this to tax effects, assuming no collusion between investors. This is because institutional investors with lower marginal tax rates are more likely to tender their holding for a given premium. Raad et al (1999) find results that contrast with Stulz et al (1990). Raad et al (1999) find a significant positive relationship between institutional ownership and returns to targets. Targets with institutional ownership higher than the median gain significantly more than those targets with institutional ownership lower than the median. The authors find no effect on returns to bidders from higher institutional ownership.

⁴⁰ See for example Agrawal and Mandelkar (1990), Duggal and Millar (1994), (1999).

Finally, Duggal and Millar (1999) find a positive relationship between the bidder's returns and institutional ownership. However when the test is conducted by way of a two stage least squares regression⁴¹ they find contradictory results. Duggal and Millar (1999) find that their results are driven by factors such as bidder size, insider ownership, and the firm's presence in the S&P 500. These results tend to suggest that the passive monitoring hypothesis holds for bidders.

4.5.3 Theoretical Models of Toeholds and Large Shareholders

Toeholds are a frequently employed strategy in mergers and acquisitions. The toehold can impact on the returns to shareholders for bidders and targets as well as increasing the probability of a successful bid. This is because the bidder holding a toehold in the target requires fewer acceptances to achieve control, increasing the chances of a successful bid. Fewer shares are required to obtain control also means a lower premium can be paid by the bidder because their chances of succeeding are higher. A toehold can also deter a rival bidder from making a play for the target since the first bidder has a higher probability of winning the game.

Shleifer and Vishny (1986) present a model where large shareholders present a partial solution to the free-rider problem. Large shareholders have incentives to undertake monitoring activities as the returns on their shareholdings justify the costs involved.

Under the Shleifer and Vishny (1986) framework the firm is owned by one large shareholder (L), which does not participate in managing the company. L holds a proportion (α) of shares in the target, where α is fixed and less than 0.5. L is assumed to have access to information regarding the post-takeover value of the target that target shareholders do not.⁴² Takeover bids either succeed or fail with certainty. A takeover bid will succeed if and only if the premium (π) above the expected value of the firm under current management (q) is greater than their expectation of the post-takeover value of the firm (Z). Note that this premium does not equate to the actual bid premium (i.e. difference between bid value and the actual share price prior to the bid) as the pre-bid

⁴¹ The parameters are estimated first and then the gains regressed against them.

price will exceed the expected value of profits under current management due to a run-up in stock price.

According to Shleifer and Vishny (1986) L will tender for $0.5-\alpha$ shares only so as to gain control. Bids for shares in excess of this will not occur in equilibrium, as 50% control will allow L to effect value enhancing changes to the firm. Bids for excess of 50% signal that L is trying to profit at the expense of the small shareholder and will result in an increase in π . If control is not obtained L returns the shares to the shareholders who tendered.

L will bid the lowest value of π that will induce the target shareholders to tender. This value is decreasing in α because the higher the proportion of shares held by L the more credible a low bid becomes as it represents a lower post-takeover rise in profits. Equally, the higher the α , the more likely a bid becomes since the bidder can gain $0.5Z$ by bidding for fewer shares and at a lower price. Finally, as α rises L has increased motivation to search for ways to improve the target to extract Z. Together these lemmas form the basis of the proposition that as the proportion of shares held by the bidder increases the takeover premium decreases, but the market value of the firm increases.

Hirshleifer and Titman (1990) develop a model that extends the analysis of Shleifer and Vishny (1986). The basic assumptions of the model remain the same (i.e. shareholders will turn down bids that are less than the expected value of the target after the takeover). The major departure from Shleifer and Vishny (1986) is that Hirshleifer and Titman (1990) allow some bids to fail. This result occurs because of asymmetric information between the target shareholders and the bidder regarding the post-takeover value of the firm. Bids that are lower than the target shareholders' expectations of the post-takeover value will fail, and bids that are higher will succeed.

Bidders that are able to extract larger gains from the target will make higher offers than bidders who are not able to extract the same level of returns. This is because the cost of failure is greater to a high-return bidder than to a low-return bidder. The probability of success is related to the takeover premium and the number of shares required to achieve control. Under this model a bid is more likely to succeed with a higher initial holding (toehold) and/or a higher premium, and the probability of success is inversely related to the number of shares required to obtain control. The model also predicts that

the bid premium decreases with increasing toehold, and increases with the number of shares required to obtain control.

Butz (1994) modifies the framework of Shleifer and Vishny (1986) to show how large minority shareholders can exert control over a poorly performing company. This effect is achieved by the threat of takeover and/or replacing existing management. This threat is derived by increasing L's stake in the target. Increasing the L's stake in the target makes the threat more credible, and results in management making the value improvements suggested by L. This model however does not present a solution to the free-rider problem since L bears the costs of monitoring whilst small shareholders reap benefits from this.

Burkart (1995) examines toeholds in the context of a takeover contest between two competing bidders. Tender offers are the only mode of acquisition in Burkart's model, no negotiations between bidder and target are considered, and target shareholders are assumed to be price-takers (i.e. no free-riding is allowed). The bidders' valuations are independently distributed along a continuous and strictly increasing distribution function. This assumption equates to allowing the bidders' valuations to depend on their own assessment of gains from the acquisition. As Burkart (1995) points out, this assumption differentiates his model from others that apply a common value assumption. However, targets are likely to have both a common value element as well as a bidder specific element in their valuation since bidders will be able to extract varying levels of synergies. Neither of the bidders are aware of the others' valuation, however the valuation under incumbent management is public knowledge, as is the size of the bidders' toeholds.

The other main departure of Burkart (1995) from previous models is a price-taking assumption. This assumption equates to solving the free-rider problem as shareholders choose to accept the highest offer. The main implication of the model is that overbidding will occur if one bidder has a toehold. Consider the case of two bidders, A and B. Bidder A has a toehold and valuation of the target V_a . Bidder B does not have a toehold, and has a valuation of the target V_b . Should bidder B lose the game by bidding beneath his valuation $P_b < P_a < V_b$, then his loss is merely the difference between his bid price P_b and his valuation, ie $V_b - P_b$.

However if A loses the auction by bidding beneath his valuation ie $P_a < P_b < V_a$, then he forgoes not only the loss of profits from winning, but he also loses the opportunity to profit on his shareholding. Thus bidders with a toehold have motivation to bid higher than their valuation so as to increase profits should they lose the game.

Burkart (1995) has several key predictions. Firstly, the premium will be higher in a takeover contest where at least one bidder holds a toehold. This prediction is purely a result of the proposition that over-bidding occurs when one bidder has a toehold. Secondly, subject to winning, the return to the bidder decreases with an increasing toehold. This is a result of the nature of the auction process modelled where the bidder with a toehold will increase the size of the bid with increasing toehold size in order to raise the price they will receive should they lose the takeover contest. That is to say, a larger toehold exaggerates the incentive to over-bid.

This leads to the third prediction. In a multiple bidder contest where one bidder has a toehold and the other does not, the bidder with a toehold is more likely to realize a net loss than the bidder without a toehold. This is due to the increased incentives to bid above valuation. The fourth prediction is that the size of the initial bid required to preempt competition decreases with increasing toehold size. This is merely an implication of the well-known result that the probability of success is greater with a toehold than without. Thus to preempt competition, a higher price must be offered where the bidder has no toehold. In the case of no toehold the higher price causes potential bidder B to reevaluate the potential gains from having to bid higher, and becomes less likely to enter the game.

The model also predicts that the probability of a counter-bid from target management increases with the size of their shareholding. This result is derived from logic similar to previous propositions. Where management are substantial shareholders and derive private benefits from control they have incentives to over-bid. The higher their shareholding and the higher their private benefits of control the more likely management will over-bid to retain control.

Finally, Burkart (1995) shows that the presence of a large shareholder will result in a trade-off between the probability of a bid and the size of the takeover premium. A large

shareholder has incentives to counterbid so as to raise the takeover premium, however the large shareholder is also likely to deter some takeovers. Burkart (1995) also notes that large shareholders are one solution to the free-rider problem of excessive gains by a single bidder (as opposed to the free-rider problem of atomistic shareholders). This is because the acquirer had to offer a higher price to induce L to tender. In the case of a widely held firm with no L, the acquirer could bid a price marginally above the post-takeover minority value of the company.

Ravid and Spiegel (1999) present a model of competitive bidding under conditions of a toehold, which is loosely based on the institutional features of the American market. The market is assumed to be partially revealing and thus the price of the target stock increases when new information such as a bidder's valuation is revealed. When bidder A starts the tender offer process by filing documentation the market learns of bidder A's valuation (V_A). As a result of learning of V_A another firm, bidder B, updates its valuation V_B , and if V_B is large enough B makes a bid.

The model assumes that both bidders are unable to obtain financing in excess of their valuations, and as such are not able to bid in excess of their valuation of the target. This prevents over bidding from occurring, and contrasts with Burkart (1995). However, the model allows a bidder to win the game but be unable to obtain financing. In this case target shareholders are able to tender to the second bidder. This is also not permitted under Burkart's model since bidders are not able to submit bids conditional on financing in the UK, and in the US a winning bidder that is not able to complete the transaction would be likely to face litigation. Lastly the model incorporates the setting of two-tier bids and fair price provisions.

There are two major predictions of the model. Firstly, the model predicts that toeholds are only important in a competitive bidding situation. Ravid and Spiegel (1999) argue that the toehold only serves to increase the price of the bid if a competing bid does not arise. This is because the process of building the toehold causes the stock price of the target to increase. Thus toeholds should only be purchased when a rival bidder is expected.

Secondly, the model expects that larger toeholds will not strictly deter rival bids. A toehold reduces the number of share required to win the bid, however the rival bidder still has an incentive to enter the game. The rival will profit by forcing up the bid price and losing the game. The implication of this result is that a smaller toehold should be purchased.

As with Ravid and Spiegel (1999) (but opposed to Burkart (1995)) Bulow et al (1999) develops a common value model of takeovers with toeholds. Bulow et al's (1999) model consists of two bidders, one of whom owns a toehold in the target of less than 50%, which is known publicly. In contrast with Ravid and Spiegel each bidder has a private valuation. The auction model used is the standard English variety, which is continuous and ascending. Burkart (1995) however uses the Japanese auction in his model, which allows jumps in prices as are seen commonly in takeovers. Bulow et al (1999) assumes that the bidder with the highest valuation has the highest marginal gains from the takeover, which are decreasing in premium size.

Their model implies that bidders who own a toehold have incentives to bid aggressively for the target since each bid represents both a bid for the target and an ask for its own holding. This increases the winner's curse for a competing bidder that does not own a toehold. Thus the non-toehold bidder will bid more conservatively. As a result, the authors predict that the toehold bidder will bid even more aggressively as a vicious circle develops. Thus, their model implies that a bidder with a toehold is more likely to win a takeover contest against a bidder with no toehold.

Their model also implies that a toehold significantly less than 50% may be sufficient to guarantee control since it deters competing bids. Bulow et al (1999) also predict that in the case where there are two competing bidders with toeholds, the bidder with the largest toehold will win the contest as a result of the previously mentioned cycle. However, importantly, returns to target shareholders will not be maximised as a result since the more aggressive bidding of the bidder with the higher stake causes the bidder with the lower toehold to be more conservative. In this model target shareholder wealth is maximised where bidders' toeholds are equal since this leads to a more competitive auction.

4.5.4 Empirical Evidence on Toeholds

Mikkelsen & Ruback (1985) use a sample of 13D filings between 1978 and 1980 for companies listed on the NYSE and the AMEX exchanges to examine the effects on share returns after a toehold is taken. The authors initially report an average toehold of 37% when the initial 13D filing is associated with a takeover proposal, and 21% when the bidder announces that they are considering a takeover when filing a 13D statement. The authors report however that the relative frequency of toeholds was low. Out of the total sample of 473 13D filings only 41 announcements were associated with purchasers considering a takeover, and 20 of these resulted in a completed takeover after a toehold was taken. 136 filings were associated with a takeover transaction.

The authors find that target share price reactions to toeholds are greater when the purchase is associated with an outstanding takeover proposal or the acquirer is considering a takeover than when the purchase of the target company's shares is associated with other events such as targeted repurchases or negotiated transactions. For acquiring firms, the authors find no significant difference in returns between takeovers with or without toeholds. This suggests that a toehold purchase is not necessarily an optimal strategy to improve returns for the shareholders of an acquiring company.

Bradley et al (1988) use a sample of 236 successful tender offers between 1963 and 1984. In their sample 81 (34%) bids had a toehold prior to the takeover offer. The average size of the toehold was 9.8%, with the largest toehold being 78.0%. Whilst returns to targets were found to be higher and returns to bidders were found to be lower in the multiple bidder sub-sample no direct evidence was provided as to the effect toeholds had on the success of the bid and the level of premium. Jennings and Mazzeo (1993) find that only 101 bidders in 647 transactions held a toehold prior to the takeover, and that the mean toehold size was 3%. Both of these studies provide indirect evidence for Ravid and Spiegel (1999) finding that only small toeholds should be purchased.

Stulz et al (1990) provide evidence as to the shareholding structure and its influence on the level of returns to targets. The authors use a sample of 104 successful takeovers between 1968 and 1986. The authors find the ownership levels of bidders to be significantly different between the single bidder and multiple bidder sub-sample, single

bidders having a significantly higher toehold than multiple bidders. This tends to support the notion that toeholds tend to discourage rival bidders, and is consistent with Burkart (1995). However this is not necessarily inconsistent with Ravid and Spiegel (1999) as their model only shows that a toehold is not a strict deterrent to an opposing bid. Stulz et al (1990) did not perform any tests to determine if the existence of a toehold lowered returns to bidders. In terms of returns to target shareholders, Stulz et al (1990) find that a bidder's toehold negatively impacts on returns for multiple and single bidder takeovers although the only significant impact was on the whole sample.

Choi (1991) uses a sample of 322 toehold purchases between 1982 and 1985 to test the effects of toeholds. The primary point of Choi (1991) is to test the hypothesis that "the market perceives toehold acquisitions as harbingers of subsequent, value-enhancing control transfers...".⁴³ Choi (1991) also tests the proposition that the abnormal returns generated by the toehold purchase are due to the expectation by the market of an increased probability of a takeover bid occurring. Lastly, Choi (1991) tests for evidence of the under-valuation hypothesis.⁴⁴

Choi (1991) finds an abnormal return after the filing of a 13D statement of 8.9% over the 40 preceding days. The author found that approximately 16% of his sample was subsequently taken over within one year of the toehold whilst the average annual proportion of de-listings from mergers and acquisitions through the sample period of 3.8%. The difference between the two was found to be statistically significant⁴⁵ and is consistent with the author's first hypothesis that the market expects a takeover to occur after a purchase of a toehold.

The author finds that abnormal returns increase substantially for the sample of toehold purchases that result in either acquisitions or management turnover and proxy fights. For the period day 1 to day 250 Choi (1991) finds that the CAR is 20.2%, and this is significantly different from zero at 1%. In addition this CAR is significantly different from the no change sub-sample, also at 1%. Thus toehold purchases that lead to changes in corporate control are wealth enhancing events.

⁴³ Choi (1991), pg 392.

⁴⁴ See section 4.1.3 for details of this hypothesis.

However, the abnormal returns for those toehold purchases that did not result in a change in control transaction became significantly negative. Over the period from day 1 to day 250 the CAR was found to be -7.3%, which was significantly different from zero at 5%. Thus toehold purchases which are not followed by a change in control transaction are viewed negatively by the market. This provides evidence against the under-valuation hypothesis since abnormal returns increased with the expectation of a change in control. However if no change in control eventuated returns fell to their normal level.⁴⁶

Sudarsanam (1996) presents evidence from the United Kingdom based on a sample of takeovers between January 1985 and October 1992. The author examines four hypotheses. Firstly larger toeholds are associated with higher probabilities of takeover bids occurring.⁴⁷ The second hypothesis states that the larger the toehold the higher probability a bid will succeed.⁴⁸ Thirdly, the larger the toehold the smaller the bid premium.⁴⁹ The final hypothesis is that targets suffer abnormal losses if a toehold is not followed by a takeover bid.⁵⁰

Following the UK environment, Sudarsanam (1996) splits his sample into three groups according to whether a 5% threshold is broken (Small Toehold Group or "STG"), the 5% and 20% thresholds are passed (the Large Toehold Group or "LTG"), and a creeping acquisitions group ("CAG"). The CAG is a subsample of the LTG. No toeholds greater than 30% are used in the sample as these are prohibited under the City Code on Takeovers and Mergers.

Sudarsanam (1996) finds a positive relationship between toehold size and the ex-post wealth effect. Over the -5 to +5 event window the CAR for the LTG was 17.7% compared to 13.04% for STG. The difference between the two was significant at 1%. This result is consistent with Shleifer and Vishny (1986) which predicts that the purchase of block holdings is associated with an increase in the market value of the firm.

⁴⁵ The author also finds that 24.5% of the sample either had a proxy fight or turnover of top management following the purchase of a toehold.

⁴⁶ This also confirms previous evidence by Bradley et al (1983).

⁴⁷ Shleifer and Vishny (1986)

⁴⁸ Hirshleifer and Titman (1990)

⁴⁹ Shleifer and Vishny (1986) and Hirshleifer and Titman (1990)

⁵⁰ Malatesta and Thompson (1985) and Choi (1991).

Sudarsanam (1996) also finds a significantly higher frequency of takeover bids for LTG than for STG. This evidence supports the first hypothesis that larger toeholds are associated with an increased probability of takeovers and is consistent with Choi (1991). Whilst the author finds an increase in the probability of a bid occurring, Sudarsanam (1996) finds no evidence that a toehold increases the probability of successful bid, which is inconsistent with the second hypothesis.

In order to test the third hypothesis, the larger the toehold the smaller the bid premium, Sudarsanam (1996) measures the returns after the acquisition of the toehold through to a takeover bid within three years. Sudarsanam (1996) finds that targets that have bidder toeholds experience wealth increases on acquisition of the stake (day -5 to day +5). However over the three-year period following the acquisition the CARs are positive, but not significantly so. The author thus concludes that (for UK data) there is no relationship between toehold size and takeover premium. This result also contrasts with Choi (1991).

Finally, Sudarsanam (1996) finds no evidence that toehold purchases that are not followed by takeover attempts lead to value decreases, which does not support his forth hypothesis and is also inconsistent with Choi (1991). This tends to suggest that increases in the value of the target at the time of the acquisition of the stake are not a result of the market expecting a future takeover bid. One possible explanation is that the market may view the purchase positively due to reduced agency costs arising from increased monitoring by the large shareholder.

Several factors that may have influenced the results of Sudarsanam (1996). Firstly Sudarsanam does not look at toeholds in excess of 30% due to the institutional features of the UK takeovers environment. This is the correct approach under the circumstances, however toeholds in excess of 30% where the bidder has effective control of the target are likely to influence success of the bid. Equally important is the fact that toeholds are frequently used as a deterrent. Sudarsanam (1996) does not report the frequency with which competing bids are observed under conditions of a toehold.

Lastly the finding of no relationship between toehold size and bid premium may have been influenced by the choice of empirical method used to examine this issue. Sudarsanam (1996) conducts an event study where the choice of day 0 is the day the

toehold is purchased and measures returns post acquisition. However one possible method of measuring the relation between premium and toehold is to regress the toehold size against returns. This method will be employed in our study.

4.5.5 Partial Takeovers and Two Tier Offers

Partial takeovers are takeovers that result in the transfer of control of a company but where the bidder has purchased less than 100% of the target company's shares and has no stated intention regarding the remaining of the shares. Two tier offers are bids that are "front end loaded", i.e. a higher price to gain control of the company, and an intention to purchase the remaining minority stakes at a lower price.⁵¹ This is an area of takeovers that has generated controversy both in New Zealand and overseas. The controversy stems from the coercive nature of the transactions and the possibility that minority shareholders could be exploited ex-post.⁵²

There are three types of partial takeovers, pro-rata offers, proportional offers, and first come first served. Pro-rata offers occur where an offer is made to all shareholders to purchase say 60% of target company shares from each shareholder. Under a pro-rata offer if one shareholder does not tender their shares the bidder is able to reach their desired level by purchasing more shares from another shareholder. Proportional offers are also for a fixed percentage of shares, however if one shareholder does not tender, the shortfall cannot be made up by purchasing from other shareholders. The third option is for a set percentage of shares purchased on a first come first served basis. This has generally been the norm in New Zealand. The Minority Veto option was the only one of the three NZSE rules that ensured that partial bids had to be on a pro-rata basis. The new takeovers code⁵³ eliminates this option.

The arguments against partial takeovers and two-tier offers are that target shareholders can be coerced into accepting an offer when they may prefer to maintain their holding. If the shareholder decides not to tender, they risk receiving either a lower price on the back end of the takeover, or that shareholder wealth could be expropriated by the bidder

⁵¹ Refer Comment and Jarrell (1987)

⁵² c.f. Grossman and Hart (1980) and dilution of the free riding minority.

⁵³ See Section 3.1

and the post-takeover share price performance suffer accordingly.⁵⁴ This is equivalent to the prisoner's dilemma. The prisoner's dilemma is broken if shareholders are not atomistic and are able to cooperate with each other.⁵⁵ In addition, the two-tier offer presents another solution to the free-rider problem.⁵⁶

Ramsey (1992) argues that a pro-rata offer creates more pressure for shareholders to tender since if they do not take advantage of the offer to purchase 60% of their holding then another shareholder will have a greater percentage of their shares purchased at the higher offer price. We argue that partial takeovers on a first come first served basis are more coercive since a stampede to exit could occur without shareholders properly evaluating the merits of the offer. In New Zealand the pause and publicity rules designed to give shareholders time to evaluate offers can easily be avoided by an on-market stand. This is exactly the case with the Kirin Breweries takeover of Lion Nathan.

Arguments favouring partial takeovers and two-tier offers are derived from an efficiency point of view. Essentially they view partial takeovers and two-tier offers as being an essential part of a well functioning market for corporate control. Arguments include allowing companies to gain exposure to other industries without taking a 100% stake in an industry participant, facilitating investment, enabling the acquirer to understand the purchase better prior to taking 100% ownership, and allowing control to pass to better management without having to expend the financial resources to obtain 100% control.⁵⁷

⁵⁸

Another argument against two-tier offers is that the back-end offer may be excessively low so that the bidder ends up buying the firm at a discount. Bradley et al (1988) show that there are two reasons why the back-end bid will not be excessively low in the US setting. Firstly, fair-price legislation and/or fair-price amendments prevent the back end offer from being excessively low. Secondly it is also possible for management to engage in a share buy-back program at a higher front-end price than the initial bidder. In New Zealand only the Minority Veto rule prevented differential offers.

⁵⁴ Lower stock liquidity as well as a discount for lack of control could also lead to poor share price performance ex-post.

⁵⁵ Comment and Jarrell (1987)

⁵⁶ Comment and Jarrell (1987) and Bradley et al (1988)

⁵⁷ Ramsey (1992) p.p. 378 - 37

Comment and Jarrell (1987) present empirical evidence on two-tier and partial offers using a sample of 241 initial and 210 executed tender offers between January 1981 and December 1984. The authors find that during this period, for the full sample of initial offers, 60% of total bids were classified as any or all, 20% were two-tier, and 20% were partial bids. Of the bids that translated to executed offers 68% were any or all offers and 82% of total bids were negotiated with management. The authors also found that any or all offers elicited a higher average tendering response (75.1%) than partial (35.5%) or two-tier offers (62.2%). Tendering responses were greater for negotiated offers than for un-negotiated bids across all three categories. Finally, the authors found no significant difference in premiums between any or all offers and two-tier bids. There were however significant differences between these two types of bids and partial offers. The premiums associated with partial acquisitions were found to be significantly lower than any or all offers or two-tier bids. Comment and Jarrell attribute this finding to the bidder not obtaining control from a partial acquisition.

⁵⁸ However this did not work for Air NZ when it acquired Ansett Australia.

5 NEW ZEALAND LITERATURE

5.1 Avery and Emanuel (1988)

Avery and Emanuel (1988) investigate the returns to shareholders of both bidder and target companies listed on the NZSE between January 1968 to December 1985. The sample is divided between takeovers and mergers, and includes 134 successful bidders, 48 unsuccessful bidders, 123 successful targets, 22 unsuccessful targets, and 25 mergers.

Bidders experience positive returns prior to the announcement. Successful bidders achieve cumulative abnormal returns ("CARs") of +4.7% one week prior to the announcement, whilst unsuccessful bidders have CARs of +7.7% at the same point. Both CARs are significant at the 10% level. The authors do not hypothesize why they find evidence of a difference between pre-takeover CARs for successful and unsuccessful bidders.

On announcement successful bidders earn an abnormal gain of +0.3% (i.e. CAR of 4.9%), whilst unsuccessful bidders are found to experience a -0.7% abnormal loss (i.e. CAR of +7.0%). Neither of these findings are significant. This leads the authors to conclude that the bidding firm's shareholders earn normal returns on average at the time of an announcement. Furthermore, if the bidding firm had previously announced that it would be acquiring another firm at some point, then the return represents that element which was not anticipated by the market. The authors do note that size is an important element in calculating returns to shareholders of bidding companies, however no size adjustment appears to have been made.

Avery and Emanuel (1988) find that returns fall for both successful and unsuccessful bidders in the weeks following the offer. For successful bidders the drop in CAR is from +4.9% to -0.6% at outcome (i.e. a fall of 5.5%), whilst for unsuccessful bidders the fall is from +7.0% to +3.6%. The authors argue that the fall in returns for bidders is likely to be due to the market reassessing the potential gains to the acquisition.

The post-outcome CAR declines to -3.4% for successful bidders at week +26, which is below the level at week -51. The authors hypothesize that the drop in CAR for

successful takeovers to week -52 could be due to overvaluation of the target. The other possibility noted by the authors is that model did not account for changes in the market estimates (i.e. increased systematic risk).

The CAR for unsuccessful bidders recovers by week +26 to a similar level as it was at week -35. They argue that this is indicative of shareholder wealth maximization in that the bid has been terminated due to over-pricing of the target. Although the authors do not note this, the fact that the CAR for unsuccessful bidders remains positive could be due to the market being relieved that the bid has failed,⁵⁹ and that there is not the possibility of an excessive drain on cash flows.

Target companies under-perform the market over the 51 weeks prior to the acquisition, consistent with previous international studies. Target companies that are later successfully taken over ("successful targets") have an average CAR of -0.20% at week -51. By week -20 the CAR for successful targets have increased to 0. The CARs continue to rise, increasing to +5.5% at week -1, and +17.0% at announcement. At outcome week the average CAR is +22.5% for successful targets. They note that the rise in CARs could be indicative of either 1) insider trading, 2) price pressure from bidders establishing toeholds, or 3) information leaking into the market from bidders satisfying the requirements of the Commerce Commission.

The CARs for targets for unsuccessful takeovers exhibit a different pattern. At week -51 the average CAR is +1.2%. This decreases to -11.4% by week -15, and rises to -5.7% by week -1. At announcement the average CAR is +13.7%, an abnormal gain of 19.4%. However at outcome week for unsuccessful targets most of the gains are lost, the CAR has declined to +9.0%. The CARs for both groups at outcome week are found to be statistically significant.

Lastly the authors look at returns to merging firms. The authors find evidence that merging firms typically under-performed prior to the announcement. At week -51 the CAR was -0.3%, lower than other categories, supporting the industry rationalisation theory. By week -1 the abnormal return was +0.7%, and by announcement week the

⁵⁹ This would be consistent with Jensen (1986).

CAR had increased to +7.3%, significant at 1.0%. At outcome week the CAR had increased to +11.5% consistent with the synergy hypothesis.

5.2 Duncan et al (1989)

The objective of Duncan et al (1989) is to investigate two reasons why prior studies may not have found benefits in takeovers to the shareholders of bidders. The first reason relates to methodological problems. These are: 1) too short a time horizon for measuring returns, and 2) no control by authors for changes in the systematic risk of the bidding company. The authors argue that prior studies concentrating on short-term returns do not capture enough information effects regarding success or otherwise of the takeover and the returns to shareholders are not fully incorporated. They argue short-run time frames only good for testing market efficiency. Equally event windows that are too long can lead to other factors complicating the study. The time frame suggested by the authors is 24 months. In addition, changes in the financial structure of the companies (i.e. an increase in leverage) after a takeover should change alpha and beta. If no adjustment for these changes is made in studies the measured returns may be understated.

The second potential problem in measuring returns to shareholders of bidding companies in takeovers relates to takeover-specific factors such as payment method, prior takeover experience, and whether or not the bid is contested. The authors test whether there is a difference in returns between equity offers and cash offers. The authors expect lower returns to takeovers where equity is the method of payment, i.e. signalling hypothesis.

The authors also argue that returns to firms that have experience in takeovers are likely to be greater. This is because they have more experience in post takeover integration and are therefore more likely to achieve higher returns. The market is likely to overestimate the gains to firms that do not have the experience. As information regarding problems in integration comes onto the market returns to bidders with little experience are expected to fall. The authors note that takeover active firms are likely to have gains already capitalized into their market price.

Lastly, the authors hypothesize that larger premiums from a competitive bidding situation are not necessarily indicative of over-paying for a target. This is because a competitive bidding situation is more likely to occur when a target is substantially undervalued since there is more to gain from the takeover. In contrast a takeover where there is only one bidder would more likely result in overpayment. Thus the authors expect lower returns to bidders when a takeover is uncontested.

To test their hypotheses the authors use a sample of 40 takeovers between 31 March 1976 and 30 December 1985. Duncan et al (1989) find a CAR of +5.74% in the five months leading up to the announcement and a CAR of +2.06% in announcement month. 35% of the acquirers in their sample show negative CARs in the announcement month. A significant negative reaction of -2.85% is found by the authors in the period following the announcement month. By period +26 the CAR has reached -10.79%.

In terms of bid consideration, they find that returns to cash bidders were not significantly different from bidders using a combination of cash and equity. For cash-only bids the announcement return was 3.49%, whilst it was 1.29% for a combination of cash and equity. Returns by period +26 had turned sharply negative with CARs of -14.30% for cash offers and -14.34% for combinations. These results were in contrast to the authors' expectations that cash would have better returns than combinations. These findings also contradict international evidence.

In terms of takeover activity the authors find slightly higher returns to non-takeover active companies than takeover active companies. At announcement takeover active companies had CARs of 1.77% against 2.29% for non-takeover active companies. By period +26 both groups are suffering negative abnormal returns. However it appears that takeover active firms suffer the greatest. Takeover active firms have an average CAR of -17.11% versus -11.00% for non-takeover active firms.

Duncan et al (1989) hypothesize that this could be due to the market interpreting takeovers as being bad, particularly for companies that are takeover active.⁶⁰ The authors also note that the difference between the two groups could be in part due to the capitalisation of the takeover in the share price of the takeover active companies. By

period +26 the CAR for takeover active companies was -14.99% against -6.34% for non-active, however the differences were not found to be significant in an ANOVA test. Again, the evidence did not support the author's hypothesis.

For contested bids the average CAR at period 0 was $+5.63\%$ for contested bids against -0.08% for uncontested bids. By period +26 the CARs were $+23.31$ for contested bids against -25.87% for uncontested bids. Thus it appears that shareholders of bidding companies prefer the takeover to be contested than not. This leads the authors to conclude that the evidence is consistent with a competitive bidding situation leading the market to believe a fair price is being paid for the target. However, the market treats an uncontested bid as if the company is over-paying for the target.

5.3 Mandelbaum (1993a)

In his 1993 paper Mandelbaum tests two alternative theories of the gains from takeovers, the under-valuation theory versus synergistic gains. To test the competing theories Mandelbaum conducts an event study of 267 takeover targets between July 1968 and December 1990 using weekly data. Of these target companies 218 were the subject of a takeover that was initially successful and 49 were initially unsuccessful. Of the 49 target companies that were initially not taken over, 34 were taken over by a subsequent bid.

Initially the results are divided between successful targets and unsuccessful targets. Interestingly, in contrast to Avery and Emanuel (1988), Mandelbaum (1993a) finds no significant evidence that target companies are poor performers prior to a takeover bid being made. The CARs for weeks -51 to -29 are -0.4% and -1.7% for successful and unsuccessful targets respectively.

Mandelbaum (1993a) finds that the returns in takeovers, whether successful or not, are significantly positive around the announcement of the acquisition. At week +6 the average CAR to initially successful targets are $+16.3\%$, whilst for initially unsuccessful targets the average CAR is $+15.7\%$. It appears in Mandelbaum's results that most of these gains accrue between week -3 and week +6.

⁶⁰ Consistent with Jensen (1986).

For successful targets the CARS increase and remain significant. The CAR's for unsuccessful targets on the other hand decrease to week +23. After this point they begin to increase rising to +13.5% by week 52. Mandelbaum then splits the data according to whether the initial offer was successful or unsuccessful, and if a successful offer followed a previously unsuccessful takeover. Companies that were the subject of an initially successful takeover had the highest CAR of +16.9% for the period -2 to +6. The lowest CAR over that period was for companies that were never taken over with a CAR of +10.1%. This trend is maintained over the following 35 weeks. By week 35 the average CAR for a successful takeover was +29.7% as opposed to -11.2% for a firm never taken over, and +14.1% for a firm subsequently taken over.

This evidence provides support for the synergistic gains hypothesis. The fact that gains disappeared by week +28 shows that the market expected the combination of the firms to create wealth for shareholders. Abnormal returns reverted once the takeover did not eventuate. On the other hand, targets that were the subject of a subsequent successful takeover bid held their returns.

5.4 Mandelbaum (1993b)

Mandelbaum (1993b) was motivated by the original mandatory takeover rule proposed by the Takeovers Panel Advisor Committee. This study investigates the premiums paid to the shareholders in a company when the bidder had a stake in the target. The aim of Mandelbaum (1993b) is to investigate the implication of the (mandatory offer) rule and empirically examine premiums paid to target shareholders in the context of a full buyout when the bidder had a stake in the company prior to the bid. Mandelbaum (1993b) argues against the proposed rule, citing prior studies that concluded small shareholders benefit from large stakeholders since large shareholders have increased motivation to monitor management, thus reducing the agency conflict between owners and management.

The author also argued that the rule was not applicable in the New Zealand environment since a substantial proportion of companies listed on the NZSE have a major

shareholder with a holding of greater than 20%.⁶¹ In addition, mandatory offer rules in other regimes either had higher thresholds or were subject to a variety of exemptions.

To support his arguments the author looked at two issues with regard to full takeovers by shareholders with an initial stake in the target company:

- 1) The remaining shareholders would be worse off in the event of a full takeover by a shareholder with an initial stake in the target company.
- 2) The larger the initial stake the lower the premium paid due to “wealth extraction from remaining target shareholders”⁶²

The study covers 122 successful takeovers between January 1985 and December 1990. Mandelbaum (1993b) found that 80% of the bidders had a stake in the target of greater than 50% prior to the takeover offer. Takeover premiums were regressed against percentage shareholding in the target company. The author found the premium to be a decreasing function of shareholding level (significant at the 1% level for 1 week data). That is, higher stakes in the target were associated with lower premiums paid to the target. This result is to be expected since a higher premium is more likely to be attached to a parcel of shares, which results in control of a company.

Mandelbaum (1993b) argues that the negative slope is due to the likelihood of a full takeover rising with an increasing toehold, and that this effect is priced into the market, leading to a lower premium. However, to prove this proposition one would have to examine pre-takeover trading for run-up as per Schwert (1996). In fact a more likely explanation is that the greater the toehold, the lower the proportion of shares required to gain control, and thus the lower the premium required to be paid⁶³.

5.5 Mandelbaum (1995)

Mandelbaum (1995) aims to test two competing hypotheses relating to the wealth effects of takeovers: wealth creation versus wealth redistribution. The wealth redistribution hypothesis essentially argues that the returns to shareholders from takeovers are a result of a wealth transfer from the shareholders of acquirers to the shareholders of

⁶¹ However one could argue that this is precisely why the rule is required – so that control passes with greater shareholder participation.

⁶² Mandelbaum (1993b) pg 10.

targets. This effect is caused by either managerial hubris (Roll 1986), or managerial self-interest.

The wealth creation hypothesis on the other hand argues that takeovers create wealth overall through synergies. It does not matter about the distribution of the wealth, whether the majority of the wealth goes to the shareholders of the target or to the shareholders of the bidder, what is important is the overall net effect of takeovers.

Mandelbaum (1995) studies a sample of 235 successful targets and 112 listed bidders between 1968 and 1990. For the full sample, Mandelbaum (1995) finds CARs at announcement from the 51 weeks prior to be 12.3% for targets, and 5.7% for bidders. By week 6 CARs for targets were 17.6% and 4.6% for bidders. On a size weighted basis Mandelbaum finds that targets earn a CAR of 27.2% over the whole period compared to 6.5% for bidders. The results for both sets of results were found to be highly significant.

Finally Mandelbaum (1995) looks at returns for pairs of targets and bidders on a size weighted basis. Average returns over the event period were 28.1% for targets and 2.6% for bidders. The average net CAR was found to be 6.4%. Average gains are found to be NZD 17.2 million for targets and NZD 8.90 million for bidders for a total average net gain of NZD 26.0 million. Adjusting for inflation to 1994 dollars, average net returns were found to be NZD 22.9 million for targets and NZD 8.1 million for bidders for total average wealth gain of NZD 30.9 million. Mandelbaum (1995) finds that the returns from takeovers diminish in the event the takeover is unsuccessful⁶⁴ and the wealth creation hypothesis holds for his sample of data.

5.6 Firth (1997)

Firth (1997) aims to measure returns to shareholders of acquirers and targets, and the overall gain or loss, building on the studies of Avery and Emanuel (1988) and Duncan et al (1989). Firth also aims to test several theories of takeover motivation. The empirical results in this paper are partitioned by the method of payment, and whether or not the bid is contested. This study also analyses the shareholdings of the directors of the

⁶³ Refer to sections 4.5.3 and 4.5.4.

⁶⁴ Consistent with Bradley et al (1983).

targets and bidders. Firth (1997) seeks to determine whether or not there is a relationship between shareholder returns and the level of holdings by directors.

Firth (1997) uses a sample of 162 takeovers between 1970 and 1987, 138 of which were successful. Of the 138 successful takeovers, 79 were completed at the original bid terms, and the remaining 59 are completed at revised terms. Firth (1997) defines contested takeovers as those bids that were initially rejected by target management, were completed at revised terms, or more than one bidder was involved. The total number of bidders was 198, and 34 targets had more than one bidder.

Cash was the method of payment in 47 successful bids, with equity or equity plus convertibles used in the remainder. There were 127 successful bids for 100% and 11 partial bids. Of the failed bids 20 were for 100% of the shares and 4 were partial bids. Firth (1997) finds that target CAR's become positive just prior to the announcement. This is taken to be indicative of leakage or pressure caused by pre-bid buying of stock. The author points out that NZ regulations allowed buying in disguise during the period under study. We note that insider trading could also have been a factor.

The takeover announcement leads to large and significant 1-week returns of 15% for all targets, 15% for the targets of successful takeovers, and 16% for those that remain independent. Firth (1997) finds that the CARs increase to 24% for successful takeovers by outcome week. However the CARs decline to 15.7% for unsuccessful takeovers. This drop is attributed by Firth to three possibilities. Firstly the takeover attempt highlighted the under-valuation of the target, secondly the possibility of another takeover exists, or target management has made performance enhancements. Mergers are found to have a CAR at announcement week of 6.8%, and 7.0% at outcome week.

The author finds that uncontested takeovers have the highest returns for the announcement week. The returns from uncontested takeovers are found to be significantly higher than contested takeovers at the 5% level. The author hypothesizes that this is due to larger bids being made by acquirers which act as a deterrent to counter bids, and thus target management recommend acceptance of the bid. Contested bids on the other hand are found to show statistically significant larger CARs than

uncontested bids at outcome week. This is likely to be caused by the takeover contest eventuating.

In terms of partial bids the average CAR at announcement week and outcome week was found to be 20.3% and 21% respectively. The post acquisition returns to successful partial bids are negative, the CAR for week +1 is 19.71%, and at week +13 the CAR is 15.34%. The author concludes that this is because a partial bid is better than no bid at all.

Firth (1997) finds that bidder companies exhibit positive CARs in the 26 weeks prior to the announcement, which is consistent with previous studies. However CARs decline significantly to 1.95% on announcement for the sample as a whole. For successful bidders the CAR falls to 1.87%, and for unsuccessful bidders it is 2.13%. Returns decline between the announcement and the outcome, falling to -0.57% for all bids, -1.76% for successful bids, and rise slightly to 2.17% for unsuccessful bids.

Bidders using equity have higher CARs prior to the announcement than bidders using cash. Firth (1997) argues that this could be due to buying support by friendly parties prior to the acquisition to lessen the dilution impact. Once the bid is announced both cash bidders and equity bidders are found to have negative ARs and the shareholders of bidders using equity suffer larger losses than those using cash. CAR's are found to be negative at outcome week for cash and equity bidders with equity bidders suffering more than cash bids.

One possible reason for bids using equity suffering more than bids using cash is that bidders using equity are subject to less market discipline since they do not need to raise funds from third parties. They are therefore more susceptible to over paying. Additionally, the use of equity can signal that the bidder's shares are over-valued.⁶⁵ This author suggests that another possible reason is that the issue of shares has diluted returns, and some shareholders are selling out since the expected rates of return are lower than the required rates of return.

⁶⁵ Myers and Majluf (1984) and Travlos (1987).

The author finds that the winners of contested bids have higher CARs at outcome week than bidders for uncontested takeovers. However this is not statistically significant. As with Duncan et al (1989) the author supposes that contested bids may imply that the initial bid was undervaluing the target, and that subsequent bids were closer to the real worth of the company.

The author also looks at the total wealth impact of the takeover. This is achieved by measuring the change in the market capitalisation for the acquirer and the target from week -4 through to outcome week. The changes in the market capitalisation are adjusted for movements in the market index, the systematic risk of the firm, and for any capital changes. In cases where the bidder had a toehold prior to the bid, this is subtracted from the total gain to avoid double counting.

Firth (1997) finds an average total overall gain of \$0.5 million (0.5%), which consists of 73 total gains and 65 total losses. He also finds a correlation between dollar gain to target and dollar gain to bidder of -0.32, significant at the 1% level. This suggests a wealth transfer between bidder stockholders and target stockholders.

Firth (1997) follows the methodology of Berkovitch and Narayanan (1993)⁶⁶. The whole sample coefficient on the total gain is found to be insignificantly different from zero, consistent with hubris. The author finds results consistent with Berkovitch and Narayanan (1993) when the sample is split according to positive gains and negative gains. That is, positive gains are associated with synergistic outcome whilst negative gains are associated with agency outcomes. For the second regression, a significant negative coefficient is found suggesting an agency outcome.

Two correlations between ownership and CARs are calculated, 1) dollar value of holdings and dollar gain/loss to acquirer and 2) percentage ownership by directors and percentage CAR. The author finds the correlations to be positive 0.13 and 0.11 and significant at the 5% level. Companies with directors that have higher stakes experienced less negative abnormal returns, consistent with shareholder wealth maximization.

No significant relationship is found by Firth (1997) between the shareholdings of directors in target firms and the level of abnormal returns in contrast to Song and Walkling (1993). The author argues that this could be due to higher director ownership implying that the company is already being run efficiently and the share price reflects this. Thus the bidder is only able to make marginal improvements and a lower premium is paid.

5.7 Tapping et al (1998)

Tapping et al (1998) test two competing theories of management reactions to takeovers: Management Entrenchment and Shareholder Interest. The authors test the competing hypotheses by studying the share price reaction upon choosing one of the three rules. The Managerial Entrenchment theory proposes "the stricter the control on takeovers the greater the decrease in share price" (De Angelo and Rice 1983)⁶⁷ and draws on agency theory. It argues that restrictions on takeovers reduce the efficiency of takeovers as a method of reducing the agency conflict. This results in an increase in the costs to shareholders of monitoring management. The stricter the controls on takeovers the lesser the increase in share price. Evidence in favour of this hypothesis would show that the choice of Minority Veto has a negative impact on share price compared with the other two options since this is the most restrictive of the three rules.

The Shareholder Interest theory is the opposite of the Management Entrenchment theory. It holds that anti-takeover amendments assist the auction process and thus shareholders receive the highest price. Anti-takeover amendments delay the process and give other potential bidders time to act. According to this hypothesis, although the total number of bids may decline due to the takeover restrictions, there is a net benefit to shareholders from higher bid prices. The stricter the control on takeovers the greater the increase in share price. The strongest positive effect would be found on Minority Veto companies if this hypothesis was true.

The authors identify a third hypothesis, termed *Fait Accompli?* It appears that the regime chosen by each listed company was heavily influenced by the shareholder structure. For example firms choosing the Minority Veto had a wide shareholder register, whilst in

⁶⁶ See section 4.2.2

⁶⁷ Tapping et al (1998), pg 319.

companies where there was one major shareholder in a company it usually opted for the Insider only option. The authors argue that it is possible that the market may have already priced in the effect of the decision prior to the AGM. This would mean that there would be little share price reaction on announcement of the choice of takeover regime. The Fait Accompli Hypothesis is the null hypothesis of no effect.

The sample was comprised of 112 firms of 130 on the NZSE. Within the sample tested there were 88 Notice and Pause firms, 19 Insider Only firms, and 5 Minority Veto firms (all firms who chose that option). The authors find that share price reactions are significant in the period for -30 to -1. For the Notice and Pause option the return was 5.56%, for Insider Only it was 4.84% and for Minority Veto it was an insignificant 0.62%. Results at day 0 indicate no significant returns. The authors argue that this is likely to be evidence in favour of the null hypothesis.

The authors argue that the general findings support the Shareholder Interest Hypothesis in that the introduction of provisions restricting takeovers and promoting an auction would have a positive impact on returns. However the Minority Veto provision generates results more consistent with the Management Entrenchment hypothesis. This evidence for the New Zealand environment contrasts with evidence from the US. Tapping et al (1998) explain this difference by showing that the regulatory regimes in the two countries have opposing positions with respect to bidders and targets. The US promotes sophisticated takeover defenses and restricts bidders, whilst NZ takes the opposite stance. The US system is already weighted towards the creation of an auction.

The findings of this study show that the Notice and Pause option generates the highest level of returns, whereas the Minority Veto option should generate the highest level of returns under the Shareholder Interest hypothesis. However the authors find that this option generates the lowest returns. The authors provide three potential explanations for this:

- 1) The amount of notice required under the Minority Veto is too much.
- 2) The addition of a "weakened mandatory bid and equal price simply increases the expense of conducting a takeover and does not in turn force an auction to occur."⁶⁸
- 3) The fait accompli hypothesis holds true.

The authors conclude that notice is neither a good nor a bad factor, it is simply a balancing force to create an optimal auction. In systems such as NZ where there are few restrictions on bids, notice is required to create an auction, whereas in systems with more restrictions on bids a longer notice period would have a negative impact.

5.8 Linklater (1998)

Linklater (1998) examines the returns to shareholders of target and bidder firms between 1990 and 1997 for a sample of 25 full takeovers. She finds the returns to shareholders over the event window -1 to $+1$ were 8.61% significant at 1% for targets, and an insignificant -0.12% for bidders. The sample was split pre-1996 and post 1996 to determine the effects of the NZSE rules. Linklater (1998) finds that the returns to target shareholders were 8.88% pre-1996 and 7.79% post-1996. Both were significant at 1%. Linklater (1998) provides no explanation for the variation in returns, nor does she test for the significance of the difference. The returns to target shareholders were not split according to the regime the target adopted.

The author finds that returns were -0.73% for pre-1996, and 1.90% post-1996 for bidders. Again, Linklater (1998) does not test for the significance of the difference in returns, and postulates that the increased returns were merely the result of a better investment. However, the biggest problem faced by the author in this study was the extremely small sample size. Part of the reason why the sample was excessively small could have been due to the fact that the author required both the target and the bidder to be listed on the NZSE. This requirement only needs to be imposed when looking at the total returns generated by takeovers.⁶⁹

5.9 Berkman and Navissi (2000)

Berkman and Navissi (2000) also examine the share price reaction to the choice of one of the three takeover rules. However the focus of Berkman and Navissi (2000) is the examination of the role that shareholding structure plays in the choice of a takeover provision as opposed to testing the competing hypotheses of Managerial Entrenchment and Shareholder Interest as in Tapping et al (1998). Berkman and Navissi (2000)

⁶⁸ Ibid, pg 330.

⁶⁹ Refer Bradley, Desai, and Kim (1988).

estimate a multinomial probit model to determine how ownership structure affects the probability of a takeover rule being chosen. They also investigate the wealth effects associated with the choice of a takeover provision, and examine the “surprise” factor involved.

Berkman and Navissi (2000) find that firms adopting the Minority Veto regime, which is the least restrictive of the three, tend to have larger block holdings than firms adopting either of Notice and Pause or Minority Veto. This finding could be explained in two ways. Firstly, larger shareholders value liquidity and would like to be able to exit with minimal effort. Secondly, the least restrictive regime allows for differential premiums to be paid, thus large shareholders are more likely to be able to command a premium for control. Firms choosing the Minority Veto were dominated by dispersed shareholdings and greater non-beneficial shareholdings by directors. Additionally, five of the six firms choosing the Minority Veto rule had no institutional shareholders and no shareholders from the same industry.

An event study is used to determine the share price effects of firms choosing one of the regimes. The events used were the notice of meeting and the annual general meeting. The authors find that firms choosing the more liberal Insider Only regime were associated with higher returns around both event dates. The total CARs (both event dates) for the Insider Only companies were found to be 2.7% higher than companies choosing General Notice and Pause, and 6.6% higher than companies choosing Minority Veto⁷⁰. The fact that the market priced down companies choosing Minority Veto could be the market interpreting this choice as protecting inefficient management rather than an attempt to ensure all shareholders are treated equally.

In terms of whether or not the market expected the decision, the authors find a positive and significant relationship between abnormal returns from the notice of meeting and that predicted by their model when a more liberal rule is chosen. However by the time an AGM is held the authors find very little surprise. This supports the Fait Accompli hypothesis of Tapping et al (1998). Lastly, the authors note that companies electing the

⁷⁰ This evidence is consistent with many studies analyzing the adoption of poison pills, which also show a fall in returns. The evidence is also consistent with Proposition 2 of Shleifer and Vishny

more liberal regime were subject to a higher proportion of takeovers than those choosing the Minority Veto, but the results were not statistically significant.

(1986), which predicts an increase in the legal and administrative costs will result in a fall in the market value of the firm.

6 THE HYPOTHESES TESTED BY THIS PAPER

After reviewing the previous literature regarding on the effect of takeover legislation on bids, partial takeovers and toeholds we present the following hypotheses:

H1. Returns to targets (bidders) will be higher (lower) post-1996.

This rationale of this hypothesis is based upon the Shareholder Interest hypothesis as per Linn and McConnell (1983). Since the regulation governing takeovers increased between December 31, 1995 and January 1, 1996 we would expect to see returns to targets (bidders) from takeovers to be higher (lower) post-1996 than pre-1996. Although the stock exchange rules were not legal in nature we deem them to be stricter than the Companies Amendment Act (1963). Several examples of why we deem the NZSE rules to be an increase in regulatory stance are:

- 1) the increased disclosure requirements of the NZSE rules, and
- 2) that the Companies Amendment Act (1963) was easily avoided.

Evidence supporting this hypothesis would be consistent with Comment and Schwert's (1995) finding that anti-takeover elements are associated with higher takeover premiums, and with proposition 2 of Shleifer and Vishny (1986) which states that an increase in legal and administrative costs will result in a rise in takeover premiums.

Evidence that refutes this hypothesis would be consistent with the Management Entrenchment hypothesis (De Angelo and Rice (1983)). This hypothesis is based on the separation of ownership and control. It argues that because shareholders are generally inefficient monitors of management the takeover becomes an important method of monitoring management. Restrictions on takeovers, such as increased regulation, reduce the effectiveness of monitoring management, and have a negative effect on returns.

H2. Returns to targets (bidders) will be highest (lowest) under the Minority Veto regime than under Notice and Pause, and Insider Only regulations respectively.

The effect of regulations will also be examined within the 1996-2000 sub-period due to the three options that companies could choose to regulate takeovers⁷¹. Minority Veto regulations are more restrictive than the Notice and Pause rules, which in turn are more restrictive than Insider Only rules. Thus according to the same arguments as H1 we would expect to see the highest returns to be generated by Minority Veto, followed by Notice and Pause, and Insider Only. Testing this hypothesis will be difficult due to the excessively small sample size of Minority Veto firms. However comparison of the Notice and Pause and Insider Only rules could provide sufficient evidence to confirm or refute this hypothesis.

H3. The returns to target (bidder) shareholders are expected to be inversely (positively) correlated with the size of the toehold position

The theoretical literature tends to argue that when a lower proportion of shares is required to obtain control, bidders will pay a lower premium for control. This result is suggested by various models, including Shleifer and Vishny (1986) and Hirshleifer and Titman (1990). In terms of empirical evidence, Stulz et al (1990) and Mandelbaum (1993b) find a negative relation between toehold size and takeover premium for targets. However, Sudarsanam (1996) does not find a negative relationship for his sample of UK data.

As a result we expect that the negative relationship between toehold size and takeover returns will hold for targets. We believe that a positive relationship between returns and bidders toehold will hold for bidders because less shares are required to obtain control thereby increasing the probability of success and also reducing the investment outlay.

⁷¹ The applicable takeover rule was chosen by the shareholders of the target by 1 January 1996, or when the target listed and forms part of the company's constitution. The choice of takeover rule is not a response to a takeover bid.

H4. Partial bids have lower (higher) returns to target (bidder) shareholders than full bids.

This hypothesis is motivated by the coercive nature of partial bids, and that bidders holding the balance of power are able to offer lower premiums to obtain or strengthen control.

Partial bids are generally coercive for two reasons. Firstly, they could coerce small shareholders into accepting an offer for a set amount of the target stock because of the prisoner's dilemma in that they are not aware whether or not other shareholders will or will not accept the offer. As a result they could miss out on receiving the premium offered if the other shareholders have accepted the bid and they are left with their shareholding. Secondly, partial bids could also coerce minority stockholders into tendering their shares due to the fear that their investment will decrease in value post-acquisition and that they will be locked in due to low liquidity in the stock.

During the period covered by this study partial takeovers were governed by the same set of rules governing full takeovers. The coercive nature of partial bids was increased because there are no restrictions on factors such as the length of time the bid is open, whether or not the bid is pro-rata or proportional etc. As a result bidders were able to structure a bid in ways so as to increase the pressure to tender. Countries such as the UK or Australia have recognised the coercive nature of partial bids and have specific rules covering partial offers. Partial rules will be strictly controlled under the new takeover regime in New Zealand.

Returns to bidders are expected to be higher for partial takeovers than for full takeovers since they are able to take control of the target without purchasing 100% of the target. Thus they are able to obtain returns in the form of dilution⁷² and not have invested the same amount of funds.

H5. Returns to shareholders (target and bidder) are expected to be positively correlated with Managerial shareholdings.

H6. Returns to shareholders (target and bidder) are expected to be positively correlated with Institutional shareholdings.

Despite the mixed evidence regarding the influence of managerial and institutional shareholders on takeover returns, I expect a positive relationship between returns and the level of ownership for the following reasons:

- 1) Tapping et al (1998) suggest that the choice of takeover rule is positively related to the shareholder structure of the company, and Berkman and Navissi (2000) find results that confirm this conjecture. Therefore since shareholder structure influences which rule is chosen, and the level of returns is related to the takeover rule, takeover returns could also be influenced by shareholder structure.
- 2) The companies listed on the NZSE are much smaller than internationally, therefore it is possible for management and institutions to have a greater percentage shareholding. A greater percentage holding allows management and institutions to have more influence on the level of premium.
- 3) The positive relationship is expected for bidders because (a) management with higher shareholdings are more likely to make wealth maximizing decisions and (b) higher institutional shareholdings is likely to be associated with increased monitoring of management.

⁷² In the sense of Grossman and Hart (1980)

TABLE 6.1 SUMMARY OF HYPOTHESIZED PREDICTIONS

Hypothesis	Description	Relationship
1	Pre-1996 returns vs post-1996 returns	Higher (lower) target (bidder) returns. Based on Shareholder Interest Hypothesis.
2	Minority Veto vs Notice & Pause vs Insider Only	Returns will be highest (lowest) for Minority Veto, and lowest (highest for Insider Only). Based on Shareholder Interest Hypothesis.
3	Increasing toehold	Negatively (positively) related with target (bidder) returns.
4	Partial takeovers	Partial takeovers will have lower (higher) returns for targets (bidders).
5	Relationship with managerial shareholders	Positively related with both target and bidder returns.
6	Relationship with institutional shareholders	Positively related with both target and bidder returns.

7 METHODOLOGY EMPLOYED AND SAMPLE DESCRIPTION

This section describes the empirical methods used in this paper to test the various hypotheses in the previous section. This section also outlines the sources of the data used in the empirical studies, the sample criteria, and provides descriptive data on the samples. The primary methodology used in this paper is the standard event study commonly used in financial economics to test the impact of announcements on share returns. This methodology is also supported by univariate and multivariate analyses.

7.1 Event Study Methodology

This study utilizes the standard market model to estimate the abnormal returns associated with the announcement of a takeover. According to this model realised returns are given by the following equation:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it} \quad (7.1)$$

Where:

R_{it} = Return on security i at time t

α_i = the intercept of the linear relations for security i

β_i = The beta for security i, which is the slope of the linear relationship between the security and the return on the market.

ε_{it} = the standard error term for security i at time t. This is assumed to be independently identically distributed with mean of zero, and constant variance

The expected return for security i at time t is given by the following equation:

$$\hat{R}_{it} = \hat{\alpha}_i + \hat{\beta}_i R_{mt} \quad (7.2)$$

Where:

\hat{R}_{it} = Expected return on security i at time t

$\hat{\alpha}_i$ = Estimate of α_i

$\hat{\beta}_i$ = Estimate of β_i

The abnormal return (AR) (or excess return) to firm i at time t is given by the following equation:

$$AR_{it} = R_{it} - \hat{\alpha}_i - \hat{\beta}R_{mt} \quad (7.3)$$

Alternatively, this can also be written as:

$$AR_{it} = R_{it} - \hat{R}_{it} \quad (7.4)$$

Where:

AR_{it} = Abnormal return on security i at time t

R_{mt} = Return on the market portfolio at time t

\hat{R}_{it} = Expected return on security i at time t

In order to determine the time series effect on the returns the excess returns are aggregated over some time period to obtain the Cumulative Average Abnormal Returns ("CAAR") to the portfolio of securities.

$$CAAR = \sum_{t=t_0}^T \frac{1}{N} \sum_{i=1}^N AR_{it} \quad (7.5)$$

Where:

t = event time

N = number of securities

This study uses 201 days to estimate the parameters α and β starting at day -241 and ending on day -41. The event window runs from day -40 to day +40, with day 0 being the first announcement of the takeover.

7.2 Tests for Statistical Difference

As part of the analysis of the event study results we will be analyzing the variance between two sub-samples to determine if it is significantly different from zero. The formula utilised to calculate the t statistic is as follows

$$t = \frac{\bar{x} - \bar{y}}{s_p \sqrt{\frac{1}{n} + \frac{1}{m}}} \quad (7.6)$$

where

$$s_p = \sqrt{\frac{(n-1)s_x^2 + (m-1)s_y^2}{n+m-2}} \quad (7.7)$$

and

$$s_x = \frac{R_x \sqrt{n}}{z}$$

s_p = Estimate of common standard deviation

n = Size of sample x

m = Size of sample y

s_x^2 = Sample variance of x

s_y^2 = Sample variance of y

s = Sample standard deviation for x or y

R = CAAR for the event window being tested for x or y

z = z statistic for the event window obtained from Eventus

The variables R , n , and z were obtained from the event study results. The test assumes that the returns are normally distributed, and the variances of the two samples are approximately equal. The t-test uses $n+m-2$ degrees of freedom.

Each of the t-tests is checked against the Welch test, which is not so sensitive to violations of unequal variances. Where there are substantially different results due to

violation of the equal variance assumption, or the sample sizes are extremely different the Welch test statistic is reported using the lesser of n-1 or m-2 degrees of freedom. The Welch test is as follows:

$$t_w = \frac{\bar{x} - \bar{y}}{\sqrt{\frac{s_x^2}{n} + \frac{s_y^2}{m}}} \quad (7.8)$$

7.3 Multivariate Analysis

The results presented from the event study analysis do not control for other factors that may affect the returns. As such we run a cross sectional regression for bidders and targets to control for these factors. The regression model uses the 3-day CAAR (-1 to +1) and the 5-day CAAR (-2 to +2) for the target and bidder as the dependent variable. The initial models are presented in equations (7.9) and (7.10) below:

$$CAR_{target} = \beta_0 + \beta_1 INITIAL + \beta_2 MGMT + \beta_3 INST + \beta_4 RULE + \beta_5 TYPE \quad (7.9)$$

$$CAR_{bidder} = \beta_0 + \beta_1 INITIAL + \beta_2 MGMT + \beta_3 INST + \beta_4 RULE + \beta_5 TYPE \quad (7.10)$$

The variables in each equation (and their rationale) are defined as follows:

INITIAL = This variable represents the percentage of target equity already held by the bidder prior to making a bid. It is expected that the size of the block holding will be negatively related with the CAAR for targets. It is expected that bidders will have improved returns (less negative) with a higher toehold.

MGMT = This variable is the square root of the total percentage of target (bidder) stock held by management. It is noted in the literature review that previous research has found that there is limited or no relationship between managerial ownership and returns. However this is included in the cross-sectional regression in order to control for the potential

impact that insider shareholdings have on the takeover process given that they are an important part of the choice of takeover regime.⁷³

INST = This variable represents the square root of the total percentage of stock held by institutions. It is included to determine if the presence of institutional shareholders impacts on the level of returns received for targets and premiums paid by bidders.⁷⁴

RULE = This variable accounts for the takeover rule in place for the target company. It is a dummy variable which takes on a value of 1 if the takeover was post 1996 and 0 otherwise. Agrawal and Mandelker (1990) in their testing of antitakeover charter amendments apply a similar methodology.

In terms of the regression for the bidders, RULE takes a value of 1 if the target had a takeover rule in place, and 0 otherwise. The value 0 includes transactions pre-1996 and takeovers post-1996 of unlisted targets. An alternative methodology was considered, for a variable to take a value of 1 for post-1996, and zero otherwise. However this would have not isolated the effect of the stock exchange rules on the bidder.

TYPE = This variable relates to whether the transaction is a partial offer or a full takeover. It takes a value of 1 for full takeover and 0 for a partial takeover.

The regression equations 7.9 and 7.10 were re-run with transactions post-1996 only. The RULE variable was substituted with a variable NP. NP is a dummy variable to capture the specific effect of the rule. It takes the value of 1 if the target is a Notice and Pause company, or zero otherwise. We were not able to simultaneously test the effect of

⁷³ Similar methodology has been employed by Agrawal and Mandelkar (1990) and by Duggal and Millar (1999).

⁷⁴ See previous footnote

the rule by having another dummy variable for the Insider Only rule as the NP and IO variables were highly correlated.⁷⁵

The adjusted formulas are equations 7.11 and 7.12 below:

$$CAR_{target} = \beta_0 + \beta_1 INITIAL + \beta_2 MGMT + \beta_3 INST + \beta_4 NP + \beta_5 TYPE \quad (7.11)$$

$$CAR_{bidder} = \beta_0 + \beta_1 INITIAL + \beta_2 MGMT + \beta_3 INST + \beta_4 NP + \beta_5 TYPE \quad (7.12)$$

TABLE 7.1 PREDICTED SIGNS OF REGRESSION COEFFICIENTS.

Variable	Target	Bidder
INITIAL	Negative	Positive
MGMT	Positive	Positive
INST	Positive	Positive
TYPE	Positive	Negative
RULE	Positive	Negative
NP	Positive	Negative
IO	Negative	Positive

7.4 Data Sources and Sample Criteria

The announcement dates were taken from three sources (1) the Datex database, (2) the Reuters news service, and (3) the NZSE Weekly diary from 1996 – 2000. The event date was deemed to be the earliest date that the takeover was announced. Share price and balance sheet data was obtained from the Datastream International database. Balance sheet data was obtained from company annual reports if it was not available on Datastream.

Data on director's holdings and institutional shareholders was obtained from the last company annual report prior to the event date. Directors holdings are taken as the sum

⁷⁵ We also reran the model replacing the NP variable with IO.

of their beneficial holdings and associated persons⁷⁶. Non-beneficial holdings⁷⁷ are excluded. Where institutional shareholdings were not directly specified in the annual report, nominee shareholders were assumed to be holding the shares on behalf of institutions.

The takeover regime for each target was obtained from the NZSE Fact Book, which is produced on an annual basis. Within the final sample there were 3 Minority Veto companies, 77 Notice and Pause companies, and 16 Insider Only companies.

Share returns were also obtained from Datastream International as the Total Return Index, which is calculated as follows:

$$RI_t = RI_{t-1} \times \frac{P_t + D_t}{P_{t-1}} \quad (7.11)$$

Where

RI = The return index

P = The price index

D = The dividend payment

t = Time in days

The initial sample of partial and full bids was comprised of 200 targets and 170 bidders. Targets and bidders were removed from the sample for the purposes of the empirical studies if certain criteria were not met. The criteria to be included as part of the empirical studies were as follows:

1. The target or the bidder had to be listed on the NZSE. Note that for the purposes of this study both the bidder and the target did not have to be listed simultaneously. This method is most appropriate where the purpose is studying the total gain on the takeover. However, this is not the case with this study. If we were to exclude transactions where one of the target or bidder was not listed, this could adversely impact on the sample size, reducing it to a point where its validity is much reduced. New Zealand companies have also frequently been the subject of a takeover bid by overseas companies.

⁷⁶ Includes holdings in name of family trusts for example, but excluding indirect holdings arising from their appointment as a director by a major shareholder.

⁷⁷ Such as holdings in the capacity of trustee for staff superannuation plans.

2. The announcement date had to be identifiable because an incorrect date will impact on the results of the event study.
3. The event date did not have a confounding announcement (such as the announcement of a share repurchase or any other event that could affect stock price) on days -1, 0, +1.
4. The target or bidder had at least 40 days of share price data available in the estimation period.
5. The change in control had to be the result of a sale and purchase of securities (appropriate transaction) that resulted in at least 20% being purchased or, in the case where 20% of a target was already held, a cumulative purchase of at least 5% in one year.

After the above criteria were applied the sample was reduced to 176 targets and 140 bidders. Figures 7.1, and 7.2 below show the frequency distribution of transactions across the January 1, 1990 to June 30, 2000 period. Table 7.2 below presents data on the transactions excluded from the final sample and the reason for their exclusion.

TABLE 7.2 TRANSACTIONS EXCLUDED FROM FINAL SAMPLE

Reason for Exclusion	Targets		Bidders	
	Excluded	Targets	Excluded	Bidders
Unable to identify event date		14		18
Confounding announcement / event		2		4
Insufficient share price data		7		8
Inappropriate transaction		1		
Total		24		30

FIGURE 7.1 FREQUENCY DISTRIBUTION OF TARGETS

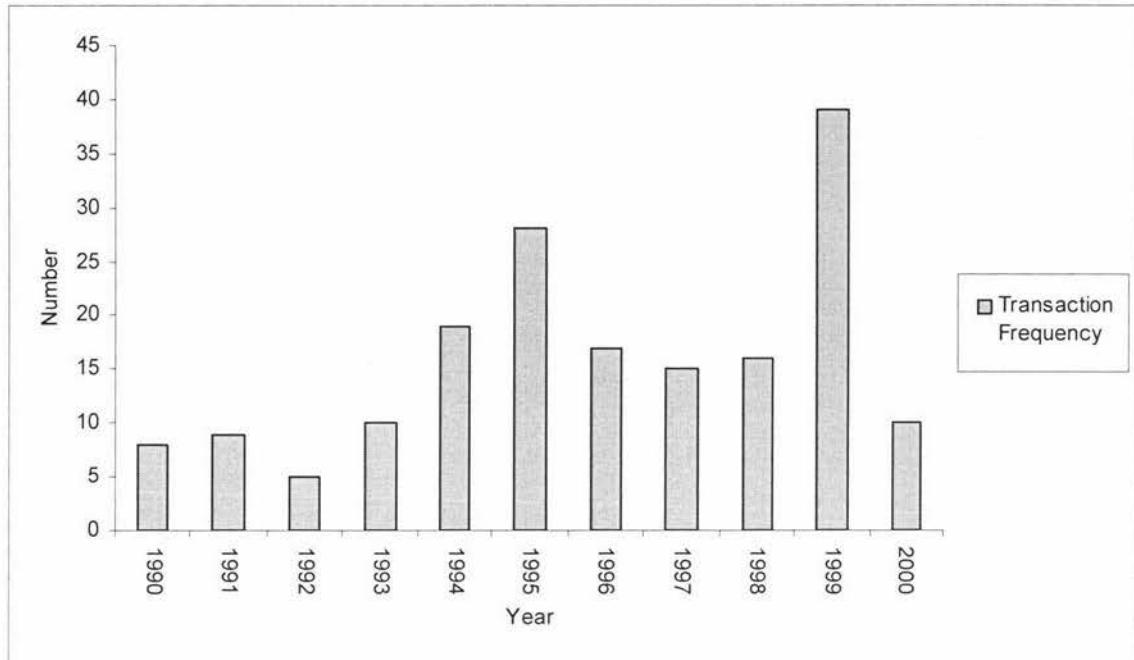
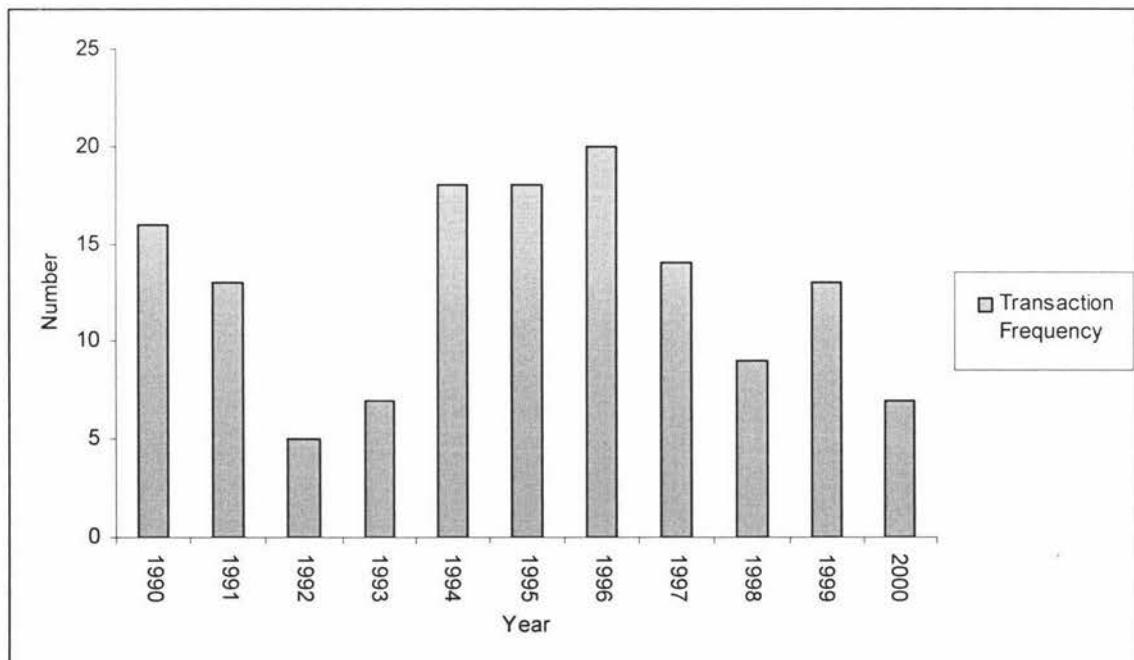


FIGURE 7.2 FREQUENCY DISTRIBUTION OF BIDDERS



7.5 Target Summary Statistics

Table 7.3 below presents a summary of the takeovers in the final sample of targets broken down by the method of acquisition (panel A), the type of acquisition (panel B), the payment consideration (panel C) and by if the bidder had a toehold in the target (panel D).⁷⁸

As can be seen from panel A of table 7.3 the number of private tenders (transactions between two parties) for the whole sample was nearly as large as the number of general offers, with stands in the market also being fairly high. For the split between 1995 and 1996⁷⁹, the proportions are fairly similar. These results appear to show that shareholders had a chance to participate in change of control transactions the majority of the time through general offers and stands in the market. However this is not necessarily the case. There were instances where the transaction was conducted by a stand in the market but the buyer and seller were already known to each other. One example of this is the Lion Nathan bid, where the directors had advance warning of the transaction. Another example of this was seen in the Lion Nathan takeover of Montana Group. Lion Nathan's broker, Credit Suisse First Boston, arranged sellers prior to the stand actually occurring. Thus the market stands appear to have been used in some cases as a method of effecting a rapid sale of shares and avoiding Notice and Pause restrictions. In addition, many small shareholders would not have been aware of the transaction occurring under a market stand, and therefore missed out.

Panel B examines the type of transaction. It can be seen that partial offers (including pro-rata offers, any or all offers, and creeping acquisitions), were used substantially more than full offers. A full offer to all shareholders was only 40% of the full sample, 36% of the 1995 sub-sample, and 43% of the 1996 sub-sample. We could find only one pro-rata transaction where an offer was made to all shareholders to purchase a portion of their shares. However, we could also find only one 'any or all' transaction.

⁷⁸ Please note that in terms of method of acquisition, I am referring to how the transaction took place, as opposed to the traditional merger versus acquisition. For the purposes of this research mergers and acquisitions are treated as one. The reason being is because I am focusing on change of control transactions, and also because the concept of merger versus acquisition is highly subjective, and open to various interpretations.

⁷⁹ By 1995 and 1996 I mean to January 1, 1990 to December 31, 1995, and January 1, 1996 to June 30, 2000.

The statistics on payment method are shown in panel C. Cash was the predominant payment consideration, occurring in 85% of the total transaction, 80% of the time in the 1995 subsample, and 89% of the 1996 subsample. This result was somewhat surprising at first, but is likely to be attributable to the fact that most of the sample is comprised of private tenders and stands in the market.

Lastly, panel D examines the occurrence of toeholds. For the purposes of this study a toehold refers to a shareholding up to 49.99%, and control is a shareholding in excess of 50%. As can be seen the majority of the transactions were marked by some form of toehold including control. The bidder either had a toehold or had control 60% of the time in this sample. This evidence presents a complete contrast to international evidence, especially in the United States, where a very low proportion of toeholding is commonly found. This result is likely to be due to the much lighter regulatory environment in New Zealand with a higher disclosure threshold. Bidders have been able to build up significant stakes and not have to disclose their intentions. In the United States however, bidders have to disclose their intentions once a 5% threshold is surpassed. The disclosure threshold in New Zealand is 20%, and the fact that the median toehold of my sample is 19.44% supports my conjecture.

TABLE 7.3 TRANSACTION SUMMARY OF BIDS ON TARGETS.

	Whole Sample	%	Pre-1996	%	Post-1995	%
Panel A - Method of Acquisition						
Private Tender	66	37%	29	36%	37	38%
General Offer	67	38%	28	35%	39	40%
Stand in the Market	44	25%	23	29%	21	22%
Total	177	100%	80	100%	97	100%
Panel B – Type of Acquisition						
Partial Offer	106	60%	51	64%	55	57%
Pro-rata Offer	1	0.5%	1	1%	0	0%
Any or All	1	0.5%	0	0%	1	1%
Creeping Acquisition	9	5%	8	10%	1	1%
Full Offer	71	40%	29	36%	42	43%
Total	177	100%	80	100%	97	100%
Panel C – Payment Method						
Cash	150	85%	64	80%	86	89%
Equity	11	6%	7	9%	4	4%
Both	9	5%	4	5%	5	5%
Not Available	7	4%	5	6%	2	2%
Total	177	100%	80	100%	97	100%
Panel D – Toeholds						
Toehold	62	35%	26	33%	36	37%
Control	44	25%	22	28%	22	23%
No Toehold	68	38%	32	40%	36	37%
Unknown	3	2%	0	0%	3	3%
Total	177	100%	80	100%	97	100%

7.6 Bidder Summary Statistics

Table 7.4 shows the same data for bidders as table 7.3 did for targets with the exception of an additional panel, panel C, to account for listed and unlisted targets. Panel A shows that private tender was the method predominantly used by bidders to acquire a target. In fact, across the full sample, there were twice as many private tenders as there were general offers. Private tenders were also used more frequently post-1996 to transact bids than pre-1996. Panel B shows that the proportion of partial acquisitions was only moderately higher than full acquisitions. This is in contrast to the data presented in table 7.3 where there were far more partial bids than full. The proportions were similar across the two sub-periods.

Panel C shows that the targets of bidders listed on the NZSE were usually unlisted companies and this trend was consistent between the two sub-periods. Panel D reveals that, as with the sample of targets, cash was the predominant method of payment. There was however a greater usage of equity and combinations than the targets' sample. As with panels C and D the proportions remained similar between the two sub-periods.

Lastly, Panel E has the statistics for toeholds. Interestingly the proportion of NZSE listed bidders using toeholds was about 50% lower than the proportion of the targets' sample that toeholds. The number of bidders with no toeholds prior to making a takeover was correspondingly higher. There were also fewer bidders with a controlling position post-1996 than pre-1996, and a higher proportion with no toehold post-1996.

TABLE 7.4 TRANSACTION SUMMARY OF TAKEOVER BIDS BY ACQUIRERS.

	Whole Sample	%	Pre-1996	%	Post-1995	%
Panel A – Method of Acquisition						
Private Tender	87	62%	56	56%	44	70%
General Offer	69	28%	24	31%	15	24%
Stand in the Market	14	10%	10	13%	4	6%
Total	140	100%	77	100%	63	100%
Panel B – Type of Acquisition						
Partial Offer	72	51%	40	52%	32	51%
Full Offer	68	49%	37	48%	31	49%
Total	140	100%	77	100%	63	100%
Panel C – Listed and Unlisted Targets						
Listed Targets	58	41%	33	43%	25	40%
Unlisted	82	59%	44	57%	38	60%
Total	140	100%	77	100%	63	100%
Panel D – Payment Method						
Cash	88	63%	47	61%	41	65%
Equity	18	13%	12	16%	6	9%
Both	18	13%	10	13%	8	13%
Not Available	16	11%	8	10%	8	13%
Total	140	100%	77	100%	63	100%
Panel E – Toeholds						
Toehold	25	18%	14	18%	11	17%
Control	41	29%	26	34%	15	24%
No Toehold	74	53%	37	48%	37	59%
Total	140	100%	77	100%	63	100%

8 EVENT STUDIES RESULTS

This section presents the results of the event studies, the methodology of which was outlined in section 7.1. We first examine results for target companies and then follow with results for the bidders.

8.1 Event Study Results for Targets

8.1.1 The Whole Sample

Table 8.1 below reports the results for the whole sample (including full and partial acquisitions) of 176 change of control transactions between 1 January 1990 and 30 June 2000. Table B.1 of Appendix B has the daily CAARs throughout the event window.

TABLE 8.1 RETURNS TO THE SHAREHOLDERS OF TARGET COMPANIES FROM TAKEOVERS

Event Window	CAAR	Z Statistic	Positive : Negative
(-40,-2)	1.58%	2.32*	98:78 ⁸⁰
(0,+1)	9.43%	7.99***	128:48
(-1,+1)	9.85%	8.33***	129:47
(-2,+2)	10.53%	8.54***	130:46
(+1,+40)	3.48%	2.62**	101:75
(-40,+40)	12.65%	6.74***	119:57

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

The above table presents several interesting results. Firstly, we see that the (-40,-2) window has a CAAR of 1.58%, significant at 5%. This suggests that, for this sample of transactions, the market in general has not anticipated the change of control occurring. Firth (1997) also reports little run-up in the pre-announcement period. The CAR for his sample was 3.90% for the week prior to the announcement.

The CAAR over the period (-1,+1) was 9.85%, significant at 0.1%, most of which accrued in the (0,+1) window. 73.3% of the sample had positive returns for the (-1,+1) event window. The CAAR for the five-day period (-2,+2) was 10.53%, significant at 0.1%. This result is extremely low in comparison with previous New Zealand evidence. Avery

and Emanuel (1988) report event week returns of 17.0% for targets subject to successful acquisitions, and 13.7% for targets subject to unsuccessful acquisitions. Mandelbaum (1993a) reports event week returns of 14% for targets not taken over, and 17.9% for targets that were taken over. Firth (1997) reports CAR of 19.61% at offer week for his entire sample of targets. However Linklater (1998) using daily returns reports CAAR for (-1,+1) of 8.61%. A possible explanation is that the use of weekly returns by previous studies has overstated the effect of the takeover announcement.

Finally, I find the level of takeover returns do not substantially increase over the post announcement period. The CAAR over the (+1,+40) event period is 3.48%, significant at 1%. This tends to suggest that the market has anticipated the result of the takeover, and no further bids are expected to contest the takeover. Thus most returns to shareholders from changes of corporate control occur in the event week, consistent with previous evidence.

8.1.2 Pre-1996 versus Post-1996

Table 8.2 below outlines the CAAR's for the pre-1996 and post-1996 sub-periods. The pre-announcement period shows insignificant returns of -3.22% for the pre-1996 sub-period. However in contrast, the pre-announcement returns for the post-1996 sub-period were found to be 5.51% and significant at 0.1%. The difference between the two samples of 8.73% was found to be significant at 0.1%. Two explanations are advanced for this phenomenon. The first possibility is that takeover targets pre-1996 performed poorly, in which case the takeovers could be seen to be disciplinary. Secondly, there may have been leakage of information post-1996 resulting in price run-up.

Abnormal returns post-1996 were found to be 2.07% lower than pre-1996 for the three-day announcement period, and 2.91% lower for the 40-day post-announcement period. Neither of these variances were significant. Returns over the whole 81-day event period were 6.11% higher for the post-1996 sub-period than the pre-1996 sub-period. This variance between the two sub-periods was found to be significant at 10%.

⁸⁰ The percentage of positive returns for the whole sample is 55.7%, which provides no support for the under-performance hypothesis.

Since most of the variance for the full 81-day event window is attributable to the pre-announcement period, and the announcement and post-announcement periods show little significant difference between the two sub-samples, we conclude that there is insufficient evidence to confirm the hypothesis H1, that returns to target shareholders were increased by the introduction of stock exchange rules.⁸¹

⁸¹ Section 10.1 elaborates on why we believe it is not appropriate to consider pre-announcement returns in comparing two sets of takeover regulations.

TABLE 8.2 TARGET ACQUISITION RETURNS: PRE-1996 VERSUS POST-1996

Event Window	Pre-1996 (N = 79)			Post-1996 (N = 97)			Variance	T-Test (df = 174)
	CAAR	Z	+ive / -ive	CAAR	Z	+ive / -ive		
(-40,-2)	-3.22%	-0.84	35:44	5.51%	3.69***	63:34	-8.73%	-2.2775***
(0,1)	10.29%	5.13***	62:17	8.73%	6.25***	66:31	1.56%	0.6551
(-1,+1)	10.99%	5.56***	62:17	8.92%	6.27***	67:30	2.07%	0.8697
(+1,+40)	5.08%	2.85***	51:28	2.17%	0.83	50:47	2.91%	0.8780
(-40,+40)	9.28%	3.78***	53:26	15.39%	5.66***	66:31	-6.11%	-1.6336

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

8.1.3 Full and Partial Acquisitions

Table 8.3 below sets out the results for acquisitions and partial acquisitions. Panel A compares all full acquisitions to all partial acquisitions. The returns to full acquisitions over the pre-announcement period show abnormal returns of 6.64%, significant at 1%. In contrast partial bids show insignificant abnormal returns of -0.45%. The difference between the two of 7.09% is significant at 0.1%. The significant abnormal returns leading up to a full acquisition is likely to be due to anticipation that the target is in play, whilst the partial acquisitions were not anticipated.

The three day announcement return for full acquisitions was found to be 12.97%, whilst for partial acquisitions the return was 8.76%, and both are significant at 0.1%. The variance between the two is fairly substantial at 4.21%, surprisingly however this was not found to be significant at conventional levels. In contrast to these results Firth (1997) finds announcement week returns of 20.3% for partial acquisitions.

The post-announcement period returns for full acquisitions were found to drop to 9.68%, significant at 1%. In comparison, the post-announcement returns for partial acquisitions were found to fall to 0.59%, which was insignificant. Firth (1997) also reports negative returns after the announcement of a partial bid, however the magnitude of the fall is smaller (4.96%) compared to 8.17% reported here. Choi (1991) finds that toehold purchases that do not result in a full acquisition result in negative returns to the target.

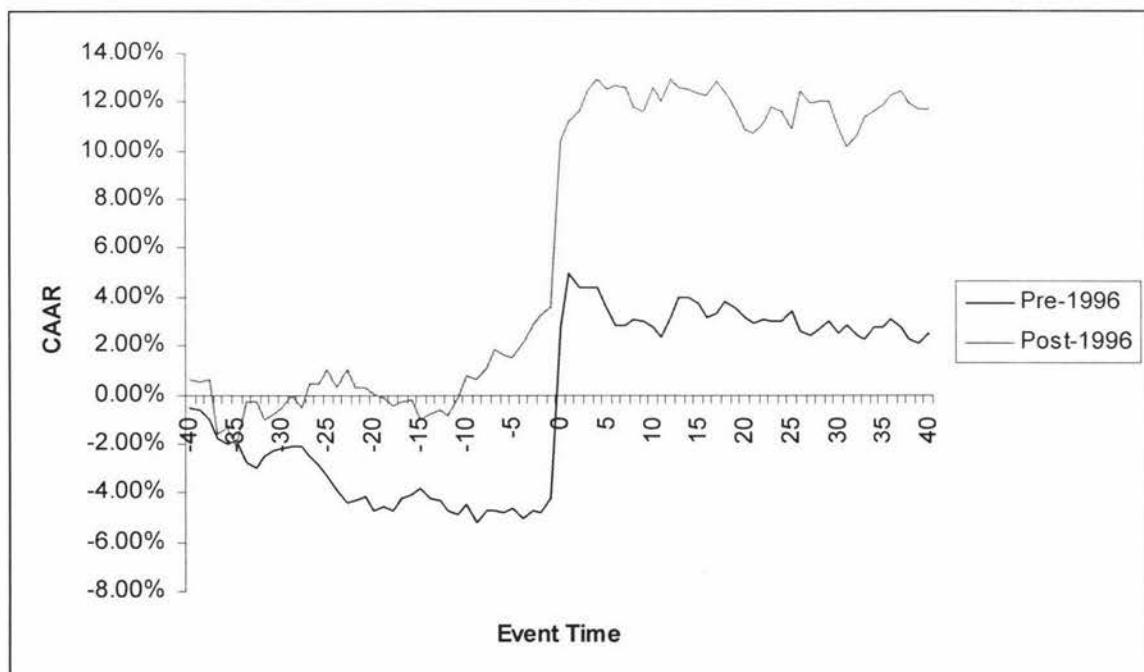
Overall, for the 81-day period under consideration returns for full acquisitions were found to be 17.64% higher than partial acquisitions, and this difference is significant at 0.1%. Thus the evidence confirms H3, that partial takeovers result in significantly lower returns to shareholders than full acquisitions. This evidence is also consistent with Comment and Jarrell (1987).

Panel B of table 8.3 presents a comparison of returns from full acquisitions for the pre-1996 and post-1996 periods. This panel shows that, other than the pre-announcement period, returns from full takeovers have been consistently lower post-1996 than pre-1996. However, in general the difference between the two is not significant. The only variance that is significant is the post-announcement period, which shows a difference

between the two groups of 11.23%, significant at 10%. This large variance could be due to the market believing a contest for control could eventuate in the pre-1996 period whereas in the post-1996 sub-sample the market realized that there was unlikely to be further increases in premiums associated with an auction. These results also do not support the hypothesis H1 that returns post-1996 will be higher than pre-1996.

Panel C of table 8.3 contains the results for partial acquisitions pre-1996 and post-1996. Returns for the 39 days prior to the acquisition were found to be 8.01% higher post-1996. Surprisingly, this variance was found to be insignificant at conventional levels. This is possibly because the pre-announcement CAAR for the pre-1996 sub-sample was insignificant and the pre-announcement CAAR for the post-1996 sub-sample was only weakly significant. The quite large difference between the two sub-samples in the pre-announcement period could be attributable to a combination poor performance of companies prior to 1996 as well as some degree of information leakage post-1996. Figure 8.1 below shows the CAAR over time. The upward trend of the pre-announcement period for the post-1996 sub-sample would tend to suggest leakage. In contrast the trend of the pre-1996 sub-sample is quite markedly negative.

FIGURE 8.1 TARGET CUMULATIVE AVERAGE ABNORMAL RETURNS FROM PARTIAL ACQUISITIONS: PRE-1996 VERSUS POST-1996.



As with the full acquisition sub-sample, the announcement period was found to be insignificantly higher pre-1996. In contrast to the full acquisition sub-samples the returns over the entire 81-day period were higher post-1996 than pre-1996, with a difference of 9.24%, significant at 5%. Most of this variance is attributable to the pre-announcement period. The lack of significant difference between the pre-1996 and post-1996 sub-samples for the announcement and post-announcement period again provides no support for H1.

Panel's D and E of table 8.2 show the comparison of full versus partial acquisitions for the pre-1996 and post-1996 sub-periods. In both cases, returns are consistently larger for full acquisitions than for partial acquisitions. The variances between full and partial takeovers were noticeably larger in the pre-1996 sub-period than the post-1996 sub-period. This was consistent across all event windows, and the gap was widest over the full event period in the pre-1996 subsample. Thus the conclusion to be drawn here is that the introduction of the stock exchange rules narrowed the gap in returns between full and partial acquisitions.

TABLE 8.3 RETURNS TO TARGETS FOR FULL AND PARTIAL ACQUISITIONS

Panel A – Full Acquisitions Versus Partial Acquisitions						
Event Window	Full Acquisitions (N = 58)		Partial Acquisitions (N = 107)		Variance	t-test (df = 163)
	CAAR	Z	CAAR	Z		
(-40,-2)	6.64%	2.95**	-0.45%	1.39	7.09%	4.1449***
(0,1)	12.66%	5.00***	8.33%	6.45***	4.33%	1.6928\$
(-1,+1)	12.97%	5.03***	8.76%	6.86***	4.21%	1.6385
(+1,+40)	9.68%	3.10**	0.59%	0.70	9.09%	3.5458***
(-40,+40)	25.12%	6.69***	7.48%	4.05***	17.64%	4.7291***
Panel B – Full Acquisitions (Pre-1996 versus Post-1996)						
Event Window	Pre-1996 (N = 24)		Post-1996 (N = 34)		Variance	t-test (df = 81)
	CAAR	Z	CAAR	Z		
(-40,-2)	4.77%	1.64	8.01%	2.50*	-3.24%	-0.7257
(0,1)	13.63%	2.57*	11.97%	4.86***	1.66%	0.3118
(-1,+1)	14.52%	2.67**	11.88%	4.76***	2.64%	0.4853
(+1,+40)	16.26%	2.44*	5.03%	1.94\$	11.23%	1.7606\$
(-40,+40)	28.35%	4.78***	22.87%	4.77***	5.48%	0.7234
Panel C – Partial Acquisitions (Pre-1996 versus Post-1996)						
Event Window	Pre-1996 (N = 49)		Post-1996 (N = 58)		Variance	t-test (df = 105)
	CAAR	Z	CAAR	Z		
(-40,-2)	-4.79%	-0.58	3.22%	2.17*	-8.01%	-1.033
(0,1)	9.16%	4.88***	7.62%	4.24***	1.54%	0.5906

(-1,+1)	9.70%	5.50***	7.97%	4.28***	1.73%	0.6667
(+1,+40)	-0.25%	1.39	1.30%	-0.27	-1.55%	-0.2955
(-40,+40)	2.47%	2.38*	11.71%	3.30***	-9.24%	-2.3220*

Panel D – Full Versus Partial Acquisitions (Pre-1996)						
Event Window	Full Acquisitions (N = 24)		Partial Acquisitions (N = 49)		Variance	t-test (df = 71)
	CAAR	Z	CAAR	Z		
(-40,-2)	4.77%	1.64	-4.79%	-0.58	9.56%	0.7957
(0,1)	13.63%	2.57*	9.16%	4.88***	4.47%	0.9796
(-1,+1)	14.52%	2.67**	9.70%	5.50***	4.82%	1.0602
(+1,+40)	16.26%	2.44*	-0.25%	1.39	16.51%	3.5608***
(-40,+40)	28.35%	4.78***	2.47%	2.38*	25.88%	5.9076***

Panel E – Full Versus Partial Acquisitions (Post-1996)						
Event Window	Full Acquisitions (N = 34)		Partial Acquisitions (N = 58)		Variance	t-test (df = 90)
	CAAR	Z	CAAR	Z		
(-40,-2)	8.01%	2.50*	3.22%	2.17*	4.79%	1.5345
(0,1)	11.97%	4.86***	7.62%	4.24***	4.35%	1.4449
(-1,+1)	11.88%	4.76***	7.97%	4.28***	3.91%	1.2642
(+1,+40)	5.03%	1.94\$	1.30%	-0.27	3.73%	0.5646
(-40,+40)	22.87%	4.77***	11.71%	3.30***	11.16%	1.8878\$

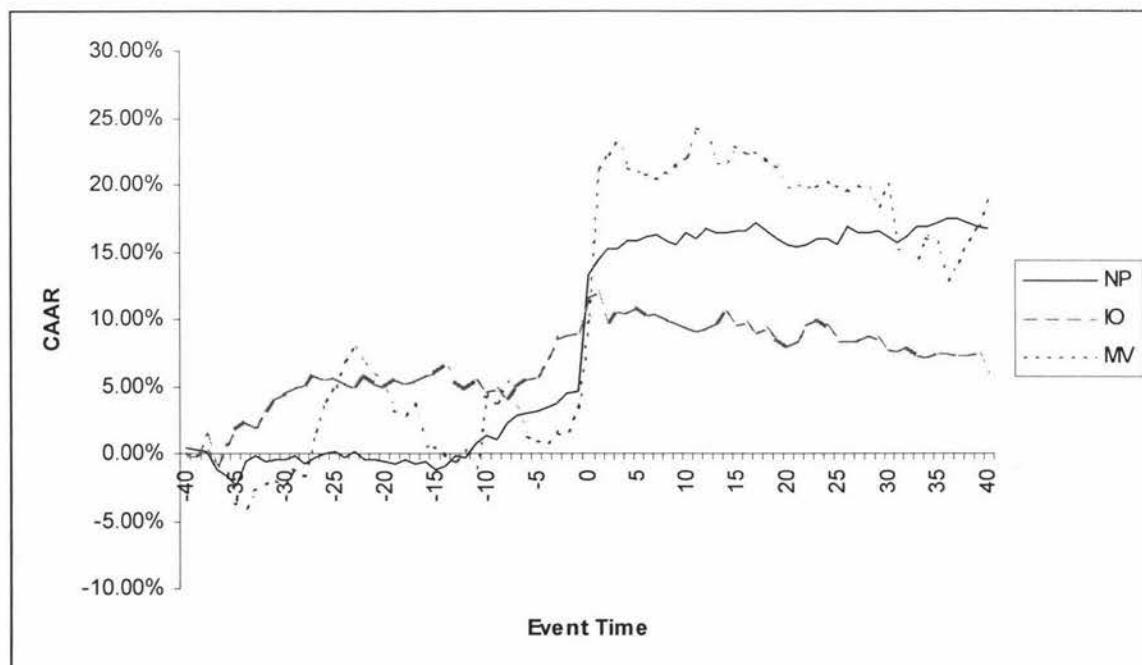
\$ Significant at 10%, * Significant at 5%, ** Significant at 1%, *** Significant at 0.1%

8.1.4 The Takeover Rules

In order to investigate whether the three takeover rules affected returns to shareholders the post-1996 sub-sample was broken down according to each rule and separate event studies run for each regulation. The results of the event studies are outlined in table 8.4. As has been previously noted in this paper most companies chose the Notice and Pause rule, which is reflected in our sample sizes. Note that a t-test for significant difference between samples was conducted only for the variance between Notice and Pause and Insider Only sub-samples as the Minority Veto sub-sample is extremely small.

Figure 8.2 below shows the CAAR's for each of the takeover rules graphically. It is interesting, and very unusual, to note that Insider Only sub-sample does not follow the "traditional" pattern of CAAR's and that it shows a considerable amount of upward trend prior to the announcement. The only possible conclusion is that the market has anticipated the announcement and that there is no surprise factor. The Minority Veto sub-sample shows a lot of movement prior to the announcement, possibly due to rumors about an impending takeover announcement.

FIGURE 8.2 TARGET CUMULATIVE AVERAGE ABNORMAL RETURNS FOR NOTICE & PAUSE, INSIDER ONLY AND MINORITY VETO RULES.



Panel A has the returns for all acquisitions. For the 39-days prior to the announcement of an acquisition, the returns were substantially higher for Insider Only than for Notice and Pause and for Minority Veto, which showed the lowest level of pre-acquisition returns. This could be due to the "control" effects of the Insider Only rule which increased the possibility of a takeover. The t-test for the difference in returns between the Notice and Pause and Insider Only sub-samples revealed no significant difference. This is possibly because of the small size of the Insider Only sub-sample. For the remainder of the event windows this trend was reversed. Minority Veto provided higher returns than Notice and Pause and Insider Only, which exhibited the lowest level of returns. The differences for the 81-day period were 1.81% between Minority Veto and Notice and Pause, 12.46% between Minority Veto and Insider Only, and 10.65% between Notice and Pause and Insider Only. Announcement period returns were 19.63% (insignificant due to the small sample size) versus 9.84% (significant at 0.1%) for Notice and Pause, and 3.05% (insignificant) for Insider Only.

The t-test for significant differences between Notice and Pause and Insider Only revealed that the difference of 6.79% for the three day announcement window was significant at 5%. The difference of 10.65% for the full 81-day period was significant at 10%. Thus, whilst we are not able to confirm that the differences between Minority Veto and the other two rules are significant, some evidence is available to confirm the hypothesis H2, that the more restrictive takeover rules provided better returns to target shareholders. This is consistent with the shareholder interest hypothesis.

Perhaps the two most interesting observations from panel A relate to the Insider Only sub-sample. Firstly the announcement period returns for the Insider Only sub-sample are extremely low, and are contrary to all previous evidence on takeover returns for targets. One possible reason for why the CAAR's for the Insider Only sub-sample were lower is that the market was disappointed with the nature of the acquisition. Ten of the 16 were partial takeovers. In terms of the bid type, six were private tenders, six were general offers, and four were conducted on market. As we have previously noted, an on-market transfer does not necessarily mean that all shareholders got to participate. Thus the CAAR's could be lower than usual due to disappointment by the market that a higher proportion of shareholders did not participate in the change of control.

The low level of CAARs could possibly explain why the post-1996 sub-sample as a whole was lower than the pre-1996 in that the Insider Only sub-sample biased down the sample returns. Secondly, the post-announcement period returns are substantially negative. This would tend to suggest that the market is pricing down the company as a result of the acquisition. A potential explanation for this phenomenon is similar to that already advanced, the transfers were predominantly partial acquisitions in which most shareholders did not have the opportunity to participate or the remaining shareholders did not "approve" of the transfer.

Panel B compares the CAAR's of full acquisitions for the Notice and Pause and Insider Only regimes, whilst Panel C makes the same comparison for partial acquisitions. We found that in general the returns tended to be higher for the Notice and Pause targets than for the Insider Only targets for both full and partial acquisitions. However only the variances for partial acquisitions were found to be significant.

One interesting difference between Panel B and Panel C relates to the pre-announcement period. As with Panel A Insider Only partial acquisitions had higher returns than Notice and Pause. In contrast, Notice and Pause full acquisitions were higher than Insider Only. This result could be due to the market pricing in the possibility of a full acquisition, whilst the partial acquisition was a surprise. We can also see from Panel C that the negative returns to Insider Only companies in the post-announcement results from the partial acquisitions, where as Panel B shows returns post-announcement were still positive. This supports our point made earlier.

TABLE 8.4 COMPARISON OF TARGET RETURNS BY TAKEOVER RULE

Event Window	Panel A – All Acquisitions						Variance	t-test		
	Minority Veto (N = 3)		Notice & Pause (N = 77)		Insider Only (N = 16)					
	CAAR	Z	CAAR	Z	CAAR	Z				
(-40,-2)	1.59%	0.54	4.53%	2.87**	8.86%	2.69**	-4.33%	-1.1855		
(-1,0)	8.75%	1.05	8.75%	5.46***	2.83	2.41*	0	0		
(0,1)	17.84%	1.00	9.71%	6.38***	2.91%	1.18	6.80%	2.3465*		
(-1,+1)	19.63%	1.04	9.84%	6.18***	3.05%	1.57	6.79%	2.7032*		
(+1,+40)	8.26%	0.56	3.50%	0.94	-5.55%	-0.52	9.05%	0.8006		
(-40,+40)	18.60%	0.68	16.79%	5.54***	6.14%	1.36	10.65%	1.9586\$		

	Panel B – Notice & Pause Versus Insider Only – Full Acquisitions							
	Notice & Pause (N = 31)		Insider Only (N = 6)		Variance	t-test		
	CAAR	Z	CAAR	Z				
(-40,-2)	9.19%	3.01**	6.45%	0.72	2.74%	0.3453		
(-1,0)	8.82%	4.18***	2.45%	0.69	6.37%	1.2569		
(0,1)	9.64%	5.00***	5.98%	1.03	3.66%	0.7263		
(-1,+1)	9.81%	4.99***	5.09%	0.96	4.72%	0.9398		
(+1,+40)	3.42%	1.45	3.49%	0.53	-0.07%	-0.115		
(-40,+40)	21.44%	6.00***	12.40%	0.81	9.04%	0.8721		

	Panel C – Notice & Pause Versus Insider Only - Partial Acquisitions							
	Notice & Pause (N = 46)		Insider Only (N = 10)		Variance	Welch test		
	CAAR	Z	CAAR	Z				
(-40,-2)	1.51%	1.60	10.30%	3.50***	-8.79%	-2.8442*		
(-1,0)	8.61%	3.57***	3.06%	2.71**	5.55%	2.0841\$		
(0,1)	9.67%	4.14***	1.07%	0.55	8.60%	2.8291*		
(-1,+1)	9.78%	3.89***	1.83%	1.54	7.95%	2.8589*		
(+1,+40)	3.92%	0.16	-10.97%	-1.05	14.89%	0.5590		
(-40,+40)	14.05%	2.97**	2.38%	1.05	11.67%	2.2247\$		

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

8.1.5 The Effect of Prior Ownership on Returns to Target Shareholders

Table 8.5 below shows the results of event studies run according to whether the bidder had no toehold, a toehold, or held control prior to the announcement of an acquisition. The pre-announcement period returns for the control sub-sample were found to be higher than both the no toehold and toehold sub-samples. However only the variance of -4.32% between control and toeholds was significant (at 5%). A possible explanation for this could be that the market is expecting a full acquisition to take place and have priced in this possibility. The difference between no toehold and toeholds was 3.21% and was significant at 10%. One possible explanation is the market has priced down companies that have toeholds due to the eventual bidder having effective control.

In contrast, announcement period returns were higher for the no toehold sub-sample than for the control and toehold sub-samples respectively. The toehold sub-sample had the lowest announcement returns. However none of the variances were found to be significant.

Post-announcement returns were higher for the control sub-sample than for the no toehold and toehold sub-samples by 4.47% and 6.98% respectively. However only the difference between control and toehold sub-samples was significant, being significantly different from zero at 0.1%. It is possible that the minorities were holding out for a better offer causing post-announcement returns to be higher for the control sub-sample. Returns for the whole 81-day window were also largest for the control sub-sample than for the no toehold and toehold sub-samples, with the difference of 10.39% between control and toehold sub-samples being significantly different from zero at 1%.

These results are inconsistent with H3, which expected that the Control sub-sample would have had the lowest returns. However the Toehold sub-sample had consistently lower returns than the No Toehold sub-sample which is consistent with hypothesis H3. One explanation, which is consistent with H3, is that the higher returns in the control sub-sample is a result of buying pressure from third parties forcing up the price for the remainder of the outstanding shares. This evidence is consistent with Choi (1991). Our conclusion is supported by the fact that the CAAR in the period -20, -2 was 3.71% and

2.37% in the period -10, -2, whereas the CAAR for the whole pre-announcement period was 3.83%.⁸²

This evidence is consistent with the model of Ravid and Spiegel (1999) which shows only small toeholds should be purchased. It is also noticeable that the CAAR's in the post-announcement period are close to zero for the toehold sub-sample suggesting that the market does not expect a further bid. This evidence combined with the observations that (1) toeholds occur frequently, and (2) there few competing bids, is consistent with models that suggest toeholds improve the probability of winning a bid and pre-empting competing bids.

⁸² These event windows are not shown in this table.

TABLE 8.5 THE EFFECT OF PRIOR OWNERSHIP ON TAKEOVER RETURNS FOR TARGETS

Panel A – Event Study Results						
	No Toeholds (N = 65)		Toeholds (N = 63)		Control (N = 43)	
	CAAR	Z	CAAR	Z	CAAR	Z
(-40,-2)	2.72%	1.49	-0.49%	1.23	3.83%	1.69\$
(0,1)	9.73%	4.50***	8.56%	6.52***	8.35%	4.59***
(-1,+1)	10.10%	4.87***	8.68%	6.30***	9.19%	5.05***
(+1,+40)	2.79%	1.33	0.28%	0.40	7.26%	3.72***
(-40,+40)	14.30%	3.51****	7.19%	3.72***	17.58%	5.43***

Panel B – T-Test for Significant Differences						
	No Toehold / Toehold		No Toehold / Control		Toehold / Control	
	Variance	t-statistic	Variance	t-statistic	Variance	t-statistic
(-40,-2)	3.21%	1.6935\$	-1.11%	-0.3822	-4.32%	-2.2389*
(0,1)	1.17%	0.4591	1.38%	0.4533	0.21%	0.0960
(-1,+1)	1.42%	0.5667	0.91%	0.3085	-0.33%	-0.2272
(+1,+40)	2.51%	1.1207	-4.47%	-1.4753	-6.86%	-3.8376***
(-40,+40)	7.11%	1.5609	-3.28%	-0.5792	-10.39%	-2.9256**

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

8.2 Results of the Event Studies for Bidders

8.2.1 Full Sample

Table 8.6 below shows the results for the full sample of 140 bidders between January 1, 1990 and June 30, 2000. Returns over the 38 days leading up to the announcement were found to be insignificantly negative, and the amount of total negative returns was 52%. This would tend to suggest that, for this sample, bidders are average market performers.

The CAAR was found to be 0.61% and insignificant, indicating a competitive market for corporate control as found by previous studies. As with the pre-announcement period the three-day announcement period also showed slightly more negative returns than positive returns. Most of the announcement period returns are occurring between day -1 and day 0, with 0.77% being recorded in this window. Finally, the returns over the whole 81 day event period are found to be -1.84% and insignificant. Most of the negative returns tended to occur in the post-announcement period, with the CAAR for that period being -2.20%. Once again this result was insignificant.

TABLE 8.6 CUMULATIVE AVERAGE ABNORMAL RETURNS FOR BIDDERS

Event Window	CAAR	Z	Positive : Negative
(-40,-2)	-0.40%	0.77	67:73
(-1,0)	0.77%	1.43	62:78
(0,1)	0.26%	0.80	71:69
(-1,+1)	0.61%	1.09	69:71
(-2,+2)	0.86%	1.55	78:62
(+1,+40)	-2.20%	-1.16	61:79
(-40,+40)	-1.84%	0.14	70:70

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

We find that the event week returns (ie -2, +2) were 0.86% and insignificant. In comparison with previous New Zealand literature, Avery and Emanuel (1988) find a CAR of around 0.7% for their sample of all listed bidders⁸³, Duncan et al (1989) find

⁸³ Avery and Emanuel did not disclose the exact results for all listed bidder, their results were broken down by successful and unsuccessful bidders. The authors did have a graph of their results, however I was not able to determine the exact result or its significance.

announcement month returns of 2.06%, which from this author's observations appear to be significant although the level is not known. Finally, Firth (1997) finds announcement week returns of 1.95%, significant at 5%.

8.2.2 Pre 1996 Versus Post 1996

Table 8.7 below has the results for bidders split by pre-1996 and post-1996. The pre-announcement period returns were lower for the post-1996 sub-period by 1.71%, however this variance was found to be insignificant at conventional levels. On the other hand, the returns for the three-day announcement period were higher for the post-1996 sub-period. Again, this difference of 0.26% was insignificant. Finally, the returns to bidders for the 40 days post-announcement and for the full 81-day event window were found to be lower for the post-1996 sub-period by 2.55% and 4.08% respectively. As with the previous variances, neither of these variances was found to be statistically different from zero.

Given that none of the returns are statistically significant,⁸⁴ the evidence is not able to fully confirm H1: that tighter regulations lead to lower returns for bidders. However, the results are generally in line with the expectations of hypothesis H1 given the substantially larger post-announcement fall in returns for the post-1996 sub-period.

⁸⁴ The lack of significant variance could be due to the fact that the initial results are insignificant to start with.

TABLE 8.7 EVENT STUDY RESULTS FOR BIDDERS SPLIT BY PRE-1996 AND POST-1996.

Event Window	Pre-1996 (N = 77)			Post-1996 (N = 63)			Variance	T-Test
	CAAR	Z	+ive / -ive	CAAR	Z	+ive / -ive		
(-40,-2)	0.36%	0.80	39:38	-1.35%	0.21	28:35	1.71%	0.2932
(0,+1)	0.22%	-0.11	36:41	0.31%	1.29	35:28	-0.09%	-0.0405
(-1,+1)	0.49%	-0.15	35:42	0.75%	1.71\$	34:29	-0.26%	-0.0716
(+1,+40)	-1.06%	-1.13	31:46	-3.61%	-0.46	30:33	2.55%	0.3557
(-40,+40)	0.00%	-0.01	37:40	-4.08%	0.23	33:30	4.08%	0.2545

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

8.2.3 Full versus Partial Acquisitions

Panel A of Table 8.8 below shows the results for the whole sample of bidders split according to whether the bidder made a full or a partial acquisition. The pre-announcement period returns were insignificantly lower for bidders making full acquisitions by 1.93%. However for the remainder of the windows, bidder returns were insignificantly higher for full acquisitions. The difference in returns was largest for the post-acquisition period, where the gap was 1.62%. The difference for the full 81-day event window was 1.40%. Whilst these differences are not significant, they are opposite in direction to the expectation of hypothesis H4, which expected partial returns to yield better returns to bidders since the costs of transacting a bid are lower and the bidder can obtain effective control. It is possible that this result could be due to the market preferring full acquisitions over partial acquisitions so that the bidder is able to extract maximum benefits from synergies and cash flows.

Panel B shows the results for full acquisitions split by pre-1996 versus post-1996. The pre-announcement period shows an abnormal return of -4.93% for the post-1996 period versus 2.42% for the pre-1996 period. Both of these returns were not significantly different from zero, although the variance of 7.35% was found to be significant at the 5% level. The (-20,-2)⁸⁵ window for post-1996 shows a negative abnormal return of -2.20%, and as approximately half of the returns occurred in this period it is unlikely that the -4.93% result is attributable to the market anticipating the announcement of the bid.

In contrast to the other event windows, the announcement period returns for full acquisitions were higher for the post-1996 period than for the pre-1996 period. The return for the 3-day announcement window for post-1996 was 1.59%, significant at 10%, versus 0.98% for pre-1996, which was not significantly different from zero. The variance between the two sub-samples was also insignificant.

However, the post-announcement period reverts to the trend of post-1996 returns being lower than pre-1996. The returns post-1996 were -1.82% versus 1.85% for pre-1996, neither of which were significantly different from zero. The variance of 3.67% was also insignificant. Returns over the 81-day event window for the post-1996 period were -

⁸⁵ Not shown as part of the table here.

4.94% and 3.80% for the pre-1996 period. Again, neither of these nor the variance between the two samples was significant.

Panel C presents the results for partial acquisitions, split by pre-1996 and post-1996 sub-samples. The results follow a similar pattern to Panel B of being lower post-1996 than pre-1996. However, none of the results are statistically significant from zero either on their own, or as an analysis of variance. The post-announcement period for the post-1996 period show abnormal returns of -5.25%, versus -0.05% for the pre-1996 period. Possibly the lower returns post-1996 reflect disappointment that the bidder did not fully acquire the target since the rules supposedly facilitate acquisitions.⁸⁶ For the whole event window, partial acquisitions resulted in negative abnormal returns to bidders post-1996, and small positive gains to bidders pre-1996. Most of the negative returns for the post-1996 sample are attributable to the post-announcement period.

Panel D of table 8.8 compares full and partial offers pre-1996. We found that the pre-1996 period had higher returns for full bids than for partial offers for all event windows other than 0,+1, which was marginally lower. None of the variances were found to be statistically significant. Panel E makes the same comparison as Panel D for the post-1996 period. In contrast to the pre-1996 period the pre-announcement period CAAR's for full acquisitions were lower than partial by 5.63% and this variance was significant at the 10% level. It is possible that either bidders were generally poor performers prior to the acquisition, or that the market anticipated the acquisition.

For the remainder of the event windows the returns to full takeovers were higher than partial acquisitions. The three-day announcement window had CAAR's that were 2.24% higher for full acquisitions than partial acquisitions, and this variance was also significantly different from zero at 10%. Post-announcement period CAAR's for full takeovers were 3.43% higher than partial acquisitions. However, this variance was not found to be significantly different from zero. Lastly, CAAR's over the full 81-day period were only 0.19% higher for full acquisitions than partial acquisitions, which was much smaller than the pre-1996 sub-period. However most of this is due to the large negative returns in the pre-announcement period. The fact that the variances are more

⁸⁶ In other words, the market was disappointed that the bidder did not fully utilise the rules to their full potential to enhance shareholder wealth.

pronounced post-1996 suggests that the takeover rules made a greater impact on shareholder returns, and that the market preferred the bidder to completely takeover the target rather than buy a portion.

TABLE 8.8 RETURNS TO BIDDERS FOR FULL AND PARTIAL ACQUISITIONS

Panel A: Full Acquisitions versus Partial Acquisitions						
Event Window	Full Acquisitions (N = 68)		Partial Acquisitions (N = 62)		T-Test	
	CAAR	Z	CAAR	Z	Variance	(d.f = 128)
(-40,-2)	-0.93%	0.00	1.00%	0.86	-1.93%	0.0021
(0,1)	0.43%	0.77	0.09%	-0.14	0.34%	-0.3993
(-1,+1)	1.26%	1.38	-0.12%	-0.58	1.38%	-1.4741
(+1,+40)	-0.86%	-0.52	-2.48%	-0.69	1.62%	-0.4095
(-40,+40)	-0.19%	0.09	-1.59%	0.15	1.40%	-0.1295
Panel B: Full Acquisitions Pre-1996 versus Post-1996						
Event Window	Pre-1996 (N = 37)		Post 1996 (N = 31)		T-Test	
	CAAR	Z	CAAR	Z	Variance	(d.f = 66)
(-40,-2)	2.42%	1.09	-4.93%	-1.64	7.35%	2.0044*
(0,1)	0.20%	-0.23	0.70%	1.40	-0.50%	-0.4738
(-1,+1)	0.98%	0.08	1.59%	1.89\$	-0.61%	-0.0454
(+1,+40)	1.85%	0.42	-1.82%	-0.06	3.67%	0.0635
(-40,+40)	3.80%	0.52%	-4.94%	-0.43	8.74%	0.6622
Panel C: Partial Acquisitions Pre-1996 versus Post-1996						
Event Window	Pre-1996 (N = 33)		Post 1996 (N = 29)		T-Test	
	CAAR	Z	CAAR	Z	Variance	(d.f = 60)
(-40,-2)	1.27%	0.37	0.70%	0.97	0.57%	0.1409
(0,1)	0.58%	0.42	-0.46%	-0.81	1.04%	0.6635
(-1,+1)	0.34%	-0.18	-0.65%	-0.84	1.18%	0.4619
(+1,+40)	-0.05%	-0.58	-5.25%	-0.37	4.75%	0.3914
(-40,+40)	1.51%	-0.09	-5.13%	0.37	6.64%	0.3001
Panel D: Full Acquisitions versus Partial Acquisitions (Pre-1996)						
Event Window	Full (N= 37)		Partial (N = 33)		T-Test	
	CAAR	Z	CAAR	Z	Variance	d.f = 68)
(-40,-2)	2.42%	1.09	1.27%	0.37	1.15%	0.2714
(0,1)	0.20%	-0.23	0.58%	0.42	-0.38%	-0.2381

(-1,+1)	0.98%	0.08	0.34%	-0.18	0.64%	0.0488
(+1,+40)	1.85%	0.42	-0.05%	-0.58	1.90%	-0.0820
(-40,+40)	3.80%	0.52%	1.51%	-0.09	2.29%	0.1299

Panel E: Full Acquisitions versus Partial Acquisitions (Post-1996)

Event Window	Full (N= 31)		Partial (N = 29)		T-Test	
	CAAR	Z	CAAR	Z	Variance	(d.f = 58)
(-40,-2)	-4.93%	-1.64	0.70%	0.97	-5.63%	-1.7665\$
(0,1)	0.70%	1.40	-0.46%	-0.81	1.16%	1.5379
(-1,+1)	1.59%	1.89\$	-0.65%	-0.84	2.24%	1.9520\$
(+1,+40)	-1.82%	-0.06	-5.25%	-0.37	3.43%	0.1002
(-40,+40)	-4.94%	-0.43	-5.13%	0.37	0.19%	0.0106

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

8.2.4 The Effect of the Stock Exchange Regulations

Table 8.9 below presents the results split according to the type of rule that the target had in place prior to a takeover attempt by the bidder. The sample sizes are very small, with only one listed company announcing a bid of a Minority Veto target. Twenty listed companies announced a takeover of a Notice and Pause target, and 4 bidders announced a takeover of an Insider Only target. Bids on companies that did not have a rule (i.e. unlisted companies or offshore targets) were labeled as Others, and had a sample size of 38.

The 39 days prior to the announcement show insignificant negative returns for each of the three rules. The most negative returns were incurred where the target was an Insider Only company, and the least negative returns were associated with Notice and Pause targets. The return for the Others sub-sample prior to the announcement of an acquisition was insignificantly positive.

Returns over the three-day period (-1,+1) were negative for Minority Veto and Insider Only, whilst they were positive for Notice and Pause and Others. None of the returns were significant. Returns for the post-announcement period were negative across each of the three rules and positive for Others. Once again none of the returns were found to be significant, although the negative returns for the Insider Only sub-group were extremely large at -26.88%. The variance between Insider Only and Others was found to be significant at 0.1%, and the variance between Notice and Pause and Insider Only was significant at 5%.

The most valid comparisons that can be drawn are between the Notice and Pause and Other sub-samples due to larger sample sizes. It is notable that returns for each sample window were lower for the Notice and Pause sub-sample. The pre-announcement period returns were 2.58% lower for the Notice and Pause sub-sample, but the variance was not significantly different from zero. The announcement period window yielded very little difference between the two sub-samples. Lastly, the variances of -3.34% for the post-announcement period and -6.6% for the full 81-day event period were also insignificant. The results overall are consistent hypothesis H2, but the lack of significance hampers forming solid conclusions.

TABLE 8.9 EVENT STUDY RESULTS FOR BIDDERS SPLIT BY TAKEOVER RULE

	Panel A: Event Study Results							
	Minority Veto (N = 1)		Notice & Pause (N = 20)		Insider Only (N = 4)		Others (N = 38)	
	CAAR	Z	CAAR	Z	CAAR	Z	CAAR	Z
(-40,-2)	-6.24%	N/a	-2.38%	0.01	-9.73%	-0.08	0.20%	0.41
(0,1)	-0.62%	N/a	0.23%	-0.17	-0.36%	0.84	0.45%	1.35
(-1,+1)	-0.13%	N/a	0.68%	0.67	-0.98%	0.68	1.00%	1.48
(+1,+40)	-1.23%	N/a	-4.23%	-1.42	-26.88%	1.51	-0.89%	1.00
(-40,+40)	-6.34%	N/a	-6.10%	-0.73	-37.01%	-0.83	0.50%	1.30

	Panel B: t-tests					
	Notice & Pause / Insider Only		Notice & Pause / Others		Insider Only / Others	
	Variance	t-stat	Variance	t-stat	Variance	t-stat
(-40,-2)	7.35%	0.0135	-2.58%	-0.0151	-9.93%	-0.2833
(0,1)	0.59%	0.1913	-0.22%	-0.2042	0.81%	-0.7743
(-1,+1)	1.66%	0.6966	-0.32%	-0.2697	-1.91%	-0.9225
(+1,+40)	22.65%	2.2899*	-3.34%	-1.3509	25.99%	-4.4598***
(-40,+40)	30.91%	1.1791	-6.60%	-1.0932	-37.51%	-2.9091**

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

8.2.5 The Effects of Prior Ownership on Returns to Bidders

Panel A of table 8.10 below shows the results split according to whether the bidder had No Toehold, a Toehold, or held Control prior to announcing an acquisition. Panel B shows the results of the t-tests of the variances between sub-samples. The pre-announcement period reveals that the No Toehold sub-sample had insignificant negative abnormal returns, whilst the other groups both had insignificant positive returns. The Control sub-sample was the highest at 0.62%. The variance between sub-samples was largest for No toehold versus Control, however none of the differences were statistically significant.

The three-day announcement window, however, showed insignificant positive returns for the no toehold sub-sample and the control sub-sample, whilst the toeholds sub-sample was insignificantly negative. The largest variance was between the No Toehold and Toehold sub-samples, and the largest announcement returns were for the No Toehold sub-sample.

The post-announcement period shows negative abnormal returns for the No Toehold and Toehold sub-samples, whilst the Control sub-sample had positive CAARs. None of the returns were found to be significantly different from zero. The largest variance related to the difference between the No Toehold and Control sub-samples, whilst the variance between the variance between the No Toehold and Toehold sub-samples was very small. The fact that post-announcement returns are positive for the Control sub-sample whilst the other two sub-samples are negative provides further evidence to support our previous assertion that the market prefers bidders to move to full control rather than a partial acquisition.

The mixed results above do not confirm hypothesis H3: that a toehold will improve returns to the bidders because the abnormal returns for the Toehold sub-sample are not significantly different from the No Toehold sub-sample. We expected to see a greater difference between the two sub-samples. However, the fact that the abnormal returns for the Control sub-sample across all event windows are positive, whilst the other two sub-samples are generally negative, does present some evidence in favour of H3, albeit weak.

TABLE 8.10 THE EFFECT OF PRIOR OWNERSHIP ON RETURNS TO BIDDERS.

Panel A – Event Study Results						
	No Toeholds (N = 74)		Toeholds (N = 25)		Control (N = 41)	
	CAAR	Z	CAAR	Z	CAAR	Z
(-40,-2)	-1.23%	0.75	0.31%	-0.35	0.62%	0.66
(0,1)	0.30%	1.00	-0.21%	-0.12	0.49%	-0.02
(-1,+1)	0.92%	1.35	-0.44%	-0.58	0.70%	0.33
(+1,+40)	-3.71%	-0.72	-3.57%	-1.39	1.34%	-0.29
(-40,+40)	-3.63%	0.60	-3.75%	-1.14	2.55%	0.29

Panel B – T-Test for Significant Differences						
	No Toehold / Toehold		No Toehold / Control		Toehold / Control	
	Variance	t-test	Variance	t-test	Variance	t-test
(-40,-2)	-1.54%	-0.5353	-1.85%	-0.7992	-0.31%	-0.2232
(0,1)	0.51%	0.4504	-0.19%	-0.010	-0.70%	-0.0222
(-1,+1)	1.36%	1.0838	0.22%	0.1208	-1.14%	-0.4089
(+1,+40)	-0.14%	-0.0155	-5.05%	-0.6527	-4.91%	-0.7841
(-40,+40)	0.12%	0.0113	-6.18%	-0.5923	-6.30%	-0.5440

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

9 CROSS-SECTIONAL RESULTS

9.1 Targets

9.1.1 Pearson Correlation Coefficients

Table 9.1 below presents the Pearson correlation coefficients for the model covering the full 10-year period. There were no variables in the models other than the NP and IO variables in the post-1996 model that were strongly correlated.

TABLE 9.1 PEARSON CORRELATION COEFFICIENTS FOR TARGETS

	Initial	Mgmt	Inst	Type	Rule	NP
Initial	1.00					
Mgmt	-0.2278 (0.0084)	1.00				
Inst	-0.2674 (0.0020)	-0.0491 (0.5836)	1.00			
Type	0.2099 (0.0052)	0.0736 (0.4000)	-0.0320 (0.7164)	1.00		
Rule	0.0152 (0.8412)	-0.0317 (0.7168)	-0.0644 (0.4646)	0.0390 (0.6078)	1.00	
NP	0.2075 (0.0436)	0.0592 (0.6370)	-0.2605 (0.0347)	0.0315 (0.7619)	N/A	N/A
IO	-0.163 (0.1145)	-0.0548 (0.6619)	0.0616 (0.6232)	-0.0769 (0.4587)	N/A	-0.8956 (0.0001)

Table 9.2 below summarises the key statistics of the variables used in the regression model. Note that the actual statistics for managerial and institutional shareholdings are presented for completeness although these variables were not part of the regression model.

TABLE 9.2 TARGETS REGRESSION COEFFICIENT SUMMARY STATISTICS

Variable	Mean	Std Dev	Minimum	Maximum
Initial	25.32%	27.66%	0	91.80%
Management%	6.13%	14.24%	0	72.21%
Square Rt (Management%)	14.52%	20.51%	0	84.97%
Institutional%	24.47%	20.33%	0	87.97%
Square Rt (Institutional%)	45.00%	21.83%	0	93.79%
Type	40.34%	49.20%	0	1.00
Rule	53.98%	49.98%	0	1.00
NP	81.05%	39.40%	0	1.00

9.1.2 Regression Results for the Full Sample

Table 9.2 below presents the estimates of the regression model for the full sample of targets (equation 7.9). The results for the 3-day CAR and 5-day CAR are shown. The R-squared was 14.92% and the F statistic was 4.244, which was significant at 0.1%. As to be expected the intercept coefficient was positive, however it was not significant. Somewhat surprisingly the INITIAL coefficient was found to have little effect on the 3-day CAAR when expectations were that a larger toehold would have a negative effect on the returns to shareholders. A slight negative effect of about -0.1% was found for the 5-day CAAR, but this was not statistically significant. These results mean that we cannot confirm with hypothesis H3.

The results of the regression are consistent with Stulz et al (1990) who find that toeholds have a significant negative effect only on their sub-sample of multiple bidders. The results are also consistent with Sudarsanam (1996) who find no relationship between toeholds and returns. However, our results are inconsistent with Mandelbaum (1993b) who finds a negative relationship between target returns and bidder's toeholds.

The MGMT coefficient was found to be positive and significant, indicating that higher managerial shareholdings positively influence target returns, consistent with hypothesis H.5. This result is inconsistent with findings by Bugeja and Walter (1995), Firth (1997), and Raad et al (1999). One possibility is that New Zealand companies are smaller than listed companies internationally and are likely to have larger managerial shareholdings as a consequence.

TABLE 9.3 REGRESSION RESULTS FOR THE FULL SAMPLE OF TARGETS

Variable	3-day CAR Coefficient	t-test (d.f. ⁸⁷ = 171)	5-day CAR Coefficient	t-test (d.f. = 171)
Intercept	0.0310	0.731	0.0224	0.514
INITIAL	0.0090	0.0495	-0.0011	-0.022
MGMT	0.1985	3.106**	0.2098	3.193**
INST	0.0321	0.515	0.4762	0.744
TYPE	0.0739	2.800**	0.0919	3.389***
RULE	-0.03297	-1.289	-0.0352	-1.339
F Value	4.244***			5.255***
R Squared	0.1492			0.1784

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

The INST coefficient in the regression was found to be positive, but not significantly so. This result is consistent with hypothesis H.6, however the lack of statistical significance means we are not able to confirm the hypothesis. Our evidence is consistent with Raad et al (1999) who find a positive relationship between target returns and institutional shareholders, although their finding is significantly different from zero.

The TYPE coefficient was found to play a positive effect on both the 3-day and 5-day CAAR and it was found to be significant at 1% and 0.1% for the 3-day and 5-day CAAR respectively. This indicates that, as we expected, a full acquisition of the target results in higher premiums being paid to target shareholders than if a partial acquisition is made. This is consistent with hypothesis H.4.

Finally, the RULE coefficient was found to have a negative effect of similar magnitudes for the 3-day and 5-day CAAR's. However, neither were found to be significantly different from zero. Thus, the evidence from the cross-sectional regression cannot support the hypothesis H.1 that returns to shareholders will be higher post-1996. In fact they support the event study findings that returns deteriorated post-1996.

9.1.3 Regression Results for Targets Post-1996

Table 9.4 below presents the results of the regression for targets post-1996 only (equation 7.11). One surprising result was that intercept coefficient was slightly negative and insignificant. As with the full sample model the INITIAL variable was found to be positive and insignificantly different from zero. This result differs from hypothesis H.3.

The positive sign of the coefficient could be explained by the market perceiving the build up of the toehold to be a precursor to a takeover, consistent with Ravid and Spiegel (1999).

TABLE 9.4 REGRESSION RESULTS FOR THE POST-1996 MODEL

Variable	3-day CAR Coefficient	t-test (d.f. = 171)	5-day CAR Coefficient	t-test (d.f. = 171)
Intercept	-0.0450	-0.738	-0.0682	-1.049
INITIAL	0.0712	1.148	0.0356	0.538
MGMT	0.0178	0.223	0.0147	0.172
INST	0.1656	2.054*	0.1650	1.919\$
TYPE	0.0446	1.426	0.0649	1.947\$
NP	0.0078	0.197	0.0418	0.989
IO	-0.0348	-0.809	-0.0759	-1.673\$
F Value	1.817			2.249
R Squared	0.1375			0.1648

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

The MGMT and INST coefficients for the post-1996 model show a marked change from the full sample model. The MGMT coefficient is much smaller, and insignificant, whilst the INST variable has also decreased, but is now significant. The INST coefficient is consistent with the hypothesis H.6. It is possible that over time the managerial shareholdings have been sold down and replaced with institutional shareholdings.

The post-1996 model shows a major change in the influence of the TYPE variable. This variable was found to be positive and significant in the full model, however in the post-1996 model the coefficient was still found to be positive but the effect was much smaller and was not significantly different from zero.

The NP coefficient was found to be positive but insignificant indicating the rule did not substantially affect returns. On the other hand the IO coefficient was negative, as expected. This variable was insignificant for 3-day returns, but significant at 10% for 5-day returns. Thus we have some evidence to back up our Hypothesis H2 that the stronger rules would provide better returns than the weaker rules.

⁸⁷ Degrees of Freedom = No of observations – No of Variables.

9.2 Bidders

9.2.1 Pearson Correlation Coefficients and Summary Statistics

Table 9.5 below shows the Pearson Correlation Coefficients for the variables used in the regression equation. Table 9.6 has the summary statistics for the regression coefficients.

TABLE 9.5 PEARSON CORRELATION COEFFICIENTS FOR BIDDERS

	INITIAL	MGMT	INST	TYPE	RULE
INITIAL	1.000				
MGMT	-0.2409 (0.7992)	1.000			
INST	-0.0873 (0.3880)	-0.1789 (0.0748)	1.000		
TYPE	0.1662 (0.0549)	0.2069 (0.0272)	-0.1175 (0.2444)	1.000	
RULE	0.1353 (0.1191)	0.1484 (0.1152)	-0.1454 (0.1490)	-0.1058 (0.2239)	1.000
NP	-0.0643 (0.7708)	-1.924 (0.4033)	-0.5229 (0.0313)	0.1329 (0.5599)	N/a

TABLE 9.6 BIDDERS REGRESSION COEFFICIENT SUMMARY STATISTICS

Variable	Mean	Std Dev	Minimum	Maximum
Initial	22.70%	28.99%	0	89.99%
Management%	10.09%	17.80%	0	67.09%
Square Rt (Management%)	21.24%	23.73%	0	81.91%
Institutional%	28.75%	19.99%	0	79.08%
Square Rt (Institutional%)	50.34%	21.75%	0	88.93%
Type	50.75%	50.18%	0	1.00
Rule	17.16%	37.85%	0	1.00
NP	14.18%	35.01%	0	1.00

9.2.2 Regression Results for the Full Sample

Table 9.7 below shows the results of the cross-sectional regression for the full sample of bidders (see equation 7.10). The results of the regression show that none of the factors considered influenced returns to bidders for either the 3-day or 5-day period. In addition the model had very little explanatory power.

The signs of the INITIAL, MGMT, and INST variables for the 3-day returns were consistent with hypotheses H.3 (positive relationship between toehold size and return), H.5 (positive relationship between size of managerial shareholdings and returns), and H.6 (positive relationship between returns and institutional shareholdings). The MGMT coefficient is consistent with the findings of Firth (1997) who finds higher managerial

shareholdings are associated with lower losses from takeovers. The INST coefficient is consistent with the findings of Duggal and Millar (1999) who find limited evidence of a positive relationship between bidder returns and institutional shareholdings.

However the signs were for the TYPE and RULE variables were opposite to what was expected by H4 (partial takeovers have higher returns for bidders) and H1 (the takeover rules would negatively affect returns to bidders). Given that the coefficients are not statistically significant from zero we are not able to confirm or refute the hypotheses.

TABLE 9.7 REGRESSION RESULTS FOR ALL BIDDERS

Variable	3-day CAR Coefficient	t-statistic (df=129)	5-day CAR Coefficient	t-statistic (df=129)
Intercept	-0.0131	-0.754	-0.0019	-0.104
INITIAL	0.0041	0.205	-0.0119	-0.5871
MGMT	0.0231	0.923	-0.0117	-0.428
INST	0.0203	0.783	0.0174	0.619
RULE	0.0082	0.540	0.0052	0.314
TYPE	0.0009	0.079	0.0047	0.362
F-statistic	0.367		0.182	
R Squared	0.0192		0.0096	

\$ - 10% significance level * - 5% significance level ** - 1% significance level *** - 0.1% significance level

9.2.3 Regression Results for Bidders Post-1996

Table 9.8 below has the results for the cross-sectional regression for bidders making acquisitions post-1996 (see equation 7.12). The results are very similar to the regression for all bidders, although the regression coefficients are larger for the post-1996 model indicating a stronger effect from the NZSE rules. As with the previous section the signs of the INITIAL, MGMT, and INST coefficients are consistent with their respective hypotheses, whilst the TYPE and NP coefficients are opposite in sign to our predictions. The fact that TYPE is positive supports our previous assertion that the market prefers the bidder to make a bid for 100% of the target rather than increasing their stake. The positive sign of the NP indicates that the market prefers a level playing field since the other two rules effectively give one side of the takeover an advantage. The fact that none of the coefficients are significantly different from zero means that we are not able to confirm any of the hypotheses.

TABLE 9.8 REGRESSION RESULTS FOR BIDDERS POST-1996

Variable	3-day CAR Coefficient	t-statistic (df=18)	5-day CAR Coefficient	t-statistic (df=18)
Intercept	-0.0698	-1.546	-0.069	1.819\$
INITIAL	0.1750	-0.469	0.0285	0.909
MGMT	0.4240	1.116	0.0028	0.086
INST	0.0658	1.195	0.0779	1.682
TYPE	0.0312	1.290	0.0104	0.510
NP	0.0447	1.678	0.0372	1.659
F-statistic	1.7470		1.726	
R Squared	0.4427		0.4396	

\$ - 10% significance level * - 5% significance level ** - 1% significance level *** - 0.1% significance level

10 ANALYSIS OF RESULTS AND IMPLICATIONS FOR REGULATORS

The purpose of this section is to summarize our findings and relate them to the regulation of takeovers. The results of the event studies for the whole sample of targets and bidders tend to be fairly close to what has been found in previous studies of the market of corporate control in New Zealand. However, interesting trends emerge when the samples are partitioned.

10.1 Takeover Regulations: Pre-1996 and Post-1996

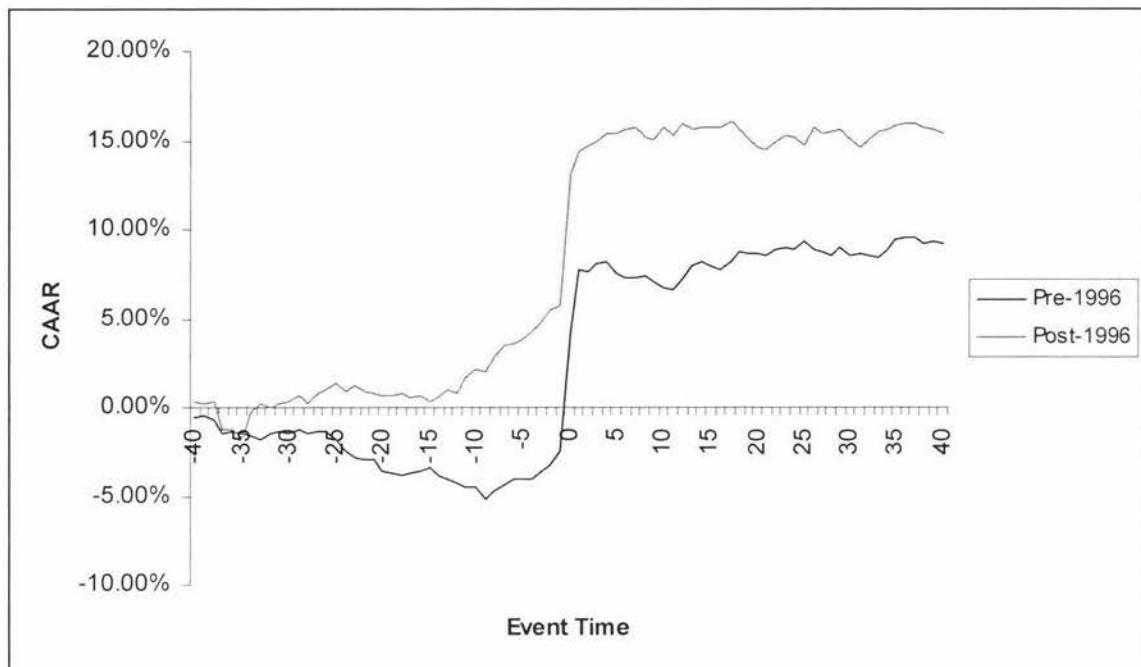
Starting with the broadest examination, pre-1996 versus post-1996. We found that pre-announcement returns for targets were on average higher post-1996 than pre-1996 and the difference was statistically significant. On the other hand, pre-announcement returns for bidders were found to be lower post-1996 than pre-1996, but the difference was not statistically significant. Three-day announcement period returns were on average 2% higher pre-1996 for targets and 0.26% for bidders, however neither of these were statistically different from zero. Post-announcement returns for both targets and bidders were also lower post-1996 than pre-1996, by 2.91% for targets and 2.55% for bidders.

Thus we can see that on average the introduction of the stock exchange rules in 1996 resulted in a wealth loss for bidders and targets. The fact that the introduction of takeover regulations in 1996 resulted in a fall in returns to targets is inconsistent with the proposition that increased takeover regulation enhances target shareholder wealth. It is, however, consistent with the expected fall in wealth for bidders.

Notably, this comment excludes the fact that for the whole 81-day period the average return for targets was 6.11% higher post-1996, which was due mainly to the pre-announcement period. The pre-announcement period is excluded in this analysis due to probable information leakage. Figure 10.1 below demonstrates this quite clearly. Additionally, we believe that it is most appropriate to consider post-announcement returns when assessing the impact of two different regulatory regimes on returns to shareholders from takeovers. The reason for this is the regulations governing takeovers relate to how acquisitions take place, and will thus impact on both the number of acquisitions occurring and the returns generated from the announcement. Therefore,

regulations should only have a limited impact on takeover returns prior to the announcement of a takeover, and have a larger effect post-announcement.

FIGURE 10.1 CUMULATIVE AVERAGE ABNORMAL RETURNS TO TARGETS PRE-1996 AND POST-1996.



The question that has to be asked is why did rules that were generally designed to facilitate takeovers lead to a fall in shareholder wealth when these rules should have promoted shareholder wealth? There are several possibilities.

Firstly, the increased compliance expenses surrounding disclosure could have led to the fall in returns due to lower premiums. However, this explanation is not considered to be a strong argument as the share price reactions at announcements are fairly similar between the two groups.

A second possibility is that the regulations governing takeovers prior to 1996 required a minimum acceptance period of one month⁸⁸. The stock exchange rules, on the other hand, had no such requirement. The lack of a set period for acceptance could create a

⁸⁸ Companies Amendment Act 1963 (Watson (1996) pg 313).

pressure to tender since shareholders do not know if the offer could be withdrawn prematurely. Additionally, the minimum acceptance period gives extra time, which could possibly allow a rival bidder to emerge and an auction for control to eventuate.⁸⁹

Thirdly, on average, the outcome of a takeover could be a foregone conclusion under the stock exchange rules given the rather limited means by which the directors of a target could fend off a hostile bid. The rules have provisions that prohibit defensive tactics whereas there were none under the Companies Amendment Act 1963. In fact the act allowed the directors of the target to recover the costs of defending the takeover from acquirers should the takeover be unsuccessful. Thus the finding that takeover returns were higher pre-1996 could be due to bidders paying higher premiums to overcome the possibility of having to pay the costs of defending their bid to the target.

The last reason proposed here relates to the possibility of ex-post changes in the rules by the NZSE, and bidders applying a discount for this risk. The rules have been subject to waivers by the NZSE surveillance panel. The most controversial waiver granted was in the case of the takeover contest for Montana Wines ("Montana") between Allied Domeq ("Allied") and Lion Nathan ("Lion"). Lion held a 28% shareholding in Montana, which it had accumulated over a number of months. In December 2000 Lion notified the NZSE that it was launching a partial offer for Montana to raise its stake to 51%. However the independent appraisal report commissioned in response to the bid concluded that Montana shares were worth substantially more than the price offered by Lion and the bid failed.

In February 2001 Allied launched a bid for 100% of Montana at the mid-range of the independent valuation. In response Lion increased its offer to 25c per share above the offer of Allied, but still only for a maximum holding of 51%. At the same time Lion applied to the NZSE surveillance panel for a waiver of the Notice and Pause rules, which was granted. The basis of the waiver was that it would supposedly level the playing field between Lion and Montana. However, what actually happened was that the waiver tipped the playing field in favour of Lion. Whilst Allied was considering its response to the

⁸⁹ We note that very few competing bids did actually take place in the time period being studied. However it is the possibility of a competing bidder that is important here not whether a competing bid occurred.

increased offer by Lion, Lion was able to obtain the necessary shares to take its stake to 51%, and defeat the bid by Allied. The pause period that was waived by the NZSE surveillance panel would normally have allowed Allied the time to formulate a response, and would have promoted an auction for the control of Montana. Thus, all shareholders in Montana could have been better served if the waiver had not been granted. The surveillance panel should have realized this.⁹⁰

Our argument is therefore that the uncertainty surrounding the application of the rules in any given situation could have impacted on the market's perception of how a takeover was going to proceed and affected returns. Pound and Zeckhauser (1988) argue that there should be no scope for ex-post changes in rules governing takeovers since this decreases their effectiveness. This was clearly not the case under the NZSE rules. We do note that the takeovers code introduced in July 2001 also provides scope for ex-post changes in the rules in the form of exemptions. However there are strict procedures surrounding the granting of an exemption. Any exemptions granted have to be consistent with the objectives of the code. Hopefully this will ensure that situations like that that occurred in the Montana takeover does not happen again.

In addition, the bid by Lion Nathan was a partial offer on a first come, first served basis, and as a result a stampede to sell ensued. The prisoner's dilemma was increased by the fact that the surveillance panel had waived the pause, which not only promotes an auction but also allows the market time to fully digest the information contained in the bid. If the pause period had remained in place, the market may have realised at the time that the certainty of \$4.40 per share for every share was a better offer than the possibility of \$4.65 for some of their shares or nothing at all. The waiver granted in the Montana case was clearly outside the spirit of the rules to promote auctions for control.

⁹⁰ Montana's independent directors laid a complaint with the NZSE contending that Lion's brokers, Credit Suisse First Boston, acted early in acquiring shares. This opened up the possibility of another takeover play and created price pressure. However, immediately after Lion's initial victory the Montana share price fell heavily as was to be expected. There is little doubt that the price would not have risen again were it not for the actions of Montana's independent directors.

10.2 The NZSE Takeover Rules

Comparing the rules post-1996 in isolation we found that post-announcement returns to targets were higher for Minority Veto than for Notice and Pause, and for Insider Only. Interestingly, that same pattern also applied to returns to bidders. Post-announcement returns were negative across all three rules as well as bids where the NZSE regulations did not apply, but the returns were better for the stronger rules. Whilst the analysis is hampered by lack of reasonable sample sizes, the evidence stills serves as a useful guide. The pattern follows the proposition that increased takeover regulation does enhance shareholder wealth and supports the shareholder interest hypothesis.

The most important point to be taken is returns to both bidders and targets were substantially lower for the Insider Only rule. This tends to indicate that the market prefers changes of control to be undertaken on a level playing field. The Insider Only regulations are the weakest of the three rules with the intent to encourage ease of change in control. However the Insider Only rules tips the playing field firmly in favour of the bidder.

10.3 Full and Partial Acquisitions

We found that full acquisitions provided higher returns than partial acquisitions for targets both at announcement and post-announcement periods, with variance being significantly different from zero at the 0.1% level. The cross-sectional regression further confirmed this evidence. In addition, returns to targets fell substantially in the post-announcement period, especially for partial acquisitions. This would tend to indicate that returns associated with partial takeovers are transient: that is to say they are purely associated with the transfer of control, and investors foresee no benefit from the transfer of ownership. The returns to bidders were also higher for full acquisitions than for partial acquisitions. Again, this was supported by results from the cross-sectional regression. As we have previously noted, this suggests that the market also prefers bidders to take 100% control over a partial acquisition.

The trends also held for splitting the samples by pre-1996 and post-1996. It is possible that the market prefers a full acquisition to take place rather than a partial because a bidder is better able to extract synergies when full control is held. From the target's point of view a full acquisition is preferable since minorities are not locked into illiquid positions, and they are able to share in the premium for control.

Most partial offers are conducted either by private tender or on market. The NZSE rules were also generally inadequate to cover partial acquisitions as the same rules governed full bids. Other countries such as Australia and the UK appear to have recognised the coercive nature of a partial bid and have specific rules governing them. Our results lend support towards regulations that restrict partial takeovers

11 FUTURE RESEARCH

This study has yielded some interesting questions that could be answered by future research. One possibility is to investigate whether regulations that increase the takeover threat, such as the Insider Only regulations, do enhance managerial performance. This would be a test of the shareholder interest versus management entrenchment hypotheses by comparing the relative performance of companies choosing the three types of rule over period January 1, 1996 to 30 June 2001. If the shareholder interest hypothesis held we would expect to see better performance from companies choosing IO than NP and MV respectively since the threat of takeovers would provide an incentive to management.

Other questions raised by this research include:

- The impact of stock exchange waivers on returns;
- Examination of returns from partial acquisitions – are returns higher for changes in control than when there is no change in control?; and
- Investigating the difference in pre-announcement returns to bidders making full acquisitions pre-1996 versus post-1996.

Lastly, it would also be possible to conduct research on the effects of the new takeovers code along similar lines as this paper. Questions that could be answered by research could include: did the code enhance returns to shareholders of both bidders and targets? And did the number of takeovers occurring fall away due to increased compliance costs as predicted by opponents of the code?

12 CONCLUSION

Our research has provided further evidence on takeovers in New Zealand and the effect that regulations have had on returns to shareholders of targets and bidders. Our principal finding was that returns to targets and bidders were higher in the pre-1996 period than the post-1996 period. This was in contrast to our expectations of higher returns for targets in the post-1996 period due to tighter regulations, but it was consistent with our hypothesis for bidder returns. In a comparison of the three separate rules that made up the NZSE takeover regulations we found that the Minority Veto rule had higher returns for both targets and bidders than the other two rules.

We also found that returns were higher from full takeovers than from partial acquisitions for both targets and bidders. Our expectations were that bidders would have had higher returns from partial takeovers. When these results are viewed in combination we can see that the market appears to prefer takeovers on a level playing field with full shareholder participation.

We also examined the role of shareholder structure in takeover returns as two previous studies suggested that it was important in determining which takeover rule was selected under the NZSE takeover regulations, and therefore may influence returns. We found limited evidence to suggest that toeholds, managerial shareholdings and institutional shareholdings impacted on takeover returns.

Overall our results show that the rules governing takeovers in New Zealand did need to be altered. However the extent to which they have been changed is still debatable. It is possible that many of the shortcomings could have been corrected without implementing a mandatory bid rule. One alternative could have been passing the Minority Veto rule as law, which would have improved shareholder participation.

13 BIBLIOGRAPHY

Amery, Mark I., and David M Emanuel, 1988, Takeover announcements and shareholder returns: New Zealand evidence, *Pacific Accounting Review* 1, 42 – 58.

Agrawal, Anup, and Jeffrey F. Jaffe, 1999, Do takeover targets under-perform? Working Paper.

Agrawal, Anup, and Gershon Mandelker, 1990, Large shareholders and the monitoring of managers: The case of antitakeover charter amendments, *Journal of Financial and Quantitative Analysis* 25, 143 – 161.

Bellamy, David E., and Walter M. Lewin, 1992, Corporate takeovers, method of payment, and bidding firms' shareholder returns: Australian evidence, *Asia Pacific Journal of Management* 9, 137 – 149.

Berger, Philip G., and Eli Ofek, 1996, Bustup takeovers of value destroying diversified firms, *Journal of Finance* 51, 1175 - 1201.

Berkman, Henk, and Farshid Navissi, 2000, Rules governing the transfer of ownership: wealth effects and the influence of ownership structure, unpublished working paper.

Berkovitch, E, and M.P. Narayanan, 1993, Motives for takeovers: An empirical investigation, *Journal of Financial and Quantitative Analysis* 28, 347 – 361.

Bradley. Michael, Anand Desai, and E. Han Kim, 1983, The rational behind interfirm tender offers: information or synergy?, *Journal of Financial Economics* 11, 183 – 206.

Bradley. Michael, Anand Desai, and E. Han Kim, 1988, Synergistic gains from corporate acquisitions and their division between the stockholders of targets and acquiring firms, *Journal of Financial Economics* 21, 3 – 40.

- Bugeja, Martin, and Terry Walter, 1995, An empirical analysis of some determinants of the target shareholder premium in takeovers, *Accounting and Finance* 35, 33 – 60.
- Bulow, Jeremy, Ming Huang, Paul Klemperer, 1999, Toeholds and takeovers, *Journal of Political Economy* 107, 427 – 454.
- Burkart, Mike, 1995, Initial shareholdings and overbidding in takeover contests, *The Journal of Finance* 50, 1491 – 1515.
- Butz, David A., 1994, How do large minority shareholders wield control? *Managerial and Decision Economics* 15, 291 – 298.
- Choi, Dosoung, 1991, Toehold acquisitions, shareholder wealth, and the market for corporate control, *Journal of Financial and Quantitative Analysis* 26, 391 – 407.
- Comment, Robert, and Gregg A Jarrell, 1987, Two-tier and negotiated tender offers. The imprisonment of the free-riding shareholder, *Journal of Financial Economics* 19, 283 – 310.
- Comment, Robert, G. and William Schwert, 1995, Poison or placebo? Evidence on the deterrence and wealth effects of modern antitakeover measures, *Journal of Financial Economics* 39, 3 – 43.
- Cotter, James. F, and Marc Zenner, 1994, How managerial wealth affects the tender offer process, *Journal of Financial Economics* 35, 63 – 97.
- De Angelo, G., and E Rice., 1983, Anti-takeover charter amendments and stockholder wealth, *Journal of Financial Economics* 11, 329 – 360.
- De Mott, Deborah A, Comparative Dimensions of Takeover Regulation, in John C. Coffee, Jr., Louis Lowenstein, and Susan Rose-Ackerman, eds., *Knights, Raiders and Targets*, Oxford, England: Oxford University Press 1988, 398 – 435.

Denis, David J., Diane K. Denis, and Atulya Sarin, 1997, Agency problems, equity ownership, and corporate diversification, *The Journal of Finance* 52, 135 – 159.

Dodd, Peter, and R. R. Officer, Takeovers: The Australian experience, *Takeovers & Corporate Control: Towards a New Regulatory Environment*, The Centre for Independent Studies 1987, 129 -152.

Dodd, Peter, and Richard Ruback, 1977, Tender offers and stockholder returns: An empirical analysis, *Journal of Financial Economics* 17, 113 – 142.

Duncan, Keith, Ken Moores, Michael Pead, and Helen Roberts, 1989, Factors affecting post-takeover returns, *Pacific Accounting Review* 2, 19 – 50.

Duggal, Rakesh, and James A. Millar, 1994, Institutional investors, antitakeover defenses and success of hostile takeover bids, *Quarterly Review of Economics and Finance* 34, 387 – 402.

Duggal, Rakesh, and James A. Millar, 1999, Institutional ownership and firm performance: The case of bidder returns, *Journal of Corporate Finance* 5, 103 – 117.

Emanuel David, Takeover announcements and share price reactions: New Zealand Evidence 1968 – 1985, *Takeovers & Corporate Control: Towards a New Regulatory Environment*, The Centre for Independent Studies 1987, 177-189.

Erwin, Gayle. R, Tina M. Galloway, and James M. Miller, 1998, The long-term effect of antitakeover legislation on shareholder wealth and firm performance: Further evidence from Pennsylvania Senate Bill 1310, *Quarterly Journal of Business and Economics* 37, 53 – 71.

Firth, Michael, 1997, Takeovers in New Zealand: Motives, stockholder returns, and executive share ownership, *Pacific-Basin Finance Journal* 5, 419 – 440.

Fitzsimons, Peter, 1996, New Zealand's takeovers regulation: the unresolved debate, *Agenda* 3, 317 – 328.

Garvey, Gerald T., and Gordon Hanka, 1999, Capital structure and corporate control: The effects of antitakeover statutes on firm leverage, *The Journal of Finance* 54, 519 – 546.

Grossman, Sandford J., and Oliver D. Hart, 1980, Takeover bids, the free-rider problem, and the theory of the corporation, *Bell Journal of Economics* 11, 42 – 64.

Harford, Jarrad, 1999, Corporate cash reserves and acquisitions, *Journal of Finance* 54, 1969 – 1997.

Hirshleifer David, and Sheridan Titman, 1990, Share tendering strategies and the success of hostile takeover bids, *Journal of Political Economy* 98, 295 – 324.

Huang, Yen-Sheng, and Ralph A. Walkling, 1987, Target abnormal returns associated with acquisition announcements: Payment, acquisition form, and managerial resistance, *Journal of Financial Economics* 19, 329 – 349.

Jarrell, Greg A., James A Brickley, and Jeffry M Netter, 1988, The market for corporate control: The empirical evidence since 1980, *Journal of Economic Perspectives* 2, 49-68.

Jennings, Robert H., and Michael A Mazzeo, 1993, Competing bids, target management resistance, and the structure of takeover bids, *The Review of Financial Studies* Winter 6, 883- 909.

Jensen, Michael C., 1986, Agency costs of free cash flow, corporate finance, and takeovers, *American Economic Review* 76, 323 – 329.

Jensen, Michael C., and William Meckling, 1976, Theory of the firm, Managerial behaviour, agency costs and capital structure, *Journal of Financial Economics* 3, 305 – 360.

Linklater, Hillary G., The effect of a takeover announcement on firms listed on the New Zealand Stock Exchange, Unpublished Honours Dissertation, Massey University 1998.

Linn, S., and J. McConnell, 1983, An empirical investigation of the impact of 'anti-takeover amendments on common stock prices, Journal of Financial Economics 11, 361 – 399.

Loughran Tim and Anand Vijh, 1997, Do long term shareholders benefit from corporate acquisitions?, The Journal of Finance 52, 1765 – 1790.

Luttman, Ruth, 1992, Changes of corporate control and mandatory bids, International Review of Law and Economics 12, 497 – 516.

Malatesta, Paul H., 1983, The wealth effects of merger activity and the objective functions of merging firms, Journal of Financial Economics 11, 155 – 182.

Mandelbaum, Amnon, The source of gains in New Zealand takeover offers: wealth creation or merely undervaluation?, Discussion Paper, Victoria University 1993a.

Mandelbaum, Amnon, Bidders initial stakes in target companies and premiums paid to remaining shareholders in New Zealand full takeovers: Could it justify a mandatory takeover offer rule?, Discussion Paper, Victoria University 1993b.

Mandelbaum, Amnon, Economic Aspects of Takeovers Regulation with Particular Reference to New Zealand, *Takeovers, institutional investors, and the modernization of corporate law*, John H Farrar Ed, Oxford University Press 1993c.

Mandelbaum, Amnon, 1995, The net-wealth effect of takeovers in New Zealand, The New Zealand Investment Analyst 16, 6 – 11.

Martin, Kenneth J., 1996, The method of payment in corporate acquisitions, investment opportunities, and management ownership, The Journal of Finance 51, 1227 – 1246.

Mikkelson, Wayne H., and M. Megan Partch, 1989, Managers' voting rights and corporate control, Journal of Financial Economics 25, 263 – 290.

Mikkelsen, Wayne H., and Richard S. Ruback, 1985, An empirical analysis of the interfirm equity investment process, *Journal of Financial Economics* 14, 523 – 553.

Mitchell, Mark L., and Kenneth Lehn, 1990, Do bad bidders become good targets, *Journal of Political Economy* 98, 372 - 398.

Myers, Stewart C., and Nicholas J. Majluf, 1984, Corporate financing and investment decisions when firms have information that investors do not have, *Journal of Financial Economics* 13, 187 – 221.

Opler, Tim, and Sheridan Titman, 1993, The determinants of leveraged buyout activity: Free cash flow versus financial distress costs, *The Journal of Finance* 48, 1985 – 1999.

Ogogewo, Tunde I, 1996, The underlying themes of tender offer regulation in the United Kingdom and the United States of America, *Journal of Business Law*, September, 463 – 481.

Pound, John, 1987, The effects of antitakeover amendments on takeover activity: some direct evidence, *Journal of Law and Economics* 30, 353-367.

Pound, John, 1988, The information effects of takeover bids and resistance, *Journal of Financial Economics* 22, 207 – 227.

Pound, John, and Richard J. Zeckhauser, *The market for corporate control. The economics of corporate takeovers and the New Zealand takeover code: An analysis and proposals for reform*, New Zealand Centre for Independent Studies, Wellington, New Zealand, 1988.

Raad, Elias, Robert Ryan, and Joseph F. Sinkey, Jr., 1999, Leverage, ownership structure, and returns to shareholders of targets and bidding firms, *Quarterly Journal of Business and Economics* 38 (2), 37 – 53.

Ramsay, Ian, 1992, Balancing law and economics: The case of partial takeovers, *The Journal of Business Law*, July, 369 – 397.

Ravid, S. Abraham, and Matthew Spiegel, 1999, Toehold strategies, takeover laws and rival bidders, *Journal of Banking and Finance* 23, 1219 – 1242.

Roll, Richard, 1986, The hubris hypothesis of corporate takeovers, *Journal of Business* 59, 197 – 216.

Safieddine, Assem and Sheridan Titman, 1999, Leverage and corporate performance: Evidence from unsuccessful takeovers, *The Journal of Finance* 54, 547 – 580.

Schwert, G. William, 1996, Mark up pricing in mergers and acquisitions, *Journal of Financial Economics* 41 153-192.

Shleifer Andrei, and Robert W. Vishny, 1986, Large Shareholders and Corporate Control, *Journal of Political Economy* 94, 461 – 488.

Stulz, Rene. M, Ralph A. Walkling, and Moon H. Song, 1990, The distribution of target ownership and the division of gains in successful takeovers, *The Journal of Finance* 45, 817 – 833.

Sudarsanam, Sudi, 1996, Large shareholders, takeovers and target valuation, *Journal of Business Finance & Accounting* 23, 295 – 314.

Tapping, Aiden, Ed Vos, James D'Mello, and Joe Cheung, 1998, New Zealand takeover notice provision selection and share price reaction, *Journal of Multinational Financial Management* 8, 317 – 332.

Travlos, Nickolaos G., 1987, Corporate takeover bids, methods of payment, and bidding firms' stock returns, *The Journal of Finance* 42, 943 – 963.

Wahal, Sunil, Kenneth W. Wiles, and Marc Zenner, 1995, Who opts out of state antitakeover protection?: The case of Pennsylvania's SB1310, *Financial Management* 24, 22 – 39.

Watson, Susan, 1996, New Zealand Takeover Law Reform: The long road back to square one, *The Journal of Business Law*, May, 311 – 326.

APPENDIX A ALL BIDDERS AND TARGETS

Acquirer	Included	Target	Included	Initial Stake (a)	% Purchase (b)	Target Stake	Final Stake (a+b)	Announcement Date
Advantage Group Limited	Y	Computer Enhancements Ltd	N	0.00%	50.01%	50.01%	50.01%	25-May-99
Advantage Group Limited	Y	Netco Ltd	N	0.00%	100.00%	100.00%	100.00%	20-Jun-00
Advantage Group Limited	Y	Strathmore Group Ltd	Y	0.00%	20.00%	20.00%	20.00%	06-Sep-99
AGF	N	Kiwi Intl Resources Ltd	Y	0.00%	100.00%	100.00%	100.00%	05-Jul-95
Air NZ Ltd	Y	Ansett Holdings Pty Ltd	N	0.00%	50.00%	50.00%	50.00%	20-Nov-95
Air NZ Ltd	Y	Ansett Holdings Pty Ltd	N	50.00%	50.00%	100.00%	100.00%	18-Feb-00
Air NZ Ltd	Y	Jetset Travel & Technology Holdings Ltd	N	50.00%	50.00%	100.00%	100.00%	19-Jun-97
Air NZ Ltd	Y	Mt Cook	Y	80.80%	19.20%	100.00%	100.00%	29-Oct-90
AMP Asset Management	N	Direct Capital Partners Ltd	Y	0.00%	0.00%	24.99%	0.00%	30-Apr-98
Amuri Corporation Ltd	Y	Wairarapa Electricity Ltd	N	68.17%	31.83%	100.00%	100.00%	13-Mar-96
Amuri Corporation Ltd	Y	Wairarapa Electricity Ltd	Y	48.16%	5.62%	53.78%		18-Dec-95
Amuri Corporation Ltd	Y	Wairarapa Electricity Ltd	Y	23.14%	25.02%	48.16%		17-Oct-95
Amuri Corporation Ltd	Y	Wairarapa Electricity Ltd	Y	68.17%	31.83%	100.00%	100.00%	27-Mar-96
Amuri Corporation Ltd	Y	Wairarapa Electricity Ltd	Y	64.94%	3.23%	68.17%		29-Feb-96
Amuri Corporation Ltd	Y	Wairarapa Electricity Ltd	Y	53.78%	11.16%	64.94%		21-Feb-96
Argent Group NZ Ltd	N	NZ Light Leathers Ltd	Y	82.05%	17.95%	100.00%	100.00%	19-Mar-99
Armada Holdings Ltd	N	Shotover Jet Ltd	Y	42.91%	10.33%	53.24%	53.24%	10-Dec-97
Arthur Barnett	Y	Arthur Barnett Properties	Y	50.00%	50.00%	100.00%	100.00%	06-Dec-90
ASB Bank Ltd	N	Sovereign	Y	0.00%	100.00%	100.00%	100.00%	08-Oct-98
Ashmore Holdings Ltd	N	Agland Holdings Ltd	Y	0.00%	50.90%	50.90%	50.90%	09-Nov-93
Asia Pacific Breweries	N	DB Breweries Ltd	Y	27.35%	27.35%	54.70%	54.70%	04-Nov-93
Asia Pacific Breweries	N	DB Breweries Ltd	Y	73.00%	1.94%	100.00%	74.94%	31-Jan-00
Australian Gas Light Pty Ltd	N	Natural Gas Corporation Ltd	Y	33.35%	33.34%	66.69%	66.69%	22-Jun-99
B & D Nominess	N	The Habitat Group Ltd	Y	0.00%	54.86%	54.86%	54.86%	13-Jul-99
Balclutha Holdings Ltd	N	Donaghys Ltd	Y	16.23%	83.77%	100.00%	100.00%	01-Sep-99
Bank of Scotland	N	Countrywide Banking Corporation Ltd	Y	40.10%	20.04%	60.14%	60.14%	04-May-92

Bank of Scotland	N	Countrywide Banking Corporation Ltd	Y	60.14%	39.86%	100.00%	100.00%	12-May-92
Bankers Trust Ltd	N	St Lukes Group Ltd	Y	23.31%	27.19%	50.50%	50.50%	09-Aug-95
Bay of Plenty Electricity Consumer Trust	Y	Horizon Energy Distribution Ltd	Y	25.00%	52.30%	77.30%	77.30%	22-Nov-99
Baycorp Ltd	Y	Credit Corp	Y	0.00%	100.00%	100.00%	100.00%	04-Nov-93
Brierley Investments Ltd	Y	Carter Holt Harvey Ltd	Y	16.48%	4.65%	21.13%	21.13%	07-Aug-91
Blue Star Office Products	N	Wang NZ Ltd	Y	19.99%	4.12%	24.11%	24.11%	20-Mar-96
Blue Star Office Products	N	Wang NZ Ltd	Y	24.11%	5.89%	30.00%	29.56%	27-Mar-96
Blue Star Office Products	N	Wang NZ Ltd	Y	29.56%	70.44%	100.00%	100.00%	27-Jun-96
Blue Star Office Products	N	U-Bix Business Machines Ltd	Y	0.00%	100.00%	100.00%	100.00%	13-Mar-96
Bridgestone/Firestone	N	Firestone NZ Ltd	Y	83.33%	16.67%	100.00%	100.00%	10-Oct-97
Brierley Investments Ltd	Y	Air NZ Ltd	Y	30.35%	3.88%	34.23%		02-Jun-99
Brierley Investments Ltd	Y	Air NZ Ltd	Y	16.75%	9.17%	25.92%		02-Jun-99
Brierley Investments Ltd	Y	Sky City Ltd	Y	50.60%	12.50%	63.10%	63.10%	26-Jun-97
Brierley Investments Ltd	Y	Industrial Equity Pacific	N	70.16%	29.84%	100.00%	100.00%	07-Mar-91
Brierley Investments Ltd	Y	John Fairfax Holdings Ltd	N	0.00%	20.00%	20.00%	20.00%	17-Dec-96
Brierley Investments Ltd	Y	Lane Walker Rudkin Industries Ltd	Y	51.07%	4.15%	55.22%	55.22%	20-Jul-94
Brierley Investments Ltd	Y	Lane Walker Rudkin Industries Ltd	Y	55.20%	2.40%	57.60%	57.60%	09-Sep-94
Brierley Investments Ltd	Y	Lane Walker Rudkin Industries Ltd	Y	57.70%	3.80%	61.50%	61.50%	12-Sep-94
Brierley Investments Ltd	Y	Lane Walker Rudkin Industries Ltd	Y	61.50%	1.30%	62.80%	62.80%	28-Sep-94
Brierley Investments Ltd	Y	Lane Walker Rudkin Industries Ltd	Y	62.80%	1.50%	64.30%	64.30%	12-Oct-94
Brierley Investments Ltd	Y	Lane Walker Rudkin Industries Ltd	Y	64.30%	1.40%	65.70%	65.70%	11-Nov-94
Brierley Investments Ltd	Y	Mt Charlotte Pty	N	29.80%	70.20%	100.00%	100.00%	25-Sep-90
Brierley Investments Ltd	Y	Tasman Agriculture Ltd	Y	50.52%	1.77%	52.29%	52.29%	07-Aug-95
Brierley Investments Ltd	Y	Wilson & Horton Ltd	Y	0.09%	25.12%	25.21%	25.21%	03-Nov-94
BRL Hardy Pty Ltd	N	Nobilo Wines Ltd	Y	24.78%	75.22%	100.000%	100.00%	15-May-00
Broadway Industries Ltd	Y	Cyclemakers Group (NZ) Industries Ltd	N	40.00%	20.00%	60.00%	60.00%	21-Nov-90
Camrant Holdings Ltd	N	Grocorp Pacific	Y	49.99%	36.66%	86.65%	86.65%	09-Nov-99
Camrant Holdings Ltd	N	Grocorp Pacific	Y	0.00%	49.99%	49.99%	49.99%	17-Nov-98
Canterbury Roller Mills Ltd	Y	Moontide	N	0.00%	100.00%	100.00%	100.00%	25-Oct-94
Canwest Global Communications Corp	N	Radioworks Ltd	Y	19.90%	51.89%	71.79%	71.79%	10-May-00
Capital Markets Ltd	Y	Fay Richwite & Co Ltd	N	62.00%	38.00%	100.00%	100.00%	24-Apr-90
Capital Properties NZ Ltd	Y	Shortland Properties Ltd	Y	0.00%	100.00%	100.00%	100.00%	26-Aug-99

Carr Business Services Ltd	Y	Opio Forestry Fund	N	0.00%	0.00%	100.00%	0.00%	26-Oct-93
Carter Holt Harvey Ltd	Y	Baigent Forest Industries Ltd	N	50.00%	50.00%	100.00%	100.00%	13-Oct-93
Carter Holt Harvey Ltd	Y	NZ Forest Products Ltd	Y	0.00%	52.70%	52.70%	52.70%	25-Jun-90
CDL Hotels Ltd	Y	Kingsgate Hotels	Y	0.00%	50.35%	50.35%	85.34%	05-Apr-94
CDL Hotels Ltd	N	Euronational Corporation Ltd	Y	0.00%	72.25%	50.00%	72.25%	24-Feb-92
Ceramco Corporation Ltd	Y	Hickory Fashions Pty Ltd	N	0.00%	100.00%	100.00%	100.00%	12-Feb-92
CHG Malaysia	N	Damba Holdings Ltd	Y	0.00%	57.00%	57.00%	57.00%	01-Jul-94
CHL NZ Ltd	N	Lane Walker Rudkin Industries Ltd	Y	0.00%	100.00%	100.00%	100.00%	08-Jun-99
Corporate Interiors Ltd	N	Damba Holdings Ltd	Y	0.00%	57.01%	57.01%	57.01%	10-Nov-97
Counterpoint Equities Ltd	Y	Pacific Capital Assets Ltd	Y	0.00%	100.00%	100.00%	100.00%	09-Jun-98
Counterpoint Equities Ltd	Y	Dairy Brands NZ Ltd	Y	0.00%	50.04%	50.04%	50.04%	07-Nov-97
Countrywide Banking Corporation Ltd	Y	United Bank Ltd	N	0.00%	100.00%	100.00%	100.00%	27-Apr-92
D'Avillia Trust	N	Lectricia Holdings Ltd	Y	0.00%	40.04%	40.04%	40.04%	14-Feb-95
Designer Textiles (NZ) Ltd	Y	Auckland Knitting Mills Ltd	N	0.00%	100.00%	100.00%	100.00%	24-May-96
Designer Textiles (NZ) Ltd	Y	Logan Textiles Pty Ltd	N	0.00%	100.00%	100.00%	100.00%	24-May-96
Direct Capital Partners Ltd	Y	Communicado	N	0.00%	32.50%	32.50%	32.50%	06-Aug-96
Direct Capital Partners Ltd	Y	Gallagher Mailing Services Ltd	N	0.00%	24.00%	24.00%	24.00%	10-Oct-96
Direct Capital Partners Ltd	Y	Nobilis Wines Ltd	N	0.00%	49.00%	49.00%	49.00%	19-Dec-95
Direct Capital Partners Ltd	Y	Pacific Flight Catering Ltd	N	0.00%	45.00%	45.00%	45.00%	01-May-96
Direct Capital Partners Ltd	Y	PC Direct Ltd	N	0.00%	25.00%	25.00%	25.00%	16-May-95
Donaghys Ltd	Y	Arthur Ellis & Sons Ltd	N	0.00%	100.00%	100.00%	100.00%	11-Mar-91
Donaghys Ltd	Y	Baigent Building Supplies Limited	N	0.00%	100.00%	100.00%	100.00%	27-Aug-91
Donaghys Ltd	Y	Downs & Sons	N	0.00%	100.00%	100.00%	100.00%	11-Oct-91
Donaghys Ltd	Y	Duronet Ltd	N	0.00%	100.00%	100.00%	100.00%	23-Oct-90
Donaghys Ltd	Y	Peter McInnes Pty Ltd	N	0.00%	100.00%	100.00%	100.00%	30-Jul-90
Donaghys Ltd	Y	Sunshine Leisure Products NZ Ltd	N	0.00%	100.00%	100.00%	100.00%	01-Feb-90
Dorchester Pacific Ltd	Y	Bridge Personnel & Management Consultants Ltd	N	0.00%	100.00%	100.00%	100.00%	15-Nov-96
Dorchester Pacific Ltd	Y	Civic Loan & Finance Ltd	N	0.00%	100.00%	100.00%	100.00%	07-Apr-97
Dorchester Pacific Ltd	Y	Dorchester & Smythe Ltd	N	0.00%	100.00%	100.00%	100.00%	02-Aug-94
Dorchester Pacific Ltd	Y	Knightsbridge Finance	N	0.00%	100.00%	100.00%	100.00%	11-Dec-96
Dorchester Pacific Ltd	Y	Senate Holdings Ltd	N	0.00%	100.00%	100.00%	100.00%	01-Apr-96
Eastern Equities Corporation Ltd	Y	Pakowhai Holdings Ltd	N	0.00%	0.00%	100.00%	0.00%	09-Apr-92

Eastern State Securities	N	Utilico International Ltd	Y	18.74%	8.00%	26.74%	26.74%	13-Oct-99
Eltham Investments Ltd	N	Fay Richwite & Co Ltd	Y	0.00%	100.00%	100.00%	100.00%	10-Feb-95
Emerald Capital Ltd	N	NZ Experience Ltd	Y	48.20%	34.06%	82.26%	82.26%	04-Jun-98
Emerald Capital Ltd	N	Direct Capital Partners Ltd	Y	19.00%	81.00%	100.00%	100.00%	17-Apr-98
Evergreen Forests Ltd	Y	CBS Forests Ltd	Y	0.00%	100.00%	100.00%	100.00%	04-Nov-94
Farmers Mutual Investment Services Ltd	N	Dairy Brands Ltd	Y	0.00%	50.56%	50.56%	50.56%	16-Jun-99
Farmers Mutual Investment Services Ltd	N	Dairy Brands Ltd	Y	50.56%	17.45%	68.01%	68.01%	26-Aug-99
Fernz Corporation Ltd	Y	Bay of Plenty Co-operative	N	0.00%	100.00%	100.00%	0.00%	28-Feb-90
Fernz Corporation Ltd	Y	CFPI	N	45.14%	54.86%	100.00%	100.00%	23-May-97
Fernz Corporation Ltd	Y	Fidene Consolidate (NZ) Ltd	N	0.00%	100.00%	100.00%	100.00%	26-Sep-96
Fernz Corporation Ltd	Y	Pacific Raw Materials Ltd	N	0.00%	60.98%	60.98%	60.98%	26-Sep-96
Fletcher Challenge Canada Limited	N	Fletcher Challenge Paper Ltd	Y	0.00%	0.00%	100.00%	0.00%	23-Sep-99
Fletcher Challenge Ltd	Y	Southern Petroleum Ltd	Y	4.54%	71.50%	76.04%	76.04%	16-Jul-91
Fletcher Challenge Ltd	Y	Southern Petroleum Ltd	Y	87.50%	12.50%	100.00%	100.00%	31-Jul-95
Foodland NZ Ltd	N	Progressive Enterprises Ltd	Y	4.70%	38.10%	42.80%	42.80%	14-Jun-93
Foodland NZ Ltd	N	Pacific Retail Ltd	Y	0.00%	0.00%	100.00%	0.00%	10-Feb-99
Foodland NZ Ltd	N	Progressive Enterprises Ltd	Y	62.90%	37.10%	100.00%	100.00%	11-Jun-99
Force Corp Ltd	Y	South Pacific Pictures	N	0.00%	33.30%	33.30%	33.30%	19-Jan-98
Force Corp Ltd	Y	The Internet Group Ltd	N	0.00%	0.00%	100.00%	0.00%	09-Feb-00
Fortex Ltd	Y	Summit Deer Products Ltd	N	59.00%	41.00%	100.00%	100.00%	13-Mar-91
Gandava Investments Ltd	N	Transmark Corporation Ltd	Y	74.03%	25.97%	100.00%	100.00%	09-Sep-96
Girvan Corporation (NZ) Ltd	N	Jarden Morgan Ltd	Y	0.00%	0.00%	43.00%	0.00%	05-Dec-90
Golden Circle NZ Ltd	N	Cedenco Foods Ltd	Y	0.00%	54.03%	54.03%	54.03%	08-Jun-99
Goodman Fielder Wattie Ltd	N	Ernst Adams Ltd	Y	0.00%	100.00%	100.00%	100.00%	14-Jul-99
Gourmet Direct Ltd	N	Ernst Adams Ltd	Y	27.00%	25.00%	17.00%	42.00%	09-Jun-95
Gourmet Direct Ltd	N	Ernst Adams Ltd	Y	45.56%	1.02%	46.58%	46.58%	09-Jun-97
Griffith Foods	N	Best Corporation Ltd	Y	20.01%	79.99%	100.00%	100.00%	30-Mar-94
Guiness Peat Group Pty	Y	Otter Gold Mines Ltd	Y	19.87%		51.00%		24-Jan-00
Guiness Peat Group Pty	Y	Colonial Motors Ltd	Y	0.57%	33.28%	49.99%	33.85%	17-Oct-95
Guiness Peat Group Pty	Y	Wrightson Ltd	Y	4.78%	13.92%	30.00%	18.70%	01-Nov-99
Guiness Peat Group Pty	Y	Dunbar Sloane Ltd	Y	1.30%	11.90%	13.20%	13.20%	03-Jun-93
Guiness Peat Group Pty	Y	Dunbar Sloane Ltd	Y	31.17%	68.83%	100.00%	100.00%	18-Aug-94

Guiness Peat Group Pty	Y	Turners & Growers Ltd	N	2.00%	26.80%	28.80%	28.80%	12-Dec-94
Gulf USA Corporation	N	Gulf Resources Pacific	Y	91.14%	8.86%	100.00%	100.00%	27-Dec-95
Hellaby Holdings Ltd	Y	Specialty Brands	N	0.00%	49.00%	49.00%	49.00%	21-Jan-00
Hellaby Holdings Ltd	Y	Wool Services International	N	0.00%	45.00%	45.00%	45.00%	17-Dec-97
Independent Newspapers Ltd	Y	Sky Network Television Ltd	N	0.00%	0.00%		0.00%	18-Oct-96
Independent Newspapers Ltd	Y	Sky Network Television Ltd	N	0.00%	48.00%	48.00%	48.00%	02-Jul-97
Independent Newspapers Ltd	Y	Sky Network Television Ltd	Y	40.20%	9.40%	49.60%	49.60%	08-Jun-99
Independent Newspapers Ltd	Y	Wilson & Horton Ltd	Y	89.99%	10.01%	100.00%	100.00%	24-Mar-98
Infrastructure & Utilities Ltd	Y	Central Power Ltd	N	19.78%	3.77%	23.55%	23.55%	01-Apr-97
Infrastructure & Utilities Ltd	Y	Wellington Airport Ltd	N	0.00%	26.40%	26.40%	26.40%	14-Aug-98
Infrastructure & Utilities Ltd	Y	Wellington Airport Ltd	N	26.40%	39.60%	66.00%	66.00%	23-Dec-98
Infrastructure & Utilities Ltd	Y	TrustPower Ltd	Y	21.22%	12.34%	33.55%	33.55%	22-Dec-98
International Paper	N	Carter Holt Harvey Ltd	Y	8.00%	15.70%	23.70%	23.70%	17-Mar-94
International Paper	N	Carter Holt Harvey Ltd	Y	16.06%	34.04%	50.10%	23.70%	13-Apr-95
JANZ	N	Huttons Kiwi Ltd	Y	0.00%	57.08%	57.08%	57.08%	26-May-95
JANZ Investments Ltd	N	Pacific Beef Ltd	Y	64.54%				24-Oct-95
JANZ Investments Ltd	N	Pacific Beef Ltd	Y	85.00%	15.00%	100.00%	100.00%	30-Jul-96
Just Jeans Pty Ltd	N	Underground Fashions Ltd	Y	0.00%	100.00%	100.00%	100.00%	27-Jan-97
Kirin Breweries	N	Lion Nathan Ltd	Y	0.00%	29.40%	29.40%	29.40%	27-Apr-98
Kiwi Income Property Trust	Y	Shortland Properties Ltd	Y	0.00%	0.00%	100.00%	0.00%	26-Jul-99
Lectricia	Y	Seafresh (NZ) Ltd	N	0.00%	100.00%	100.00%	100.00%	31-Aug-95
Lion City Holdings Ltd	N	Noel Leeming Ltd	Y	0.00%	38.46%	40.00%	38.46%	28-Mar-95
Lion Nathan Ltd	Y	Australian Consolidated Investments Limited	N	0.00%	0.00%	100.00% nil		11-Oct-91
Lion Nathan Ltd	Y	National Brewing	N	50.00%	50.00%	100.00%	100.00%	31-Jan-92
Lion Nathan Ltd	Y	South Australian Brewing	N	0.00%	100.00%	100.00%		02-Aug-93
Logan Corp Ltd	N	Pacific Retail Ltd	Y	19.99%	51.40%	100.00%	71.39%	17-Dec-98
Magnum Corporation Ltd	Y	Austotel Trust	N	0.00%	50.00%	50.00%	50.00%	28-Feb-91
Magnum Corporation Ltd	Y	Australian Consolidated Holdings Limited	N	88.14%	11.86%	100.00%	100.00%	02-Mar-90
Magnum Corporation Ltd	Y	Wilson Neil Ltd	Y	17.35%	9.66%	27.01%	27.01%	17-Sep-90
Maine Investments Ltd	N	Skellerup	Y	0.00%	100.00%	100.00%	100.00%	20-Dec-95
Mainfreight Ltd	Y	Mainfreight International Ltd	N	50.00%	50.00%	100.00%	100.00%	01-Dec-97
Mainzeal Ltd	Y	Mair Astley Holdings Ltd	Y	64.00%	5.47%	100.00%	69.47%	28-Mar-91

Mainzeal Ltd	Y	Mair Astley Holdings Ltd	Y	50.27%	49.73%	100.00%	100.00%	03-Nov-95
Malcolm North	N	Mt Cavendish Gondola Ltd	Y	13.20%	10.90%	24.10%	24.10%	17-Aug-93
Management Buyout	N	Eastern Equities Corporation Ltd	Y	18.97%	81.03%	100.00%	100.00%	21-Jun-99
MBM Resources Barhad	N	Colonial Motors Ltd	Y	0.00%	24.88%	24.88%	24.88%	26-May-97
McCollum Printers Ltd	Y	Format Publishers Ltd	N	0.00%	100.00%	100.00%	100.00%	11-Nov-96
Micada Holdings Ltd	N	Wilson Neil Ltd	Y	0.03%	26.28%	26.31%	26.31%	27-May-96
Michael Hill International Limited	Y	John Craig	N	0.00%	100.00%	100.00%	100.00%	21-Jun-91
Millenium and Copthorne Hotels Plc	N	CDL Hotels Ltd	Y	0.00%	68.96%	68.96%	68.96%	23-Apr-99
Ming Shan Holdings Ltd	N	The Habitat Group Ltd	Y	0.00%	54.86%	54.86%	54.86%	17-Jul-98
Minzog	N	United Resources Investment Holdings Ltd	Y	0.00%	100.00%	100.00%	100.00%	25-Jun-93
Motor Holdings Ltd	N	Mair Astley Holdings Ltd	Y	0.00%	0.00%	76.04%	0.00%	19-Jul-91
Murray International	N	Pacific Retail Ltd	Y	37.05%	21.03%	58.08%	58.08%	11-Nov-97
N. Nobilo & Sons Ltd	N	Nobilo Wines Ltd	Y	28.27%	16.27%	44.54%	44.54%	20-Apr-00
National Australia Bank Pty Ltd	N	Bank of New Zealand Ltd	Y	0.00%	100.00%	100.00%	100.00%	21-Jul-92
National Australia Bank Pty Ltd	N	BNZ Finance Ltd	Y	78.00%	22.00%	100.00%	100.00%	24-Nov-95
Natural Gas Corporation Holdings Ltd	Y	Natural Gas Waikato Ltd	N	70.00%	30.00%	100.00%	100.00%	09-Sep-97
Natural Gas Corporation Holdings Ltd	Y	Transalta NZ Ltd	Y	0.00%	75.80%	100.00%	75.80%	17-Jan-00
Ngai Tahu Holdings Ltd	N	Shotover Jet Ltd	Y	0.00%	40.80%	41.30%	40.80%	01-Jul-99
Noel Leeming Ltd	Y	Bond & Bond Ltd	N	0.00%	100.00%	100.00%	100.00%	14-Jun-96
Norske Skog	N	Fletcher Challenge Paper Ltd	Y	0.00%	100.00%	100.00%	100.00%	03-Apr-00
Nuplex Holdings Ltd	Y	Australian Chemical Holdings Ltd	N	0.00%	100.00%	100.00%	100.00%	11-Dec-97
NZ Forest Products Ltd	Y	Oakbridge	N	53.50%	33.50%	100.00%	87.00%	19-Jan-90
NZ Oil & Gas Ltd	Y	Pan Pacific Petroleum	N	49.11%	0.64%	100.00%	49.75%	06-May-91
NZ Petroleum Co Ltd	Y	Blue Cross Eldercare Ltd	N	0.00%	100.00%	100.00%	100.00%	17-Sep-98
Oregon Forestry (NZ) Ltd	N	Ascot Management Corporation NZ Ltd	Y	0.00%	75.00%	75.00%	75.00%	26-Aug-93
Orion Resources NL	N	Summitt Gold NL	Y	0.00%	50.57%	50.57%	50.57%	21-Nov-91
Otter Gold Mines Ltd	Y	Gold Resources Ltd	Y	54.00%	46.00%	100.00%	100.00%	19-Oct-95
Palmcove Assey Pty	N	Cue Energy Resources NL	Y	21.04%		33.14%		26-Oct-99
Panoramic Islands Ltd	N	Property Link Holdings Ltd	Y	8.55%	50.36%	58.91%	50.36%	15-Nov-93
Parapine Timber NZ Ltd	N	Dairy Brands Ltd	Y	0.00%	50.04%	50.04%	50.04%	29-Jul-97
Paynter Timber Group Ltd	Y	Cardrona Group Ltd	Y	74.50%	25.50%	100.00%	100.00%	14-Dec-90
PDL Holdings Ltd	Y	Master Trade Ltd	Y	60.99%	39.01%	100.00%	100.00%	04-Jun-96

Power NZ Ltd	Y	Bay of Plenty Electricity Ltd	N	0.00%	52.29%	55.00%	52.29%	15-Jul-96
Pyne Gould Corporation Ltd	N	Amuri Corporation Ltd	Y	29.30%	9.99%	39.29%	39.29%	28-May-90
Pyne Gould Corporation Ltd	N	Amuri Corporation Ltd	Y	40.70%	6.40%	47.10%	47.10%	04-Jun-92
Radio Pacific Ltd	Y	Energy Enterprises Ltd	N	0.00%	100.00%	100.00%	100.00%	24-Jan-97
Radio Pacific Ltd	Y	XS Corporation	N	0.00%	100.00%	100.00%	100.00%	28-Jan-98
Radio Pacific Ltd	Y	Radio Otago Ltd	Y	0.00%	100.00%	100.00%	100.00%	02-Feb-99
Rank Commercial Ltd	N	Whitcoulls Group Ltd	Y	55.00%	10.00%	65.00%	65.00%	11-Sep-95
Rank Commercial Ltd	N	Whitcoulls Group Ltd	Y	64.52%	35.48%	100.00%	100.00%	19-Feb-96
Rank Group Ltd	Y	Whitcoulls Group Ltd	N	0.00%	100.00%	100.00%	100.00%	06-Sep-91
Revesco Ltd	Y	Pracom Ltd	N	0.00%	22.00%	50.00%	22.00%	16-Mar-98
Rocksprings	N	Restech	Y	65.00%	35.00%	100.00%	100.00%	21-Nov-94
Salinek	N	Roller Mills Fashion Company Ltd	Y	0.00%	75.00%	75.00%	75.00%	16-Nov-95
Salmon Smith Biolab Ltd	Y	Regal Salmon Ltd	Y	0.00%	0.00%	100.00%	0.00%	22-Jul-93
Saree Holdings Ltd	N	Strathmore Group Ltd	Y	0.00%	70.53%	70.53%	70.53%	09-Jun-99
Savoy Equities	N	Parapine Timber NZ Ltd	Y	0.00%	51.70%	51.70%	51.70%	17-Jul-98
SEABIL (NZ) Holdings Ltd	Y	Trans Tasman Properties Ltd	Y	48.39%				27-Apr-99
SEABIL (NZ) Ltd	Y	Tasman Properties Ltd	Y	35.00%	65.00%	100.00%	100.00%	08-Jun-95
Shotover Jet Ltd	Y	Mt Cavendish Gondola Ltd	Y	0.00%	0.00%	100.00%	0.00%	24-Nov-94
Silvias Holdings Ltd	N	Jarden Morgan Ltd	Y	0.00%	100.00%	100.00%	100.00%	01-Jul-91
Singapore Airlines	N	Air NZ Ltd	Y	8.30%	16.70%	25.00%	25.00%	26-Apr-00
Skellerup Group Ltd	Y	Levene Corporation Ltd	N	0.00%	100.00%	100.00%	100.00%	23-Aug-94
Skellerup Group Ltd	Y	Noel Leeming Ltd	Y	0.00%	0.00%	100.00%	0.00%	02-Nov-94
Slater Group Ltd	N	Lectricia Holdings Ltd	Y	0.00%	46.74%	46.74%	46.74%	05-May-94
South Eastern Utilities Ltd	Y	Bay of Plenty Electricity Ltd	N	0.00%	5.03%	100.00%	5.03%	15-Aug-97
Southern Capital Ltd	N	CBD Properties Ltd	Y	0.00%	100.00%	100.00%	100.00%	22-Apr-99
SouthPower Ltd	N	Enerco NZ Ltd	Y	33.60%	19.90%	53.50%	53.50%	30-Nov-93
SouthPower Ltd	N	Enerco NZ Ltd	Y	69.00%	31.00%	100.00%	100.00%	30-Oct-98
Spotless Services Ltd	N	Taylors Group Ltd	Y	54.00%	0.00%	100.00%	54.00%	20-Jan-94
Spotless Services Ltd	N	Taylors Group Ltd	Y	0.00%	51.00%	51.00%	51.00%	09-Dec-91
Spotless Services Ltd	N	Taylors Group Ltd	Y	60.65%	4.46%	65.11%	65.11%	22-Sep-99
Spotless Services Ltd	N	Taylors Group Ltd	Y	65.11%	0.47%	65.58%	65.58%	20-Dec-99
Steel & Tube Holdings Ltd	Y	A J Forsyth & Co Ltd	N	0.00%	51.00%	51.00%	51.00%	02-Oct-95
Steel & Tube Holdings Ltd	Y	Southern Cross Engineering Ltd	N	0.00%	100.00%	100.00%	100.00%	29-Jan-96

Steel & Tube Holdings Ltd	Y	Stewart Steel Ltd	N	0.00%	100.00%	100.00%	100.00%	30-Mar-92
Tasman Agriculture Ltd	Y	The Van Dieman's Land Company	N	0.00%	87.50%	87.50%	87.50%	03-Sep-93
Telecom Corporation of NZ Ltd	Y	AAPT Ltd	N	19.80%	60.20%	80.00%	80.00%	15-Sep-99
Telecom Corporation of NZ Ltd	Y	Sky Network Television Ltd	N	0.00%	25.00%	25.00%	25.00%	03-Jul-95
The Treaty of Waitangi Fisheries Commission	N	Salmon Smith Biolab Ltd	Y	0.00%	40.65%	40.65%	40.65%	22-Feb-95
Tiong Group	N	Salmon Smith Biolab Ltd	Y	8.50%	91.50%	100.00%	100.00%	13-Aug-95
Todd Capital Ltd	N	Metlife Care Ltd	Y	0.00%	34.47%	35.00%	34.47%	20-Sep-99
Transalta Corporation	N	Transalta NZ Ltd	Y	67.40%	8.40%	100.00%	75.80%	26-Aug-99
Transco	N	Canterbury Roller Mills	Y	0.00%	75.00%	75.00%	75.00%	17-Feb-94
Transmark Corporation Ltd	Y	U-Bix Business Machines Ltd	Y	0.00%	35.30%	35.30%	35.30%	14-Aug-95
TrustPower Ltd	Y	Rotorua Electricity Ltd	N	17.00%	51.00%	68.00%	68.00%	05-Sep-94
TrustPower Ltd	Y	Rotorua Electricity Ltd	N	68.00%	16.60%	84.60%	84.60%	17-Aug-95
TrustPower Ltd	Y	Rotorua Electricity Ltd	N	84.60%	15.40%	100.00%	100.00%	22-Aug-95
TrustPower Ltd	Y	Taupo Electricity Ltd	N	0.00%	100.00%	100.00%	100.00%	21-Aug-95
Utilicorp	N	Power NZ Ltd	Y	30.60%	6.90%	37.50%	37.50%	29-Jun-98
Utilicorp	N	Power NZ Ltd	Y	37.54%	41.10%	78.64%	78.64%	10-Sep-98
Various	N	Mainzeal Group Ltd	Y	0.00%	45.82%	45.82%	0.00%	26-Oct-94
Various	N	Mainzeal Group Ltd	Y	0.00%	50.35%	50.95%	50.35%	28-Mar-95
Wahn Investments Ltd	N	Zuellig NZ Ltd	Y	91.80%	8.20%	100.00%	100.00%	10-May-99
Waste Management Ltd	Y	Waste Care	N	0.00%	100.00%	100.00%	100.00%	25-Mar-99
Waverider Investments Ltd	N	Steel & Tube Holdings Ltd	Y	0.00%				20-Sep-99
Westfield Trust	N	St Lukes Group Ltd	Y	0.00%	46.40%	46.40%	46.40%	23-Oct-98
Westfield Trust	N	St Lukes Group Ltd	Y	46.40%	5360.00%	100.00%	100.00%	31-May-00
Westpac Banking Corporation Ltd	N	Trustbank Ltd	Y	0.00%	100.00%	100.00%	100.00%	19-Apr-96
Whitshire Equities Ltd	N	Advantage Group Ltd	Y	31.00%	10.31%	51.00%	41.31%	21-Nov-97
Whyte Adder No.3 Ltd	N	Ebos Group Ltd	Y	25.44%		30.00%		16-Jun-99
Williams & Kettle Ltd	Y	Fruitfed Supplies Ltd	Y	0.00%	22.00%	22.00%	22.00%	18-Nov-94
Williams & Kettle Ltd	Y	Fruitfed Supplies Ltd	Y	36.34%	33.33%	69.67%	69.67%	27-May-99
Williams & Kettle Ltd	Y	Fruitfed Supplies Ltd	Y	69.67%	30.33%	100.00%	100.00%	03-Sep-99
Williams & Kettle Ltd	Y	NZ Rural Properties Ltd	Y	8.45%	48.15%	100.00%	56.60%	15-Jul-96
Williams & Kettle Ltd	Y	NZ Rural Properties Ltd	Y	56.60%	43.40%	100.00%	100.00%	06-Jan-99
Wilson Neil Ltd	Y	Cascade Group Ltd	N	61.00%	39.00%	100.00%	100.00%	07-Mar-90
Wiltshire Equities Ltd	N	Advantage Group Ltd	Y	0.00%	25.85%	25.85%	25.85%	16-Sep-97

Zealhoff Holdings Ltd	N	Milburn Cement Ltd	Y	73.00%	27.00%	100.00%	100.00%	21-Aug-98
Zuellig	N	Stevens KMS	Y	59.00%	27.52%	86.52%	86.52%	14-Mar-90

APPENDIX B DAILY ABNORMAL RETURNS OVER THE 81 DAY PERIOD

Note that for the nonparametric tests, significance levels of 10%, 5%, 1% and 0.1% are denoted by (, <, <<, <<< or), >, >>, >>> respectively. Left brackets -- (, < -- appear when the ratio of positive to negative is less than in the parameter estimation period. Right brackets mean that the ratio is more positive than in the estimation period.

TABLE B.1 DAILY EVENT STUDY RESULTS FOR TARGETS

Event Day	Average Abnormal Return	Z	Positive:	Negative	Generalised
					Sign
-40	-0.07%	-0.93	65:111		-1.97<
-39	-0.01%	0.51	82:94		0.61
-38	-0.04%	0.15	68:107		-1.45
-37	-1.21%	-3.06**	65:110		-1.90(
-36	0.06%	-0.15	70:103		-1.01
-35	-0.28%	-1.11	81:94		0.53
-34	0.73%	1.67\$	81:93		0.60
-33	0.10%	1.01	87:89		1.37
-32	0.08%	1.24	86:89		1.29
-31	0.20%	0.25	86:89		1.29
-30	0.00%	0.51	74:102		-0.60
-29	0.26%	0.39	82:94		0.61
-28	-0.35%	-1.93\$	78:97		0.07
-27	0.36%	1.38	84:91		0.99
-26	0.14%	0.58	78:98		0.01
-25	-0.06%	0.58	78:98		0.01
-24	-0.48%	-1.34	73:102		-0.69
-23	0.00%	-0.12	71:105		-1.06
-22	-0.25%	0.21	81:95		0.46
-21	-0.02%	1.05	83:93		0.77
-20	-0.41%	-1.66\$	63:113		-2.27<
-19	-0.09%	-0.34	76:100		-0.30
-18	0.03%	0.87	81:95		0.46
-17	-0.06%	-1.01	82:94		0.61
-16	0.10%	1.16	83:93		0.77

-15	-0.11%	0.59	77:99	-0.14
-14	-0.02%	0.48	80:96	0.31
-13	0.14%	0.75	71:105	-1.06
-12	-0.21%	-0.52	74:102	-0.60
-11	0.40%	1.39	82:93	0.68
-10	0.28%	1.00	84:92	0.92
-9	-0.41%	-1.70\$	68:108	-1.51
-8	0.64%	1.84\$	93:83	2.28>
-7	0.53%	1.62	88:88	1.52
-6	0.20%	0.90	72:103	-0.84
-5	0.10%	0.93	89:87	1.68)
-4	0.25%	1.36	91:85	1.98>
-3	0.53%	2.15*	88:88	1.52
-2	0.54%	2.09*	99:77	3.19>>
-1	0.42%	2.29*	97:79	2.89>>
0	7.16%	7.98***	120:56	6.38>>>
+1	2.27%	2.54*	88:88	1.52
+2	0.14%	0.42	73:103	-0.75
+3	0.29%	0.89	83:93	0.77
+4	0.26%	-0.33	81:95	0.46
+5	-0.25%	-0.31	70:106	-1.21
+6	-0.04%	-0.10	82:94	0.61
+7	0.08%	0.38	75:101	-0.45
+8	-0.20%	-1.10	86:90	1.22
+9	-0.24%	-0.85	77:99	-0.14
+10	0.21%	-0.10	79:97	0.16
+11	-0.28%	-0.51	81:95	0.46
+12	0.61%	1.74\$	79:97	0.16
+13	0.21%	1.08	75:101	-0.45
+14	0.15%	1.83\$	93:83	2.28>
+15	-0.10%	-0.26	78:98	0.01
+16	-0.12%	-0.02	83:93	0.77
+17	0.39%	1.81\$	89:87	1.68)
+18	0.03%	-0.46	79:97	0.16

+19	-0.35%	-2.11*	70:105	-1.14
+20	-0.26%	0.47	78:98	0.01
+21	-0.12%	-1.08	79:97	0.16
+22	0.37%	2.08*	89:87	1.68)
+23	0.23%	1.00	89:87	1.68)
+24	-0.09%	-0.70	85:91	1.07
+25	-0.05%	0.07	75:101	-0.45
+26	0.35%	0.57	78:98	0.01
+27	-0.25%	-1.25	71:105	-1.06
+28	-0.05%	-0.40	76:100	-0.30
+29	0.27%	1.38	85:91	1.07
+30	-0.49%	-1.83\$	74:102	-0.60
+31	-0.20%	-0.22	81:95	0.46
+32	0.20%	1.80\$	86:90	1.22
+33	0.22%	0.43	73:103	-0.75
+34	0.27%	2.02*	83:93	0.77
+35	0.34%	1.72\$	74:102	-0.60
+36	0.14%	1.26	88:88	1.52
+37	0.00%	-0.63	80:95	0.38
+38	-0.30%	-1.39	70:106	-1.21
+39	0.02%	0.44	88:88	1.52
+40	-1.09%	-1.39	68:108	-1.51

TABLE B.2 DAILY EVENT STUDY RESULTS FOR BIDDERS

Event Day	Average Abnormal Return	Z	Positive: Negative	Generalised
				Sign
-40	0.05%	-0.81	50:89	-2.25<
-39	0.04%	0.54	66:73	0.48
-38	-0.22%	-0.59	59:80	-0.72
-37	-0.05%	-0.18	59:80	-0.72
-36	0.02%	0.18	66:74	0.40
-35	0.42%	1.67\$	80:60	2.77
-34	-0.02%	0.45	65:75	0.23
-33	-0.20%	-0.74	66:74	0.40
-32	-0.28%	-0.14	63:77	-0.11
-31	-0.04%	-0.21	60:79	-0.55
-30	0.26%	1.38	64:76	0.06
-29	0.25%	1.29	66:74	0.40
-28	-0.15%	0.54	60:80	-0.62
-27	0.04%	0.31	66:74	0.40
-26	-0.36%	-1.97*	59:81	-0.79
-25	0.15%	1.36	63:77	-0.11
-24	0.12%	-0.08	65:75	0.23
-23	-0.22%	-0.27	65:75	0.23
-22	0.03%	0.46	63:77	-0.11
-21	0.05%	0.37	62:78	-0.28
-20	0.07%	1.15	67:73	0.57
-19	0.03%	-1.01	56:84	-1.30
-18	-0.13%	-0.13	68:72	0.74
-17	0.00%	-1.27	52:88	-1.98<
-16	-0.02%	-0.17	58:82	-0.96
-15	-0.30%	-0.42	64:76	0.06
-14	-0.07%	-1.05	60:80	-0.62
-13	0.01%	0.47	69:71	0.91
-12	-0.38%	-0.84	57:82	-1.06
-11	0.69%	1.39	65:75	0.23
-10	0.08%	0.49	70:70	1.08

-9	-0.34%	-1.94\$	55:85	-1.47
-8	-0.49%	-0.94	61:79	-0.45
-7	0.45%	-0.28	64:76	0.06
-6	-0.64%	-2.13*	53:87	-1.81(
-5	0.23%	1.33	71:69	1.25
-4	0.23%	1.47	75:65	1.92)
-3	0.02%	0.00	66:74	0.40
-2	0.28%	0.63	72:68	1.42
-1	0.35%	0.62	61:79	-0.45
0	0.43%	1.22	58:82	-0.96
+1	-0.16%	-0.44	68:72	0.74
+2	-0.03%	1.11	74:66	1.76)
+3	-0.10%	-0.81	58:82	-0.96
+4	-0.12%	0.37	65:75	0.23
+5	0.37%	0.99	75:65	1.92)
+6	-0.02%	-0.96	54:86	-1.64
+7	-0.35%	-1.81\$	59:81	-0.79
+8	0.22%	0.58	61:79	-0.45
+9	-0.30%	-1.29	58:82	-0.96
+10	0.03%	-0.45	62:78	-0.28
+11	0.26%	1.63	59:81	-0.79
+12	-0.12%	0.91	61:79	-0.45
+13	-0.13%	-0.16	65:75	0.23
+14	0.04%	0.06	68:72	0.74
+15	0.02%	0.07	59:81	-0.79
+16	-0.22%	0.33	60:80	-0.62
+17	-0.16%	-0.79	64:76	0.06
+18	0.04%	0.49	76:64	2.09>
+19	0.01%	0.05	54:86	-1.64
+20	-0.18%	-0.92	62:78	-0.28
+21	-0.02%	-0.25	68:71	0.82
+22	-0.48%	-2.88**	52:88	-1.98<
+23	0.26%	0.92	68:72	0.74
+24	-0.19%	-1.56	61:79	-0.45

+25	-0.13%	-0.66	56:84	-1.30
+26	-0.17%	-0.89	64:76	0.06
+27	-0.44%	-2.11*	52:88	-1.98<
+28	0.21%	1.43	70:70	1.08
+29	0.00%	0.91	61:79	-0.45
+30	-0.14%	0.00	56:84	-1.30
+31	0.08%	0.00	63:77	-0.11
+32	0.00%	0.10	61:79	-0.45
+33	-0.16%	-0.87	54:86	-1.64
+34	0.11%	0.93	69:71	0.91
+35	0.04%	-0.05	73:67	1.59
+36	0.05%	-0.19	61:79	-0.45
+37	-0.01%	0.23	76:64	2.09>
+38	-0.31%	-1.28	55:84	-1.47
+39	0.10%	0.78	66:74	0.40
+40	-0.13%	-0.60	61:78	-0.38