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MERGERS AND ACQUISITIONS: THE INFLUENCE OF METHODS OF PAYMENT ON BIDDER'S SHARE PRICE

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1 Introduction

Despite a considerable volume of research on corporate takeovers, results are still inconclusive regarding the valuation effects of acquisitions on acquiring companies' share price. The large number of time-, industry-, security- and deal-specific determinants influencing the individual company's share price makes it difficult to detect a general acquisition-related security return pattern. Most studies, however, agree that the method of payment plays an important role in explaining acquiring firms' stock return. Two hypotheses offer a theoretical rationale why the share price should be influenced by the choice of the payment method: (1) The "information content" hypothesis by Myers/Majluf (1984), predicting that an offer to pay in shares for an acquisition will be seen by market participants as a signal that the stocks are overvalued and (2) the "free cash flow" hypothesis by Jensen (1986), showing that acquisitions being paid for in cash reduce the agency costs of free cash flows. The conclusions of both hypotheses are that stock transactions should lead to negative abnormal returns around the announcement date, whereas cash transactions should result in positive abnormal returns.

Inconclusive empirical evidence of tests of these hypotheses[1] and the increase in number of stock transactions over the past couple of years compared to the decline in cash transactions, which appear to violate the assumption that the firm's management always act in the shareholders' best interest, raises the question as to whether these two classical hypotheses actually hold.

This study tests two alternative hypotheses for explaining acquiring companies' stock return: The Investment Opportunity Hypothesis and the Risk Sharing Hypothesis as mentioned by Martin (1996). The first hypothesis states that firms with excellent future investment opportunities should not pay in cash for acquisitions. Cash transactions often have to be financed with new debt. Cash flows, however, should not be used for debt service payments since this reduces the amount of discretionary cash flows available in the future. The second hypothesis states that, particularly for high-risk transactions, it could be advantageous to pay in stock because in this case, the target company will have an incentive to make a success of the takeover transaction. Both hypotheses predict that stock transactions have no longer to be seen as a negative signal by the market participants and therefore stand in sharp contrast to the hypotheses by Myers/Majluf (1984) and Jensen (1986).

The purpose of this paper is to test, from a UK perspective, the validity of the two new hypotheses. By doing so, we not only hope to test two promising hypotheses but also to fill a gap in the existing literature on short-term acquirer return, which up until now has been focused almost exclusively on the US-market.

The paper is organized as follows: *Section 2* presents the hypotheses by Myers/Majluf (1984), Jensen (1986), and the aforementioned two new hypotheses, which have motivated the research for the present paper. It also outlines the main research questions of the paper. *Section 3* provides an overview on the major empirical findings of the event study literature related to acquirer's return around the transaction announcement date. This overview will be split into two parts, according to whether studies account for the methods of payment or not. *Section 4* explains the sources of data used for this study, the properties of the sample and the methodology applied to analyse the data. The empirical results will be presented in *Section 5*, and a brief summary of the major findings concludes the paper in *Section 6*.

[1] See for example McCabe/Yook (1997) or Lang/Stulz/Walkling (1991).

2 Theoretical Background and Development of Hypotheses

Corporate takeovers and the resulting wealth effects to shareholders have been long examined in the finance literature.[2] Whereas most studies agree that shareholders of target firms earn positive abnormal returns in the days around the announcement date of the transaction, findings for the abnormal return pattern of the acquiring firm's share prices are more mixed (see Section 3 for a summary of empirical findings). Not only are the empirical findings mixed, but there also exist several distinct hypotheses trying to explain the reasons for the observed acquirer's return pattern.

In the next section, two classical hypotheses, which relate acquiring firms' return to methods of payment, are presented. Other hypotheses also explaining acquiring firm return, but which are not related to methods of payment, are not considered.[3] In section 2.2, two alternative hypotheses are presented. They also relate the acquiring firm's return to methods of payment, but reach opposite conclusions. Finally, section 2.3 presents the research questions which form the basis for the hypotheses tested in this study.

2.1 "Classical" Hypotheses on the Choice of Methods of Payment

Two main hypotheses usually underlie studies on the relation between bidder returns and the methods of payment: "Information content"-models and "Cash flow"-models.[4]

To the first category belong the signalling models developed by Leland/Pyle (1977) and Myers/ Majluf (1984). These models demonstrate that in a world of asymmetric information, the method of payment for corporate acquisitions conveys valuable information to the market participants. Leland/Pyle (1977) develop a simple model of capital structure and financial equilibrium in which entrepreneurs seek financing for their projects whose true values are known only to them. The entrepreneurs' willingness to invest in their own project can serve as a signal for the value of the project. The model's equilibrium solution differs significantly from models ignoring informational asymmetries. Myers/Majluf (1984) adapt this problem to the situation where a firm must issue stock to raise cash in order to undertake a valuable investment project and where management is supposed to know more about the project's (and firm's) value than potential investors. Their asymmetric information model shows that stock issues always convey bad news and reduce the stock price, unless the issue is a foregone conclusion. This also means that firms sometimes refuse to issue stocks, and thereby pass up valuable investment opportunities. In the context of the model by Myers/Majluf (1984), and assuming that the acquiring firm's management possess information about the intrinsic value of the firm which is not reflected in the pre-acquisition share price, the management will always attempt to finance the acquisition most profitably to existing shareholders in one of the following ways: *If they believe that their firm is undervalued, they will prefer a cash offer, whereas if they believe that their stocks are overvalued, they will favour a stock offer*. DeAngelo/DeAngelo/Rice (1984), initially working on information issues related to "going private"-transactions, conclude that for corporate acquisitions market participants will interpret cash offers as good news (and a stock offer as bad news) regarding the acquirer's prospects. [5] The model by Myers/Majluf (1984) and its interpretation by DeAngelo/ DeAngelo/Rice (1984) will be referred to as the "Information content"-model.[6]

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[2] An early example is the study by Mandelker (1974).

[3] For the so-called "overpayment" or "hubris"- hypothesis, see Roll (1986) or Shleifer/Vishny (1989).

[4] Hypotheses highlighting the importance of tax implications have to be left aside. For a short introduction in tax-related models, see Masse/Hanrahan/Kushner (1990); see also Brown/ Ryngaert (1991).

[5] For parallels to the situation of new stock offerings, see Choe/Masulis/Nanda (1993).

[6] The reason for this name is that there exist several "asymmetric information" models: Hansen (1987), for example, developed a model which specifies that an acquirer will prefer to offer stock when the target firm knows its value better than the acquirer firm. Stock in this case has desirable contingent-pricing characteristics compared to cash.

The second important category are cash flow-related models.[7] The model by Jensen (1986) states that managers of firms with cash flows in excess of profitable investment opportunities have a tendency to waste these cash flows on unprofitable investments. Furthermore, it is assumed that managers of these firms are usually more inclined to spend the cash flows on purposes increasing the management's benefits than to pay the cash flows out to shareholders in the form of dividends or stock buybacks. Acquisitions paid for in cash use up these excess cash flows, divert funds from other internal investments or increase the indebtedness of the acquiring firm [McCabe/Yook (1997)]. The discretionary cash flow to management will be reduced and, in the case of increased indebtedness, the link between managers, shareholders and bondholder will be strengthened. The smaller the amount of excess cash flows available to management, and the possibly tighter control exerted by the bondholders, the less the potential for wasteful allocation of free cash flows. Thus, cash acquisitions will lead to an increase in the acquirer's share price.[8] The model by Jensen (1986) will be referred to as the "Cash flow"-model.

Over the past 10 years or so, there appears to have been a shift in the methods of payment. A survey for the US-market shows that out of a sample of large deals for the year 1988, almost 60% of the transactions were pure cash transactions and only 2% pure stock transactions. A similar sample of large deals for the year 1998 shows that only 17% of the deals were paid for entirely in cash, but 50% entirely in stock [Rappaport/Sirower (1999)]. In the context of the method-of-payment models discussed earlier, finding that shareholders of acquiring companies are worse off in stock transactions compared to cash transactions, this shift is somewhat puzzling: why is it that a shift towards stock deals has taken place, even though shareholders are in most cases worse off? The generally accepted assumption that managers always act in the best interest of their shareholders may be challenged in this case.

One reason for this shift could be a change in the nature of determinants influencing the management's decision regarding the methods of payment. There are many determinants offering an explanation for the choice of the payment method for corporate acquisitions. Asymmetric information problems and cash flow considerations as explained by Myers/Majluf (1984) and Jensen (1986) are two determinants, but perhaps these are no longer the dominant determinants: it may be shown that the *number of investment opportunities* of the acquiring firm and *the amount of risk shared* between acquiring firm and target company are particularly important. Furthermore, it may be shown that the importance of these two determinants has considerably increased over approximately the past 5 years, now clearly favouring stock transactions.

2.2 "New" Hypotheses on the Choice of Methods of Payment

The so-called "new" hypotheses are not really new, but their assumptions are more justified today than ever before, and this brings the hypotheses back into the spotlight again.[9]

The **Investment Opportunity Hypothesis** links the existence of growth opportunities with the method of payment for corporate acquisitions. Myers (1977) shows that firms with excellent future investment opportunities are less likely to issue debt than companies with poor future investment opportunities. The reason is that the first group of firms tries to preserve the cash flows to take advantage of the investment opportunities, whereas the second group of firms can use the cash flows for debt service payments without giving away investment opportunities. Similarly, Jung/Kim/Stulz

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[7] Besides the model by Jensen (1986), there exist cash flow models by Myers/Majluf (1984) and Masse/Hanrahan/Kushner (1990).

[8] The study by Harford (1999) documents the agency cost problem of cash-rich acquirers: cash-rich acquirers are more likely to make diversifying investments and their targets are less likely to attract other investors. This, however, means that there are two effects involved: the announcement of a cash transaction is a good signal because it reduces the agency costs of free cash flows, the investment itself, on the other hand, could have a negative impact on the acquirer's share price. See also Lang/Stulz/Walkling (1991) for tests of the free cash flow hypothesis.

[9] This section has been strongly influenced by Martin (1996).

(1996) argue that managers with growth perspectives prefer to raise capital with equity rather than with debt because it gives them more discretion with regard to the future use of the firm's cash flows. The similarities in the decision between how to raise capital and how to pay for corporate acquisitions lead Martin (1996) to assume that firms with good investment opportunities prefer to pay in stock for their corporate acquisitions, whereas other firms prefer payment in cash.

The Investment Opportunity Hypothesis has been tested by Martin (1996) and the results show that acquiring firms with good future investment opportunities are more likely to offer stock for corporate acquisitions than firms with poor investment opportunities.[10] These results are consistent with the results of the study by Jung/Kim/Stulz (1996), who not only report that firms with valuable investment opportunities are more likely to issue equity, but also state that the stock-price reaction to equity issues is more favourable for firms with valuable investment opportunities.[11]

The second hypothesis is the **Risk Sharing Hypothesis**, and goes back to Hansen (1987). It is strongly related to the asymmetric information problem mentioned by Myers/Majluf (1984), but this time the information asymmetry is not in favour of the acquiring firm. In most acquisitions, the true value of the target firm is difficult to assess and remains controversial even after carefully executed due diligence. Furthermore, it is not necessarily clear to what extent the expected synergies will materialize in the post-acquisition period. The target firm, however, is in most cases fully aware of its true firm value. Hansen (1987) models this situation of asymmetric information between the acquiring firm and the target firm. He concludes that if the bidder is unsure about the true value of the target firm, he will rather offer to pay in stock so that the target firm's shareholder can be forced to share in any post-acquisition revaluation effects. Martin (1996), based on Hansen (1987), also argues that if there is high uncertainty in acquisition outcome, the bidder should rather use stock.[12]

Rappaport/Sirower (1999) argue that from a shareholder value point of view, the risk sharing hypothesis should receive high attention: in the case of a pure cash transaction, the post-merger operating risk will exclusively be taken on by the acquiring shareholders. If a risk-adjusted change in shareholder value due to the transaction were to be calculated, this would probably lead to a lower value than compared to a mixed or pure stock transaction.

In the study by Martin (1996), the Risk Sharing Hypothesis has been tested. It is shown that in a sample involving high-risk transactions[13], 68% of the transactions are being financed with stock and only 16% of the transactions are being financed with cash. In a sample containing low-risk transactions, the percentage of transactions financed with stock declines to 26%, whereas the percentage of cash transactions increases to 42%. The results of a logistic regression with dummy variables based on whether the acquiring firm and target firm are high-risk or low-risk firms confirm the previous results.

There are several reasons why the two hypotheses are likely to be more important today than in earlier years. The increase in the number of M&A transactions – which may be due to increased competition,

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[10] Martin (1996) uses three different variables to measure investment opportunities: the market-to-book ratio, the average annually compounded growth rate in sales over the five-year preceding the year of the acquisition, and the abnormal return cumulated over a period of 250 days prior to event day –5. The last variable reflects the idea that a run-up in share prices often indicates increased investment opportunities.

[11] These again show the double nature of theories: on the one hand, they contribute to an explanation of the decision process of the firm's manager regarding the methods of payment, and on the other hand they offer an explanation for the stock market reaction to the announcement of the transaction.

[12] The effect of using stock instead of cash to reduce the post-merger operating risk, however, could also be ambiguous: in a principal agency framework, the fact that stock instead of cash is offered could be interpreted as a signal that that the bidding firm thinks that the outcome of the transaction is associated with a considerably high degree of risk. This may lead to a significant drop in share prices that may leave the acquiring firm's shareholders worse off compared to a cash transaction in which they would bear all the risk.

[13] A transaction has been defined as a high-risk (low-risk) transaction if both the acquiring and the target firm exhibit Tobin's Q- ratios greater (smaller) than 1. Tobin's Q-ratio is thereby calculated as follows: Q= (market value of equity +book value of long-term debt + book value of short-term debt + preferred stock at carrying value)/ book value of assets.

consolidation in many industries (e.g. car industry, car supplier industry, food industry), deregulation (e.g. telecommunication industry, utilities), surge of rapidly expanding new industries (technology sector), and increased globalisation (increase in cross-border transaction) – is evidence of a general increase in investment opportunities and appears to fit with the Investment Opportunity Hypothesis.

Increased awareness among shareholders upon whether the firm's management really focuses on shareholder value issues strengthens the underlying assumptions of the Risk Sharing Hypothesis. A firm's management may have difficulties in justifying a transaction with a high risk of a successful outcome. This, however, means that the management more often tries to involve the target company's management into the responsibility of realizing synergies by offering stock instead of cash, leading to a gain in momentum for the Risk Sharing Hypothesis.

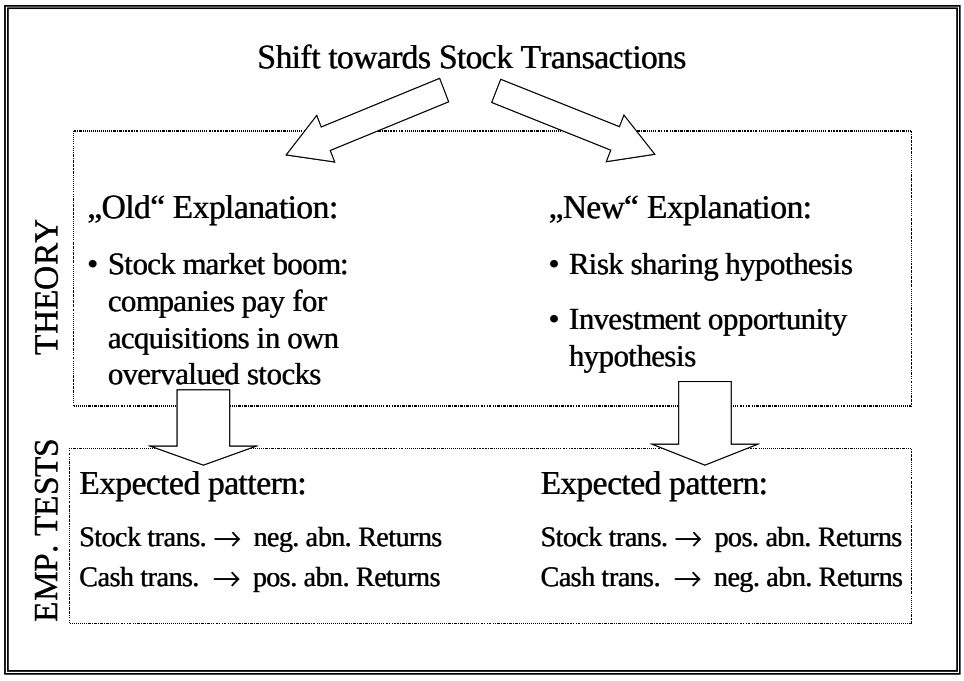
2.3 Hypotheses of this study

Assuming that the Investment Opportunity Hypothesis and the Risk Sharing Hypothesis hold, the major implication would be that stock transactions no longer have to be considered as a bad signal by the market participants. This stands in contrast to the classical models by Myers/Majluf (1984) and Jensen (1986). It would, however, not stand in contrast to the rise in the number of stock transactions observed over the past years. This subsequent rise in numbers of stock transactions would be consistent with the change in perception of the information content of stock transactions.

On the other hand, it is also possible that the rise in stock transactions over the past five years or so is only due to the stock market boom. The New York Stock Exchange increased on average 26.2% per year from 1995 until 1999, the NASDAQ 40.2%, and the London Stock Exchange 17.7%.[14] A booming stock market generally means higher stock valuations and shares which are more likely to be overvalued. In this case, the temptation for the management of an acquiring firm to pay in its own overvalued stocks may be high, even if the management knows that this will be regarded as a bad signal and that the companies stock price will drop on the date of the announcement. The advantages of the "cheap" acquisition clearly outweigh the disadvantages of a subsequent drop in share prices.

Figure 1 gives an overview of the two possible explanations for the shift towards stock transactions:

Figure 1: Shift towards stock transactions – "old" explanation vs. "new" explanation



[14] Values are calculated for S&P 500, Nasdaq Composite 200, and FT-SE 100; source: Datastream.

The predominant line of argument is still the "old" explanation based on the hypotheses by Myers/Majluf (1984) and Jensen (1986). The apparent inconsistency with the observed shift towards stock transactions over the past few years, however, casts doubt on this explanation.

The idea of this study is therefore to test:

…whether it is true that stock transactions no longer lead to negative abnormal returns

…whether this could be due to the Investment Opportunity – and/or Risk Sharing Hypothesis

Since both competing lines of arguments relate methods of payment to cumulated abnormal returns, a test of the hypotheses can be done solely by examining the acquiring companies' return pattern. The empirical study should thereby answer the following research questions:[15]

1) What is the CAR of acquiring companies over the whole sample period (Data Set III: 1991, 1995, 1999; across all sample categories)?
2) What are the CAR of acquiring companies for each of the three sample periods 1991, 1995, and 1999 across all sample categories (*pure cash*, *pure stock*, *mixed*)? Are there any differences in mean CAR between these three sample periods?
3) What are the CAR of acquiring companies for the three sample categories *pure cash*, *pure stock*, *mixed* over the whole sample period? Are there any differences in mean CAR between these three sample categories?
4) What are the CAR of acquiring companies for the three sample categories *pure cash*, *pure stock*, *mixed* for the two sample periods 1991/95 and 1999? Are there any differences between these two sample periods for each of the categories?
5) What are the CAR of acquiring companies for a sample containing high/low investment opportunity companies [sample period 1999; sample categories: *pure cash*, *pure stock*, *mixed*]? Are there any differences between the samples for each of the three sample categories?
6) What are the CAR of acquiring companies for a sample containing high/low risk transactions [sample period 1999; sample categories: pure *cash*, pure *stock*]? Are there any differences between the samples for each of the two sample categories?

The choice of the research questions can be justified as follows:

The *first research question* simply investigates whether corporate acquisitions are in the short-term beneficial to the acquiring companies' shareholders at all – irrespective of the choice of the method of payment. This question has received much attention in the finance literature, since it has been suspected that the maximization of shareholder value may not be the only reason for corporate acquisitions, but also an attempt to enhance benefits to management. The motivation for the latter could be the resulting advantages of the so-called "empire building" (i.e. growth in assets and sales which leads to higher compensation and more prestige) or managerial risk reduction at the expense of shareholders [Masse/Hanrahan/Kushner (1990)].[16] The first research question therefore helps to decide which of the two motives has the higher degree of probability.[17]

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[15] AR stands for "abnormal return"; CAR for "cumulated abnormal return".

[16] See Morck/Shleifer/Vishny (1990), Amihud/Dodd/Weinstein (1986), Schipper/Thompson (1983), or Marris (1964).

[17] There exist a countless number of studies containing this form of research question; see for example the studies by Kennedy/Limmack (1996), Berkovitch/Narayan (1993), or Lahey/Conn (1990).

The *second research question* examines whether the observed CAR's have shifted over time – again irrespective of the choice of the method of payment. Changes in the absolute CAR-levels or shifts are of interest, since this would suggest that fundamental factors in the capital market's reaction to corporate acquisitions may have occurred.[18] This is particularly important in the context of the Risk Sharing Hypothesis (see below): if corporate acquisitions seem to become more beneficial to shareholders in general (e.g. a shift from 1991 to 1999), this could be a signal that shareholder value issues as reasons for takeovers have become more important over time – as opposed to reasons to engage in takeovers for increasing the benefits to management.

The *third research question* examines whether the acquiring companies' mean CAR is different according to the choice of the method of payment. This question is similar to those of most studies trying to establish a link between the method of payment and acquiring companies' CAR, and so our results will be compared to previous findings.[19]

The *fourth research question* is of special importance: it is the one that allows us to test whether there has been a change from the "old" stock market reaction pattern to the "new" pattern (see Figure 1). If the acquiring companies' mean CAR for stock transactions in 1999 is higher than in 1991 and if at the same time the acquiring companies' mean CAR for cash transaction in 1999 is lower than in 1991, this would be an indication that the Investment Opportunity- and Risk Sharing Hypotheses might be of some importance. However, if the fourth research question shows that stock transactions are no longer regarded as a bad signal by market participants, it may still be difficult to prove that the "new" hypotheses are true and that this observed pattern is not due to any other cause.

Nevertheless, the *fifth and the sixth research questions,* allow us to conduct these tests. They determine whether the Investment Opportunity- or the Risk Sharing Hypothesis has any power in explaining acquiring companies' CAR. These last two research questions – looking at investment opportunity and risk sharing issues separately – could also be helpful if research question four does not come up with a clear answer. The fifth and sixth research questions focus only on those transactions for which the differences according to the "new" hypotheses should be the largest. If no significant differences in the mean CAR could be found within these samples, the "new" hypotheses must be rejected.

[18] To the best knowledge of the authors, no study has yet examined acquiring companies' CAR at different specific periods of time.

[19] See for example the study by Draper/Paudyal (1999).

3 Literature Overview: Event Studies on Acquirers' Return

This section gives an overview of event studies which investigate the issue of short-term abnormal return patterns to shareholders of acquiring companies, on the basis of daily share price data. Since our focus is on *short-term* abnormal returns and since the event window typically considered is [-5;5] days, studies on the basis of monthly data will not be presented. This means that – besides studies such as Chatterjee (1996) or Loughran/Vijh (1997) measuring the long-term financial performance of acquiring companies[20] – studies on announcement period returns are excluded from the sample, if the announcement period is defined from announcement month to completion month or on any other "monthly" base. A comprehensive overview of these studies, also with respect to the UK-Market, can be found in Guest (1999) or Chatterjee/Meeks (1996).[21]

Similarly, studies examining the return pattern of *target* firms are excluded, since the focus of this paper lies exclusively on *acquiring* firms. Examples of such studies, which at the same time also consider the influence of the methods of payment, include studies by Wallace/Cheng (1997), Suk/Sung (1997), Huang/Walking (1987), or Wansley/Lane/Yang (1983).

The overview is split into two parts: Firstly, studies which do not control for the method of payment will be presented. After the seminal work by Travlos (1987), controlling for the mode of payment has become the standard technique and the second part therefore exclusively presents studies in this tradition. The last section will relate the present work to the existing body of literature.

3.1 Empirical Studies on Acquiring Companies' Short-Term Abnormal Return (not controlling for the method of payment)

The results of empirical studies, which do not yet control for the method of payment, are presented below. Most of the studies either focus on merger- or on tender offer transactions, assuming that abnormal returns are different for these two categories. The results, however, are not conclusive:

Significant positive abnormal returns are reported in the studies by Bradley (1980) and Asquith/Bruner/Mullins (1983). Bradley/Desai/Kim (1988) only report significant positive CAR for the period [-20,5]; CAR for the period [-5;5] are positive, but insignificant.

Several authors report insignificant abnormal returns for all periods: Asquith/Kim (1982), Eckbo (1983), Eger (1983), and Doukas/Travlos (1988). Dodd (1980) shows that CAR are insignificantly negative in the period [-5;5], but significantly negative around the event date itself.[22]

Some studies, finally, report significant negative abnormal returns for all periods: An example of these studies is Sundarsanam/Holl/Salami (1996),[23] which furthermore indicate that the CAR pattern might not be stable over time.[24]

To summarize, the findings on short-term acquiring companies' abnormal returns are mixed. Some authors have tried to explain abnormal returns according to the transaction categories *mergers* and *tender offers*.[25] However, no clear pattern has emerged. The following Table 1 gives an overview (in chronological order) of the studies mentioned in this section and documents their main results:[26]

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[20] See also Aw/Chatterjee (2000).

[21] Examples of excluded recent studies are: Eckbo/Thorburn (2000), Chang (1998) with a study on acquirer's CAR if the target firm is a privately held firm, and Chang/Suk (1998) with a study on failed takeovers.

[22] Similar results are reported by Mathur et al. (1994); see also Bradley/Desai/Kim (1983).

[23] See also Berkovitch/Narajan (1993); however, they indicate absolute values instead of CAR.

[24] One of the present study's hypotheses is that there are differences in mean CAR between the three different sample periods 1991, 1995, and 1999.

[25] See for example Jensen/Ruback (1983).

[26] Since the periods [-5;5] and [-1;0] will be in the focus of the present study, results are – if possible – always reported for these two periods.

Table 1: Summary of empirical studies on acquiring companies' CAR (Part I) [27]

Author and Country	Sample period and size; models used	Empirical Findings: CAR for acquiring firms; additional Results
DODD (1980); US-MARKET	1970-1977 151 mergers; MM	CAR for [-1;0]: -1.16% (t-Value: sign.) CAR for [-5; 5]: -0.64% (t-Value: not sign.) CAR for the period [-10; +10 after completion] are significantly negative with –7.22%.
BRADLEY (1980); US-MARKET	1962-1977 161 tender offers; MP	CAR for [0;5]: +4% (t-Value: sign.) Findings demonstrate significant synergistic gains to bidder firms in tender offers.
ASQUITH/KIM(1982); US-MARKET	1960-1978 26 mergers; MP	CAR for [-1;0]: +1.0% (t-Value: 1.43) CAR for [-5; 5]: +0.2% (t-Value: not sign.) No significant correlation between merging firm's stock returns and returns to bondholders.
ASQUITH (1983); US-MARKET	1962-1976 196 mergers; MP	CAR for [-1;0]: +0.2% (t-Value: 0.78) CAR for [-5; 5]: -0.5% (t-Value: not sign.) Sample of unsuccessful acquirers exhibits significant positive CAR (+0.5%) for period [-1;0].
ASQUITH/BRUNER/ MULLINS (1983); US-MARKET	1963-1979 214 mergers; MP	CAR for [-1;0]: +0.9% (t-Value: 4.68) CAR for [-5; 5]: +1.3% (t-Value: sign.) Acquiring firms' CAR are significantly greater when the target firm is large relative to the acquiring firm.
ECKBO (1983); US-MARKET	1963-1978 102 mergers; MM	CAR for [-1;1]: +0.07% (t-Value: 0.12) CAR for [-3; 3]: +0.58% (t-Value: 0.69) Bidder (and target) firm perform better in challenged merger than in unchallenged ones (antitrust laws).
EGER (1983); US-Market	1958-1980 38 mergers; MeAM	CAR for [-1;0]: +0.27% (t-Value: not sign.) CAR for [-5; 5]: -2.67% (t-Value: not sign.) No sign. CAR in the (pre-)announcement period and sign. neg. CAR in the (post-)announcement period.
BRADLEY/DESAI/KIM (1988); US-Market	1963-1984 236 tender offers; MM	CAR for [-5;5]: +0.79% (t-Value: 1.69) CAR for [-20; 5]: +1.70% (t-Value: 2.36) Acquiring firms' CAR in single-bidder tender offers are larger than those in multiple-bidder contests.
DOUKAS/TRAVLOS (1988); US-Market	1975-1983 301 acquisitions; MM	CAR for [-1;0]: +0.09% (t-Value: not sign.) CAR for [-5; 5]: -0.13% (t-Value: not sign.) CAR for internationally expanding bidder firms are different according their target market experience.
SUDARSANAM/HOLL/ SALAMI (1996); US-Market	1980-1990 429 tender offers; MM; MaAM	CAR for [0]: -1.26% (t-Value: sign.) CAR for [-20; 40]: -4.04% (t-Value: sign.) Indications found that bidder returns are not stable over time.

Key: MM = Market Model, MeAM = Mean Adjusted Return Model, MaAM = Market Adjusted Return Model, MP = Matched Portfolio Benchmark (See section 4.4.1).
sign. = significant (exact t-Value not available)

[27] For the results of further studies, see the review articles by Jarrell/Poulsen (1989), Jarrell/ Brickley/Netter (1988), Jensen/Ruback (1983) or Halpern (1983).

3.2 Empirical Studies on Acquiring Companies' Short-Term Abnormal Return (controlling for the method of payment)

Travlos (1987) suggests that the inconclusive results on acquiring companies short-term CAR could be due to the failure to take into account the method of payment.[28] His seminal study analysed whether there exists a link between methods of payment and acquirers' abnormal returns.[29] Looking at a final sample of 167 transactions, spread over the period 1972 through 1981, Travlos (1987) finds that the two-day announcement period [-1; 0] exhibits significant negative CAR for stock acquirers, whereas the cash acquirers' CAR over the same event window is not significantly different from zero. [30]

Controlling for the method of payment, as in the study by Travlos (1987), has since become the standard technique in order to determine, whether acquiring companies earn abnormal returns in their transactions. Since these studies are very similar to the present one, and as they build the core body of literature for this paper's research, their results will be discussed below:

The results of the study by Wansley/Lane/Yang (1987) are similar to Travlos (1987) in the sense that both studies seem to support the "information content"-model by Myers/Majluf (1984). Differences, however, exist: Whereas Travlos (1987) reports insignificant positive abnormal returns over the period [-1;0] for cash acquirers, Wansley/Lane/Yang (1987) report significant positive abnormal returns. Regarding stock acquirers, Travlos (1987) reports significant negative abnormal returns over the period [-1;0], while Wansley/Lane/Yang (1987) show that, stock acquirers earn insignificant negative abnormal returns. Both studies demonstrate the necessary relation between stock and cash acquirers' returns to support the "information content"-model, but seem to disagree on the absolute level of the abnormal returns.

The results of the study by Masse/Hanrahan/Kushner (1990) differ in terms of significance from the results obtained by Travlos (1987) and are more similar to those obtained by Wansley/Lane/Yang (1987): Acquiring companies' CAR for share transactions are found to be insignificantly positive for the period [-1;1], and significantly negative for the period [-10;10]. Acquiring companies' CAR for cash transactions are found to be significantly positive for both period. Again, the results of this study are consistent with the "information content"-hypothesis.

A study by Trifts (1991) supports the results by Travlos (1987), reporting that stock transactions exhibit significantly negative abnormal returns. The CAR-values for cash transactions are positive, but not significant. In addition to the methods of payment, the study shows that changes in leverage have an influence on abnormal returns to acquiring firm's shareholders.[31]

A study by Brown/Ryngaert (1991) splits the sample of 342 acquisitions into cash, mixed, and equity transactions. They find that mixed transactions lead to the highest negative abnormal return for acquiring companies' shareholders: Mixed acquirers earn significant negative abnormal returns over the event window [-1;0], whereas stock acquirers earn significant negative abnormal returns and cash acquirers insignificant negative abnormal returns. The returns to mixed acquirers are not significantly different from the returns earned by stock acquirers.

Draper/Paudyal (1999) look at a sample of UK acquiring companies, covering a period from 1988-1996. The results indicate that cash acquirers do not experience any significant abnormal returns in the event period. In contrast, stock acquirers experience significant negative returns. These results are consistent with the findings by Travlos (1987).

Table 2 summarizes the main results of the empirical studies presented in this section:

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[28] This hypothesis has been inspired by the "information content"-model by Myers/Majluf (1984), the "cash flow"- model by Jensen (1986) and the tax argument by Wansley/Lane/Yang (1983). It was also Halpern (1983) – in his review on acquisition event studies – who suggested controlling for the method of payment.

[29] There exists another study by Carleton et al. (1983) which has tested even earlier the influence of the method of payment on acquirer's abnormal returns. This study, however, has not received much attention.

[30] See also Travlos/Papaioannou (1991).

[31] Cash transactions are often founded with debt and thus tend to increase leverage, whereas stock transactions lead to a decrease in leverage. Even after controlling for the method of payment, changes in leverage had some explanatory power for abnormal returns to acquiring companies' shareholders; see Raad/Wu (1994).

Table 2: Summary of empirical studies on acquiring companies' CAR (Part II)

Author and Country	Sample period and size; models used	Empirical Findings: CAR for acquiring firms; additional Results
TRAVLOS (1987); US-MARKET	1972-1981 167 acquisitions; MM	C: CAR for [-1;0]: +0.24% (t-Value: 1.11) C: CAR for [-5; 5]: -0.38% (t-Value: not sign.) E: CAR for [-1;0]: -1.47% (t-Value: -5.07) E: CAR for [-5; 5]: -1.98% (t-Value: sign.) On event day 0, the mean difference of AR between Equity and Cash-offers is –0.98 (t-Value: 3.5).
WANSLEY/LANE/ YANG (1987); US-MARKET	1970-1978 199 acquisitions; MM	C: CAR for [-1;0]: +1.44% (t-Value: 3.65) C: CAR for [0]: +0.73% (t-Value: 2.65) E: CAR for [-1;0]: -0.27% (t-Value: -1.13) E: CAR for [0]: -0.23% (t-Value: -1.32) The results are qualitatively the same for longer event periods, e.g. [-40;40].
MASSE/HANRAHAN/ (1990); CA-MARKET	1984-1987 92 acquisitions; MM (MeAM, MaAM)	C: CAR for [-1;1]: +1.96% (t-Value: sign.) C: CAR for [-10;10]: +5.89% (t-Value: sign.) E: CAR for [-1;1]: +0.52% (t-Value: not sign.) E: CAR for [-10;10]: -3.83% (t-Value: sign.) After controlling for the method of payment, results for mergers and tender offers persist.
TRIFTS (1991); US-MARKET	1970-1985 122 acquisitions; MM	C: CAR for [-1;0]: +0.35% (t-Value: 0.53) C: CAR for [-5; 5]: +0.99% (t-Value: 1.45) E: CAR for [-1;0]: -2.30% (t-Value: -6.47) E: CAR for [-5; 5]: -2.18% (t-Value: -2.72) Changes in leverage, after controlling for method of payment, can be a determinant of CAR.
BROWN/RYNGAERT (1991); US-MARKET	1981-1992 342 acquisitions; MM	C: CAR for [-1;0]: -0.36% (t-Value: -0.99) E: CAR for [-1;0]: -2.20% (t-Value: -3.98) M: CAR for [-1;0]: -2.55% (t-Value: -3.32)
DRAPER/PAUDYAL (1999); UK-MARKET	1988-1996 581 acquisitions MaAM (MM, MeAM)	C: CAR for [-1;1]: -0.13% (t-Value: not sign.) C: CAR for [-5; 5]: +0.98% (t-Value: not sign.) E: CAR for [-1;1]: -1.26% (t-Value: sign.) E: CAR for [-5; 5]: -1.49% (t-Value: not sign.) Prices of bidding firms decrease most if target firm is given an option to receive cash or equity.

Key: MM = Market Model, MeAM = Mean Adjusted Return Model, MaAM = Market Adjusted Return Model, MP = Matched Portfolio Benchmark (See section 4.4.3).
C = Cash Transaction; E = Equity Transaction; M = Mixed Transaction
sign. = significant (t-Value not available)

The results of some studies have for various reasons not been reported: Blackburn/Dark/Hanson (1997) relate the acquiring companies stock return to both the method of payment and the acquiring firm control structure. Han/Suk/Sung (1998) investigate the relation between bidder returns and overpayment in mergers. The results of these two studies and other studies left out do not lead to any significant change in results compared to the above-presented findings.

3.3 Present Study

The present study investigates the short-term abnormal return pattern to acquiring companies' shareholders for a sample of UK-transactions. Since the study controls for the method of payment, it is similar to the studies presented in section 3.2. In particular, the results of the present work should be comparable to those of the study by Draper/Paudyal (1999), which is the only one based on a sample of UK-transactions. Their results indicate that stock acquirers earn no significant negative abnormal returns over the event window [-5;5].[32] This could be a signal in favour of the Risk Sharing- and Investment Opportunity Hypothesis. However, their study considers only one sample period (1988-1996) and has no sub-samples for different time periods. Any shift from an "old" pattern to a new pattern – as described in section 2 – cannot be detected in this way and their results could just be the "average" of a trend. The design of the present study with its sub-samples for different time periods and research questions testing the Risk Sharing- and Investment Opportunity Hypothesis mentioned by Martin (1996) is believed to be unique and unrelated to any existing research.

Whereas there exist several studies on announcement period returns based on monthly data[33], there appears to be an absence of UK studies on the topic of daily short-term abnormal return for acquiring companies. The present study, with its particular focus on short-term abnormal returns in the window [-5;5] around the announcement date is therefore a contribution to a surprisingly poorly covered area in the existing body of literature, and offers the possibility of making comparisons to results of US-studies.

[32] Only one other study – Wansley/Lane/Yang (1987) – has shown similar results.

[33] See Franks/Harris (1989), Dodds/Quek (1985), Franks/Broyles/Hecht (1977) or more recent studies like Guest (1999), Higson/Elliot (1998) or Gregory (1997).

4 Data, Sample, and Methodology

The following sections give a brief outline of the main sources of data used in the study and the sampling methods applied to create the sample (4.1), some properties of the sample (4.2), stratification procedures (4.3), and the methodology used to analyse the data (4.4).

4.1 Source of Data and Data Set Processing

The data on acquiring firms and the exact terms of the deals (i.e. name of acquiring firm, name of target firm, announcement date, deal value, methods of payment, domestic/cross-border deal) have been extracted from the journal *Acquisitions Monthly*, which lists, based on the target firm's geographical region, all publicly known transactions.

According to the hypotheses presented in section 2, samples for the years 1991, 1995, and 1999 have been created. The following criteria have been used in selecting transactions for the sample: (1) The acquiring firm must be a British Public Limited Company (PLC) or a subsidiary of a British Holding PLC listed on the London Stock Exchange. (2) The target firm must be a publicly listed company, either in the UK or abroad.[34] (3) The announcement date of the transaction must lie in 1991, 1995, or 1999, respectively. (4) The transaction's deal value must exceed £10m for the sample 1991, £12.5m for 1995, and £15m for 1999.[35] (5) The transaction must lead to a controlling majority (in terms of voting rights) for the acquiring firm of at least 51%. If the information reported on the transaction is incomplete (e.g. missing deal value), and if the information cannot be obtained from any secondary data source[36], the transaction will not be included in the sample. Finally, all transactions involving investment funds or investment trusts have been excluded, since the nature of these firms is different from the firms for which the hypotheses have been established. The resulting list of transactions will be referred to as *Data Set I*.

Information on the acquiring firm's market value, industry sector, and stock price has been retrieved from *Datastream*. Not all firms in Data Set I could be found in *Datastream* – even after checking *Datastream's* Dead Companies List, which contains data of firms that no longer exist today. The *FT Sequencer* sometimes provided additional help in identifying these companies, especially in the case of companies that have changed their names.[37] However, even then, it sometimes proved to be no more possible to get hold of a company. Those companies had to be excluded of the list, leading to the list called *Data Set II*.[38]

Finally, all companies in Data Set II have been listed in descending order according to the ratio of the transactions deal value (V) to the market value of the acquiring company (MV). This ratio (V/MV) can be considered as a measure of the significance of a transaction for the acquiring company.[39] If the ratio

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[34] The reason for this criteria is twofold: Besides the fact that transactions with *private* companies as target firms result in low deal value-to-market-value ratios (see below), information on these transactions is also often incomplete, since private companies do not have to comply with as stringent rules regarding information policies as publicly listed companies.

[35] The cut-off rate of £10m is a very low rate compared to most other studies. This should assure that a large number of transactions is included in the initial sample Data Set I. The cut-off rates for the years 1995 and 1999 are approximately adjusted for inflation.

[36] The journals *Mergers & Acquisitions* and *Investors Chronicle* have been used as secondary information sources.

[37] For this purpose, the websites www.hemscott.net and www.citytext.com also proved to be valuable.

[38] The percentage of companies that had to be excluded was relatively small: it was 9.2% for the sample 1991, 6.7% for 1995, and 1.2% for 1999.

[39] The first study to mention that the relative size of a transaction could have an influence on bidders' CAR was the study by Asquith/Bruner/Mullins (1983). They find that for merger bids where the target firm's equity is larger than 10% of the bidding firm's equity, the CAR for bidders from t=-20 until the announcement day is +4.1% (t-Value: 4.42), whereas for merger bids where the target firm is smaller than 10%, the CAR is only 1.7% (t-Value: 2.00). This means that the CAR is larger in "significant" transactions. Regression analysis confirms the result that the relationship between the bidding firm's CAR and the relative size of the target firm's equity is positive and statistically significant. Similarly, Loderer/Martin (1990) showed that bidder

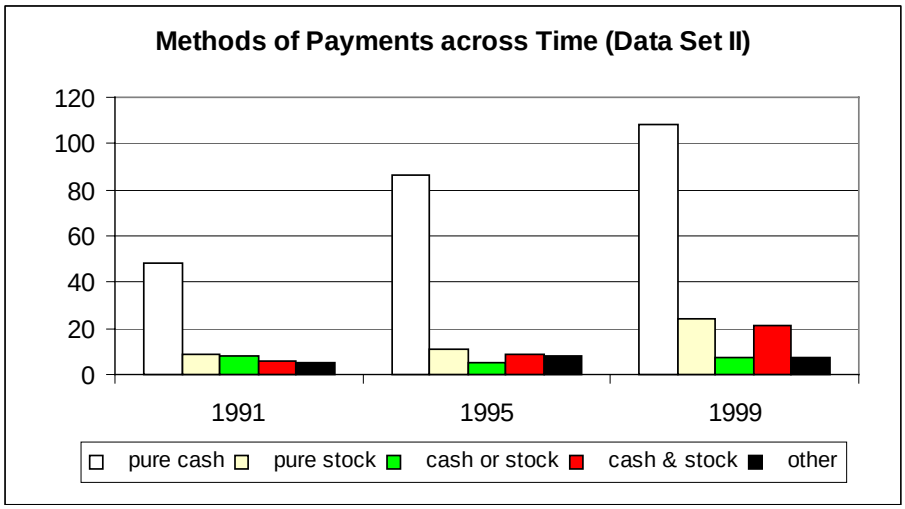
is very low, the transaction is not likely to have much impact on the acquiring company. Relatively small transactions compared to the acquiring firm's market value are usually settled in cash[40], since it is not worth setting up a more complex equity transaction.[41] The choice of the method of payment does not in this case permit the drawing of conclusions on the management's perception of stock value, risk sharing issues or investment opportunities. Thus, since these relatively "insignificant" transactions do not permit to test the hypotheses outlined in section 2, they should be excluded from the sample.[42] More specifically, for all three samples, only the transactions with a deal value-to-market value larger than 0.1 have been left in the data set. This cut-off rate of 10% corresponds approximately to the median value of all V/MV-ratios in Data Set II and seems also to be a reasonable value for detecting "significant" transactions. The resulting final list will be referred to as *Data Set III*.

All additional information required for testing the hypotheses (e.g. indices, share prices over estimation periods, industry codes) has been found in *Datastream.*

4.2 Properties of the Sample

Data Set II contains 362 transactions. The increase in transactions from 1991 to 1999 suggests that the M&A-market has boomed during the 1990's. Whereas for the year 1991 only 76 transactions have been recorded, this number increased to 167 for the year 1999 (see Figure 2):

Figure 2: Properties of Data Set II (methods of payment)



Data Set II: (362 transactions)	1991 Number	%	1995 Number	%	1999 Number	%
pure cash	48	63.16%	86	72.27%	108	64.67%
pure stock	9	11.84%	11	9.24%	24	14.37%
cash or stock	8	10.53%	5	4.20%	7	4.19%
cash & stock	6	7.89%	9	7.56%	21	12.57%
other	5	6.58%	8	6.72%	7	4.19%
all transactions	**76**	100.00%	**119**	100.00%	**167**	100.00%

returns are significantly higher when the deal value exceeds 30% of the value of the acquiring companies market value. See also Jarrell/Poulsen (1989).

[40] This can be observed in all three samples for the year 1991, 1995 and 1999.

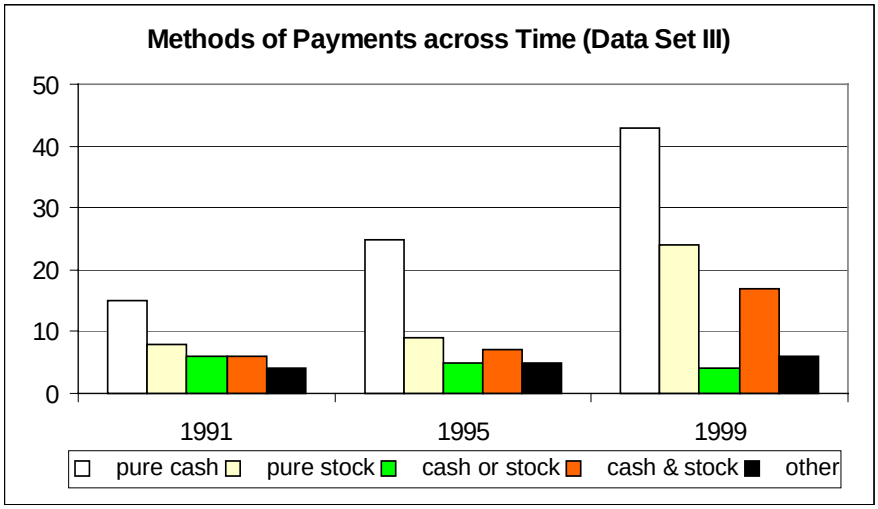
[41] Paying in equity for an acquisition usually involves the issue of new securities.

[42] Risk sharing, for example, is not expected to be a relevant issue for small transactions, since the risk involved is very small. The hypothesis could therefore not be tested with a sample containing these small transactions.

The transactions have been grouped according to the methods of payment: *Pure cash* transactions, *pure stock* transactions, *stock or cash* transactions (i.e. transactions that leave the investor a choice between stock and cash), *stock & cash* transactions (i.e. transactions that are composed of a stock and a cash part), and *other* transactions, which can be any combination of the former four possibilities.[43] Pure cash transactions are dominant throughout the decade. In 1999, however, stock, and stock & cash transactions seem to have become more popular, although these two categories together are still outnumbered by the category pure cash transactions. The empirical evidence for a shift towards stock transactions seems to be weak and less pronounced than compared to studies for the US market. Data Set III shows, however, that the ratio of cash to stock transactions appears to be related to the deal size of the transactions.

Data Set III is the reduced Data Set II, containing only the "significant" transactions, and will be the one on which the tests of the hypotheses will be conducted. The total number of transactions in this sample is 184, which is approximately half the size of Data Set II (see Figure 3):

Figure 3: Properties of Data Set III (methods of payment)



Data Set III (184 transactions)	1991 Number	%	1995 Number	%	1999 Number	%
pure cash	15	38.46%	25	49.02%	43	45.74%
pure stock	8	20.51%	9	17.65%	24	25.53%
cash or stock	6	15.38%	5	9.80%	4	4.26%
cash & stock	6	15.38%	7	13.73%	17	18.09%
other	4	10.26%	5	9.80%	6	6.38%
all transactions	39	100.00%	51	100.00%	94	100.00%

Regarding the distribution of the methods of payment, the shift towards stock transactions is considerably more pronounced than in Data Set II: The number of pure stock and cash & stock transactions increased to over 43% in 1999 and almost equals the percentage of pure cash transactions in that year. This suggests that for transactions with a relatively large deal value compared to the market capitalisation of the acquiring firm, stock offers or offers containing a stock component seem to have become more important.[44]

[43] Loan alternatives, which may offer tax advantages compared to cash offers, have been counted as cash offers. The information content of a loan alternative in an agency framework is similar to a cash offer.

[44] These findings seem to further support the Risk Sharing Hypothesis.

4.3 Sample Stratification Procedure

In order to conduct the test for Hypothesis V, Data Set III has to be stratified into companies with good and bad investment opportunities. Most studies investigating issues related to investment opportunities use the ratio of companies' market value to book value as a proxy for investment opportunities.[45] The rationale is that firms with a high ratio have to realize positive net present value projects in the future in order to justify their valuation level. Since the companies' book value may vary depending on which accounting practices have been applied, this study – based on the same rationale – uses the more reliable price-earnings ratio as a proxy for investment opportunities.[46] Since P/E-ratios are industry-specific, the P/E-ratio of each company will be compared to the average P/E-ratio of the company's industry group (Datastream's level 4 industry code). If a company's P/E-ratio is higher (lower) than the corresponding average industry's P/E-ratio, the company will be considered as having good (bad) investment opportunities.[47]

For testing Hypothesis VI, the sample has to be stratified into high-risk and low-risk transactions. Although empirical evidence is not conclusive, it has been argued by several authors that cross-border transactions are usually more risky than domestic transactions. The rationale is that in cross-border transactions agency problems are larger, because it is usually more difficult for the acquirer to determine the target firm's true value.[48] Additionally, softer factors such as the cultural fit between two companies and different management styles present more difficulties in cross-border transactions, which increases the uncertainty associated with the transaction. The present study uses therefore the criterion "domestic/cross-border deal" to assess the perceived risk associated with a transaction.

4.4 Methodology

Standard event study methodology has been used to determine AR- and CAR-values for the sample of acquiring companies. The following issues will be discussed in this section: the form of daily returns used, the methods of calculating abnormal returns, the length of estimation and test periods, the way of aggregating returns, the test statistics, and methods of mean comparison used.

4.4.1 Calculation of Abnormal Returns

Logarithmic daily returns have been calculated for each company's event period:

$$R_{jt} = \ln\left(P_{jt+1} + D_{jt+1}\right) - \ln\left(P_{jt}\right) \qquad (1)$$

where: R_{jt} = return for company j on day t;

P_{jt} = closing price for company j on day t;

D_{jt+1} = cash dividend on the ex dividend day t+1

Compared to discrete returns, logarithmic returns have the advantage that they are analytically more tractable when sub-period returns are linked together; they are also more likely to be normally distributed which is important for the use of a large number of statistical tests based on the assumption of normal distribution [Strong (1992)].

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[45] See Jung/Kim/Stulz (1996), Smith/Watts (1992), or Lang/Stulz/Walking (1991)

[46] PE-ratios have been extracted from Datastream (companies' PE-ratios on 31/12/1998).

[47] The assessment of the P/E-ratio *relative* to the corresponding industry average is important. It ensures that investment opportunities of companies in low growth industries will not be underestimated compared to companies in high-growth industries.

[48] See Hansen (1987) for the formulation of the two-agent bargaining model under imperfect information.

To calculate abnormal returns, a form of benchmark is needed which predicts the normal returns for company *j*. A number of different specifications of the benchmark expected return have been used in the literature. Examples are the Market Model (MM), the Mean Adjusted Return Model (MeAM), the Market Adjusted Return Model (MaAM), the Capital Asset Pricing Model (CAPM), or the Matched Portfolio Benchmark (MP).[49] The most widely used model of these is the market model (see section 3 for an overview of models used by other authors).

This study uses the following three different methods to estimate acquiring firms' abnormal returns (AR_{jt}): (1) Mean adjusted return model, (2) Market model, and (3) Market adjusted return method.[50] The three methods are briefly discussed below:

(1) The *Mean Adjusted Return Model* calculates the abnormal return AR_{jt} for company *j* as the difference between the observed (daily) return of company *j* (R_{it}) and company *j*'s mean of returns ($\overline{R}_j$) over the estimation period:[51]

$$AR_{jt} = R_{jt} - \overline{R_j} \qquad (2)$$

where: AR_{jt} = abnormal return for company *j* on day *t*;
R_{jt} = return for company *j* on day *t*;
$\overline{R}_j$ = mean return for company *j* over the estimation period.

The mean return $\overline{R}_j$ has been calculated for an estimation period of 200 days starting with day –290 to day –90 prior to the announcement date (day 0). This period lies within the range of other estimation periods used in earlier studies on short-term returns of acquiring companies.[52] It is neither too far away from the test period (in this case, the estimated parameters could no longer be relevant), nor is it to close to the event itself (this could lead to distortion, since price behaviour is often different in the days preceding an announcement).

(2) The *Market Model* assumes that stock returns are determined by the following ordinary least squares equation:

$$NR_{jt} = \alpha_j + \beta_j R_{mt} + \varepsilon_{jt} \qquad (3)$$

where: NR_{jt} = normal rate of return for company *j* on day *t*;
R_{mt} = rate of return for market index *m* on day *t*;
ε_{jt} = error term for company *j* at time *t*.

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[49] For a detailed description of these models, see Brown/Warner (1980; 1985), Strong (1992) or Aw (1999).

[50] The use of three different methods will allow the comparison of results and also the robustness of our findings.

[51] This model has been used, for example, in the study by Draper/Paudyal (1999) or Lahey/Conn (1990).

[52] See for example Draper/Paudyal (1999): -500/-21; Chang (1998): -210/-11; Davidson/Cheng (1997): -290/-90; Suk/Sung (1997): -300/-101.

The coefficients α_j and β_j are the ordinary least squares parameters of the intercept and slope, respectively, for company *j*. Again, an estimation period of 200 days to calculate the market model parameters over the interval period of day –290 to day –90 has been used. The FT All Shares Index has been used as the market index. The abnormal return AR_{jt} for company *j* will then be calculated as:

$$AR_{jt} = R_{jt} - \left(\hat{\alpha}_j + \hat{\beta}_j R_{mt}\right) \tag{4}$$

where: AR_{jt} = abnormal return for company *j* on day *t*;
R_{jt} = return for company *j* on day *t*;
$\hat{\alpha}_j$ = estimate of ordinary least squares parameter of intercept;
$\hat{\beta}_j$ = estimate of ordinary least squares parameter of slope;
R_{mt} = rate of return for market index *m* on day *t*.

(3) The *Market Adjusted Return Model* assumes that ex ante expected returns are the same for all companies and equal in any period equal to the expected return of the market index [Strong (1992)]:

$$E(R_{jt}) = E(R_{mt}) \tag{5}$$

where: $E(R_{jt})$ = expected return for company *j* on day *t*;
$E(R_{mt})$ = expected return for market index *m* on day *t*.

The ex post abnormal returns AR_{jt} will then be calculated as follows:

$$AR_{jt} = R_{jt} - R_{mt} \tag{6}$$

where: AR_{jt} = abnormal return for company *j* on day *t*;
R_{jt} = return for company *j* on day *t*;
R_{mt} = rate of return for market index *m* on day *t*.

This means that the Market Adjusted Return Model could also be considered as a special case of the Market Model with the parameters $\hat{\alpha}_j = 0$ and $\hat{\beta}_j = 1$.

4.4.2 Aggregation of Abnormal Returns across sample firms and time

Event studies involve the aggregation of abnormal returns across sample firms and across time. While there exist several ways of doing this, we focus on the methods used in this paper:

In order to obtain the sample average abnormal return $\overline{AR}_t$ for each day of the event window, the abnormal returns AR_{jt} will be aggregated across sample firms in the following way: [53]

$$\overline{AR}_t = \frac{1}{N} \sum_{t=1}^{N} AR_{jt} \qquad (7)$$

where: AR_{jt} = abnormal return for company *j* on day *t*;
N = Number of companies in the sample.

The aggregation to an arithmetic mean portfolio is the usual way to aggregate abnormal returns across sample firms. The equal weighting of securities in the sample can distort the results if event securities differ systematically in size. Methods for explicitly controlling for size are presented in Dimson/Marsh (1986).

Almost all event studies accumulate sample average abnormal return $\overline{AR}_t$ over a period of several days. This helps to fully capture the effect of the event over a longer time period, or to accommodate uncertainty over the exact date of the event [Strong (1992)]. One method to accumulate average abnormal returns $\overline{AR}_t$ over time is the Cumulative Abnormal Return (CAR) method.[54] The CAR method for returns measured in continuous time represents the abnormal return on a portfolio that is rebalanced every period to give equal weighting in each security of the sample [Strong (1992)].[55] CAR are calculated as follows:

$$CAR_{[t;T]} = \sum_{t}^{T} \overline{AR}_t \qquad (8)$$

where: $\overline{AR}_t$ = average abnormal return on day *t*;
$t;T$ = accumulation period

Examining the CAR of a set of sample securities will be used to look at whether or not the values of the average residuals, starting from the day of cumulation and up to a specific point, are systematically different from zero. The present study calculates the cumulated abnormal returns for each consecutive day of the event period ($CAR_t = CAR_{t-1} + \overline{AR}_t$), beginning at $CAR_{[-5;-4]}$ and ending at $CAR_{[-5;5]}$. Furthermore, the CAR for the period [-1;0] will be calculated, since it may be interesting to determine the size of the effect in a narrow window around the event date itself.[56]

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[53] The procedure adopted is to follow Brown/Warner (1985) and Draper/Paudyal (1999).

[54] Alternatively, there exists the Abnormal Performance Index (API) method. See Strong (1992) or Aw (1999) for a comparison of the two methods. See also Dissanaike/LeFur (2000) for a critical discussion of the Log CAR method as opposed to the CAR- and the buy-and-hold-method.

[55] Since the aggregation period is only 11 days, the fact that returns are simply added instead of multiplied should not lead to unrealistic results; for a critique of the arithmetic method, see Dissanaike (1994).

[56] Most authors have adopted a similar technique: See Smith/Kim (1994) or Trifts (1991).

4.4.3 Tests of Significance

The significance of the daily average abnormal returns and the cumulated abnormal returns has to be assessed by means of an appropriate test statistic. The null hypothesis to be tested is that the mean day *t* or mean period [*t;T*] return is equal to zero. There exist several test-statistics, which all have different advantages and shortcomings. Again, we will only focus on those used in the present paper.[57]

To assess the significance of the measured abnormal returns, this study uses the "no dependence adjustment" method by Brown/Warner (1980; 1985).[58] Each abnormal return AR_{jt} is first divided by its standard deviation calculated of the abnormal returns over the estimation period. This procedure yields standardized excess returns SAR_{jt}:

$$SAR_{jt} = AR_{jt} / \hat{S}\left(AR_{jt}\right) \tag{9}$$

where: AR_{jt} = abnormal return for company *j* on day *t*;

$$\hat{S}\left(AR_{jt}\right) = \sqrt{\left(\frac{1}{200-1}\right)\sum_{t=-290}^{t=-91}\left(AR_{jt} - AR*_{j}\right)^2} \tag{10}$$

$$AR*_{j} = \frac{1}{200}\sum_{t=-290}^{t=-91} AR_{jt} \tag{11}$$

The test statistic for any given day *t*, which is distributed Student-t under the null hypothesis that the mean day abnormal return is equal to zero, will then be calculated as follows:

$$TS_t = \left(\sum_{j=1}^{N_t} SAR_{jt}\right) * \left(N_t\right)^{-0.5} \tag{12}$$

where: N_t = Number of sample securities at day t.

This test statistic, which will be referred to as test statistic (A), has three strong implicit assumptions: first, for the test statistic to be distributed Student-t, security returns must be normally distributed. There is substantial evidence that distributions of daily returns are fat-tailed relative to a normal distribution [Brown/Warner (1985)]. The important question, however, is whether sample mean abnormal returns are normally distributed. Due to the Central Limit Theorem – and assuming that all its assumptions hold – the distribution of the sample mean abnormal returns converges to normality as the number of securities increase. Brown/Warner (1985) demonstrate that for sample sizes of about 50, the mean abnormal return seems close to normal. Since most of the samples in the present study are around this size, the non-normality of daily returns is not likely to have any negative impact on the test statistics used.

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[57] For an overview over other test statistics, including non-parametric tests, see Boehmer/Musumeci/Poulsen (1991).

[58] This method has also been used by Draper/Paudyal (1999).

Second, it assumes that the security residuals are uncorrelated. This means that this method would not be the appropriate one if securities‘ residuals are cross-sectionally correlated, which might be the case if the security residuals have a common event date [Boehmer/Musumeci/Poulsen (1991)]. An example for a common event date could be found in a study investigating the influence of an oil price shock on stock prices. Furthermore, studies investigating price reaction to earnings announcement often have to deal with common event dates, since earnings announcement usually happen to take place around the same date for many securities.[59] This effect, which is also known as event clustering, will increase the variance of the abnormal returns and therefore lower the power of the significance test. Additionally, if measures for security specific abnormal returns are positively correlated, the null hypothesis will be rejected in too many cases [Brown/Warner (1980)]. The pattern of the announcement dates in the sample of the present study has been examined and no clustering around special dates has been detected. The use of the “no dependence adjustment” method seems to be appropriate.[60]

Third, the test statistic assumes that event-induced variance is insignificant. This is more problematic, since there is evidence of substantial increases in the variance of a security’s abnormal return for the days around the even [Brown/Warner (1985)]. This event-induced variance of returns affects the ability of event-study methods to detect whether the event’s average effect on stock returns is different from zero. In the presence of event-induced variance, the t-statistic rejects the null hypothesis of zero average abnormal return too frequently when it is true [Boehmer/Musumeci/Poulsen (1991)]. One remedy consists in ignoring the estimation-period residual variance and to use the cross-sectional variance of the event period itself. However, if the event-period residuals for different firms are drawn from different distributions, any cross-sectional approach for estimating the variance will be misspecified as well. The solution, as described by Boehmer/Musumeci/Poulsen (1991), could be to use standardized residuals for the cross-sectional estimation of the variance, which then incorporates information from both the estimation and the event period. The procedure is as follows:

The residuals are standardized by the estimation-period standard deviation in the same way as it has been done for the “no dependence adjustment” method:

$$SAR_{jt} = AR_{jt} / \hat{S}\left(AR_{jt}\right) \tag{13}$$

where: AR_{jt} = abnormal return for company j on day t;

$$\hat{S}\left(AR_{jt}\right) = \sqrt{\left(\frac{1}{200-1}\right)\sum_{t=-290}^{t=-91}\left(AR_{jt} - AR^*_j\right)^2} \tag{14}$$

$$AR^*_j = \frac{1}{200}\sum_{t=-290}^{t=-91} AR_{jt} \tag{15}$$

The test statistic for day t, which is distributed Student-t under the null hypothesis that the mean day abnormal return is equal to zero, is obtained by dividing the standardized average event-period

[59] Brown/Warner (1985) solve this problem by using the variances of portfolio residuals from the estimation period instead of the sum of the variances of individual securities’ residuals. The test statistic for this “crude dependence adjustment“ method equals the portfolio abnormal return divided by the portfolio residual’s standard deviation from the estimation period.

[60] Furthermore, Brown/Warner (1985) report that the “no dependence adjustment” method is more powerful than the “crude dependence adjustment” method.

residuals by their contemporaneous cross-sectional standard error, multiplied with the square root of the number of sample securities at day *t*:

$$TS_t = \left(\left(\frac{1}{N_t} \sum_{j=1}^{N_t} SAR_{jt} \right) / \hat{S}\left(SAR_{jt}\right) \right) * \sqrt{N_t} \qquad (16)$$

where:
$$\hat{S}\left(SAR_{jt}\right) = \sqrt{\left(\frac{1}{N_t - 1} \right) \sum_{j=1}^{N_t} \left(SAR_{jt} - SAR*_j\right)^2} \qquad (17)$$

$$SAR*_j = \frac{1}{N_t} \sum_{j=1}^{N_t} SAR_{jt} \qquad (18)$$

N_t = Number of sample securities at day t.

This test statistic will be referred to as test statistic (B).

Similar cross-sectional test statistics have been used by Mikkelson (1981), Penman (1982) and Rosenstein/Wyatt (1990). In each of these studies, the event-period standard deviation was larger than the estimation-period standard deviation, which means that the null hypothesis in these cases has been rejected fewer times than compared to a non-cross-sectional approach [Boehmer/Musumeci/ Poulsen (1991)]. This second test statistic will be used in the present study for selected cases in order to add robustness to the results achieved with the "no dependence adjustment" method.

One limitation of the test statistics used in this paper is that they do not take into account serial dependence in abnormal returns. Brown/Warner (1985) report that the specification of the test statistics is improved by using simple procedure to allow for autocorrelation in the time series of mean daily abnormal returns. Since the improvements however are small and only apply in special cases, the test statistics used in the present paper ignore any time-series dependence in excess returns.

The above test statistics can be used to assess the significance of daily abnormal mean returns only. For assessing the significance of cumulated abnormal returns (CAR) over a multi-day intervals, both test statistics have to be altered in the following way:[61]

$$TS_{[t;T]} = \frac{\sqrt{\sum_{t=1}^{T} TS_t^{\,2}}}{\sqrt{T}} \qquad (19)$$

where: TS_t = test statistic for average abnormal return for day *t*

T = number of days in multi-period interval

[61] Adapted from Draper/Paudyal (1999) and Brown/Warner (1985), where significance tests over multi-day intervals are described for the "crude dependence adjustment" method.

4.4.4 Comparison of Means

In order to decide whether there are differences between the means of different categories (e.g. 1991, 1995, 1999), mean comparison tests must be carried out. The technique to apply is analysis of variance (ANOVA) for the comparison of three means or more (Hypotheses II and III) and t-tests for the comparison of two means (Hypotheses IV-VI).

ANOVA tests the equality of three or more means at one time by using variances.[62] The following assumptions are required to hold for the sample: (1) Independence, meaning that there is no relationship between the observations in the different groups and between the observations in the same group; (2) Normal distribution; (3) Equality of variance.

From the above three assumptions, only assumption three causes problems.[63] This is particularly the case because the number of cases in each group is not similar. Furthermore, since many values are negative, the usual data transformations (taking the square roots; taking the logarithms) applied to get the distribution of values more normal do not work. Alternatively, a test like the non-parametric Kruskal-Wallis test, which requires less rigid assumptions, could be used instead. Since this test is less powerful and since the calculated Levene-values indicate a fairly "tolerable" equality of variance, ANOVA will be used to compare the means of the different groups.

The F-statistic only tests whether all means are equal or not. In the case that the null hypothesis has to be rejected, no information will be obtained which groups of means might be different from each other. Multiple comparison procedures, however, are able to determine the significance of differences in means between all groups. The Multiple comparison test used in this study is the Scheffé-test.

The calculations for the Scheffé-test has to be done in two steps: First, all possible mean differences have to be calculated (the number of groups will be *k(k-1)/2* where *k* is the number of the groups):

$$\Delta_{t,i} = \overline{AR}_{t,a} - \overline{AR}_{t,b} \qquad (20)$$

where: $\overline{AR}_{t,a/b}$ = mean abnormal return for sample a/b at time t

Second, a confidence interval around each mean difference will be calculated:

$$\Delta_{t,i} \pm \sqrt{(k-1)F_{k-1;n-k}\, s_b^2} * \sqrt{\frac{1}{n_a} + \frac{1}{n_b}} \qquad (21)$$

where: k = number of groups

$F_{k-1;n-k}$ = F-value with degrees of freedom *k-1; n-k*

s_b^2 = Within group variance

$n_{a;b}$ = Number of values in group a;b

---

[62] Its basic idea is to compare the between group variance s_b^2 to the within group variance s_w^2 by constructing the following F-statistic: $F = s_b^2 / s_w^2$. The F-statistic is F-distributed and the degrees of freedom for the numerator and denumerator are the degrees of freedom for the between group and within group, respectively. If the between variance is smaller than the within variance, the means are very close to each other and the null hypothesis of no differences between the means may not be rejected. If the between variance is larger than the within variance, this is a strong indicator that the means are not equal. The threshold values for accepting/ rejecting the hypothesis depend on the chosen confidence level and the degrees of freedom.

[63] There are no theoretically-motivated reasons to suppose that the data in the sample could be dependent. Regarding the normality assumption, the analysis of variance does not seem to be strongly dependent on this assumption. As long as the data is not extremely non-normal, the results will not be distorted.

The confidence level used should be the same as in the preceding ANOVA. The interpretation of the confidence interval is as follows: If the confidence interval is either totally positive or totally negative, the means are significantly different from zero. If the confidence interval includes zero, the means are not significantly different from zero.

The t-tests used in this study in order to compare two means follows the methodology by Travlos (1987) and Chang (1998). The two-tailed version of the test is being used, since there is no a priori belief which of the two means might be larger. Significance will be indicated for the 20%, 10%, 5% and 1% level. The test-statistic will be calculated as follows:

$$TS_{[t-T]} = \frac{\frac{1}{n_A}\sum_{j=1}^{n_A} SAR_{A,j,[t-T]} - \frac{1}{n_B}\sum_{j=1}^{n_B} SAR_{B,j,[t-T]}}{\sqrt{\left(\frac{T}{n_A} + \frac{T}{n_B}\right)}} \qquad (22)$$

where:
$$SAR_{A/B,j,[t-T]} = \sum_{t=1}^{T} SAR_{A/B,j,t} \qquad (23)$$

$$SAR_{A/B,j,t} = AR_{A/B,j,t} / \hat{S}\left(AR_{A/B,j,t}\right) \qquad (24)$$

$AR_{A/B,j,t}$ = abnormal return for company *j* of sample A/B on day *t*

$$\hat{S}\left(AR_{A/B,jt}\right) = \sqrt{\left(\frac{1}{200-1}\right)\sum_{t=-290}^{t=-91}\left(AR_{A/B,jt} - AR^*_{A/B,j}\right)^2} \qquad (25)$$

$$AR^*_{A/B,j} = \frac{1}{200}\sum_{t=-290}^{t=-91} AR_{A/B,jt} \qquad (26)$$

$n_{A/B}$ = number of companies in sample A or B, respectively

T = number of days in timer interval [t-T]

This t-test relies on two assumptions: Independence of the sample and normal distribution of abnormal returns. In the previous paragraph on ANOVA, it has been shown that these two assumptions do not cause any problems for the present data set.

5 Empirical Results

The empirical results of the tests of the six hypotheses corresponding to the research questions outlined in section 2.3 will be discussed in turn below. Additional results of AR/CAR-values and significance tests for Hypotheses IV-VI can be found in the appendices C-E.

5.1 Research Question I:

Hypothesis I: [66]

H_0: Cumulated abnormal returns (CAR) of acquiring companies over the announcement period are equal to zero.

H_1: Cumulated abnormal returns (CAR) of acquiring companies over the announcement period are not equal to zero.

Results: Figure 4 [67]

The results for the Mean Adjusted Return Model (MeAM) show that – on the basis of t-statistic A – the CAR over the interval [-1;0] and [-5;5] are significantly different from zero at the 20% and 10% level, respectively. The stronger t-statistic B, which will be of greater importance with small sample sizes (Hypothesis V; Hypothesis VI), indicates no significant differences. The results for the Market Adjusted Model (MaAM) and the Market Model (MM) are similar, leading to the conclusion that the hypothesis H_0 for all three methods can be rejected – even though at a relatively low confidence level.

With positive CAR over both intervals, the results in this study are similar to the results obtained by Asquith/Bruner/Mullins (1983) and are a further proof that acquisition-related wealth effects exist. Moreover, the differences in CAR between the period [-1;0] and [-5;5] indicate that a positive post-announcement drift exists[68] and that markets do not adjust immediately to new information. [69]

Since this test of Hypothesis I makes no differences between the method of payment or the three time periods considered in the study, interpretation of the results on this highly aggregated level is difficult. However, two points worth notice: (1) The differences between the three methods used to calculate abnormal returns are very small. This demonstrates that the obtained results are robust and that the required reliability for each of the methods can be guaranteed. (2) Significant AR not only occur on the announcement date itself and on the preceding day, but throughout the whole longer observation period [-5;5]. The decision to consider the results of both intervals seems to be justified.

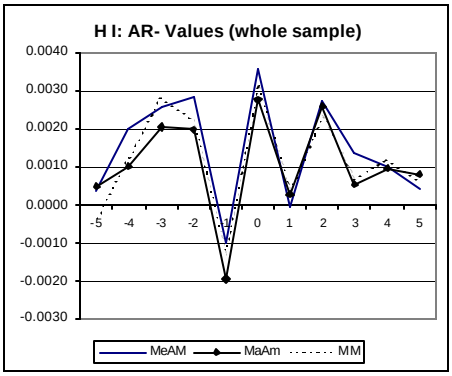
[66] Similar to the above Hypothesis I, there exist identical hypotheses for the research questions 2-6, specifying that the cumulated abnormal returns (CAR) of the sample under consideration is (not) equal to zero. These hypotheses, however, will not be mentioned particularly for the following research questions.

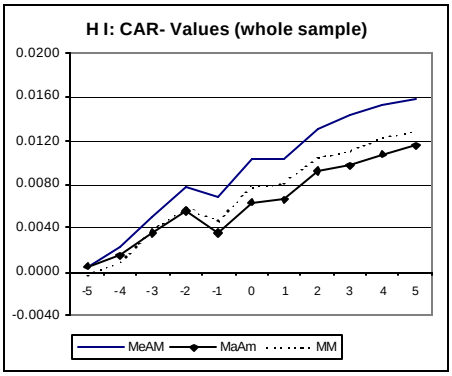
[67] All numbers in Figures 4–43 have been rounded for presentation only. For calculation, always the exact numbers have been used.

[68] This effect may be compared to the well-known phenomenon of the "post-earnings-announcement drift"; see for example Bhushan (1994) or Bernard/Thomas (1989).

[69] For resulting implications regarding market efficiency, see Fama (1970/1991).

Figure 4: AR- and CAR-values for Data Set III (MeAM, MaAM, MM)





MeAM	AR	t-Values (A)	t-Values (B)	CAR	t-Values (A)	t-Values (B)
-5	**0.0003**	0.301	0.216	**0.0003**	0.301	0.216
-4	**0.0020**	1.684**	1.054	**0.0024**	1.210	0.761
-3	**0.0026**	3.391****	1.186	**0.0049**	2.193***	0.924
-2	**0.0028**	2.071***	0.938	**0.0077**	2.163***	0.928
-1	**-0.0010**	-1.292*	-0.452	**0.0067**	2.019***	0.854
0	**0.0036**	-1.324*	-0.215	**0.0103**	1.921**	0.785
1	**-0.0001**	0.052	0.017	**0.0103**	1.779**	0.727
2	**0.0027**	1.824**	0.783	**0.0130**	1.784**	0.734
3	**0.0014**	2.272***	0.871	**0.0143**	1.845**	0.75
4	**0.0010**	0.86	0.42	**0.0153**	1.771**	0.724
5	**0.0004**	-0.04	-0.02	**0.0157**	1.689**	0.69
[-1;0]				**0.0026**	1.309*	0.354

MaAM	AR	t-Values (A)	t-Values (B)	CAR	t-Values (A)	t-Values (B)
-5	**0.0005**	0.316	0.220	**0.0005**	0.316	0.220
-4	**0.0010**	0.669	0.420	**0.0015**	0.523	0.335
-3	**0.0021**	2.261***	0.953	**0.0035**	1.374*	0.614
-2	**0.0020**	1.500*	0.718	**0.0055**	1.406*	0.642
-1	**-0.0019**	-2.087***	-0.702	**0.0036**	1.566*	0.654
0	**0.0028**	-0.551	-0.098	**0.0063**	1.447*	0.599
1	**0.0003**	0.242	0.085	**0.0066**	1.343*	0.555
2	**0.0026**	1.943**	0.846	**0.0092**	1.432*	0.599
3	**0.0006**	1.344*	0.575	**0.0098**	1.422*	0.597
4	**0.0010**	0.759	0.405	**0.0107**	1.371*	0.58
5	**0.0008**	0.292	0.150	**0.0115**	1.310*	0.555
[-1;0]				**0.0008**	1.526*	0.501

MM	AR	t-Values (A)	t-Values (B)	CAR	t-Values (A)	t-Values (B)
-5	**-0.0004**	-0.296	-0.205	**-0.0004**	-0.296	-0.205
-4	**0.0012**	1.127	0.671	**0.0009**	0.824	0.496
-3	**0.0028**	3.411****	1.171	**0.0037**	2.081***	0.788
-2	**0.0022**	1.804**	0.763	**0.0059**	2.015***	0.782
-1	**-0.0013**	-1.906**	-0.608	**0.0047**	1.994***	0.75
0	**0.0031**	-1.414*	-0.217	**0.0077**	1.91**	0.691
1	**0.0004**	0.290	0.092	**0.0081**	1.771**	0.64
2	**0.0023**	1.350*	0.557	**0.0104**	1.724**	0.631
3	**0.0007**	1.852**	0.696	**0.0111**	1.739**	0.638
4	**0.0012**	0.976	0.471	**0.0123**	1.678**	0.623
5	**0.0006**	-0.034	-0.017	**0.0129**	1.60*	0.594
[-1;0]				**0.0018**	1.678**	0.457

Key:			
****	significant at 1% level	MeAM:	Mean adjusted Model
***	significant at 5% level	MaAM:	Market adjusted Model
**	significant at 10% level	MM:	Market Model
*	significant at 20% level		

5.2 Research Question II:

Hypothesis II:

H_0: There is no difference in the mean CAR of acquiring companies between each of the three sample periods 1991, 1995, and 1999 ($\mu_1 = \mu_2 = \mu_3$)

H_1: There are differences in the mean CAR of acquiring companies between the three sample periods 1991, 1995, and 1999 ($\mu_1 ? \mu_2 ? \mu_3$)

μ_1 = Mean CAR of acquiring companies of sample period 1991

μ_2 = Mean CAR of acquiring companies of sample period 1995

μ_3 = Mean CAR of acquiring companies of sample period 1999

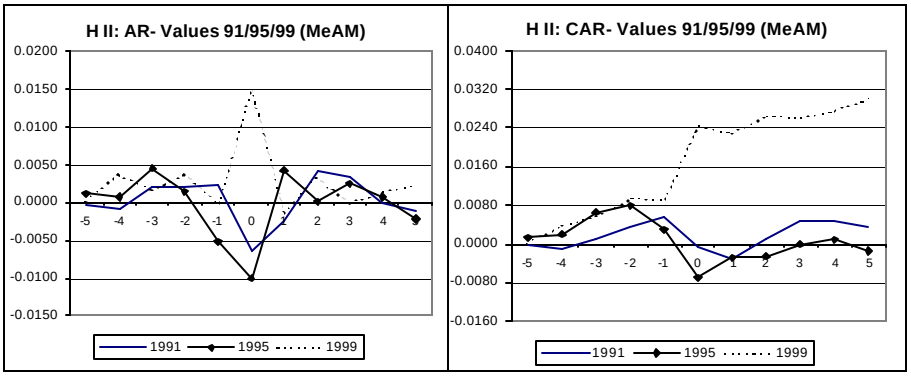
Results: Figure 5-10

The ANOVA-results for the test based on MeAM show that the probability of equal means over the period [-1;0] between the three sample periods 1991, 1995, and 1999 is only 0.8%. This means that the null hypothesis can be rejected at the 1% level of confidence. The results for the period [-5;5] indicate – as expected due to the increase in number of days – a higher probability for equality of means (8.1%). The null hypothesis can still be rejected at the 10% level. For the tests based on MaAM and MM, the results are not qualitatively different.

The post-hoc test, carried out in form of the Scheffé-test, shows that the reason for rejecting the null hypothesis lies particularly in the differences between the year 1995 and 1999 (significant difference in the mean CAR over [-1;0] at the 5% level for all three methods). Whereas it is true that the differences between these two years are the largest, the differences between 1991 and 1999 are apparent as well. The year 1999 does not exhibit the same pattern as the other two sample periods. Most striking are the differences around the announcement date itself: Whereas the results for the period [-1;0] for 1991 and 1995 show significant negative CAR at very high confidence levels (-0.4%; -1.51%), the value for 1999 is significantly positive at again a very high confidence level (+1.48%). This means that there is strong evidence for a shift in the acquirer companies' return pattern from 1991 to 1999, as it has been assumed in the explanations for the so-called "new" hypotheses in Chapter 2.

Since no other study appears to have carried out similar investigations on the possibility of shifts in acquirer's return across time, no comparison to other studies can be made.

Figure 5: AR and CAR-values calculated according to MeAM



1991	AR	t-Values (A)	t-Values (B)	CAR	t-Values (A)	t-Values (B)
-5	**-0.0002**	-0.252	-0.375	**-0.0002**	-0.252	-0.375
-4	**-0.0007**	-0.629	-0.841	**-0.0009**	0.479	0.651
-3	**0.0021**	1.068	1.577*	**0.0012**	0.730	1.054
-2	**0.0022**	0.592	0.644	**0.0034**	0.698	0.968
-1	**0.0024**	1.011	0.808	**0.0057**	0.771	0.938
0	**-0.0063**	-1.741**	-0.688	**-0.0006**	1.000	0.901
1	**-0.0025**	-0.251	-0.178	**-0.0031**	0.931	0.837
2	**0.0042**	2.125***	1.431*	**0.0011**	1.150	0.932
3	**0.0036**	1.231	1.082	**0.0047**	1.159	0.95
4	**0.0000**	-0.302	-0.320	**0.0047**	1.104	0.907
5	**-0.0011**	-0.535	-0.611	**0.0036**	1.065	0.884
[-1;0]				**-0.0040**	1.424*	0.75
1995	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0012**	0.806	0.910	**0.0012**	0.806	0.910
-4	**0.0008**	1.003	1.302*	**0.0020**	0.910	1.123
-3	**0.0046**	4.125****	1.630*	**0.0066**	2.495***	1.314*
-2	**0.0014**	0.906	0.566	**0.0080**	2.208***	1.173
-1	**-0.0052**	-3.005****	-1.338*	**0.0029**	2.389***	1.207
0	**-0.0100**	-9.057****	-1.899**	**-0.0071**	4.293****	1.348*
1	**0.0043**	1.576*	0.868	**-0.0028**	4.018****	1.290
2	**0.0002**	-0.282	-0.219	**-0.0026**	3.76****	1.209
3	**0.0026**	2.270***	1.294	**0.0000**	3.625****	1.219
4	**0.0007**	0.671	0.451	**0.0007**	3.446****	1.165
5	**-0.0022**	-0.854	-0.716	**-0.0014**	3.295****	1.132
[-1;0]				**-0.0151**	6.747****	1.643*
1999	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0001**	-0.011	-0.016	**0.0001**	-0.011	-0.016
-4	**0.0038**	2.023***	2.240***	**0.0039**	1.430*	1.584*
-3	**0.0017**	1.018	1.177	**0.0056**	1.308*	1.461*
-2	**0.0038**	1.850**	1.917**	**0.0094**	1.462*	1.588*
-1	**-0.0002**	-0.246	-0.244	**0.0092**	1.312*	1.424*
0	**0.0150**	5.940****	2.779****	**0.0243**	2.705****	1.726**
1	**-0.0014**	-0.926	-0.575	**0.0228**	2.529***	1.612*
2	**0.0035**	1.391*	1.308*	**0.0263**	2.416***	1.577*
3	**-0.0002**	0.713	0.581	**0.0261**	2.29***	1.500*
4	**0.0015**	0.903	1.065	**0.0276**	2.191***	1.462*
5	**0.0024**	0.918	0.886	**0.0300**	2.107***	1.419*
[-1;0]				**0.0148**	4.204****	1.973**

Key:
**** significant at 1% level
*** significant at 5% level
** significant at 10% level
* significant at 20% level

1991: n = 39
1995: n = 51
1999: n = 94

Figure 6a/b: Comparison of Means – ANOVA and post-hoc analysis (MeAM):

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
[-1;0]	Between Groups	3,167E-02	2	1,584E-02	4,984	,008
	Within Groups	,575	181	3,178E-03		
	Total	,607	183			
[-5;5]	Between Groups	4,005E-02	2	2,003E-02	2,549	,081
	Within Groups	1,422	181	7,856E-03		
	Total	1,462	183			

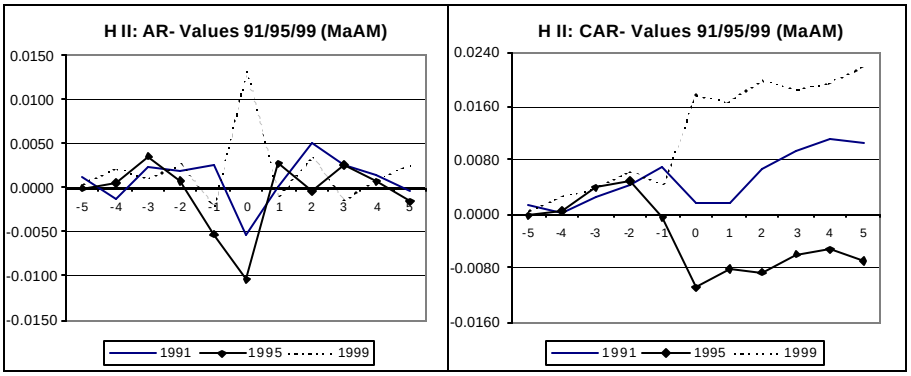
Multiple Comparisons

Scheffe

Dependent Variable	(I) YEAR1	(J) YEAR1	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[-1;0]	1991	1995	1,1078E-02	1,20E-02	,653	-1,85172E-02	4,0674E-02
		1999	-1,882E-02	1,07E-02	,218	-4,53196E-02	7,6813E-03
	1995	1991	-1,108E-02	1,20E-02	,653	-4,06740E-02	1,8517E-02
		1999	-2,990E-02*	9,80E-03	,011	-5,40944E-02	-5,70077E-03
	1999	1991	1,8819E-02	1,07E-02	,218	-7,68126E-03	4,5320E-02
		1995	2,9898E-02*	9,80E-03	,011	5,7008E-03	5,4094E-02
[-5;5]	1991	1995	5,0151E-03	1,89E-02	,965	-4,15180E-02	5,1548E-02
		1999	-2,647E-02	1,69E-02	,295	-6,81343E-02	1,5199E-02
	1995	1991	-5,015E-03	1,89E-02	,965	-5,15481E-02	4,1518E-02
		1999	-3,148E-02	1,54E-02	,127	-6,95275E-02	6,5617E-03
	1999	1991	2,6468E-02	1,69E-02	,295	-1,51987E-02	6,8134E-02
		1995	3,1483E-02	1,54E-02	,127	-6,56166E-03	6,9527E-02

*. The mean difference is significant at the .05 level.

Figure 7: AR and CAR-values calculated according to MaAM



1991	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0013**	0.345	0.491	**0.0013**	0.345	0.491
-4	**-0.0012**	-0.866	-1.059	**0.0001**	0.659	0.825
-3	**0.0023**	1.389*	1.987**	**0.0024**	0.966	1.331
-2	**0.0020**	0.493	0.535	**0.0044**	0.872	1.183
-1	**0.0026**	0.905	0.665	**0.0070**	0.879	1.099
0	**-0.0052**	-1.777**	-0.654	**0.0018**	1.081	1.038
1	**0.0000**	0.711	0.509	**0.0018**	1.037	0.980
2	**0.0049**	2.856****	1.895**	**0.0068**	1.400*	1.136
3	**0.0027**	0.969	0.920	**0.0094**	1.359*	1.114
4	**0.0016**	0.292	0.326	**0.0110**	1.292	1.062
5	**-0.0003**	-0.147	-0.191	**0.0107**	1.233	1.014
[-1;0]				**-0.0026**	1.41*	0.659
1995	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0001**	-0.216	-0.254	**-0.0001**	-0.216	-0.254
-4	**0.0005**	0.682	0.856	**0.0004**	0.505	0.632
-3	**0.0036**	2.616***	1.378*	**0.0040**	1.566*	0.948
-2	**0.0008**	0.513	0.376	**0.0048**	1.380*	0.842
-1	**-0.0053**	-3.312****	-1.405*	**-0.0005**	1.928**	0.981
0	**-0.0104**	-6.914****	-1.765**	**-0.0109**	3.327****	1.149
1	**0.0028**	0.572	0.360	**-0.0081**	3.087****	1.073
2	**-0.0005**	-0.600	-0.497	**-0.0086**	2.896****	1.019
3	**0.0026**	1.855**	1.27	**-0.0059**	2.799****	1.050
4	**0.0006**	0.511	0.401	**-0.0053**	2.661***	1.004
5	**-0.0016**	-0.743	-0.597	**-0.0069**	2.547***	0.974
[-1;0]				**-0.0157**	5.421****	1.595*
1999	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0005**	0.379	0.518	**0.0005**	0.379	0.518
-4	**0.0022**	0.992	1.143	**0.0027**	0.751	0.887
-3	**0.0011**	0.342	0.361	**0.0038**	0.644	0.754
-2	**0.0026**	1.403*	1.384*	**0.0064**	0.896	0.951
-1	**-0.0020**	-1.063	-1.068	**0.0043**	0.932	0.976
0	**0.0132**	5.466****	2.401***	**0.0175**	2.388***	1.325*
1	**-0.0010**	-0.541	-0.357	**0.0166**	2.220***	1.234
2	**0.0033**	1.321*	1.261	**0.0199**	2.129***	1.237
3	**-0.0014**	-0.110	-0.095	**0.0184**	2.007***	1.167
4	**0.0009**	0.497	0.590	**0.0193**	1.911**	1.123
5	**0.0026**	1.050	1.056	**0.0219**	1.849**	1.117
[-1;0]				**0.0112**	3.938****	1.858**

Key:
**** significant at 1% level
*** significant at 5% level
** significant at 10% level
* significant at 20% level

1991: n = 39
1995: n = 51
1999: n = 94

Figure 8a/b: Comparison of Means – ANOVA and post-hoc analysis (MaAM):

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
[-1;0]	Between Groups	2,439E-02	2	1,219E-02	3,800	,024
	Within Groups	,581	181	3,209E-03		
	Total	,605	183			
[-5;5]	Between Groups	2,758E-02	2	1,379E-02	1,967	,143
	Within Groups	1,269	181	7,010E-03		
	Total	1,296	183			

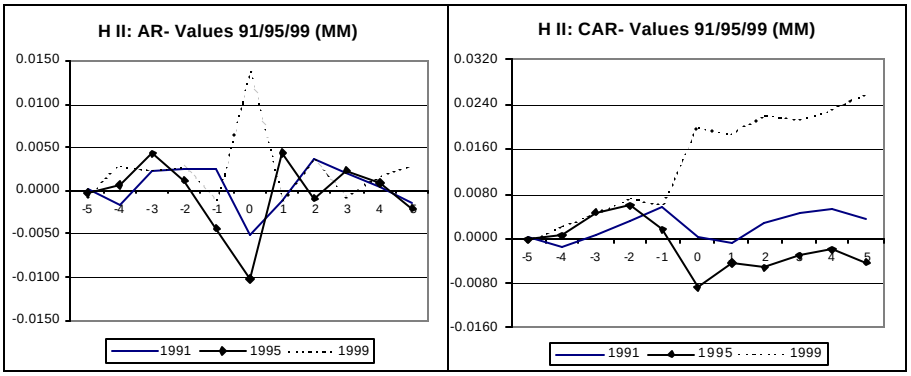
Multiple Comparisons

Scheffe

Dependent Variable	(I) YEAR1	(J) YEAR1	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[-1;0]	1991	1995	1,3116E-02	1,21E-02	,554	-1,66263E-02	4,2859E-02
		1999	-1,373E-02	1,08E-02	,447	-4,03599E-02	1,2904E-02
	1995	1991	-1,312E-02	1,21E-02	,554	-4,28586E-02	1,6626E-02
		1999	-2,684E-02*	9,85E-03	,026	-5,11610E-02	-2,52732E-03
	1999	1991	1,3728E-02	1,08E-02	,447	-1,29039E-02	4,0360E-02
		1995	2,6844E-02*	9,85E-03	,026	2,5273E-03	5,1161E-02
[-5;5]	1991	1995	1,7730E-02	1,78E-02	,610	-2,62287E-02	6,1689E-02
		1999	-1,114E-02	1,59E-02	,784	-5,04965E-02	2,8226E-02
	1995	1991	-1,773E-02	1,78E-02	,610	-6,16888E-02	2,6229E-02
		1999	-2,887E-02	1,46E-02	,143	-6,48049E-02	7,0748E-03
	1999	1991	1,1135E-02	1,59E-02	,784	-2,82264E-02	5,0496E-02
		1995	2,8865E-02	1,46E-02	,143	-7,07484E-03	6,4805E-02

*. The mean difference is significant at the .05 level.

Figure 9: AR and CAR-values calculated based on MM



1991	AR	t-Values (A)	t-Values (B)	CAR	t-Values (A)	t-Values (B)
-5	**0.0003**	-0.136	-0.182	**0.0003**	-0.136	-0.182
-4	**-0.0018**	-0.949	-1.085	**-0.0016**	0.678	0.778
-3	**0.0023**	1.369*	2.034***	**0.0007**	0.965	1.335*
-2	**0.0024**	0.608	0.648	**0.0031**	0.889	1.201
-1	**0.0024**	0.477	0.317	**0.0055**	0.823	1.083
0	**-0.0053**	-1.558*	-0.556	**0.0002**	0.985	1.015
1	**-0.0011**	-0.033	-0.024	**-0.0009**	0.912	0.939
2	**0.0037**	1.900**	1.234	**0.0028**	1.085	0.981
3	**0.0020**	0.687	0.625	**0.0048**	1.049	0.948
4	**0.0004**	-0.283	-0.271	**0.0052**	0.999	0.904
5	**-0.0016**	-0.647	-0.837	**0.0036**	0.972	0.898
[-1;0]				**-0.0029**	1.152	0.452
1995	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0002**	-0.084	-0.093	**-0.0002**	-0.084	-0.093
-4	**0.0007**	0.917	1.202	**0.0005**	0.651	0.852
-3	**0.0042**	3.862	1.517	**0.0047**	2.292	1.119
-2	**0.0011**	0.829	0.495	**0.0058**	2.028	1
-1	**-0.0044**	-3.046	-1.236	**0.0015**	2.268	1.052
0	**-0.0102**	-9.281	-1.879	**-0.0087**	4.318	1.229
1	**0.0043**	1.686	0.925	**-0.0044**	4.048	1.19
2	**-0.0009**	-1.144	-0.837	**-0.0053**	3.808	1.152
3	**0.0023**	2.289	1.276	**-0.0030**	3.671	1.167
4	**0.0009**	0.855	0.575	**-0.0021**	3.493	1.122
5	**-0.0020**	-1.015	-0.838	**-0.0042**	3.344	1.099
[-1;0]				**-0.0146**	6.907	1.59
1999	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0007**	-0.264	-0.386	**-0.0007**	-0.264	-0.386
-4	**0.0028**	1.512	1.61	**0.0021**	1.085	1.171
-3	**0.0023**	1.046	1.107	**0.0044**	1.073	1.15
-2	**0.0027**	1.522	1.396	**0.0071**	1.201	1.216
-1	**-0.0011**	-0.73	-0.698	**0.0060**	1.123	1.132
0	**0.0138**	5.861	2.497	**0.0198**	2.603	1.451
1	**-0.0012**	-0.815	-0.489	**0.0186**	2.43	1.356
2	**0.0035**	1.508	1.393	**0.0221**	2.334	1.361
3	**-0.0008**	0.462	0.363	**0.0213**	2.206	1.289
4	**0.0017**	0.919	1.095	**0.0230**	2.113	1.271
5	**0.0029**	1.116	1.061	**0.0260**	2.043	1.253
[-1;0]				**0.0127**	4.177	1.833

Key: **** significant at 1% level
*** significant at 5% level
** significant at 10% level
* significant at 20% level

1991: n = 39
1995: n = 51
1999: n = 94

Figure 10a/b: Comparison of Means – ANOVA and post-hoc analysis (MM):

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
[-1;0]	Between Groups	2,556E-02	2	1,278E-02	4,083	,018
	Within Groups	,567	181	3,130E-03		
	Total	,592	183			
[-5;5]	Between Groups	3,432E-02	2	1,716E-02	2,416	,092
	Within Groups	1,285	181	7,101E-03		
	Total	1,320	183			

Multiple Comparisons

Scheffe

Dependent Variable	(I) YEAR1	(J) YEAR1	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[-1;0]	1991	1995	1,1742E-02	1,19E-02	,615	-1,76315E-02	4,1116E-02
		1999	-1,547E-02	1,07E-02	,351	-4,17754E-02	1,0828E-02
	1995	1991	-1,174E-02	1,19E-02	,615	-4,11156E-02	1,7631E-02
		1999	-2,722E-02*	9,73E-03	,022	-5,12312E-02	-3,20063E-03
	1999	1991	1,5474E-02	1,07E-02	,351	-1,08278E-02	4,1775E-02
		1995	2,7216E-02*	9,73E-03	,022	3,2006E-03	5,1231E-02
[-5;5]	1991	1995	7,8824E-03	1,79E-02	,908	-3,63590E-02	5,2124E-02
		1999	-2,230E-02	1,61E-02	,383	-6,19159E-02	1,7313E-02
	1995	1991	-7,882E-03	1,79E-02	,908	-5,21237E-02	3,6359E-02
		1999	-3,018E-02	1,47E-02	,123	-6,63547E-02	5,9872E-03
	1999	1991	2,2301E-02	1,61E-02	,383	-1,73131E-02	6,1916E-02
		1995	3,0184E-02	1,47E-02	,123	-5,98715E-03	6,6355E-02

*. The mean difference is significant at the .05 level.

5.3 Research Question III:

Hypothesis III:

H_0: There is no difference in the mean CAR of acquiring companies between each of the three sample categories *pure cash*, *pure stock*, *mixed* ($\mu_1 = \mu_2 = \mu_3$)

H_1: There are differences in the mean CAR of acquiring companies between each of the three sample categories *pure cash*, *pure stock*, *mixed* ($\mu_1 ? \mu_2 ? \mu_3$)

μ_1 = Mean CAR of acquiring companies of sample category *pure cash*

μ_2 = Mean CAR of acquiring companies of sample category *pure stock*

μ_3 = Mean CAR of acquiring companies of sample category *mixed*

Results: Figure 11-16

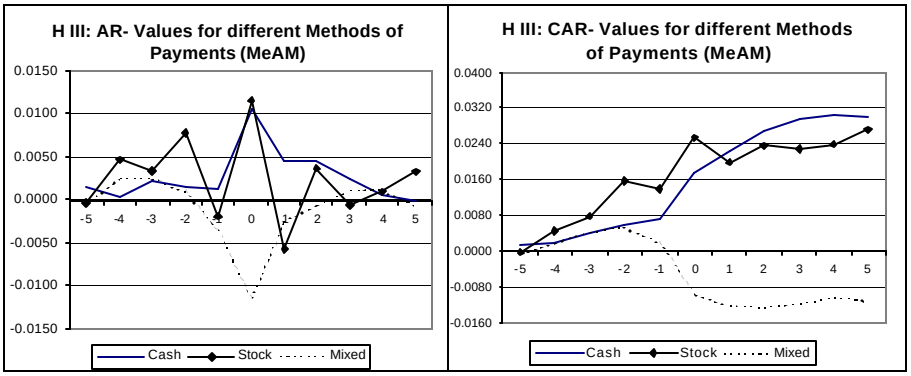
The results of the ANOVA for all three tests show that the probability of equal means across different methods of payments is very low: For the period [-1;0], the probabilities are 1.3% (MeAM), 1.2% (MaAM) and 0.8% (MM). The probabilities for the longer interval [-5;5] are almost identical: 1.5% (MeAM), 1.9% (MaAM) and 0.6% (MM). It follows that the null hypotheses of equal means can be rejected for both periods and for all three methods at least at the 5% level. The Scheffé post-hoc test indicates that the main reason for rejecting the null hypothesis is the difference between cash and mixed transactions (significant at the 5% level for both intervals for all three methods).

Three results are clear: (1) Cash and stock transactions exhibit a similar pattern, whereas mixed transactions follow a distinct path, particularly around the announcement date. (2) Cash and stock transactions achieve significantly positive CAR over the period [-5;5] with +3%; +2.7% (MeAM), +2.5%; +2.2% (MaAM), and +2.8%; 2.4% (MM), whereas mixed transactions achieve highly significant negative CAR: - 1.1% (MeAM), -1.3% (MaAM), -1.5% (MM).[70] (3) The observed AR on the announcement date itself (day 0) is significant – even measured with the stronger significant test (B) – at the highest level of significance across all methods of payments and for all three measuring methods. This clearly indicates that the stratification of the sample according to the methods of payments is useful and should probably be the prime stratification variable.

For the further course of this study it will be crucial to see, how the differences between the methods of payments (H III) relate to the differences observed across the three time periods (H II). This will be done by testing Hypothesis IV.

[70] The study for the US-market by Brown/Ryngaert (1991), which also stratifies the sample into cash/stock/mixed-transactions, confirms the fact that mixed transactions exhibit the lowest CAR (-2.55%) compared to cash (-0.36%) or stock transactions (-2.2%). The CAR of stock transactions in their study, however, are closer to those of mixed transactions than to cash transactions.

Figure 11: AR and CAR-values calculated according to MeAM



Cash	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0015**	0.632	0.758	**0.0015**	0.632	0.758
-4	**0.0003**	-0.006	-0.008	**0.0018**	0.447	0.536
-3	**0.0022**	1.007	0.879	**0.0040**	0.686	0.670
-2	**0.0016**	0.496	0.427	**0.0056**	0.644	0.619
-1	**0.0013**	0.543	0.304	**0.0069**	0.625	0.570
0	**0.0108**	3.399****	1.869**	**0.0176**	1.500*	0.923
1	**0.0046**	2.365***	1.671**	**0.0223**	1.652*	1.063
2	**0.0046**	1.720**	1.666**	**0.0269**	1.661*	1.156
3	**0.0026**	2.476***	1.702**	**0.0295**	1.770**	1.228
4	**0.0008**	0.079	0.073	**0.0302**	1.679**	1.166
5	**-0.0002**	-0.147	-0.122	**0.0300**	1.602*	1.112
[-1;0]				**0.0120**	2.434***	1.339*
Stock	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0004**	0.191	0.311	**-0.0004**	0.191	0.311
-4	**0.0047**	1.391*	1.602*	**0.0043**	0.993	1.154
-3	**0.0034**	3.036****	1.265	**0.0078**	1.931**	1.192
-2	**0.0079**	3.308****	2.479***	**0.0157**	2.352***	1.613*
-1	**-0.0018**	-0.515	-0.605	**0.0138**	2.116***	1.468*
0	**0.0116**	3.660****	1.319*	**0.0254**	2.442***	1.444*
1	**-0.0057**	-0.904	-0.477	**0.0198**	2.287***	1.349*
2	**0.0037**	1.314*	1.266	**0.0235**	2.189***	1.339*
3	**-0.0006**	-0.336	-0.331	**0.0229**	2.067***	1.267
4	**0.0010**	0.0190	0.0160	**0.0239**	1.961**	1.202
5	**0.0033**	0.970	0.880	**0.0272**	1.892**	1.177
[-1;0]				**0.0098**	2.614***	1.026
Mixed	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0007**	-0.367	-0.549	**-0.0007**	-0.367	-0.549
-4	**0.0025**	1.791**	1.838**	**0.0018**	1.293	1.356*
-3	**0.0025**	2.234***	2.001***	**0.0043**	1.667*	1.600*
-2	**0.0010**	0.311	0.311	**0.0053**	1.452*	1.395*
-1	**-0.0035**	-2.453***	-1.720**	**0.0018**	1.700**	1.465*
0	**-0.0115**	-9.241****	-2.033***	**-0.0097**	4.079****	1.574*
1	**-0.0025**	-1.911**	-1.136	**-0.0123**	3.845****	1.519*
2	**-0.0006**	0.096	0.062	**-0.0128**	3.597****	1.421*
3	**0.0011**	1.350*	0.919	**-0.0118**	3.421****	1.375*
4	**0.0013**	1.386*	1.356*	**-0.0105**	3.275****	1.373*
5	**-0.0008**	-0.695	-0.902	**-0.0113**	3.130****	1.337*
[-1;0]				**-0.0150**	6.761****	1.883**

Key:
**** significant at 1% level
*** significant at 5% level
** significant at 10% level
* significant at 20% level

Cash: n = 82
Stock: n = 41
Mixed: n = 61

Figure 12a/b: Comparison of – ANOVA and post-hoc analysis (MeAM)

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
[-1;0]	Between Groups	2,832E-02	2	1,416E-02	4,430	,013
	Within Groups	,579	181	3,196E-03		
	Total	,607	183			
[-5;5]	Between Groups	6,671E-02	2	3,335E-02	4,327	,015
	Within Groups	1,395	181	7,708E-03		
	Total	1,462	183			

Multiple Comparisons

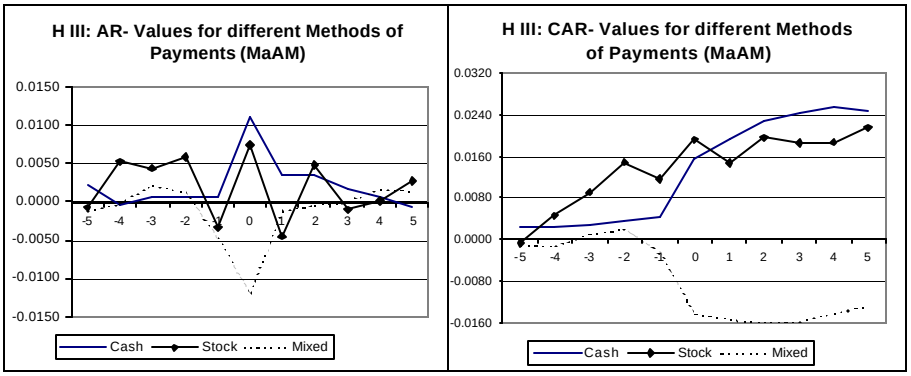
Scheffe

Dependent Variable	(I) PAYMENT	(J) PAYMENT	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[-1;0]	1	2	2,146E-03	1,081E-02	,980	-2,4543E-02	2,884E-02
		3	2,701E-02*	9,559E-03	,020	3,415E-03	5,060E-02
	2	1	2,1463E-03	1,081E-02	,980	-2,8836E-02	2,454E-02
		3	2,486E-02	1,142E-02	,096	-3,3172E-03	5,304E-02
	3	1	2,7008E-02*	9,559E-03	,020	-5,0601E-02	-3,4154E-03
		2	2,4862E-02	1,142E-02	,096	-5,3041E-02	3,317E-03
[-5;5]	1	2	2,9024E-03	1,68E-02	,985	-3,85454E-02	4,4350E-02
		3	4,1344E-02*	1,48E-02	,022	4,7048E-03	7,7983E-02
	2	1	-2,902E-03	1,68E-02	,985	-4,43503E-02	3,8545E-02
		3	3,8441E-02	1,77E-02	,098	-5,32002E-03	8,2203E-02
	3	1	-4,134E-02*	1,48E-02	,022	-7,79829E-02	-4,70478E-03
		2	-3,844E-02	1,77E-02	,098	-8,22029E-02	5,3200E-03

*. The mean difference is significant at the .05 level.

Key: 1 = cash; 2 = stock; 3 = mixed

Figure 13: AR and CAR-values calculated based on MaAM



Cash	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0024**	0.861	1.042	**0.0024**	0.861	1.042
-4	**-0.0003**	-0.328	-0.435	**0.0021**	0.652	0.798
-3	**0.0007**	0.324	0.274	**0.0028**	0.564	0.671
-2	**0.0006**	0.247	0.214	**0.0034**	0.504	0.591
-1	**0.0007**	-0.055	-0.031	**0.0042**	0.451	0.529
0	**0.0112**	4.063****	2.188***	**0.0153**	1.709**	1.015
1	**0.0038**	1.900**	1.388*	**0.0191**	1.738**	1.076
2	**0.0038**	1.414*	1.364*	**0.0229**	1.700**	1.116
3	**0.0017**	1.841**	1.380*	**0.0245**	1.717**	1.149
4	**0.0009**	-0.049	-0.054	**0.0254**	1.629*	1.090
5	**-0.0006**	-0.533	-0.452	**0.0248**	1.561*	1.048
[-1;0]				**0.0119**	2.873****	1.547*
Stock	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0007**	0.319	0.445	**-0.0007**	0.319	0.445
-4	**0.0054**	1.739**	1.925**	**0.0047**	1.250	1.397*
-3	**0.0044**	2.338***	1.447*	**0.0090**	1.693**	1.414*
-2	**0.0059**	2.493***	2.046***	**0.0149**	1.924**	1.596*
-1	**-0.0033**	-1.006	-1.018	**0.0117**	1.779**	1.498*
0	**0.0075**	2.944****	0.999	**0.0192**	2.020**	1.427*
1	**-0.0045**	-1.066	-0.571	**0.0147**	1.913**	1.339*
2	**0.0048**	1.776**	1.623*	**0.0195**	1.897**	1.377*
3	**-0.0010**	-0.469	-0.519	**0.0186**	1.795**	1.310*
4	**0.0002**	-0.210	-0.203	**0.0187**	1.704**	1.245
5	**0.0028**	0.985	0.942	**0.0215**	1.652*	1.220
[-1;0]				**0.0042**	2.200***	1.009
Mixed	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0013**	-0.711	-1.047	**-0.0013**	-0.711	-1.047
-4	**-0.0002**	0.117	0.132	**-0.0015**	0.509	0.746
-3	**0.0023**	1.635*	1.568*	**0.0008**	1.031	1.091
-2	**0.0012**	0.275	0.300	**0.0020**	0.904	0.957
-1	**-0.0047**	-2.736****	-1.743**	**-0.0027**	1.466*	1.158
0	**-0.0118**	-8.081****	-2.094***	**-0.0144**	3.560****	1.359*
1	**-0.0012**	-0.909	-0.646	**-0.0156**	3.314****	1.282
2	**-0.0004**	0.279	0.189	**-0.0161**	3.102****	1.201
3	**0.0001**	0.583	0.455	**-0.0160**	2.931****	1.142
4	**0.0016**	1.546*	1.474*	**-0.0143**	2.823****	1.180
5	**0.0013**	0.318	0.409	**-0.0130**	2.693****	1.132
[-1;0]				**-0.0164**	6.033****	1.926**

Key:
**** significant at 1% level
*** significant at 5% level
** significant at 10% level
* significant at 20% level

Cash: n = 82
Stock: n = 41
Mixed: n = 61

Figure 14a/b: ANOVA and post-hoc analysis – Comparison of Means (MaAM)

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
[-1;0]	Between Groups	2,883E-02	2	1,441E-02	4,526	,012
	Within Groups	,576	181	3,185E-03		
	Total	,605	183			
[-5;5]	Between Groups	5,535E-02	2	2,767E-02	4,036	,019
	Within Groups	1,241	181	6,857E-03		
	Total	1,296	183			

Multiple Comparisons

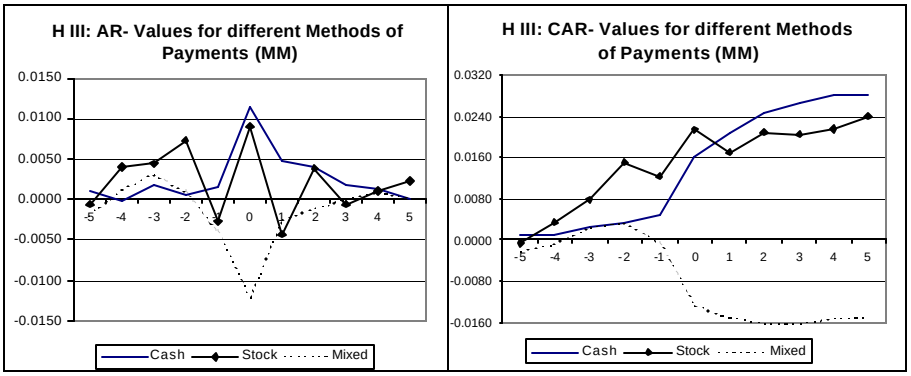
Scheffe

Dependent Variable	(I) PAYMENT	(J) PAYMENT	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[-1;0]	1	2	7,7317E-03	1,08E-02	,774	-1,89099E-02	3,4373E-02
		3	2,8402E-02*	9,54E-03	,013	4,8516E-03	5,1953E-02
	2	1	-7,732E-03	1,08E-02	,774	-3,43733E-02	1,8910E-02
		3	2,0671E-02	1,14E-02	,196	-7,45817E-03	4,8799E-02
	3	1	-2,840E-02*	9,54E-03	,013	-5,19529E-02	-4,85161E-03
		2	-2,067E-02	1,14E-02	,196	-4,87992E-02	7,4582E-03
[-5;5]	1	2	3,354E-03	1,584E-02	,978	-3,5738E-02	4,245E-02
		3	3,786E-02*	1,400E-02	,028	3,301E-03	7,241E-02
	2	1	3,3537E-03	1,584E-02	,978	-4,2446E-02	3,574E-02
		3	3,450E-02	1,672E-02	,122	-6,7701E-03	7,578E-02
	3	1	3,7858E-02*	1,400E-02	,028	-7,2415E-02	-3,3012E-03
		2	3,4504E-02	1,672E-02	,122	-7,5778E-02	6,770E-03

*. The mean difference is significant at the .05 level.

Key: 1 = cash; 2 = stock; 3 = mixed

Figure 15: AR and CAR-values calculated based on MM



Cash	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0010**	0.412	0.483	**0.0010**	0.412	0.483
-4	**-0.0002**	-0.377	-0.488	**0.0009**	0.395	0.485
-3	**0.0018**	0.682	0.584	**0.0027**	0.509	0.52
-2	**0.0006**	-0.079	-0.063	**0.0032**	0.442	0.452
-1	**0.0015**	0.315	0.162	**0.0048**	0.420	0.411
0	**0.0114**	4.120****	2.109***	**0.0162**	1.725**	0.939
1	**0.0048**	2.884****	2.046***	**0.0210**	1.934**	1.164
2	**0.0040**	1.444*	1.246	**0.0250**	1.879**	1.174
3	**0.0017**	2.409***	1.588*	**0.0267**	1.945**	1.227
4	**0.0014**	0.441	0.409	**0.0282**	1.851**	1.171
5	**0.0000**	-0.358	-0.296	**0.0282**	1.768**	1.120
[-1;0]				**0.0129**	2.922****	1.496*
Stock	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0006**	0.004	0.006	**-0.0006**	0.004	0.006
-4	**0.0040**	1.229	1.320*	**0.0034**	0.869	0.933
-3	**0.0044**	3.122****	1.292	**0.0078**	1.937**	1.066
-2	**0.0073**	3.442****	2.314***	**0.0150**	2.403***	1.480*
-1	**-0.0028**	-0.996	-1.029	**0.0123**	2.195***	1.402*
0	**0.0091**	3.283****	1.079	**0.0214**	2.411***	1.353*
1	**-0.0042**	-1.102	-0.566	**0.0172**	2.270***	1.271
2	**0.0039**	1.457*	1.397*	**0.0210**	2.185***	1.287
3	**-0.0005**	-0.466	-0.460	**0.0205**	2.066***	1.223
4	**0.0011**	-0.068	-0.063	**0.0216**	1.960**	1.161
5	**0.0024**	0.695	0.645	**0.0239**	1.881**	1.124
[-1;0]				**0.0064**	2.426***	1.054
Mixed	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0021**	-0.995	-1.483*	**-0.0021**	-0.995	-1.483*
-4	**0.0013**	1.386*	1.414*	**-0.0008**	1.206	1.449*
-3	**0.0032**	2.574***	2.210***	**0.0024**	1.783**	1.740**
-2	**0.0010**	0.403	0.400	**0.0034**	1.557*	1.52*
-1	**-0.0040**	-2.859****	-1.830**	**-0.0006**	1.891**	1.587*
0	**-0.0121**	-9.924****	-2.094***	**-0.0127**	4.404****	1.682**
1	**-0.0025**	-1.937**	-1.129	**-0.0152**	4.142****	1.615*
2	**-0.0011**	-0.524	-0.340	**-0.0163**	3.879****	1.515*
3	**0.0000**	0.805	0.550	**-0.0163**	3.667****	1.440*
4	**0.0009**	1.241	1.104	**-0.0154**	3.501****	1.410*
5	**0.0003**	-0.213	-0.274	**-0.0151**	3.339****	1.347*
[-1;0]				**-0.0161**	7.303****	1.966**

Key:
**** significant at 1% level
*** significant at 5% level
** significant at 10% level
* significant at 20% level

Cash: n = 82
Stock: n = 41
Mixed: n = 61

Figure 16a/b: ANOVA and post-hoc analysis – Comparison of Means (MM)

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
[-1;0]	Between Groups	3,060E-02	2	1,530E-02	4,932	,008
	Within Groups	,562	181	3,102E-03		
	Total	,592	183			
[-5;5]	Between Groups	7,198E-02	2	3,599E-02	5,222	,006
	Within Groups	1,248	181	6,893E-03		
	Total	1,320	183			

Multiple Comparisons

Scheffe

Dependent Variable	(I) PAYMENT	(J) PAYMENT	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[-1;0]	1	2	6,4512E-03	1,07E-02	,833	-1,98433E-02	3,2746E-02
		3	2,9030E-02*	9,42E-03	,010	5,7859E-03	5,2274E-02
	2	1	-6,451E-03	1,07E-02	,833	-3,27458E-02	1,9843E-02
		3	2,2579E-02	1,12E-02	,136	-5,18373E-03	5,0341E-02
	3	1	-2,903E-02*	9,42E-03	,010	-5,22737E-02	-5,78593E-03
		2	-2,258E-02	1,12E-02	,136	-5,03409E-02	5,1837E-03
[-5;5]	1	2	4,2439E-03	1,59E-02	,965	-3,49501E-02	4,3438E-02
		3	4,3285E-02*	1,40E-02	,010	8,6388E-03	7,7932E-02
	2	1	-4,244E-03	1,59E-02	,965	-4,34379E-02	3,4950E-02
		3	3,9042E-02	1,68E-02	,069	-2,34022E-03	8,0423E-02
	3	1	-4,329E-02*	1,40E-02	,010	-7,79322E-02	-8,63875E-03
		2	-3,904E-02	1,68E-02	,069	-8,04234E-02	2,3402E-03

*. The mean difference is significant at the .05 level.

Key: 1 = cash; 2 = stock; 3 = mixed

5.4 Research Question IV:[71]

Hypothesis IV:

H_0: There is no difference in the mean CAR of acquiring companies between the three sample categories *pure cash*, *pure stock*, *mixed* for the two sample periods (1991/1995)[72] and 1999 ($\mu_1 = \mu_2$; $\mu_3 = \mu_4$; $\mu_5 = \mu_6$)

H_1: There are differences in the mean CAR of acquiring companies between the three sample categories *pure cash*, *pure stock*, *mixed* for the two sample periods (1991/1995) and 1999 ($\mu_1 ? \mu_2$; $\mu_3 ? \mu_4$; $\mu_5 ? \mu_6$)

μ_1 = Mean CAR of acquiring companies of sample category *pure cash*; sample period 1991/95

μ_2 = Mean CAR of acquiring companies of sample category *pure cash*; sample period 1999

μ_3 = Mean CAR of acquiring companies of sample category *pure stock*; sample period 1991/95

μ_4 = Mean CAR of acquiring companies of sample category *pure stock*; sample period 1999

μ_5 = Mean CAR of acquiring companies of sample category *mixed*; sample period 1991/95

μ_6 = Mean CAR of acquiring companies of sample category *mixed*; sample period 1999

Results: Figure 17-19

The pair-wise tests of significance for the differences in mean for all three methods show qualitatively the same results, which underpins the robustness of the following results:[73] The CAR for both periods [-1;0] and [-5;5] increased from 1991/95 to 1999 for all three methods of payments: The values are +1.6% and +2.5% for cash transactions, +2.3% and +1.4% for stock transactions, and +3.2% and +3.5% for mixed transactions. In the case of the shorter time period [-1;0], these increases are significant for all three methods of payments at a very high level of confidence. In the case of the interval [-5;5], only the increase for the mixed transactions is significant. The null hypothesis can therefore be rejected for all three pair-wise tests in the case of the shorter interval [-1;0] and additionally for mixed transactions over the interval [-5;5].

In the context of the Risk Sharing- and Investment Opportunity Hypothesis, the observed CAR for stock transactions over the window [-1;0] is of particular importance. The result is astonishing:

- MeAM: from –0.4% (1991/95) to +1.9% (1999); difference: +2.3% (significant at 1% level)
- MaAM: from –0.5% (1991/95) to +1.0% (1999); difference +1.5% (significant at 20% level)
- MM: from –0.5% (1991/95) to + 1.4% (1999); difference + 1.9% (significant at 5% level)

Not only is there a change in sign, but the difference is significant for all three methods of measuring abnormal returns. This change could be a clear indicator that stock transactions are no longer seen as a negative signal by market participants.

However, it remains still unclear, whether this effect could not also be due to a general acquisition-euphoria in the context of the booming stock markets in 1999, which could mean that transactions independent of the method of payment would achieve positive CAR. Evidence for the latter assumption would be the observed similar increases in CAR for cash and mixed transactions.

Clarification of this question will bring the tests of Hypotheses V and VI, which will show whether the observed increase in CAR for stock transactions can be explained with stock-specific issues.

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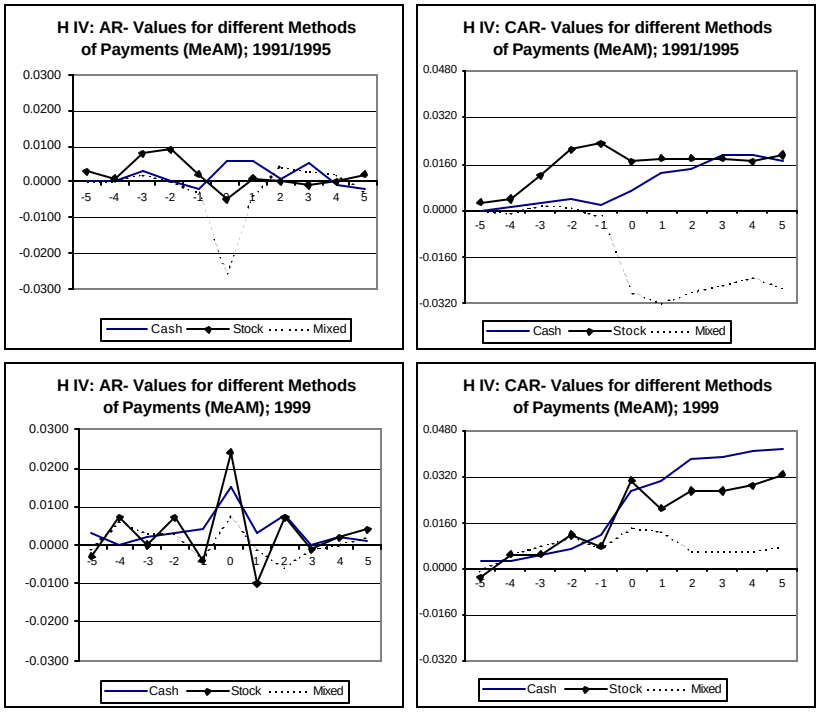
[71] Detailed results for the significance tests of Hypothesis IV are reported in Appendix D.

[72] The reason for taking the year 1991 and 1995 together is twofold: First, the results of 1999 shall be compared to the periods prior to it; Secondly, combining 1991 and 1995 yields about the same sample size as the year 1999 – thus, problems with violations of the assumption of equal variance can be minimized.

[73] The results reported are those based on MeAM.

Figure 17: AR and CAR-values for 1991/1995 vs. 1999, stratified according method of payment (calculation based on MeAM)

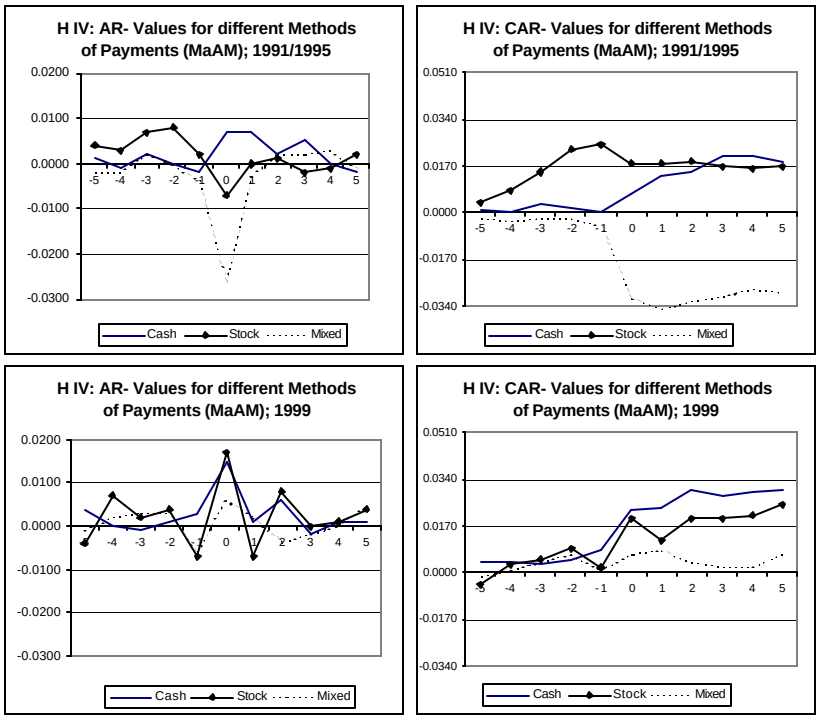


cash	1991/95	t-Value(A)	t-Value(B)	1999	t-Value(A)	t-Value(B)	Diff.	t-Value
[-1;0]	**0.0040**	0.881	0.445	**0.0200**	2.765****	1.714*	**0.0160**	**-2.220*** **
[-5;5]	**0.0170**	1.321*	0.859	**0.0420**	1.409*	1.140	**0.0250**	**-1.110**
stock								
[-1;0]	**-0.0040**	0.016	0.618	**0.0190**	0.064	1.324*	**0.0230**	**-2.777**** **
[-5;5]	**0.0190**	0.017	1.019	**0.0330**	0.035	1.099	**0.0140**	**0.212**
mixed								
[-1;0]	**-0.0290**	0.108	2.006**	**0.0030**	0.029	0.957	**0.0320**	**-7.023**** **
[-5;5]	**-0.0270**	0.048	1.284	**0.0080**	0.020	0.994	**0.0350**	**-2.949**** **

Key:
**** significant at 1% level
*** significant at 5% level
** significant at 10% level
* significant at 20% level

	1991/95	1999
cash:	n = 39	n = 43
stock:	n = 17	n = 24
mixed:	n = 34	n = 27

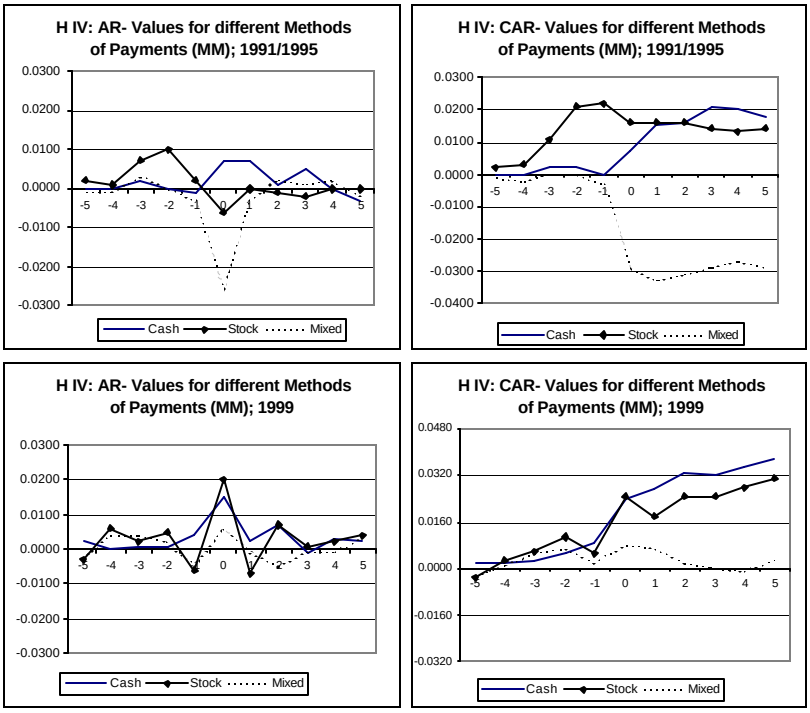
Figure 18: AR and CAR-values for 1991/1995 vs. 1999, stratified according method of payment (calculation based on MaAM)



cash	1991/95	t-Value (A)	t-Value (B)	1999	t-Value (A)	t-Value (B)	Diff.	t-Value
[-1;0]	**0.0046**	1.569	0.806	**0.0186**	2.743****	1.601*	**0.0140**	**-1.853****
[-5;5]	**0.0192**	1.406*	1.009	**0.0298**	1.309*	0.971	**0.0106**	**-0.523**
stock								
[-1;0]	**-0.0045**	0.020	0.808	**0.0104**	0.051	1.369*	**0.0149**	**-1.603***
[-5;5]	**0.0171**	0.018	1.108	**0.0246**	0.028	1.004	**0.0075**	**0.438**
mixed								
[-1;0]	**-0.0295**	0.108	2.022**	**0.0001**	0.032	1.175	**0.0296**	**-6.341****
[-5;5]	**-0.0288**	0.047	1.241	**0.0068**	0.018	0.901	**0.0356**	**-2.707****

Key:			1991/95	1999
	****	significant at 1% level		
	***	significant at 5% level	cash:	n = 39	n = 43
	**	significant at 10% level	stock:	n = 17	n = 24
	*	significant at 20% level	mixed:	n = 34	n = 27

Figure 19: AR and CAR-values for 1991/1995 vs. 1999, stratified according method of payment (calculation based on MM)



cash	1991/95	t-Value (A)	t-Value (B)	1999	t-Value (A)	t-Value (B)	Diff.	t-Value
[-1;0]	**0.0057**	1.569*	0.752	**0.0195**	2.809****	1.617*	**0.0138**	**-1.884****
[-5;5]	**0.0177**	1.695**	1.103	**0.0376**	1.375*	1.083	**0.0200**	**-0.813**
stock								
[-1;0]	**-0.0045**	0.018	0.703	**0.0140**	0.058	1.390*	**0.0185**	**-2.544*****
[-5;5]	**0.0135**	0.018	0.997	**0.0313**	0.031	1.009	**0.0178**	**-0.161**
mixed								
[-1;0]	**-0.0294**	0.109	2.016**	**0.0006**	0.028	1.140	**0.0301**	**-7.457******
[-5;5]	**-0.0292**	0.048	1.232	**0.0026**	0.019	1.002	**0.0317**	**-3.289******

Key:
**** significant at 1% level
*** significant at 5% level
** significant at 10% level
* significant at 20% level

	1991/95	1999
cash:	n = 39	n = 43
stock:	n = 17	n = 24
mixed:	n = 34	n = 27

5.5 Research Question V:[74]

Hypothesis V:

H_0: There is no difference in the 1999 mean CAR of acquiring companies between good/bad investment opportunity companies for *pure cash* transactions. There is a difference in the 1999 mean CAR of acquiring companies between good/bad investment opportunity companies for *pure stock* and *mixed* transactions. ($\mu_1 = \mu_2$; $\mu_3 ? \mu_4$; $\mu_5 ? \mu_6$)

H_1: There is a difference in the 1999 mean CAR of acquiring companies between good/bad investment opportunity companies for *pure cash* transactions. There is no difference in the 1999 mean CAR of acquiring companies between good/bad investment opportunity companies for *pure stock* and *mixed* transactions. ($\mu_1 ? \mu_2$; $\mu_3 = \mu_4$; $\mu_5 = \mu_6$)

μ_1 = Mean CAR of acquiring companies of sample category *good investment opportunities; pure cash; 1999*

μ_2 = Mean CAR of acquiring companies of sample category *bad investment opportunities; pure cash; 1999*

μ_3 = Mean CAR of acquiring companies of sample category *good investment opportunities; pure stock; 1999*

μ_4 = Mean CAR of acquiring companies of sample category *bad investment opportunities; pure stock; 1999*

μ_5 = Mean CAR of acquiring companies of sample category *good investment opportunities; mixed; 1999*

μ_6 = Mean CAR of acquiring companies of sample category *bad investment opportunities; mixed; 1999*

Results: Figure 20-22 [75]

In the context of the Investment Opportunity Hypothesis, stock transactions of companies with good investment opportunities should exhibit positive CAR compared to companies with bad investment opportunities. No differences in results are expected for mixed and cash transactions.

The results do not support the Investment Opportunity Hypothesis: The difference between the "good" and "bad" opportunity sample for stock transactions over the interval [-1;0] is negative (-1.8%). This value, however, is not significant (t-value: -0.323).[76] Cash transactions, on the other hand, exhibit a relatively large positive difference in CAR. This difference is not significant, either. Only mixed transactions over the longer interval [-5;5] show highly significant differences between the two samples: Whereas the "bad" opportunity sample yields a positive CAR of +2.5%%, the equivalent value for the "good" opportunity sample is –0.7%. This difference is significant at the 5% level.

From these results follows that the null hypothesis, due to lack of significant results, cannot be rejected. For the only significant result (interval [-5;5] mixed transactions), the null hypothesis cannot be rejected, either. The Investment Opportunity Hypothesis – given that the PE-ratio as a proxy for investment opportunities is appropriate – does not help explaining why stock transactions achieve positive CAR for the year 1999 as compared to earlier years.

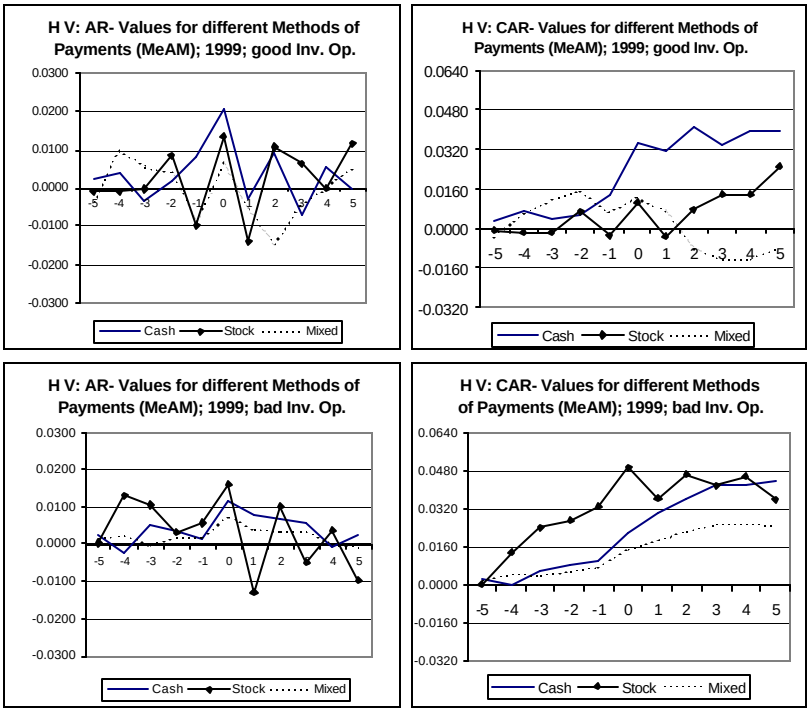
---

[74] Detailed results for the significance tests of Hypothesis V are reported in Appendix E.

[75] From the total sample of 94 companies for 1999, three companies had to be excluded because it was not possible to determine their appropriate PE-ratio. New total sample number: 91.

[76] The results for MeAM are reported. Again, the results for MaAM and MM are highly similar.

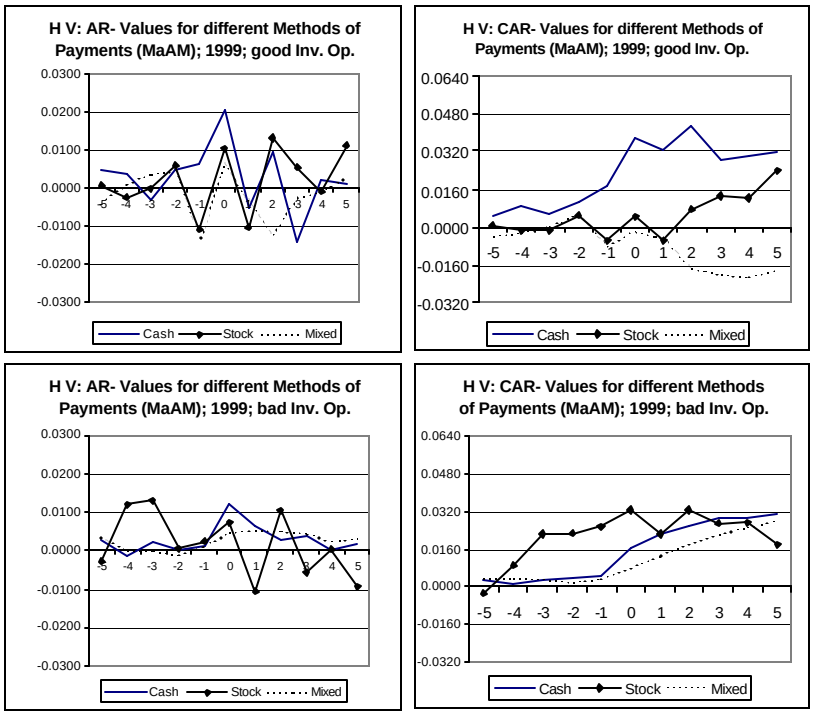
Figure 20: AR and CAR-values for 1999, stratified according method of payment and good / bad investment opportunities (calculation based on MeAM)



cash	"good"	t-Value(A)	t-Value(B)	"bad"	t-Value(A)	t-Value(B)	Diff.	t-Value
[-1;0]	**0.0287**	0.067	1.390*	**0.0132**	0.042	1.198	**-0.0155**	**0.869**
[-5;5]	**0.0392**	0.034	1.259	**0.0442**	0.027	0.982	**0.0050**	**-0.609**
stock								
[-1;0]	**0.0038**	0.044	1.164	**0.0219**	0.032	1.340	**0.0181**	**-0.323**
[-5;5]	**0.0251**	0.033	1.181	**0.0360**	0.025	1.030	**0.0108**	**0.048**
mixed								
[-1;0]	**-0.0027**	0.029	1.176	**0.0092**	0.020	0.610	**0.0119**	**-0.931**
[-5;5]	**-0.0078**	0.027	1.257	**0.0250**	0.011	0.575	**0.0328**	**-2.067*** **

Key:			good	bad
****	significant at 1% level			
***	significant at 5% level	cash:	n = 18	n = 25
**	significant at 10% level	stock:	n = 14	n = 7
*	significant at 20% level	mixed:	n = 14	n = 13

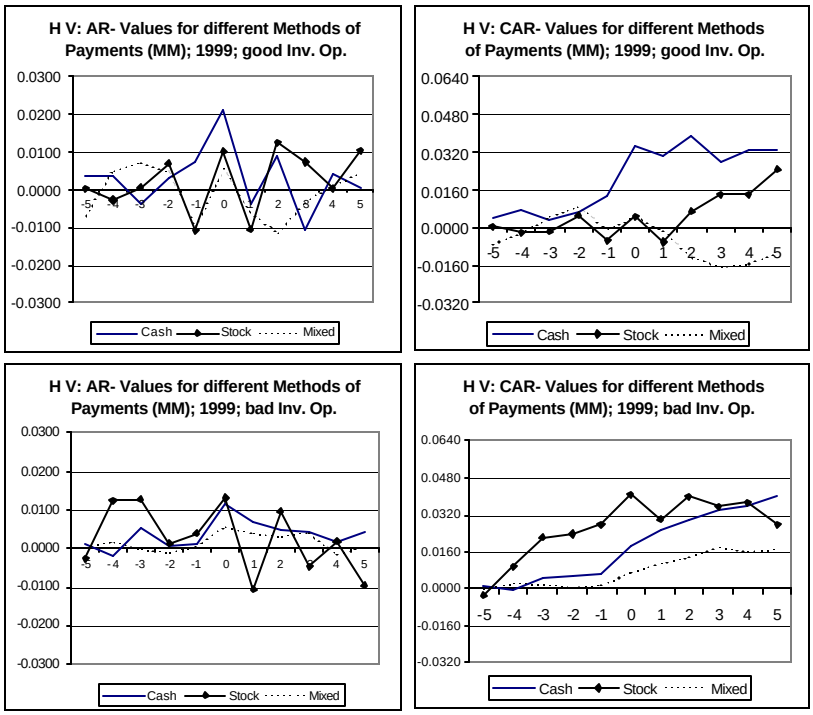
Figure 21: AR and CAR-values for 1999, stratified according method of payment and good / bad investment opportunities (calculation based on MaAM)



cash	"good"	t-Value (A)	t-Value (B)	"bad"	t-Value (A)	t-Value (B)	Diff.	t-Value
[-1;0]	**0.0274**	0.065	1.312	**0.0131**	0.043	1.200	**-0.0143**	**0.618**
[-5;5]	**0.0315**	0.038	1.522*	**0.0314**	0.023	0.708	**-0.0002**	**-0.326**
stock								
[-1;0]	**-0.0003**	0.040	1.233	**0.0098**	0.015	0.524	**0.0101**	**0.287**
[-5;5]	**0.0237**	0.030	1.197	**0.0179**	0.022	0.899	**-0.0058**	**0.486**
mixed								
[-1;0]	**-0.0069**	0.039	1.583*	**0.0059**	0.012	0.393	**0.0127**	**-0.928**
[-5;5]	**-0.0183**	0.024	1.101	**0.0284**	0.012	0.689	**0.0467**	**-2.045****

Key:			good	bad
****	significant at 1% level			
***	significant at 5% level	cash:	n = 18	n = 25
**	significant at 10% level	stock:	n = 14	n = 7
*	significant at 20% level	mixed:	n = 14	n = 13

Figure 22: AR and CAR-values for 1999, stratified according method of payment and good / bad investment opportunities (calculation based on MM)



cash	"good"	t-Value (A)	t-Value (B)	"bad"	t-Value (A)	t-Value (B)	Diff.	t-Value
[-1;0]	**0.0281**	0.066	1.315	**0.0131**	0.042	1.193	**-0.0150**	**0.807**
[-5;5]	**0.0328**	0.035	1.354	**0.0404**	0.025	0.889	**0.0076**	**-0.654**
stock								
[-1;0]	**-0.0007**	0.039	1.333	**0.0168**	0.026	0.965	**0.0175**	**-0.148**
[-5;5]	**0.0244**	0.030	1.229	**0.0278**	0.023	0.950	**0.0033**	**0.282**
mixed								
[-1;0]	**-0.0045**	0.029	1.327	**0.0061**	0.014	0.441	**0.0106**	**-0.782**
[-5;5]	**-0.0113**	0.024	1.235	**0.0167**	0.010	0.496	**0.0280**	**-1.937****

Key:			good	bad
	****	significant at 1% level		
	***	significant at 5% level	cash:	n = 18	n = 25
	**	significant at 10% level	stock:	n = 14	n = 7
	*	significant at 20% level	mixed:	n = 14	n = 13

5.6 Research Question VI:[77]

Hypothesis VI:

H_0: There is no difference in the mean CAR of acquiring companies between high/low risk transactions [sample period: 1999; sample categories: *pure cash*, *pure stock*]; ($\mu_1 = \mu_2$; $\mu_3 = \mu_4$)

H_1: There are differences in the mean CAR of acquiring companies between high/low risk transactions [sample period 1999; sample categories: *pure cash*, *pure stock*]; ($\mu_1 ? \mu_2$; $\mu_3 ? \mu_4$)

μ_1 = Mean CAR of acquiring companies of sample category *high risk transactions; pure cash;* sample period *1999*

μ_2 = Mean CAR of acquiring companies of sample category *low risk transactions; pure cash;* sample period *1999*

μ_3 = Mean CAR of acquiring companies of sample category *high risk transactions; pure stock;* sample period *1999*

μ_4 = Mean CAR of acquiring companies of sample category *low risk transactions*; *pure stock*; sample period 1999

Results: Figure 23-25 [78]

In the context of the Risk Sharing Hypothesis, transactions that are considered as high-risk transactions and for which the consideration is in stock should achieve positive CAR. On the other hand, if the consideration is in stock and it is a low risk transaction, zero or negative CAR would be expected. To a slighter degree, the reversed pattern would be expected for cash transactions.

The observed results for stock transactions are consistent with this hypothesis. The following differences in mean CAR for cross-border compared to domestic transactions over the interval [-1;0] can be observed: +3.1% (MeAM), +2.7% (MaAM); +2.2% (MM). These values are all significant at the 5% level. Additionally, in the case of MaAM and MM, also the differences in mean over the longer interval [-5;5] are significant. Regarding transactions being paid for in cash, no significant difference in means between the two samples for all three methods can be detected. This is puzzling in a way, since it could have been assumed that cash transactions for risky transactions should lead to negative CAR and cash transactions for not risky transactions to positive CAR. One explanation for this, however, could be the relatively small sample size, which makes it difficult to detect significant patterns. [79]

Thus, with the situation still unclear for cash transactions, the null hypothesis clearly can be rejected for stock transactions. This means that the increased importance attached to issues of risk sharing can possibly help explaining why there has been a shift in CAR for stock transactions from 1991/95 to 1999: Particularly in the case of high-risk transactions, payments in stock are welcomed by market participants and are no longer regarded as bad signal.

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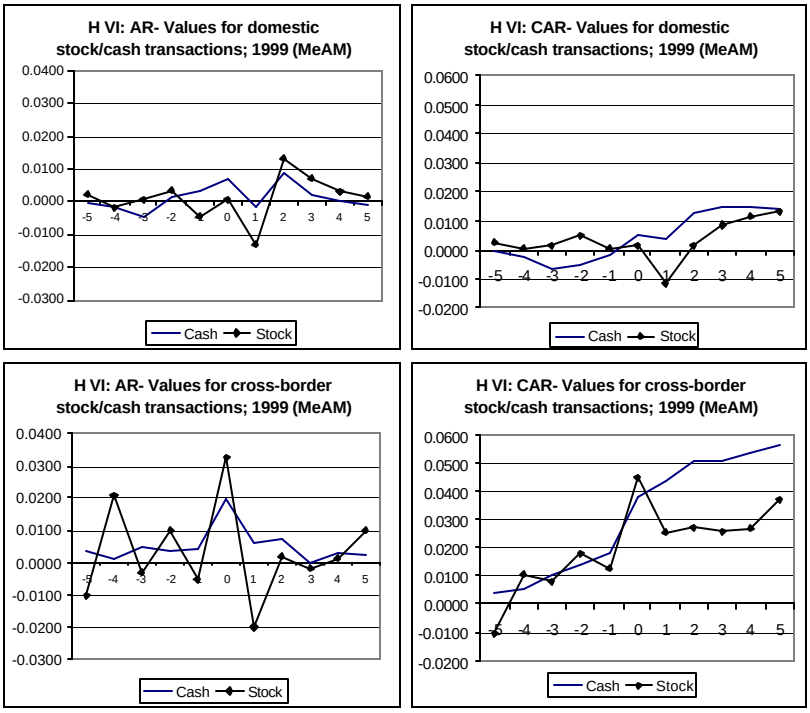
[77] Detailed results for the significance tests of Hypothesis VI are reported in Appendix F.

[78] From the total sample of 94 companies for 1999, one company had to be excluded because the attribution to either the domestic or cross-border group was not meaningful. New total sample number: 93.

[79] Due to the relatively small sample size, individual AR – even measured with the t-statistic (B), which is particularly suited for small sample sizes – are in most cases not significant.

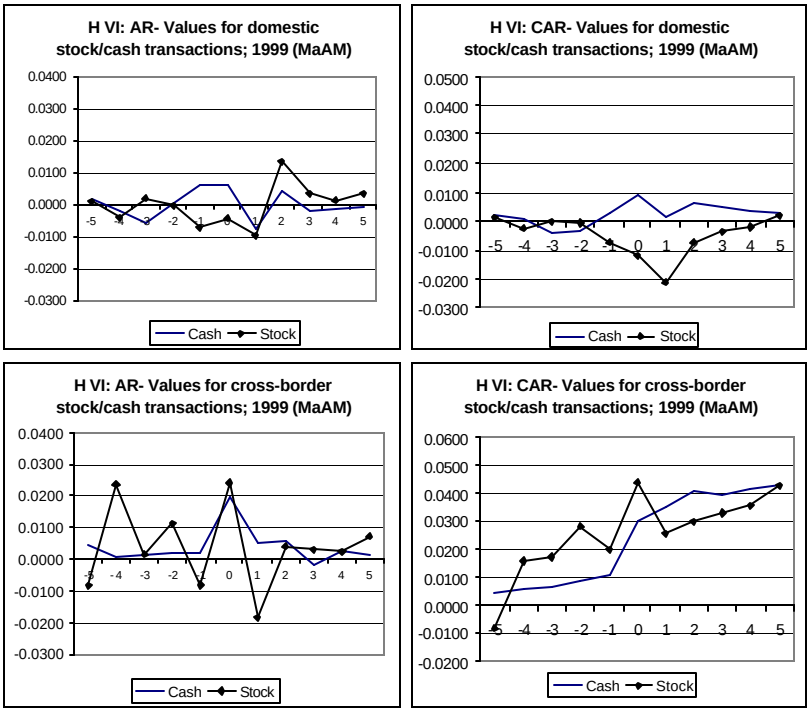
Figure 23: AR and CAR-values for sample 1999, stratified according method of payment and nature of transaction (domestic/cross-border); calculation based on MeAM



cash	**domestic**	t-Value(A)	t-Value(B)	**cross-brd.**	t-Value(A)	t-Value(B)	**Diff.**	**t-Value**
[-1;0]	**0.0107**	0.021	0.728	**0.0241**	0.076	1.533*	**0.0134**	**-0.567**
[-5;5]	**0.0138**	0.015	0.846	**0.0558**	0.038	1.093	**0.0421**	**-1.132**
stock								
[-1;0]	**-0.0037**	0.015	0.761	**0.0275**	0.070	0.894	**0.0311**	**-2.297*** **
[-5;5]	**0.0130**	0.021	1.033	**0.0369**	0.043	1.157	**0.0239**	**-1.195**
mixed								
[-1;0]								
[-5;5]								

Key:			domest.	cross-brd.
	****	significant at 1% level		
	***	significant at 5% level	cash:	n = 14 n = 29
	**	significant at 10% level	stock:	n = 14 n = 9
	*	significant at 20% level	mixed:	n = 24 n = 3

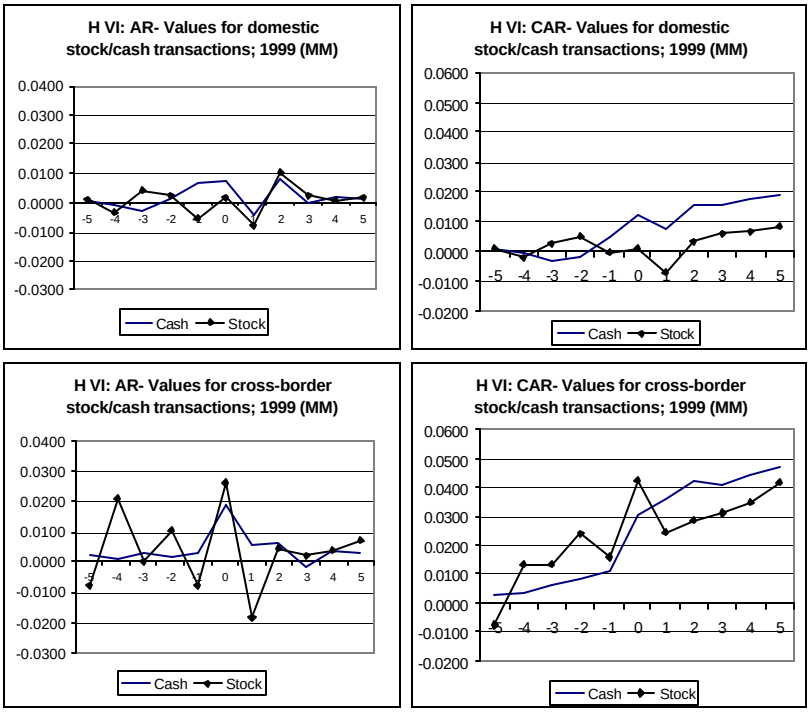
Figure 24: AR and CAR-values for sample 1999, stratified according method of payment and nature of transaction (domestic/cross-border); calculation based on MaAM



cash	**domestic**	t-Value (A)	t-Value (B)	**cross-brd.**	t-Value (A)	t-Value (B)	**Diff.**	**t-Value**
[-1;0]	**0.0122**	0.023	1.015	**0.0216**	0.075	1.362	**0.0094**	**-0.393**
[-5;5]	**0.0030**	0.015	0.789	**0.0427**	0.036	0.943	**0.0398**	**-1.122**
stock								
[-1;0]	**-0.0112**	0.019	0.992	**0.0158**	0.054	0.853	**0.0270**	**-2.525*** **
[-5;5]	**0.0017**	0.019	0.901	**0.0424**	0.039	1.063	**0.0407**	**-1.774** **
mixed								
[-1;0]								
[-5;5]								

Key:			domest.	cross-brd.
	****	significant at 1% level		
	***	significant at 5% level	cash:	n = 14	n = 29
	**	significant at 10% level	stock:	n = 14	n = 9
	*	significant at 20% level	mixed:	n = 24	n = 3

Figure 25: AR and CAR-values for sample 1999, stratified according method of payment and nature of transaction (domestic/cross-border); calculation based on MM



cash	**domestic**	t-Value (A)	t-Value (B)	**cross-brd.**	t-Value (A)	t-Value (B)	**Diff.**	**t-Value**
[-1;0]	**0.0136**	0.026	1.076	**0.0223**	0.074	1.400	**0.0086**	**-0.220**
[-5;5]	**0.0186**	0.016	0.866	**0.0468**	0.036	0.978	**0.0282**	**-0.637**
stock								
[-1;0]	**-0.0036**	0.015	0.929	**0.0185**	0.058	0.897	**0.0221**	**-2.223*** **
[-5;5]	**0.0084**	0.018	0.976	**0.0417**	0.038	0.994	**0.0333**	**-1.509***
mixed								
[-1;0]								
[-5;5]								

Key:			domest.	cross-brd.
	****	significant at 1% level		
	***	significant at 5% level	cash:	n = 14	n = 29
	**	significant at 10% level	stock:	n = 14	n = 9
	*	significant at 20% level	mixed:	n = 24	n = 3

6 Conclusions

The purpose of this paper has been to examine the acquiring companies' short-term abnormal return around the announcement date of a transaction and to determine how these abnormal returns are related to the companies' choice of methods of payment. The sample consisted of UK transactions, covering the years 1991, 1995, and 1999. The main result can be summarized as follows: comparison across time seems to indicate that a shift in the assessment of the information content associated with the method of payment has taken place from 1991/95 to 1999. This appears to be particularly true for the case of stock transactions: Stock transactions no longer lead to negative abnormal returns over the announcement period, but achieve highly significant positive abnormal returns.

The explanation of this phenomenon is somewhat difficult: Whereas the Investment Opportunity Hypothesis has to be rejected, the results of the Risk Sharing Hypotheses appear to be promising. They show that a sample of high-risk stock transactions yield significantly higher abnormal returns than a sample of low-risk stock transactions. This means that in the case of high-risk transactions, a consideration in stock is no longer seen as a negative signal by the market participants as suggested by Myers/Majluf (1984) or Jensen (1986), but as a welcome reduction in the post-acquisition revaluation risk of the acquiring firms' shareholders.

Possible explanations for the change in shareholders' perception of methods of payment and their increased sensitivity for risk issues might stand in relation to the observed rise in M&A-activity over the past few years. In the eyes of many investors, firms seem to undertake larger and more audacious transactions than compared to previous years. "New Economy" related deals and their often optimistically high valuation levels might additionally contribute to an increased awareness of risk issues among shareholders.

To decide which of the two explanation approaches for the increase in stock transactions may be more likely (see Figure 1) is not yet possible and needs future research. It would be helpful to explore investor's risk perception in a qualitative study. Whereas many studies – as the present one – have assessed valuation differences of transactions (in relation to methods of payments) from a quantitative point of view, it would be useful to learn whether the quantitative results can be confirmed in a qualitative study on investor's risk perception.

Finally, on a methodological level, the present study has demonstrated that the three main methods used in the event study literature for calculating abnormal returns lead to the same qualitative conclusions: The differences between the Mean Adjusted Return Model (MeAM), the Market Adjusted Return Model (MaAM), and the Market Model (MM) are small and – although the present paper has undoubtedly benefited in terms of robustness of results – would theoretically allow conducting similar tests only on the base of one calculation model. Regarding the significance tests, however, the use of a cross-sectional test-statistic in addition to a standard test-statistic for assessing the AR/CAR-values' significance levels has proved to be useful, since the cross-sectional test-statistic takes into account effects due to event-induced variance and offers therefore an alternative evaluation of significance. Although this test-statistic seems to be almost too conservative for large sample sizes, particularly valuable information has been gained in the case of small sample sizes.

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APPENDIX A: List of Transactions (Data Set II): Year 1999

D II	Acquirer	A.-Code	Target	Date	Value	Payment	A.-Ind.	A.-MV	V / MV	CB
1	Brit. American Tobaco PLC	901295	Rothmans Int. (NL)	11/01/1999	4580	s	TOBAC	8300.85	0.552	1
2	Hays PLC	901164	France Partner (FR)	05/11/1999	16.4	c	SUPSV	4525.95	0.004	1
3	Nat. West Bank PLC	901449	Imo Car Wash Gr. (BD)	19/01/1999	139	c	BANKS	19668.22	0.007	1
4	Cable&Wireless PLC	901634	ECRC Network Serv. (BD)	04/01/1999	27.5	c	TELCM	17780.34	0.002	1
5	Nat. West Bank PLC	901449	Autinform (BD)	11/01/1999	15	c	BANKS	19668.22	0.001	1
6	Shield Diagnostics PLC	323592	Axis Biochemicals (NW)	18/01/1999	65	s	HLTHC	105.3	0.617	1
7	Marston Thom.&Ev. PLC	900258	Wolverhampton & D. PLC	08/01/1999	330	m	RESTS	262.52	1.257	0
8	Vodafone Gr. PLC	953133	AirTouch Comm. (US)	18/01/1999	3672	s	TELCM	30194.59	0.122	1
9	Carlton Comm. PLC	901604	Universal Studios-ITC (US)	19/01/1999	91	c	MEDIA	3376.24	0.027	1
10	United News & Media PLC	901106	Audits & Surveys W. (US)	19/01/1999	26	c	MEDIA	2635	0.010	1
11	Daily Mail & Gen. Tr. PLC	904283	Internet Securities PLC	26/01/1999	19.6	c	MEDIA	120.2	0.163	0
12	Hanson PLC	901932	Tanah Raya Gr. (MY)	05/01/1999	15.9	c	CNSBM	3109.72	0.005	1
13	TT Group PLC	901830	Hall Engineering PLC	28/01/1999	72.7	c	ENGEN	355.19	0.205	0
14	Baxi Partnership PLC	940806	Ocean Idroclima (IT)	12/02/1999	80	c	UQEQS	nn	nn	1
15	Ladbroke Gr. PLC	910437	Stakis PLC	08/02/1999	1130	m	LESUR	2895.58	0.390	0
16	Scottish Media Gr. PLC	902402	Primesight PLC	09/02/1999	32.2	c/m	MEDIA	457.71	0.070	0
17	Sage Gr. PLC	904649	Peachtree Software (US)	03/02/1999	88	c	SFTCS	1821.84	0.048	1
18	First Technology PLC	926679	Control Devices (US)	23/02/1999	82	c	AUTMB	165.15	0.497	1
19	EMAP PLC	910283	General Media Autom. (US)	11/02/1999	21	c	MEDIA	2417.18	0.009	1
20	Rexam PLC	901065	Sussex Plastics (US)	11/02/1999	18	c	PCKGN	669.58	0.027	1
21	Macro 4 PLC	901453	Insync Software (US)	09/02/1999	18	c	SFTCS	66.92	0.269	1
22	HSBC H. PLC	507534	Seoul Bank (KO)	22/02/1999	426	nn	BANKS	14390.2	0.030	1
23	Hays PLC	901164	Ceritex (FR)	23/03/1999	19	c	SUPSV	4525.95	0.004	1
24	Hammerson PLC	901596	Luisen Center (BD)	26/03/1999	56.2	c	RLEST	992.91	0.057	1
25	Prudential Corp. PLC	901521	M&G Gr. PLC	11/03/1999	1850	c/s	LIFEA	17640.19	0.105	0
26	3i Gr. PLC	145072	Electra Inv. Trust	19/03/1999	1260	m	nn	nn	nn	0
27	Rhone-Poulence PLC	940658	Albright & Wilson PLC	16/03/1999	455.1	c	UQEQS	nn	nn	0
28	Unigate PLC	900804	Terranova Foods PLC	16/03/1999	228.5	c/s	FOODS	1037.15	0.220	0
29	Delancey Estates PLC	136903	Greycoat PLC	22/03/1999	214.2	m	RLEST	162.61	1.317	0
30	Stanley Leisure PLC	900638	Capital Corp. PLC	30/03/1999	86.4	c/s	LESUR	318.93	0.271	0
31	Sage Gr. PLC	904649	Tetra PLC	01/03/1999	76.7	m	SFTCS	1821.84	0.042	0
32	Enterprise Inns PLC	137668	Century Inns PLC	29/03/1999	73.8	s	RESTS	263.92	0.280	0
33	Headlam Gr. PLC	910395	Eclipse Blinds PLC	16/03/1999	65	s	DISTR	166	0.392	0
34	Allied Leisure PLC	953852	European Leisure PLC	11/03/1999	35.4	s	LESUR	29.73	1.191	0
35	General Electric PLC	900498	Reltec Corp. (US)	01/03/1999	1296	c	INFOH	14504.44	0.089	1
36	United News & Media PLC	901106	Cont. Medical Educ. (US)	19/03/1999	69	c	MEDIA	2635	0.026	1
37	TI Group PLC	900762	Tri-Manufacturing (US)	22/03/1999	39	c	ENGEN	1556.59	0.025	1

List of Transactions (Data Set II): Year 1999

D II	Acquirer	A.-Code	Target	Date	Value	Payment	A.-Ind.	A.-MV	V / MV	CB
38	3i Gr. PLC	145072	Issue Inform. Technol. (NL)	21/04/1999	59.3	c	nn	nn	nn	1
39	Kingfisher PLC	940281	ASDA Gr. PLC	19/04/1999	5800	s	RTAIL	8846.79	0.656	0
40	Airtours PLC	914152	First Choice Holidays PLC	28/04/1999	832.7	s	LESUR	1828.27	0.455	0
41	IMI PLC	901704	Polypipe PLC	15/04/1999	336.9	c/l	ENGEN	833.07	0.404	0
42	Electronics Boutique PLC	910532	Game PLC	12/04/1999	99.2	m	RTAIL	214.7	0.462	0
43	Acal PLC	943803	Sedgemoor PLC	28/04/1999	77.1	m	DISTR	79.58	0.969	0
44	Waterfall Holdings PLC	870898	European Leisure PLC	07/04/1999	41	s	LESUR	24.96	1.643	0
45	BP Amoco PLC	900995	Atlantic Richfield Co (US)	01/04/1999	27220	s	OILGS	52826.84	0.515	1
46	General Electric PLC	900498	FORE Systems (US)	26/04/1999	4190	c	ENGEN	14504.44	0.289	1
47	United News & Media PLC	901106	CMP Media (US)	29/04/1999	900.2	c	MEDIA	2635	0.342	1
48	TI Group PLC	900762	Walbro Gr. (US)	28/04/1999	347	c	ENGEN	1556.59	0.223	1
49	Hanson PLC	901932	Jannock (US)	01/04/1999	160	c	CNSBM	3109.72	0.051	1
50	Tomkins PLC	911258	ACD Tridon (US)	01/04/1999	62	c	ENGEN	3333.49	0.019	1
51	Standard Chart. PLC	901459	Bank Bali (ind.)	22/04/1999	137	c	BANKS	6964.83	0.020	1
52	HSBC H. PLC	507534	Safra Republ. H. PLC	10/05/1999	2590	c	BANKS	14390.2	0.180	0
53	FKI PLC	911384	Crisplant Ind. (DK)	24/05/1999	180	c	ENGEN	766.58	0.235	1
54	Christian Salvesen PLC	931825	Transportes Gerposa (ES)	24/05/1999	65	c	TRNSP	239.99	0.271	1
55	Seton Scholl Healtcare PLC	914579	London Int. Gr. PLC	24/05/1999	620	s	HLTHC	885.72	0.700	0
56	Lasmo PLC	901206	Monument Oil & Gas PLC	04/05/1999	600	s	OILGS	965.97	0.621	0
57	Johnston Press PLC	943610	Portsmouth & S. PLC	18/05/1999	253	c	MEDIA	432.03	0.586	0
58	Shanks & McEvan Gr. PLC	981250	Caird Gr. PLC	27/05/1999	50.6	c	SUPSV	421.21	0.120	0
59	Wolseley PLC	900764	British Fittings Gr. PLC	07/05/1999	40	c/l	CNSBM	2177.44	0.018	0
60	Merchant Retail Gr. PLC	911474	A de Gruchy H. PLC	24/05/1999	32.8	c	RTAIL	39.71	0.826	0
61	VDC PLC	953980	Lawrence PLC	10/05/1999	30.8	s/m	PHARM	13.64	2.258	0
62	Jourdan PLC	911055	Sims Food Gr. PLC	25/05/1999	20.5	s/m	HHOLD	13.96	1.468	0
63	Fairey Gr. PLC	953203	Servomex PLC	12/05/1999	19.1	c/s	ELTNC	244.49	0.078	0
64	Northern Leisure PLC	953171	Fife Gr. PLC	04/05/1999	16.8	s	LESUR	131.43	0.128	0
65	Invensys PLC	905110	Marcam Solutions (US)	27/05/1999	36.4	c	ELTNC	4991.16	0.007	1
66	FKI PLC	911384	Industry General (US)	27/05/1999	32	c	ENGEN	766.58	0.042	1
67	Proteus Int. PLC	914555	Therapeutic Antib.(US)	20/05/1999	23.8	s	PHARM	26.27	0.906	1
68	Burmah Castrol PLC	900996	Remet (US)	07/05/1999	20.4	c	CHMCL	1834.55	0.011	1
69	Cable&Wireless PLC	901634	Internat. Digit. Comm. (JP)	10/05/1999	451	c	TELCM	17780.34	0.025	1
70	Blue Circle Ind. PLC	900304	Calcemento Int. (LX)	01/06/1999	401	nn	CNSBM	2413.97	0.166	1
71	Unigate PLC	900804	General Traiteur (FR)	01/06/1999	101	c	FOODS	1037.15	0.097	1
72	Sema Gr. PLC	905714	DS Telematica (IT)	21/06/1999	19.9	c	SFTCS	2722.74	0.007	1
73	Royal & Sun All. Ins. PLC	901514	Trygg-Hansa Fors. (SD)	21/06/1999	317	c	INSUR	7667.63	0.041	1
74	Celltech PLC	953096	Chiroscience Gr. PLC	15/06/1999	331.4	s	PHARM	308.43	1.074	0

List of Transactions (Data Set II): Year 1999

D II	Acquirer	A.-Code	Target	Date	Value	Payment	A.-Ind.	A.-MV	V / MV	CB
75	Greene King PLC	900250	Morland PLC	22/06/1999	146.8	m	RESTS	314.97	0.466	0
76	Coats Viyella PLC	905700	Hicking Pentecost PLC	30/06/1999	65.1	c	HHOLD	189.98	0.343	0
77	WS Atkins PLC	882044	Lambert Smith H. PLC	17/06/1999	48.4	c/m	SUPSV	463.33	0.104	0
78	Global Gr. PLC	974577	Sims Food Gr. PLC	36326	22.4	c	FOODS	17.04	1.315	0
79	Stagecoach H. PLC	319410	Coach USA (US)	36325	1148	c	TRNSP	3146.27	0.365	1
80	Royal Bank of Sctl. PLC	901450	UST Corp., Boston (US)	18/06/1999	873	c	BANKS	8405.12	0.104	1
81	Yorkshire Water PLC	904486	Aquarion PLC	01/06/1999	582.6	c	WATER	2158.06	0.270	0
82	Bowthorpe PLC	900493	Netcom Systems (US)	14/06/1999	299	c	ELTNC	711.49	0.420	1
83	Electrocomponents PLC	904690	Allied Electronics (US)	08/06/1999	237	c	DISTR	1732.37	0.137	1
84	Meggitt PLC	910509	Whittaker (US)	08/06/1999	222	c	AERSP	278.01	0.799	1
85	Meyer Int. PLC	901405	RentX Industries (US)	09/06/1999	61	c	CNSBM	553.78	0.110	1
86	Peninsular & Orient. PLC	901127	Int. Terminal Oper. (US)	29/06/1999	49	c	TRNSP	4569.07	0.011	1
87	BOC Gr. PLC	900451	FSI Int. (US)	36320	23	c	CHMCL	4204.45	0.005	1
88	Prudential Corp. PLC	901521	Hung Fu Life Ins. (TH)	36340	63	nn	LIFEA	17640.19	0.004	1
89	Reckitt & Colman PLC	900484	Brenckiser (NL)	36368	1946	s	PERSH	3245.21	0.600	1
90	Guardian IT PLC	676563	Sogeris (FR)	36342	35.1	c	SFTCS	243.17	0.144	1
91	Trinity PLC	901102	Mirror Gr. PLC	36371	1240	m	MEDIA	554.6	2.236	0
92	Mentmore Abbey PLC	905728	Birkby PLC	36368	154.7	s	SUPSV	98.27	1.574	0
93	Garban PLC	688846	Intercapital PLC	36343	133.5	s	SPFIN	116.93	1.142	0
94	L Gardner Gr. PLC	870194	Cirqual PLC	36363	76.7	c/m	ENGEN	63.5	1.208	0
95	Tilbury Douglas PLC	900346	Bandt PLC	36348	75.7	m	CNSBM	198.43	0.381	0
96	BSS Gr. PLC	900578	PTS Gr. PLC	36369	55.7	c/m	DISTR	83.56	0.667	0
97	Close Brothers Gr. PLC	905313	Rea Brothers Gr. PLC	36362	47.4	c/s	SPFIN	668.78	0.071	0
98	Royal & Sun All. Ins. PLC	901514	Orion Capital (US)	36353	868	c	INSUR	7667.63	0.113	1
99	Vodafone AirTouch PLC	953133	CommNet Cellular (US)	36360	843	c	TELCM	30194.59	0.028	1
100	Shire Pharma Gr. PLC	870593	Roberts Pharma (US)	36367	637	s	PHARM	544.65	1.170	1
101	FirstGroup PLC	135229	Ryder Public Transp. (US)	36362	587	c	TRNSP	1375.69	0.427	1
102	Berisford PLC	900767	Scotsman Ind. (US)	36347	443	c	ENGEN	273.44	1.620	1
103	Glynwed Int. PLC	900737	Ipex (US)	36346	221	m	ENGEN	402.28	0.549	1
104	Ocean Gr. PLC	901373	Mark VII (US)	36368	140	c	TRNSP	1082.47	0.129	1
105	Pearson PLC	914021	Thomson Fin. Sec. (US)	36371	93	nn	MEDIA	7264.14	0.013	1
106	Cookson Gr. PLC	900433	Plakson Electr. Mat. (US)	36356	75	c	ENGEN	898.91	0.083	1
107	Smith & Nephew PLC	900487	Exogen (US)	36367	41	c	HLTHC	2083.18	0.020	1
108	NSB Retail Systems PLC	865221	Unlimited Solutions	36349	36	s	SFTCS	18.77	1.918	0
109	Hanson PLC	901932	Tidewater Sand & Gr. (US)	36348	27	c	CNSBM	3109.72	0.009	1
110	Hanson PLC	901932	Boral-Europ. Brick (NL)	36403	58	c	CNSBM	3109.72	0.019	1
111	Taylor Nelson Sofres PLC	910707	Nipo (NL)	36374	33	m	MEDIA	291.92	0.113	1

List of Transactions (Data Set II): Year 1999

D II	Acquirer	A.-Code	Target	Date	Value	Payment	A.-Ind.	A.-MV	V / MV	CB
112	TI Group PLC	900762	Marwal Systems (FR)	36385	45	c	ENGEN	1556.59	0.029	1
113	TI Group PLC	900762	Busak & Shamban (BD)	36377	275	c	ENGEN	1556.59	0.177	1
114	Serco Gr. PLC	943663	Elekluft (BD)	36382	18	c	SUPSV	740.41	0.024	1
115	Energis PLC	671363	Unisource Carrier S. (SW)	36374	60	c	TELCM	2014.54	0.030	1
116	Meyer Int. PLC	901405	Graham Gr. PLC	36381	269.1	m	CNSBM	553.78	0.486	0
117	Wassall PLC	914265	Allied Carpets PLC	36398	72.4	c	DIVIN	349.25	0.207	0
118	Orb Estates PLC	910534	Gander Properties PLC	36383	63.2	c/s	RLEST	3.28	19.268	0
119	Alexon Gr. PLC	905314	Style H. PLC	36398	31.4	m	RTAIL	112.32	0.280	0
120	British Telecomm. PLC	900888	Yellow Book (US)	36398	410	c	TELCM	58513.4	0.007	1
121	Rolls-Royce PLC	940793	Cooper Cameron (US)	36393	111	c	AERSP	3746.01	0.030	1
122	National Express Gr. PLC	301917	Durham Transport. (US)	36388	109	c	TRNSP	1272.21	0.086	1
123	Senior PLC	900600	Pathway Bellows (US)	36374	22	c	ENGEN	350.58	0.063	1
124	SSL Int. PLC	914579	Silipos (US)	36395	20	c	HLTHC	885.72	0.023	1
125	Wagon PLC	900743	Aries Structures (FR)	36430	69	c	ENGEN	118.21	0.584	1
126	Bank of Scotland PLC	901442	NatWest Bank PLC	36427	20860	m	BANKS	8868.71	2.352	0
127	Bank of Scotland PLC	901442	Hill Hire PLC	36417	73.9	c	BANKS	8868.71	0.008	0
128	Henlys Gr. PLC	910600	Blue Bird (US)	36431	803	c	ENGEN	224.71	3.573	1
129	CGU PLC	901503	Gan (CN)	36416	118	c	INSUR	12315.93	0.010	1
130	Shire Pharma Gr. PLC	870593	Fuisz Pharma (BD)	36457	23.6	c	PHARM	544.65	0.043	1
131	Williams PLC	914294	Eltek Fire & Safety (NW)	36445	17	c	SUPSV	2487.05	0.007	1
132	3i Gr. PLC	145072	Segur Iberica (ES)	36454	25.3	c	nn	nn	nn	1
133	Wolverhampton & D. PLC	900274	Mansfield Brewery PLC	36458	248.5	m	RESTS	234.88	1.058	0
134	Travis Perkins PLC	931669	Sharpe & Fisher PLC	36458	76.1	c/s	CNSBM	415.09	0.183	0
135	National Grid Gr. PLC	870181	EnerTel (NL)	36475	352	c	ELECT	7074.38	0.050	1
136	Unilever PLC	900789	Amora Maille (FR)	36488	452	c	FOODS	21978.07	0.021	1
137	Vodafone AirTouch PLC	953133	Mannesmann (BD)	36477	77594	s	TELCM	30194.59	2.570	1
138	Morgan Crucible PLC	900408	Vacuumschmelze (BD)	36465	125	c	ENGEN	642.56	0.195	1
139	Rugby Gr. PLC	900308	Embra (SD)	36473	51	c	CNSBM	610.5	0.084	1
140	Royal Bank of Sctl. PLC	901450	Nat. West. Bank PLC	36469	26527	m	BANKS	8405.12	3.156	0
141	United News & Media PLC	901106	Carlton Comm. PLC	36469	4045	s	MEDIA	2635	1.535	0
142	Anglo American PLC	903076	Tarmac PLC	36469	1198	c	MNING	800743.9	0.001	0
143	RMC Gr. PLC	900307	Rugby Gr. PLC	36472	896.2	c/l	CNSBM	2145.66	0.418	0
144	Whitbread PLC	900271	Swallow Gr. PLC	36486	581	c/l	RESTS	3794	0.153	0
145	Celltech PLC	953096	Medeva PLC	36472	563.3	s	PHARM	308.43	1.826	0
146	Daily Mail & Gen. Trust	904283	Bristol United Press PLC	36472	85.2	c	MEDIA	120.2	0.709	0
147	Thames Water PLC	904393	E'town (US)	36486	637	c	WATER	4013.15	0.159	1
148	Invensys PLC	905110	Best Power Techn. PLC	36483	150	c	ELTNC	4991.16	0.030	0

List of Transactions (Data Set II): Year 1999

D II	Acquirer	A.-Code	Target	Date	Value	Payment	A.-Ind.	A.-MV	V / MV	CB
149	Cordiant PLC	926751	HealthWorld (US)	36473	121	s	MEDIA	241.1	0.502	1
150	Aggregate Ind. PLC	903357	Golden's (US)	36465	38	c	CNSBM	846.73	0.045	1
151	BG PLC	911488	Tesoro Bolivia Petrol. (BO)	36486	63	c	GASDS	15008.63	0.004	1
152	HSBC H. PLC	507534	Bangkok Metrop. Bank (TH)	36472	650	c	BANKS	14390.2	0.045	1
153	Caledonia Inv. PLC	904129	Sterling Industries PLC	36491	70.4	m/c/l	SPFIN	638.84	0.110	0
154	John Mansfield Gr. PLC	135860	Waddington PLC	36501	319	m	CNSBM	16.08	19.838	0
155	Peterhouse Gr. PLC	911223	Eve Gr. PLC	36503	40.6	m	SUPSV	5.85	6.940	0
156	Cookson Gr. PLC	900433	Enthome-OMI (US)	36508	314	c	ENGEN	898.91	0.349	1
157	Tomkins PLC	911258	Hart & Cooley (US)	36524	198	c	ENGEN	3333.49	0.059	1
158	Smiths Ind. PLC	900943	Invensys-Aerospace (US)	36510	109	c	AERSP	2650.26	0.041	1
159	British Aerospace PLC	901419	Watkins-John. Co. (US)	36510	38	nn	AERSP	8983.6	0.004	1
160	Applied Holographics PLC	917184	Optical Sec. Gr. (US)	36494	33	c	SUPSV	42.33	0.780	1
161	Smiths Ind. PLC	900943	Sabritec (US)	36507	33	c	AERSP	2650.26	0.012	1
162	WS Atkins PLC	882044	Benham Comp. (US)	36504	29	c	SUPSV	463.33	0.063	1
163	Dicom Gr. PLC	870805	Imaging Comp. (US)	36518	21	m	INFOH	14.42	1.456	1
164	HP Bulmer H. PLC	926001	American Hard Cider (US)	36502	19	c	BEVES	179	0.106	1
165	Cordiant Comm. Gr. PLC	926751	Interactive Edge (US)	36502	15.6	m	MEDIA	241.1	0.065	1
166	Cordiant Comm. Gr. PLC	926751	Diamond Ad (BR)	36507	83	c	MEDIA	241.1	0.344	1
167	Britax Int. PLC	900952	Poong Jeong Ind. (KO)	36515	62	c	AUTMB	312.83	0.198	1

Transactions excluded compared to Data Set I:

59	Table Design PLC	Denby Gr. PLC	36306	40.7	c/l	
121	Sports Internet Gr. PLC	Surrey Gr. PLC	36399	19.7	s/m	

Key:

A.-Code:	Datastream Company Code of Acquirer
Date:	Announcement Date of Transaction
Value:	Deal Value of Transaction on Announcement Date
Payment:	Method of Payment: cash (c); stock (s); mixed (m); loan note (l)
Deal:	Deal Approval: friendly (f), hostile (h)
A.-Ind.:	Industry of Acquirer (Datastream Industry Code Level 4)
A.-MV:	Market Value of Acquirer on 31/12/98
V / MV:	Ratio of Deal Value to Market Value of Acquirer
CB:	Nature of Deal: Cross-border (1); Domestic (0)

Source:
Acquisitions Monthly; Datastream

APPENDIX B: List of Transactions (Data Set III): Year 1999

D III	DII	Acquirer	A.-Code	Target	Date	Value	Payment	A.-Ind.	A.-MV	V / MV	CB
1	155	Peterhouse Gr. PLC	911223	Eve Gr. PLC	36503	40.6	m	SUPSV	5.85	6.940	0
2	128	Henlys Gr. PLC	910600	Blue Bird (US)	36431	803	c	ENGEN	224.71	3.573	1
3	140	Royal Bank of Sctl. PLC	901450	Nat. West. Bank PLC	36469	26527	m	BANKS	8405.12	3.156	0
4	137	Vodafone AirTouch PLC	953133	Mannesmann (BD)	36477	77594	s	TELCM	30194.59	2.570	1
5	126	Bank of Scotland PLC	901442	NatWest Bank PLC	36427	20860	m	BANKS	8868.71	2.352	0
6	61	VDC PLC	953980	Lawrence PLC	36290	30.8	s/m	PHARM	13.64	2.258	0
7	91	Trinity PLC	901102	Mirror Gr. PLC	36371	1240	m	MEDIA	554.6	2.236	0
8	108	NSB Retail Systems PLC	865221	Unlimited Solutions PLC	36349	36	s	MEDIA	18.77	1.918	0
9	145	Celltech PLC	953096	Medeva PLC	36472	563.3	s	PHARM	308.43	1.826	0
10	44	Waterfall Holdings PLC	870898	European Leisure PLC	07/04/1999	41	s	LESUR	24.96	1.643	0
11	102	Berisford PLC	900767	Scotsman Ind. (US)	36347	443	c	ENGEN	273.44	1.620	1
12	92	Mentmore Abbey PLC	905728	Birkby PLC	36368	154.7	s	SUPSV	98.27	1.574	0
13	141	United News & Media PLC	901106	Carlton Comm. PLC	36469	4045	s	MEDIA	2635	1.535	0
14	62	Jourdan PLC	911055	Sims Food Gr. PLC	25/05/1999	20.5	s/m	HHOLD	13.96	1.468	0
15	163	Dicom Gr. PLC	870805	Imaging Comp. (US)	36518	21	m	INFOH	14.42	1.456	1
16	29	Delancey Estates PLC	136903	Greycoat PLC	22/03/1999	214.2	m	RLEST	162.61	1.317	0
17	78	Global Gr. PLC	974577	Sims Food Gr. PLC	15/06/1999	22.4	c	FOODS	17.04	1.315	0
18	7	Marston Thom.&Ev. PLC	900258	Wolverhampton & D. PLC	08/01/1999	330	m	RESTS	262.52	1.257	0
19	94	L Gardner Gr. PLC	870194	Cirqual PLC	36363	76.7	c/m	ENGEN	63.5	1.208	0
20	34	Allied Leisure PLC	953852	European Leisure PLC	36230	35.4	s	LESUR	29.73	1.191	0
21	100	Shire Pharma Gr. PLC	870593	Roberts Pharma (US)	36367	637	s	PHARM	544.65	1.170	1
22	93	Garban PLC	688846	Intercapital PLC	36343	133.5	s	SPFIN	116.93	1.142	0
23	74	Celltech PLC	953096	Chiroscience Gr. PLC	15/06/1999	331.4	s	PHARM	308.43	1.074	0
24	133	Wolverhampton & D. PLC	900274	Mansfield Brewery PLC	36458	248.5	m	RESTS	234.88	1.058	0
25	43	Acal PLC	943803	Sedgemoor PLC	28/04/1999	77.1	m	DISTR	79.58	0.969	0
26	67	Proteus Int. PLC	914555	Therapeutic Antib.(US)	20/05/1999	23.8	s	PHARM	26.27	0.906	1
27	60	Merchant Retail Gr. PLC	911474	A de Gruchy H. PLC	24/05/1999	32.8	c	RTAIL	39.71	0.826	0
28	84	Meggitt PLC	910509	Whittaker (US)	36319	222	c	AERSP	278.01	0.799	1
29	160	Applied Holographics PLC	917184	Optical Sec. Gr. (US)	36494	33	c	SUPSV	42.33	0.780	1
30	146	Daily Mail & Gen. Tr. PLC	904283	Bristol United Press PLC	36472	85.2	c	MEDIA	120.2	0.709	0
31	55	Seton Scholl Healtcare PLC	914579	London Int. Gr. PLC	36304	620	s	HLTHC	885.72	0.700	0
32	96	BSS Gr. PLC	900578	PTS Gr. PLC	36369	55.7	c/m	DISTR	83.56	0.667	0
33	39	Kingfisher PLC	940281	ASDA Gr. PLC	19/04/1999	5800	s	RTAIL	8846.79	0.656	0
34	56	Lasmo PLC	901206	Monument Oil & Gas PLC	04/05/1999	600	s	OILGS	965.97	0.621	0
35	6	Shield Diagnostics PLC	323592	Axis Biochemicals (NW)	18/01/1999	65	s	HLTHC	105.3	0.617	1
36	89	Reckitt & Colman PLC	900484	Brenckiser (NL)	36368	1946	s	PERSH	3245.21	0.600	1
37	57	Johnston Press PLC	943610	Portsmouth & S. PLC	18/05/1999	253	c	MEDIA	432.03	0.586	0

List of Transactions (Data Set III): Year 1999

D III	DII	Acquirer	A.-Code	Target	Date	Value	Payment	A.-Ind.	A.-MV	V / MV	CB
38	125	Wagon PLC	900743	Aries Structures (FR)	36430	69	c	ENGEN	118.21	0.584	1
39	1	Brit. American Tobaco PLC	901295	Rothmans Int. (NL)	11/01/1999	4580	s	TOBAC	8300.85	0.552	1
40	103	Glynwed Int. PLC	900737	Ipex (US)	36346	221	m	ENGEN	402.28	0.549	1
41	45	BP Amoco PLC	900995	Atlantic Richfield Co (US)	01/04/1999	27220	s	OILGS	52826.84	0.515	1
42	149	Cordiant PLC	926751	HealthWorld (US)	36473	121	s	MEDIA	241.1	0.502	1
43	18	First Technology PLC	926679	Control Devices (US)	36214	82	c	AUTMB	165.15	0.497	1
44	116	Meyer Int. PLC	901405	Graham Gr. PLC	36381	269.1	m	CNSBM	553.78	0.486	0
45	75	Greene King PLC	900250	Morland PLC	22/06/1999	146.8	m	RESTS	314.97	0.466	0
46	42	Electronics Boutique PLC	910532	Game PLC	12/04/1999	99.2	m	RTAIL	214.7	0.462	0
47	40	Airtours PLC	914152	First Choice Holidays PLC	28/04/1999	832.7	s	LESUR	1828.27	0.455	0
48	101	FirstGroup PLC	135229	Ryder Public Transp. (US)	36362	587	c	TRNSP	1375.69	0.427	1
49	82	Bowthorpe PLC	900493	Netcom Systems (US)	36325	299	c	ELTNC	711.49	0.420	1
50	143	RMC Gr. PLC	900307	Rugby Gr. PLC	36472	896.2	c/l	CNSBM	2145.66	0.418	0
51	41	IMI PLC	901704	Polypipe PLC	36265	336.9	c/l	ENGEN	833.07	0.404	0
52	33	Headlam Gr. PLC	910395	Eclipse Blinds PLC	16/03/1999	65	s	DISTR	166	0.392	0
53	15	Ladbroke Gr. PLC	910437	Stakis PLC	08/02/1999	1130	m	LESUR	2895.58	0.390	0
54	95	Tilbury Douglas PLC	900346	Bandt PLC	36348	75.7	m	CNSBM	198.43	0.381	0
55	79	Stagecoach H. PLC	319410	Coach USA (US)	14/06/1999	1148	c	TRNSP	3146.27	0.365	1
56	156	Cookson Gr. PLC	900433	Enthome-OMI (US)	36508	314	c	ENGEN	898.91	0.349	1
57	166	Cordiant Comm. Gr. PLC	926751	Diamond Ad (BR)	36507	83	c	MEDIA	241.1	0.344	1
58	76	Coats Viyella PLC	905700	Hicking Pentecost PLC	30/06/1999	65.1	c	HHOLD	189.98	0.343	0
59	47	United News & Media PLC	901106	CMP Media (US)	29/04/1999	900.2	c	MEDIA	2635	0.342	1
60	46	General Electric PLC	900498	FORE Systems (US)	26/04/1999	4190	c	ENGEN	14504.44	0.289	1
61	32	Enterprise Inns PLC	137668	Century Inns PLC	29/03/1999	73.8	s	RESTS	263.92	0.280	0
62	119	Alexon Gr. PLC	905314	Style H. PLC	36398	31.4	m	RTAIL	112.32	0.280	0
63	30	Stanley Leisure PLC	900638	Capital Corp. PLC	30/03/1999	86.4	c/s	LESUR	318.93	0.271	0
64	54	Christian Salvesen PLC	931825	Transportes Gerposa (ES)	24/05/1999	65	c	TRNSP	239.99	0.271	1
65	81	Yorkshire Water PLC	904486	Aquarion PLC	01/06/1999	582.6	c	WATER	2158.06	0.270	0
66	21	Macro 4 PLC	901453	Insync Software (US)	09/02/1999	18	c	SFTCS	66.92	0.269	1
67	53	FKI PLC	911384	Crisplant Ind. (DK)	24/05/1999	180	c	ENGEN	766.58	0.235	1
68	48	TI Group PLC	900762	Walbro Gr. (US)	28/04/1999	347	c	ENGEN	1556.59	0.223	1
69	28	Unigate PLC	900804	Terranova Foods PLC	16/03/1999	228.5	c/s	FOODS	1037.15	0.220	0
70	117	Wassall PLC	914265	Allied Carpets PLC	36398	72.4	c	DIVIN	349.25	0.207	0
71	13	TT Group PLC	901830	Hall Engineering PLC	36188	72.7	c	ENGEN	355.19	0.205	0
72	167	Britax Int. PLC	900952	Poong Jeong Ind. (KO)	36515	62	c	AUTMB	312.83	0.198	1
73	138	Morgan Crucible PLC	900408	Vacuumschmelze (BD)	36465	125	c	ENGEN	642.56	0.195	1
74	134	Travis Perkins PLC	931669	Sharpe & Fisher PLC	36458	76.1	c/s	CNSBM	415.09	0.183	0

List of Transactions (Data Set III): Year 1999

D III	DII	Acquirer	A.-Code	Target	Date	Value	Payment	A.-Ind.	A.-MV	V / MV	CB
75	52	HSBC H. PLC	507534	Safra Republ. H. PLC	10/05/1999	2590	c	BANKS	14390.2	0.180	0
76	113	TI Group PLC	900762	Busak & Shamban (BD)	36377	275	c	ENGEN	1556.59	0.177	1
77	70	Blue Circle Ind. PLC	900304	Calcemento Int. (LX)	01/06/1999	401	nn	CNSBM	2413.97	0.166	1
78	11	Daily Mail & Gen. Tr. PLC	904283	Internet Securities PLC	26/01/1999	19.6	c	MEDIA	120.2	0.163	0
79	147	Thames Water PLC	904393	E'town (US)	36486	637	c	WATER	4013.15	0.159	1
80	144	Whitbread PLC	900271	Swallow Gr. PLC	36486	581	c/l	RESTS	3794	0.153	0
81	90	Guardian IT PLC	676563	Sogeris (FR)	36342	35.1	c	SFTCS	243.17	0.144	1
82	83	Electrocomponents PLC	904690	Allied Electronics (US)	08/06/1999	237	c	DISTR	1732.37	0.137	1
83	104	Ocean Gr. PLC	901373	Mark VII (US)	36368	140	c	TRNSP	1082.47	0.129	1
84	64	Northern Leisure PLC	953171	Fife Gr. PLC	04/05/1999	16.8	s	LESUR	131.43	0.128	0
85	8	Vodafone Gr. PLC	953133	AirTouch Comm. (US)	18/01/1999	3672	s	TELCM	30194.59	0.122	1
86	58	Shanks & McEvan Gr. PLC	981250	Caird Gr. PLC	36307	50.6	c	SUPSV	421.21	0.120	0
87	98	Royal & Sun All. Ins. PLC	901514	Orion Capital (US)	36353	868	c	INSUR	7667.63	0.113	1
88	111	Taylor Nelson Sofres PLC	910707	Nipo (NL)	36374	33	m	MEDIA	291.92	0.113	1
89	153	Caledonia Inv. PLC	904129	Sterling Industries PLC	36491	70.4	m/c/l	SPFIN	638.84	0.110	0
90	85	Meyer Int. PLC	901405	RentX Industries (US)	09/06/1999	61	c	CNSBM	553.78	0.110	1
91	164	HP Bulmer H. PLC	926001	American Hard Cider (US)	36502	19	c	BEVES	179	0.106	1
92	25	Prudential Corp. PLC	901521	M&G Gr. PLC	11/03/1999	1850	c/s	LIFEA	17640.19	0.105	0
93	77	WS Atkins PLC	882044	Lambert Smith H. PLC	17/06/1999	48.4	c/m	SUPSV	463.33	0.104	0
94	80	Royal Bank of Sctl. PLC	901450	UST Corp., Boston (US)	18/06/1999	873	c	BANKS	8405.12	0.104	1

Key:

A.-Code:	Datastream Company Code of Acquirer
Date:	Announcement Date of Transaction
Value:	Deal Value of Transaction on Announcement Date
Payment:	Method of Payment: cash (c); stock (s); mixed (m); loan note (l)
Deal:	Deal Approval: friendly (f), hostile (h)
A.-Ind.:	Industry of Acquirer (Datastream Industry Code Level 4)
A.-MV:	Market Value of Acquirer on 31/12/98
V / MV:	Ratio of Deal Value to Market Value of Acquirer
CB:	Nature of Deal: Cross-border (1); Domestic (0)

Source:
Acquisitions Monthly; Datastream

Appendix C:

Industry Classification Codes
(Datastream Level 4)

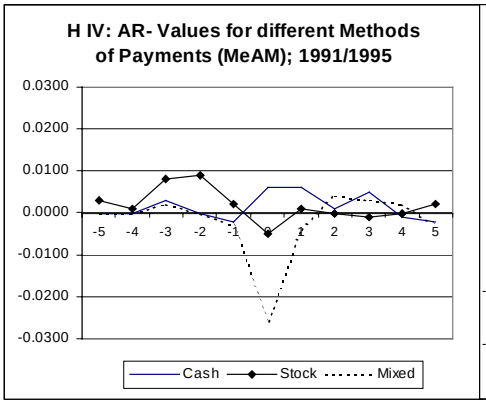
Table 3: Industry Classification Codes

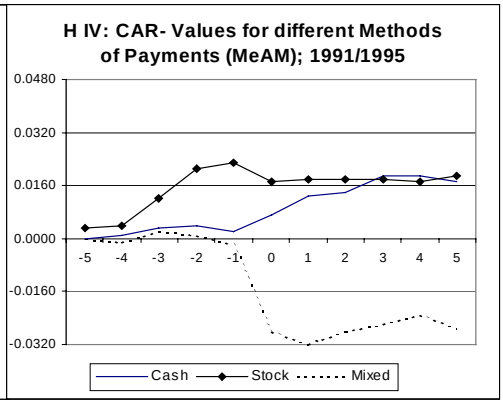
Code	Industry
AERSP	Aerospace & Defense
AUTMB	Automobiles
BANKS	Banks
BEVES	Beverages
CHMCL	Chemicals
CNSBM	Construction & Building Materials
DISTR	Distributors
DIVIN	Diversified Industrials
ELECT	Electricity
ELTNC	Electronic & Electrical Equipment
ENGEN	Engineering & Machinery
FDRET	Food & Drug Retailers
FOODS	Food Producers & Processors
FSTPA	Forestry & Paper
GASDS	Gas Distribution
HHOLD	Household Goods & Textiles
HLTHC	Health
INFOH	Information Technology Hardware
INSUR	Insurance
INVSC	Investment Companies
LESUR	Leisrue, Entertainment & Hotels
LIFEA	Life Assurance
MEDIA	Media & Photography
MNING	Mining
OILGS	Oil & Gas
PCKGN	Packaging
PERSH	Personal Care & Household Products
PHARM	Pharmaceuticals
RESTS	Restaurants, Pubs, Breweries
RLEST	Real Estate
RTAIL	Retailers, General
SFTCS	Software & Computer Services
SPFIN	Specialty & Other Finance
STLOM	Steel & Other Materials
SUPSV	Support Services
TELCM	Telecom Services
TOBAC	Tobacco
TRNSP	Transport
WATER	Water

Appendix D:

Results of Significance Tests for Hypothesis IV

Figure 26: AR and CAR-values for sample periods 1991/1995 (calculation based on MeAM)

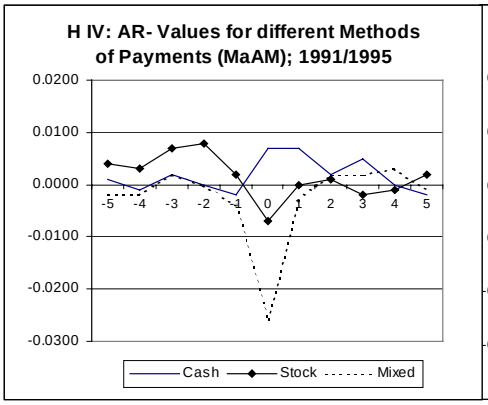


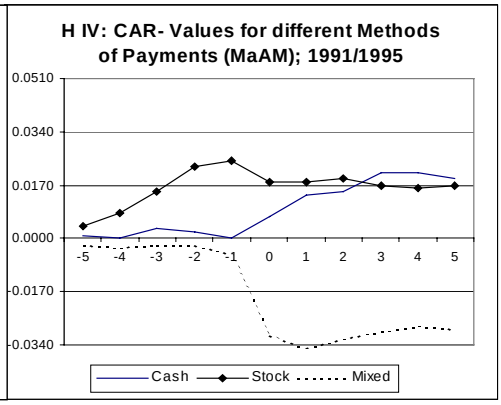


Cash	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0000**	0.165	0.159	**0.0000**	0.165	0.159
-4	**0.0000**	-0.145	-0.220	**0.0010**	0.155	0.192
-3	**0.0030**	1.047	0.748	**0.0030**	0.618	0.459
-2	**0.0000**	-0.273	-0.232	**0.0040**	0.552	0.415
-1	**-0.0020**	-0.631	-0.271	**0.0020**	0.569	0.390
0	**0.0060**	1.075	0.569	**0.0070**	0.68	0.425
1	**0.0060**	2.616***	1.591*	**0.0130**	1.172	0.719
2	**0.0010**	0.622	0.556	**0.0140**	1.118	0.700
3	**0.0050**	2.876****	1.911**	**0.0190**	1.425*	0.917
4	**-0.0010**	-0.634	-0.431	**0.0190**	1.367*	0.881
5	**-0.0020**	-0.718	-0.604	**0.0170**	1.321*	0.859
[-1;0]				**0.0040**	0.881	0.445
Stock	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0030**	0.011	1.428*	**0.0030**	0.011	1.428*
-4	**0.0010**	0.006	0.654	**0.0040**	0.009	1.111
-3	**0.0080**	0.031	1.649*	**0.0120**	0.020	1.315
-2	**0.0090**	0.039	2.282***	**0.0210**	0.026	1.612*
-1	**0.0020**	0.006	0.551	**0.0230**	0.023	1.463*
0	**-0.0050**	-0.022	-0.678	**0.0170**	0.023	1.364*
1	**0.0010**	0.004	0.174	**0.0180**	0.021	1.264
2	**0.0000**	-0.001	-0.061	**0.0180**	0.020	1.183
3	**-0.0010**	-0.003	-0.248	**0.0180**	0.019	1.118
4	**0.0000**	-0.002	-0.156	**0.0170**	0.018	1.062
5	**0.0020**	0.007	0.391	**0.0190**	0.017	1.019
[-1;0]				**-0.0040**	0.016	0.618
Mixed	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0000**	-0.002	-0.268	**0.0000**	-0.002	-0.268
-4	**0.0000**	-0.003	-0.288	**-0.0010**	0.002	0.278
-3	**0.0020**	0.014	0.993	**0.0020**	0.008	0.617
-2	**0.0000**	-0.003	-0.241	**0.0010**	0.007	0.548
-1	**-0.0030**	-0.020	-1.216	**-0.0020**	0.011	0.732
0	**-0.0260**	-0.152	-2.563***	**-0.0280**	0.063	1.242
1	**-0.0040**	-0.022	-1.388*	**-0.0320**	0.059	1.263
2	**0.0040**	0.022	1.179	**-0.0280**	0.055	1.253
3	**0.0030**	0.015	0.825	**-0.0260**	0.052	1.213
4	**0.0020**	0.013	0.873	**-0.0230**	0.050	1.183
5	**-0.0030**	-0.019	-2.035***	**-0.0270**	0.048	1.284
[-1;0]				**-0.0290**	0.108	2.006**

Key:			
	**** significant at 1% level	Cash:	n = 39
	*** significant at 5% level	Stock:	n = 17
	** significant at 10% level	Mixed:	n = 34
	* significant at 20% level		

Figure 27: AR and CAR-values for sample periods 1991/1995 (calculation based on MaAM)

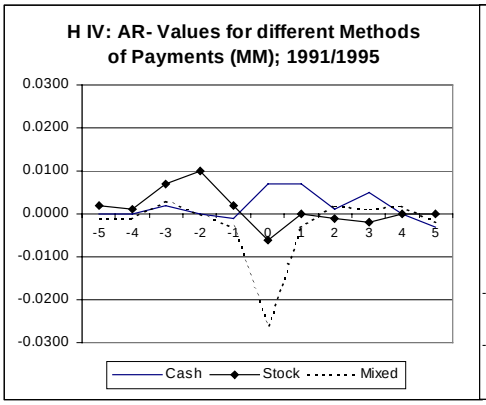


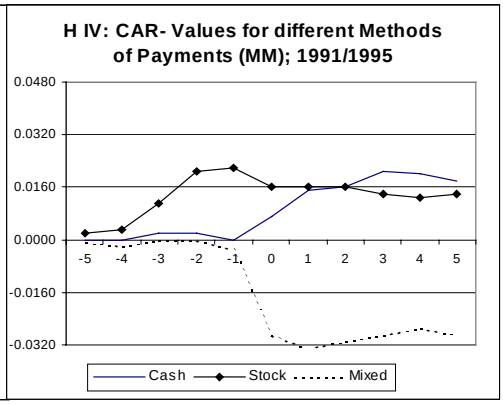


Cash	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0010**	0.014	0.015	**0.0010**	0.014	0.015
-4	**-0.0010**	-0.522	-0.665	**0.0000**	0.369	0.470
-3	**0.0020**	0.891	0.642	**0.0030**	0.596	0.534
-2	**0.0000**	-0.475	-0.43	**0.0020**	0.568	0.510
-1	**-0.0020**	-1.075	-0.445	**0.0000**	0.700	0.498
0	**0.0070**	1.942**	1.050	**0.0070**	1.018	0.625
1	**0.0070**	2.587***	1.733**	**0.0140**	1.358*	0.874
2	**0.0020**	0.784	0.674	**0.0150**	1.300	0.851
3	**0.0050**	2.670***	2.162***	**0.0210**	1.515*	1.079
4	**0.0000**	-0.446	-0.385	**0.0210**	1.444*	1.031
5	**-0.0020**	-0.945	-0.753	**0.0190**	1.406*	1.009
[-1;0]				**0.0050**	1.569*	0.806
Stock	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0040**	0.017	1.477*	**0.0040**	0.017	1.477*
-4	**0.0030**	0.014	1.659*	**0.0080**	0.016	1.571*
-3	**0.0070**	0.029	1.510*	**0.0150**	0.021	1.551*
-2	**0.0080**	0.034	1.954**	**0.0230**	0.025	1.661*
-1	**0.0020**	0.009	0.685	**0.0250**	0.023	1.517*
0	**-0.0070**	-0.027	-0.913	**0.0180**	0.023	1.434*
1	**0.0000**	-0.001	-0.055	**0.0180**	0.022	1.328
2	**0.0010**	0.004	0.237	**0.0190**	0.020	1.245
3	**-0.0020**	-0.009	-0.899	**0.0170**	0.019	1.211
4	**-0.0010**	-0.005	-0.348	**0.0160**	0.019	1.154
5	**0.0020**	0.007	0.431	**0.0170**	0.018	1.108
[-1;0]				**-0.0040**	0.020	0.808
Mixed	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0020**	-0.011	-1.490*	**-0.0020**	-0.011	-1.490*
-4	**-0.0020**	-0.009	-0.903	**-0.0030**	0.010	1.232
-3	**0.0020**	0.011	0.819	**-0.0020**	0.010	1.112
-2	**0.0000**	-0.001	-0.109	**-0.0020**	0.009	0.964
-1	**-0.0040**	-0.021	-1.160	**-0.0050**	0.012	1.007
0	**-0.0260**	-0.152	-2.614***	**-0.0310**	0.063	1.408*
1	**-0.0030**	-0.020	-1.378*	**-0.0350**	0.059	1.404*
2	**0.0020**	0.014	0.708	**-0.0320**	0.055	1.337*
3	**0.0020**	0.011	0.639	**-0.0300**	0.052	1.278
4	**0.0030**	0.017	1.224	**-0.0280**	0.050	1.273
5	**-0.0010**	-0.007	-0.854	**-0.0290**	0.047	1.241
[-1;0]				**-0.0300**	0.108	2.022**

Key:			
	**** significant at 1% level	Cash:	n = 39
	*** significant at 5% level	Stock:	n = 17
	** significant at 10% level	Mixed:	n = 34
	* significant at 20% level		

Figure 28: AR and CAR-values for sample periods 1991/1995 (calculation based on MM)

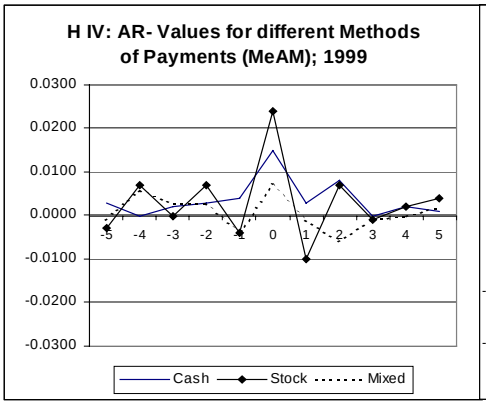


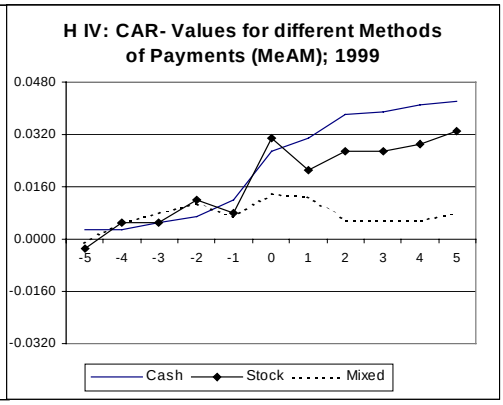


Cash	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0000**	-0.084	-0.080	**0.0000**	-0.084	-0.080
-4	**0.0000**	-0.525	-0.657	**0.0000**	0.376	0.468
-3	**0.0020**	0.757	0.538	**0.0020**	0.534	0.492
-2	**0.0000**	-0.762	-0.628	**0.0020**	0.599	0.529
-1	**-0.0010**	-0.899	-0.348	**0.0000**	0.670	0.498
0	**0.0070**	2.029***	1.005	**0.0070**	1.030	0.613
1	**0.0070**	3.618****	2.361***	**0.0150**	1.667*	1.058
2	**0.0010**	0.410	0.302	**0.0160**	1.566*	0.995
3	**0.0050**	3.224****	2.093***	**0.0210**	1.826**	1.169
4	**0.0000**	-0.300	-0.205	**0.0200**	1.735**	1.111
5	**-0.0030**	-1.219	-1.017	**0.0180**	1.695**	1.103
[-1;0]				**0.0060**	1.569*	0.752
Stock	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0020**	0.010	0.986	**0.0020**	0.01	0.986
-4	**0.0010**	0.004	0.475	**0.0030**	0.008	0.774
-3	**0.0070**	0.030	1.575*	**0.0110**	0.018	1.107
-2	**0.0100**	0.040	2.328***	**0.0210**	0.026	1.508*
-1	**0.0020**	0.007	0.505	**0.0220**	0.023	1.368*
0	**-0.0060**	-0.025	-0.857	**0.0160**	0.024	1.297
1	**0.0000**	0.001	0.041	**0.0160**	0.022	1.201
2	**-0.0010**	-0.003	-0.172	**0.0160**	0.020	1.125
3	**-0.0020**	-0.008	-0.890	**0.0140**	0.019	1.101
4	**0.0000**	-0.002	-0.129	**0.0130**	0.018	1.045
5	**0.0000**	0.002	0.106	**0.0140**	0.018	0.997
[-1;0]				**-0.0040**	0.018	0.703
Mixed	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0010**	-0.008	-1.214	**-0.0010**	-0.008	-1.214
-4	**-0.0010**	-0.006	-0.663	**-0.0020**	0.007	0.978
-3	**0.0030**	0.016	1.218	**0.0000**	0.011	1.064
-2	**0.0000**	0.000	-0.023	**0.0000**	0.009	0.922
-1	**-0.0030**	-0.018	-1.117	**-0.0030**	0.012	0.964
0	**-0.0260**	-0.154	-2.623***	**-0.0290**	0.064	1.386*
1	**-0.0030**	-0.020	-1.337*	**-0.0330**	0.059	1.379*
2	**0.0020**	0.012	0.616	**-0.0310**	0.056	1.308*
3	**0.0010**	0.007	0.400	**-0.0290**	0.053	1.241
4	**0.0020**	0.013	0.917	**-0.0270**	0.050	1.212
5	**-0.0020**	-0.012	-1.410*	**-0.0290**	0.048	1.232
[-1;0]				**-0.0290**	0.109	2.016**

Key:			
	**** significant at 1% level	Cash:	n = 39
	*** significant at 5% level	Stock:	n = 17
	** significant at 10% level	Mixed:	n = 34
	* significant at 20% level		

Figure 29: AR and CAR-values for sample period 1999 (calculation based on MeAM)

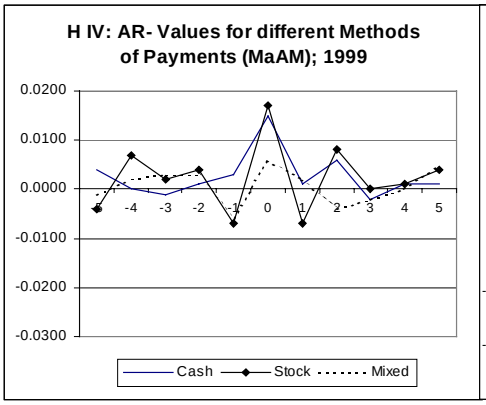


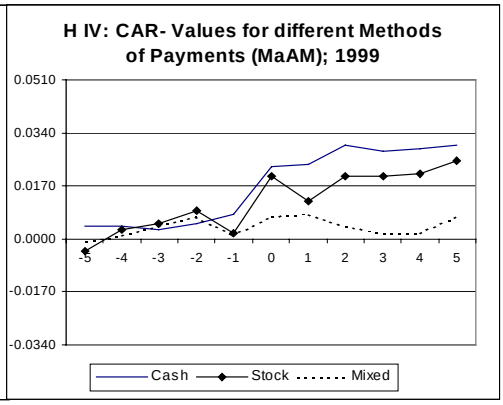


Cash	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0030**	0.716	1.181	**0.0030**	0.716	1.181
-4	**0.0000**	0.13	0.174	**0.0030**	0.514	0.844
-3	**0.0020**	0.393	0.454	**0.0050**	0.477	0.738
-2	**0.0030**	0.945	0.819	**0.0070**	0.628	0.759
-1	**0.0040**	1.350*	1.223	**0.0120**	0.825	0.872
0	**0.0150**	3.670****	2.093***	**0.0270**	1.677*	1.168
1	**0.0030**	0.774	0.661	**0.0310**	1.580*	1.109
2	**0.0080**	1.783**	1.869**	**0.0380**	1.607*	1.230
3	**0.0000**	0.680	0.485	**0.0390**	1.532*	1.171
4	**0.0020**	0.713	1.338*	**0.0410**	1.470*	1.189
5	**0.0010**	0.481	0.397	**0.0420**	1.409*	1.140
[-1;0]				**0.0200**	2.765****	1.714**
Stock	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0030**	-0.012	-0.795	**-0.0030**	-0.012	-0.795
-4	**0.0070**	0.034	1.414*	**0.0050**	0.026	1.147
-3	**0.0000**	0.010	0.092	**0.0050**	0.022	0.938
-2	**0.0070**	0.032	1.896**	**0.0120**	0.025	1.248
-1	**-0.0040**	-0.023	-0.959	**0.0080**	0.024	1.196
0	**0.0240**	0.088	1.607*	**0.0310**	0.042	1.274
1	**-0.0100**	-0.033	-1.085	**0.0210**	0.041	1.249
2	**0.0070**	0.026	1.245	**0.0270**	0.039	1.248
3	**-0.0010**	-0.003	-0.126	**0.0270**	0.037	1.178
4	**0.0020**	0.017	0.370	**0.0290**	0.036	1.123
5	**0.0040**	0.019	0.824	**0.0330**	0.035	1.099
[-1;0]				**0.0190**	0.064	1.324*
Mixed	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0010**	-0.007	-0.445	**-0.0010**	-0.007	-0.445
-4	**0.0060**	0.033	1.987**	**0.0050**	0.024	1.440*
-3	**0.0030**	0.014	0.888	**0.0080**	0.021	1.282
-2	**0.0030**	0.015	1.124	**0.0110**	0.020	1.245
-1	**-0.0040**	-0.019	-1.058	**0.0070**	0.020	1.210
0	**0.0070**	0.035	0.845	**0.0140**	0.023	1.157
1	**-0.0010**	-0.006	-0.190	**0.0130**	0.021	1.073
2	**-0.0060**	-0.031	-1.474*	**0.0060**	0.023	1.131
3	**-0.0010**	-0.004	-0.218	**0.0060**	0.022	1.069
4	**0.0000**	0.000	-0.009	**0.0060**	0.020	1.014
5	**0.0020**	0.012	0.765	**0.0080**	0.020	0.994
[-1;0]				**0.0030**	0.029	0.957

Key:	**** significant at 1% level	Cash:	n = 43
	*** significant at 5% level	Stock:	n = 24
	** significant at 10% level	Mixed:	n = 27
	* significant at 20% level		

Figure 30: AR and CAR-values for sample period 1999 (calculation based on MaAM)

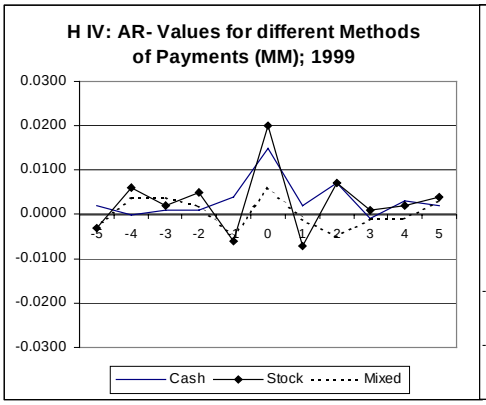


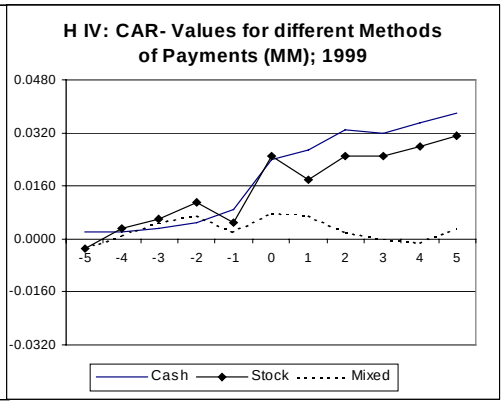


Cash	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0040**	1.177	1.588*	**0.0040**	1.177	1.588*
-4	**0.0000**	0.043	0.059	**0.0040**	0.833	1.124
-3	**-0.0010**	-0.402	-0.417	**0.0030**	0.718	0.949
-2	**0.0010**	0.793	0.664	**0.0050**	0.738	0.886
-1	**0.0030**	0.948	1.055	**0.0080**	0.784	0.923
0	**0.0150**	3.761****	2.004**	**0.0230**	1.694**	1.174
1	**0.0010**	0.160	0.130	**0.0240**	1.570*	1.088
2	**0.0060**	1.205	1.313*	**0.0300**	1.529*	1.119
3	**-0.0020**	-0.001	0.000	**0.0280**	1.442*	1.055
4	**0.0010**	0.357	0.583	**0.0290**	1.372*	1.017
5	**0.0010**	0.165	0.149	**0.0300**	1.309*	0.971
[-1;0]				**0.0190**	2.743****	1.601*
Stock	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0040**	-0.022	-1.272	**-0.0040**	-0.022	-1.272
-4	**0.0070**	0.030	1.237	**0.0030**	0.026	1.255
-3	**0.0020**	0.013	0.571	**0.0050**	0.023	1.076
-2	**0.0040**	0.018	1.020	**0.0090**	0.022	1.062
-1	**-0.0070**	-0.035	-1.532*	**0.0020**	0.025	1.171
0	**0.0170**	0.063	1.185	**0.0200**	0.034	1.174
1	**-0.0070**	-0.021	-0.850	**0.0120**	0.033	1.133
2	**0.0080**	0.033	1.254	**0.0200**	0.033	1.149
3	**0.0000**	-0.003	-0.016	**0.0200**	0.031	1.083
4	**0.0010**	0.007	0.242	**0.0210**	0.029	1.030
5	**0.0040**	0.015	0.683	**0.0250**	0.028	1.004
[-1;0]				**0.0100**	0.051	1.369*
Mixed	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0010**	-0.003	-0.214	**-0.0010**	-0.003	-0.214
-4	**0.0020**	0.008	0.455	**0.0010**	0.006	0.356
-3	**0.0030**	0.015	0.775	**0.0040**	0.01	0.533
-2	**0.0030**	0.015	1.144	**0.0070**	0.012	0.735
-1	**-0.0060**	-0.032	-1.471*	**0.0010**	0.017	0.930
0	**0.0060**	0.032	0.774	**0.0070**	0.021	0.906
1	**0.0020**	0.008	0.281	**0.0080**	0.019	0.845
2	**-0.0040**	-0.021	-0.975	**0.0040**	0.020	0.863
3	**-0.0020**	-0.011	-0.518	**0.0020**	0.019	0.831
4	**0.0000**	0.000	-0.005	**0.0020**	0.018	0.789
5	**0.0050**	0.024	1.645*	**0.0070**	0.018	0.901
[-1;0]				**0.0000**	0.032	1.175

Key:			
	**** significant at 1% level	Cash:	n = 43
	*** significant at 5% level	Stock:	n = 24
	** significant at 10% level	Mixed:	n = 27
	* significant at 20% level		

Figure 31: AR and CAR-values for sample period 1999 (calculation based on MM)





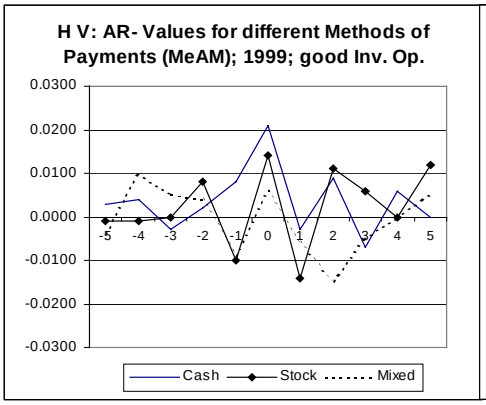
Cash	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0020**	0.648	1.019	**0.0020**	0.648	1.019
-4	**0.0000**	-0.020	-0.027	**0.0020**	0.459	0.721
-3	**0.0010**	0.221	0.243	**0.0030**	0.396	0.605
-2	**0.0010**	0.617	0.482	**0.0050**	0.461	0.577
-1	**0.0040**	1.292	1.163	**0.0090**	0.710	0.733
0	**0.0150**	3.757****	1.969**	**0.0240**	1.665*	1.046
1	**0.0020**	0.537	0.426	**0.0270**	1.555*	0.981
2	**0.0070**	1.603*	1.691*	**0.0330**	1.561*	1.096
3	**-0.0010**	0.256	0.173	**0.0320**	1.474*	1.035
4	**0.0030**	0.895	1.723**	**0.0350**	1.427*	1.123
5	**0.0020**	0.666	0.549	**0.0380**	1.375*	1.083
[-1;0]				**0.0190**	2.809****	1.617*
Stock	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0030**	-0.016	-0.944	**-0.0030**	-0.016	-0.944
-4	**0.0060**	0.027	1.142	**0.0030**	0.022	1.048
-3	**0.0020**	0.010	0.522	**0.0060**	0.019	0.907
-2	**0.0050**	0.024	1.313	**0.0110**	0.020	1.024
-1	**-0.0060**	-0.027	-1.405*	**0.0050**	0.022	1.111
0	**0.0200**	0.078	1.374*	**0.0250**	0.037	1.159
1	**-0.0070**	-0.022	-0.824	**0.0180**	0.036	1.117
2	**0.0070**	0.032	1.326*	**0.0250**	0.035	1.145
3	**0.0010**	-0.001	0.116	**0.0250**	0.033	1.080
4	**0.0020**	0.011	0.468	**0.0280**	0.032	1.036
5	**0.0040**	0.016	0.689	**0.0310**	0.031	1.009
[-1;0]				**0.0140**	0.058	1.390*
Mixed	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0030**	-0.016	-1.156	**-0.0030**	-0.016	-1.156
-4	**0.0040**	0.022	1.370*	**0.0010**	0.019	1.267
-3	**0.0040**	0.020	1.053	**0.0050**	0.019	1.200
-2	**0.0020**	0.012	0.890	**0.0070**	0.018	1.131
-1	**-0.0050**	-0.026	-1.451*	**0.0020**	0.020	1.201
0	**0.0060**	0.030	0.704	**0.0080**	0.022	1.134
1	**-0.0010**	-0.007	-0.269	**0.0070**	0.020	1.055
2	**-0.0050**	-0.025	-1.277	**0.0020**	0.021	1.085
3	**-0.0010**	-0.007	-0.374	**0.0000**	0.020	1.030
4	**-0.0010**	-0.005	-0.294	**-0.0010**	0.019	0.982
5	**0.0030**	0.016	1.181	**0.0030**	0.019	1.002
[-1;0]				**0.0010**	0.028	1.140

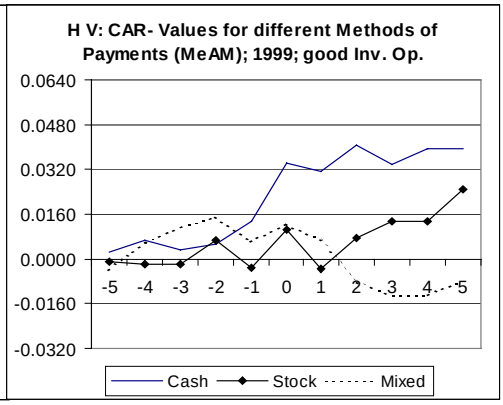
Key:	**** significant at 1% level	Cash:	n = 43
	*** significant at 5% level	Stock:	n = 24
	** significant at 10% level	Mixed:	n = 27
	* significant at 20% level		

Appendix E:

Results of Significance Tests for Hypothesis V

Figure 32: AR and CAR-values for sample "good" investment opportunities (calculation based on MeAM)

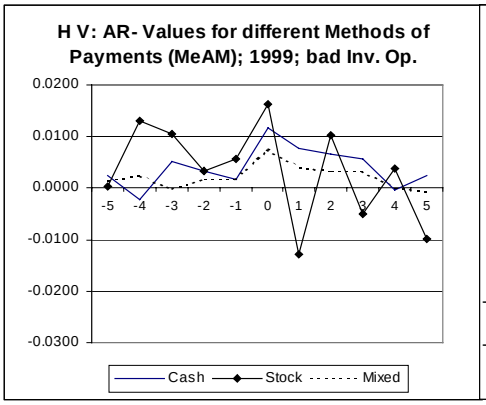


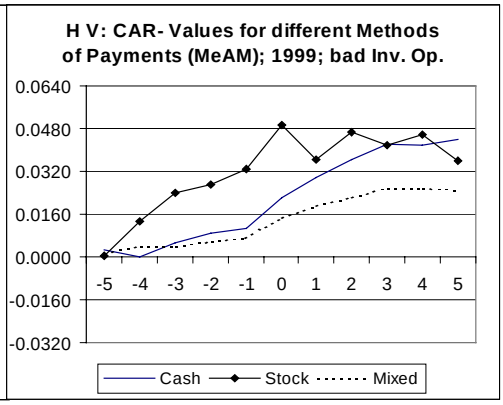


g	AR	t-Values (A)	t-Values (B)	CAR	t-Values (A)	t-Values (B)
-5	**0.0026**	0.011	0.942	**0.0026**	0.011	0.942
-4	**0.0041**	0.017	0.891	**0.0066**	0.014	0.917
-3	**-0.0032**	-0.014	-1.132	**0.0034**	0.014	0.994
-2	**0.0019**	0.008	0.352	**0.0053**	0.013	0.879
-1	**0.0081**	0.034	1.384*	**0.0134**	0.019	1.000
0	**0.0206**	0.088	1.395*	**0.0341**	0.040	1.076
1	**-0.0027**	-0.011	-0.519	**0.0314**	0.037	1.016
2	**0.0094**	0.040	1.398*	**0.0407**	0.037	1.071
3	**-0.0069**	-0.029	-1.871**	**0.0339**	0.037	1.187
4	**0.0056**	0.024	2.184***	**0.0395**	0.036	1.321
5	**-0.0002**	-0.001	-0.069	**0.0392**	0.034	1.259
[-1;0]				**0.0287**	0.067	1.390*
Stock	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0008**	-0.003	-0.209	**-0.0008**	-0.003	-0.209
-4	**-0.0008**	-0.003	-0.309	**-0.0017**	0.003	0.264
-3	**-0.0002**	-0.001	-0.036	**-0.0019**	0.003	0.216
-2	**0.0084**	0.031	1.513*	**0.0065**	0.016	0.779
-1	**-0.0098**	-0.037	-1.502*	**-0.0033**	0.022	0.968
0	**0.0136**	0.051	0.674	**0.0103**	0.029	0.926
1	**-0.0139**	-0.052	-1.055	**-0.0035**	0.033	0.945
2	**0.0108**	0.040	1.724*	**0.0073**	0.034	1.074
3	**0.0063**	0.023	1.111	**0.0136**	0.033	1.078
4	**0.0000**	0.000	-0.002	**0.0135**	0.031	1.023
5	**0.0116**	0.043	2.207***	**0.0251**	0.033	1.181
[-1;0]				**0.0038**	0.044	1.164
Mixed	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0039**	-0.015	-1.066	**-0.0039**	-0.015	-1.066
-4	**0.0098**	0.037	1.771**	**0.0058**	0.028	1.461*
-3	**0.0054**	0.020	1.018	**0.0112**	0.026	1.330
-2	**0.0040**	0.015	0.963	**0.0152**	0.023	1.248
-1	**-0.0088**	-0.033	-1.592*	**0.0063**	0.026	1.324
0	**0.0062**	0.023	0.482	**0.0125**	0.025	1.225
1	**-0.0059**	-0.022	-0.635	**0.0066**	0.025	1.159
2	**-0.0148**	-0.055	-2.538***	**-0.0081**	0.030	1.407*
3	**-0.0048**	-0.018	-0.832	**-0.0129**	0.029	1.356*
4	**-0.0001**	0.000	-0.023	**-0.0130**	0.028	1.286
5	**0.0052**	0.020	0.922	**-0.0078**	0.027	1.257
[-1;0]				**-0.0027**	0.029	1.176

Key:	**** significant at 1% level	Cash:	n = 18
	*** significant at 5% level	Stock:	n = 14
	** significant at 10% level	Mixed:	n = 14
	* significant at 20% level		

Figure 33: AR and CAR-values for sample "bad" investment opportunities (calculation based on MeAM)

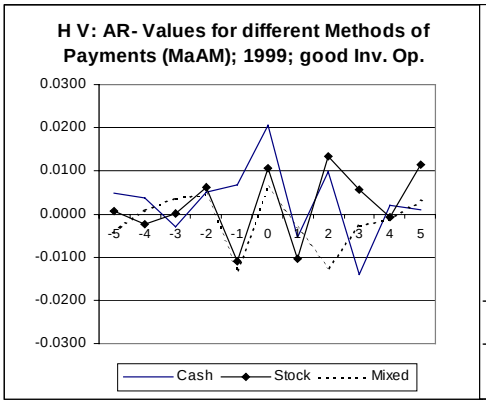


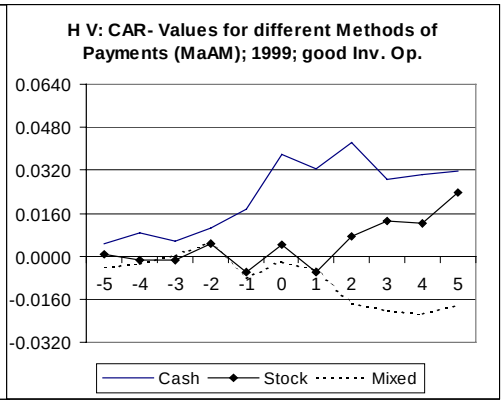


g	AR	t-Values (A)	t-Values (B)	CAR	t-Values (A)	t-Values (B)
-5	**0.0025**	0.012	0.693	**0.0025**	0.012	0.693
-4	**-0.0023**	-0.011	-0.619	**0.0002**	0.012	0.657
-3	**0.0053**	0.027	1.055	**0.0055**	0.018	0.812
-2	**0.0034**	0.017	0.594	**0.0089**	0.018	0.763
-1	**0.0016**	0.008	0.332	**0.0105**	0.016	0.699
0	**0.0117**	0.058	1.661*	**0.0221**	0.028	0.931
1	**0.0078**	0.039	1.224	**0.0299**	0.030	0.978
2	**0.0065**	0.032	1.750**	**0.0364**	0.030	1.105
3	**0.0057**	0.028	0.845	**0.0420**	0.030	1.079
4	**-0.0003**	-0.001	-0.090	**0.0418**	0.028	1.024
5	**0.0025**	0.012	0.361	**0.0442**	0.027	0.982
[-1;0]				**0.0132**	0.042	1.198
Stock	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0004**	0.001	0.104	**0.0004**	0.001	0.104
-4	**0.0131**	0.035	1.154	**0.0135**	0.024	0.819
-3	**0.0105**	0.028	1.496*	**0.0240**	0.026	1.092
-2	**0.0033**	0.009	0.948	**0.0273**	0.023	1.058
-1	**0.0057**	0.015	0.881	**0.0330**	0.021	1.025
0	**0.0162**	0.043	1.678*	**0.0492**	0.026	1.160
1	**-0.0128**	-0.034	-1.132	**0.0365**	0.027	1.156
2	**0.0103**	0.027	1.128	**0.0468**	0.027	1.152
3	**-0.0050**	-0.013	-0.613	**0.0418**	0.026	1.106
4	**0.0039**	0.010	0.475	**0.0457**	0.025	1.059
5	**-0.0098**	-0.026	-0.667	**0.0360**	0.025	1.030
[-1;0]				**0.0219**	0.032	1.340
Mixed	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0015**	0.006	0.332	**0.0015**	0.006	0.332
-4	**0.0025**	0.009	0.941	**0.0041**	0.008	0.705
-3	**-0.0002**	-0.001	-0.057	**0.0039**	0.006	0.577
-2	**0.0017**	0.006	0.553	**0.0056**	0.006	0.571
-1	**0.0017**	0.006	0.433	**0.0073**	0.006	0.546
0	**0.0075**	0.027	0.745	**0.0148**	0.012	0.584
1	**0.0041**	0.015	0.679	**0.0189**	0.013	0.599
2	**0.0034**	0.012	0.715	**0.0222**	0.013	0.614
3	**0.0034**	0.012	0.687	**0.0257**	0.013	0.623
4	**0.0001**	0.000	0.031	**0.0257**	0.012	0.591
5	**-0.0007**	-0.003	-0.377	**0.0250**	0.011	0.575
[-1;0]				**0.0092**	0.020	0.610

Key:			
	**** significant at 1% level	Cash:	n = 25
	*** significant at 5% level	Stock:	n = 7
	** significant at 10% level	Mixed:	n = 13
	* significant at 20% level		

Figure 34: AR and CAR-values for sample "good" investment opportunities (calculation based on MaAM)

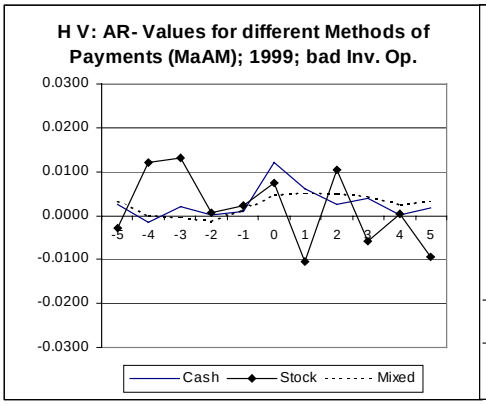


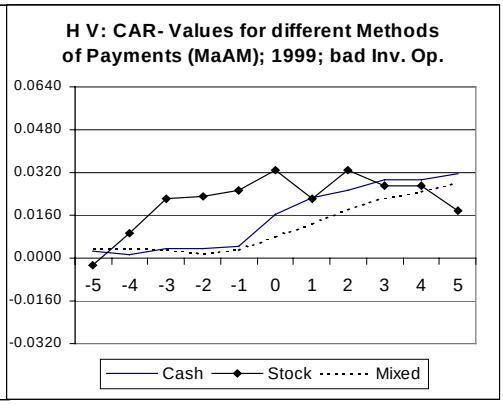


g	AR	t-Values (A)	t-Values (B)	CAR	t-Values (A)	t-Values (B)
-5	**0.0026**	0.011	0.942	**0.0026**	0.011	0.942
-4	**0.0041**	0.017	0.891	**0.0066**	0.014	0.917
-3	**-0.0032**	-0.014	-1.132	**0.0034**	0.014	0.994
-2	**0.0019**	0.008	0.352	**0.0053**	0.013	0.879
-1	**0.0081**	0.034	1.384*	**0.0134**	0.019	1.000
0	**0.0206**	0.088	1.395*	**0.0341**	0.040	1.076
1	**-0.0027**	-0.011	-0.519	**0.0314**	0.037	1.016
2	**0.0094**	0.040	1.398*	**0.0407**	0.037	1.071
3	**-0.0069**	-0.029	-1.871**	**0.0339**	0.037	1.187
4	**0.0056**	0.024	2.184***	**0.0395**	0.036	1.321
5	**-0.0002**	-0.001	-0.069	**0.0392**	0.034	1.259
[-1;0]				**0.0287**	0.067	1.390*
Stock	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0008**	-0.003	-0.209	**-0.0008**	-0.003	-0.209
-4	**-0.0008**	-0.003	-0.309	**-0.0017**	0.003	0.264
-3	**-0.0002**	-0.001	-0.036	**-0.0019**	0.003	0.216
-2	**0.0084**	0.031	1.513*	**0.0065**	0.016	0.779
-1	**-0.0098**	-0.037	-1.502*	**-0.0033**	0.022	0.968
0	**0.0136**	0.051	0.674	**0.0103**	0.029	0.926
1	**-0.0139**	-0.052	-1.055	**-0.0035**	0.033	0.945
2	**0.0108**	0.040	1.724*	**0.0073**	0.034	1.074
3	**0.0063**	0.023	1.111	**0.0136**	0.033	1.078
4	**0.0000**	0.000	-0.002	**0.0135**	0.031	1.023
5	**0.0116**	0.043	2.207***	**0.0251**	0.033	1.181
[-1;0]				**0.0038**	0.044	1.164
Mixed	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0039**	-0.015	-1.066	**-0.0039**	-0.015	-1.066
-4	**0.0098**	0.037	1.771**	**0.0058**	0.028	1.461*
-3	**0.0054**	0.020	1.018	**0.0112**	0.026	1.330
-2	**0.0040**	0.015	0.963	**0.0152**	0.023	1.248
-1	**-0.0088**	-0.033	-1.592*	**0.0063**	0.026	1.324
0	**0.0062**	0.023	0.482	**0.0125**	0.025	1.225
1	**-0.0059**	-0.022	-0.635	**0.0066**	0.025	1.159
2	**-0.0148**	-0.055	-2.538***	**-0.0081**	0.030	1.407*
3	**-0.0048**	-0.018	-0.832	**-0.0129**	0.029	1.356*
4	**-0.0001**	0.000	-0.023	**-0.0130**	0.028	1.286
5	**0.0052**	0.020	0.922	**-0.0078**	0.027	1.257
[-1;0]				**-0.0027**	0.029	1.176

Key:	**** significant at 1% level	Cash:	n = 18
	*** significant at 5% level	Stock:	n = 14
	** significant at 10% level	Mixed:	n = 14
	* significant at 20% level		

Figure 35: AR and CAR-values for sample "bad" investment opportunities (calculation based on MaAM)

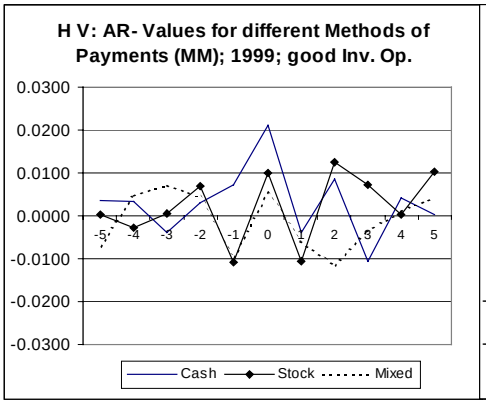


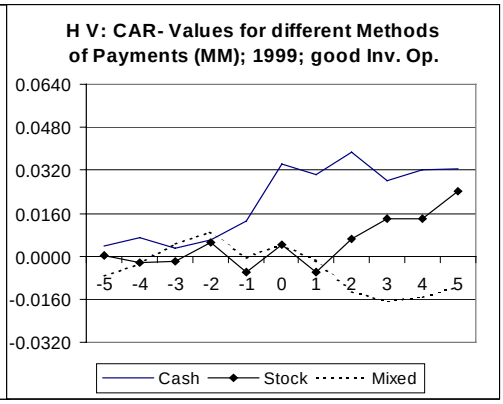


g	AR	t-Values (A)	t-Values (B)	CAR	t-Values (A)	t-Values (B)
-5	**0.0027**	0.013	0.756	**0.0027**	0.013	0.756
-4	**-0.0014**	-0.007	-0.401	**0.0013**	0.011	0.605
-3	**0.0021**	0.011	0.386	**0.0034**	0.011	0.542
-2	**0.0001**	0.001	0.023	**0.0035**	0.009	0.470
-1	**0.0010**	0.005	0.249	**0.0045**	0.009	0.435
0	**0.0121**	0.060	1.678*	**0.0166**	0.026	0.792
1	**0.0062**	0.031	0.936	**0.0228**	0.027	0.814
2	**0.0026**	0.013	0.680	**0.0254**	0.025	0.798
3	**0.0039**	0.020	0.567	**0.0293**	0.025	0.776
4	**0.0001**	0.001	0.044	**0.0295**	0.024	0.736
5	**0.0019**	0.010	0.300	**0.0314**	0.023	0.708
[-1;0]				**0.0131**	0.043	1.200
Stock	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0028**	-0.007	-0.683	**-0.0028**	-0.007	-0.683
-4	**0.0121**	0.032	1.050	**0.0093**	0.023	0.886
-3	**0.0131**	0.035	2.034**	**0.0224**	0.028	1.380
-2	**0.0006**	0.002	0.213	**0.0230**	0.024	1.199
-1	**0.0024**	0.006	0.285	**0.0254**	0.022	1.080
0	**0.0074**	0.020	0.684	**0.0328**	0.021	1.025
1	**-0.0105**	-0.028	-0.880	**0.0223**	0.022	1.006
2	**0.0104**	0.028	0.889	**0.0328**	0.023	0.992
3	**-0.0058**	-0.015	-0.771	**0.0270**	0.022	0.970
4	**0.0003**	0.001	0.034	**0.0273**	0.021	0.920
5	**-0.0094**	-0.025	-0.652	**0.0179**	0.022	0.899
[-1;0]				**0.0098**	0.015	0.524
Mixed	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0035**	0.013	0.866	**0.0035**	0.013	0.866
-4	**0.0001**	0.000	0.029	**0.0036**	0.009	0.613
-3	**-0.0003**	-0.001	-0.083	**0.0032**	0.007	0.503
-2	**-0.0013**	-0.005	-0.438	**0.0020**	0.007	0.487
-1	**0.0012**	0.004	0.243	**0.0032**	0.006	0.449
0	**0.0047**	0.017	0.500	**0.0079**	0.009	0.458
1	**0.0053**	0.019	0.729	**0.0131**	0.011	0.506
2	**0.0050**	0.018	1.061	**0.0181**	0.012	0.604
3	**0.0044**	0.016	0.849	**0.0225**	0.013	0.636
4	**0.0025**	0.009	0.588	**0.0250**	0.012	0.631
5	**0.0033**	0.012	1.110	**0.0284**	0.012	0.689
[-1;0]				**0.0059**	0.012	0.393

Key:			
	**** significant at 1% level	Cash:	n = 25
	*** significant at 5% level	Stock:	n = 7
	** significant at 10% level	Mixed:	n = 13
	* significant at 20% level		

Figure 36: AR and CAR-values for sample "good" investment opportunities (calculation based on MM)

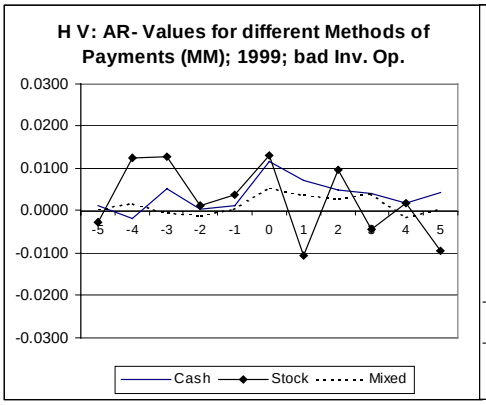


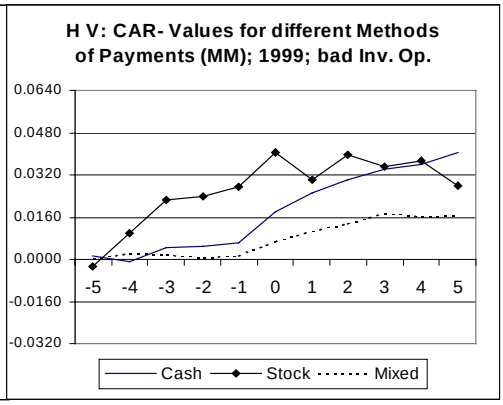


g	AR	t-Values (A)	t-Values (B)	CAR	t-Values (A)	t-Values (B)
-5	**0.0037**	0.016	1.361*	**0.0037**	0.016	1.361*
-4	**0.0032**	0.014	0.753	**0.0069**	0.015	1.100
-3	**-0.0038**	-0.016	-1.209	**0.0031**	0.015	1.138
-2	**0.0030**	0.013	0.538	**0.0061**	0.015	1.021
-1	**0.0071**	0.030	1.249	**0.0132**	0.019	1.071
0	**0.0210**	0.089	1.378*	**0.0342**	0.040	1.128
1	**-0.0040**	-0.017	-0.780	**0.0302**	0.038	1.085
2	**0.0087**	0.037	1.417*	**0.0388**	0.038	1.132
3	**-0.0106**	-0.045	-2.793***	**0.0282**	0.039	1.416*
4	**0.0041**	0.018	1.457*	**0.0323**	0.037	1.420*
5	**0.0004**	0.002	0.129	**0.0328**	0.035	1.355*
[-1;0]				**0.0281**	0.067	1.315
Stock	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0003**	0.001	0.093	**0.0003**	0.001	0.093
-4	**-0.0027**	-0.010	-0.868	**-0.0024**	0.007	0.617
-3	**0.0006**	0.002	0.098	**-0.0018**	0.006	0.507
-2	**0.0069**	0.026	1.041	**0.0051**	0.014	0.681
-1	**-0.0108**	-0.040	-1.812**	**-0.0058**	0.022	1.014
0	**0.0101**	0.038	0.521	**0.0043**	0.025	0.949
1	**-0.0105**	-0.039	-0.886	**-0.0061**	0.028	0.941
2	**0.0126**	0.047	2.122**	**0.0065**	0.031	1.156
3	**0.0073**	0.027	1.558*	**0.0138**	0.030	1.207
4	**0.0002**	0.001	0.031	**0.0140**	0.029	1.145
5	**0.0104**	0.039		**0.0244**	0.030	1.229
[-1;0]				**-0.0007**	0.039	1.333
Mixed	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0073**	-0.028	-1.808**	**-0.0073**	-0.028	-1.808**
-4	**0.0048**	0.018	0.911	**-0.0026**	0.023	1.432*
-3	**0.0071**	0.027	1.116	**0.0046**	0.024	1.335*
-2	**0.0044**	0.017	0.968	**0.0090**	0.023	1.253
-1	**-0.0097**	-0.036	-1.837**	**-0.0007**	0.026	1.390*
0	**0.0052**	0.019	0.379	**0.0045**	0.025	1.278
1	**-0.0059**	-0.022	-0.718	**-0.0014**	0.025	1.214
2	**-0.0117**	-0.044	-2.291***	**-0.0131**	0.028	1.395*
3	**-0.0035**	-0.013	-0.655	**-0.0166**	0.027	1.333
4	**0.0012**	0.005	0.243	**-0.0154**	0.025	1.267
5	**0.0041**	0.015	0.848	**-0.0113**	0.025	1.235
[-1;0]				**-0.0045**	0.029	1.327

Key:			
	**** significant at 1% level	Cash:	n = 18
	*** significant at 5% level	Stock:	n = 14
	** significant at 10% level	Mixed:	n = 14
	* significant at 20% level		

Figure 37: AR and CAR-values for sample "bad" investment opportunities (calculation based on MM)





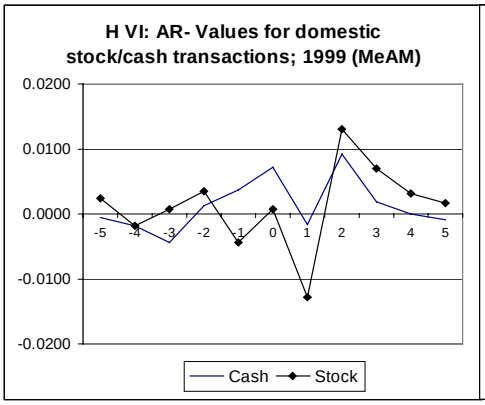
g	AR	t-Values (A)	t-Values (B)	CAR	t-Values (A)	t-Values (B)
-5	**0.0012**	0.006	0.369	**0.0012**	0.006	0.369
-4	**-0.0019**	-0.010	-0.558	**-0.0008**	0.008	0.473
-3	**0.0053**	0.026	1.035	**0.0045**	0.017	0.711
-2	**0.0005**	0.002	0.090	**0.0050**	0.014	0.617
-1	**0.0014**	0.007	0.328	**0.0064**	0.013	0.571
0	**0.0117**	0.059	1.655*	**0.0181**	0.027	0.853
1	**0.0071**	0.035	1.090	**0.0252**	0.028	0.891
2	**0.0049**	0.025	1.370	**0.0301**	0.028	0.964
3	**0.0042**	0.021	0.598	**0.0342**	0.027	0.931
4	**0.0017**	0.008	0.666	**0.0359**	0.026	0.908
5	**0.0044**	0.022	0.669	**0.0404**	0.025	0.889
[-1;0]				**0.0131**	0.042	1.193
Stock	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0028**	-0.007	-1.010	**-0.0028**	-0.007	-1.010
-4	**0.0125**	0.033	1.101	**0.0097**	0.024	1.056
-3	**0.0128**	0.034	1.710*	**0.0225**	0.028	1.311
-2	**0.0014**	0.004	0.501	**0.0239**	0.024	1.163
-1	**0.0037**	0.010	0.520	**0.0276**	0.022	1.066
0	**0.0131**	0.035	1.261	**0.0407**	0.025	1.101
1	**-0.0105**	-0.028	-0.864	**0.0302**	0.025	1.070
2	**0.0096**	0.025	1.012	**0.0398**	0.025	1.063
3	**-0.0045**	-0.012	-0.631	**0.0353**	0.024	1.024
4	**0.0019**	0.005	0.265	**0.0372**	0.023	0.975
5	**-0.0095**	-0.025	-0.650	**0.0278**	0.023	0.950
[-1;0]				**0.0168**	0.026	0.965
Mixed	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0003**	0.001	0.084	**0.0003**	0.001	0.084
-4	**0.0019**	0.007	0.608	**0.0022**	0.005	0.434
-3	**-0.0004**	-0.001	-0.157	**0.0018**	0.004	0.366
-2	**-0.0010**	-0.004	-0.369	**0.0008**	0.004	0.367
-1	**0.0005**	0.002	0.113	**0.0013**	0.004	0.332
0	**0.0056**	0.020	0.613	**0.0069**	0.009	0.393
1	**0.0038**	0.014	0.626	**0.0108**	0.010	0.434
2	**0.0030**	0.011	0.578	**0.0137**	0.010	0.455
3	**0.0041**	0.015	0.881	**0.0178**	0.011	0.520
4	**-0.0016**	-0.006	-0.433	**0.0162**	0.010	0.512
5	**0.0005**	0.002	0.295	**0.0167**	0.010	0.496
[-1;0]				**0.0061**	0.014	0.441

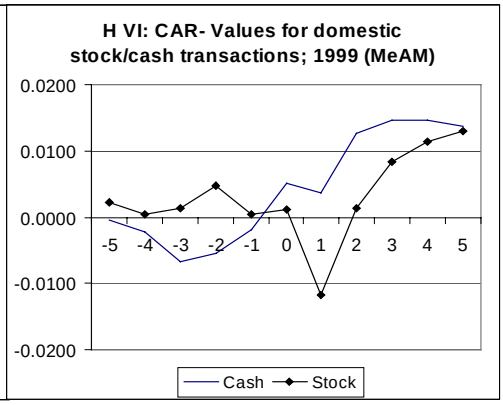
Key:	**** significant at 1% level	Cash:	n = 25
	*** significant at 5% level	Stock:	n = 7
	** significant at 10% level	Mixed:	n = 13
	* significant at 20% level		

Appendix F:

Results of Significance Tests for Hypothesis VI

Figure 38: AR and CAR-values for sample "domestic" transactions (calculation based on MeAM)

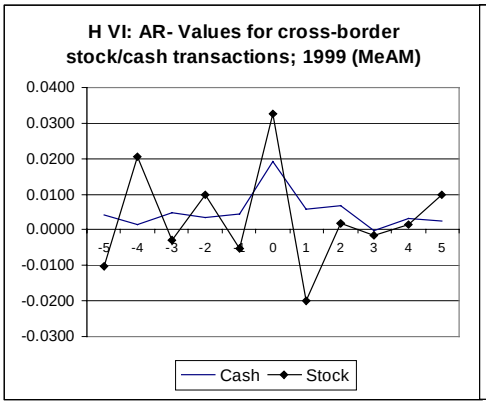


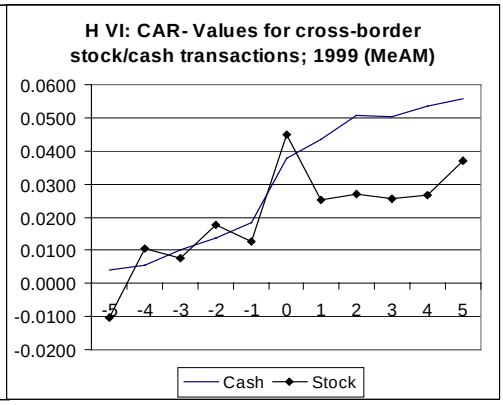


Cash	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0005**	-0.002	-0.125	**-0.0005**	-0.002	-0.125
-4	**-0.0018**	-0.007	-0.378	**-0.0023**	0.005	0.281
-3	**-0.0044**	-0.016	-1.479*	**-0.0067**	0.010	0.884
-2	**0.0012**	0.004	0.223	**-0.0055**	0.009	0.774
-1	**0.0036**	0.013	0.660	**-0.0019**	0.010	0.753
0	**0.0071**	0.027	0.790	**0.0052**	0.014	0.759
1	**-0.0016**	-0.006	-0.239	**0.0036**	0.013	0.708
2	**0.0091**	0.034	2.041**	**0.0127**	0.017	0.980
3	**0.0019**	0.007	0.203	**0.0146**	0.017	0.926
4	**0.0000**	0.000	0.013	**0.0146**	0.016	0.879
5	**-0.0009**	-0.003	-0.389	**0.0138**	0.015	0.846
[-1;0]				**0.0107**	0.021	0.728
Stock	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0023**	0.011	0.848	**0.0023**	0.011	0.848
-4	**-0.0018**	-0.005	-0.839	**0.0005**	0.008	0.844
-3	**0.0008**	0.011	0.594	**0.0013**	0.009	0.769
-2	**0.0035**	0.019	1.263	**0.0048**	0.012	0.918
-1	**-0.0044**	-0.015	-1.004	**0.0004**	0.013	0.936
0	**0.0007**	0.015	0.387	**0.0011**	0.013	0.869
1	**-0.0129**	-0.046	-1.442*	**-0.0118**	0.021	0.972
2	**0.0131**	0.041	2.183*	**0.0013**	0.025	1.192
3	**0.0070**	0.012	0.537	**0.0083**	0.024	1.138
4	**0.0031**	0.007	0.245	**0.0114**	0.022	1.083
5	**0.0017**	0.004	0.124	**0.0130**	0.021	1.033
[-1;0]				**-0.0037**	0.015	0.761
Mixed	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5						
-4						
-3						
-2						
-1						
0						
1						
2						
3						
4						
5						
[-1;0]						

Key:	**** significant at 1% level	Cash:	n = 14
	*** significant at 5% level	Stock:	n = 14
	** significant at 10% level	Mixed:	n = 24 (excluded)
	* significant at 20% level		

Figure 39: AR and CAR-values for sample "cross-border" transactions (calculation based on MeAM)

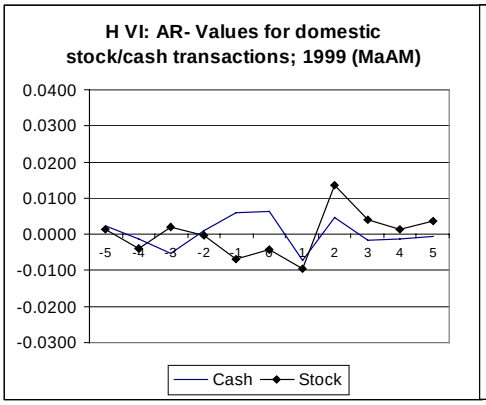


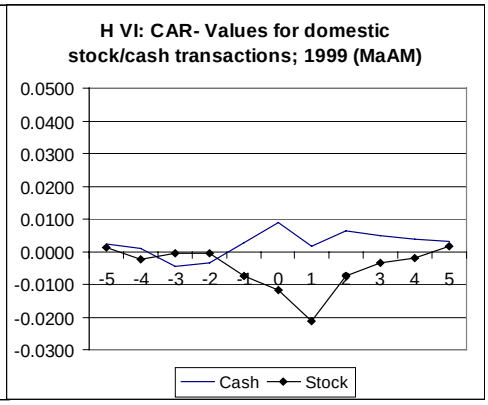


Cash	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0040**	0.021	1.375*	**0.0040**	0.021	1.375*
-4	**0.0014**	0.008	0.400	**0.0054**	0.016	1.013
-3	**0.0047**	0.025	1.052	**0.0101**	0.020	1.026
-2	**0.0035**	0.019	0.658	**0.0136**	0.020	0.948
-1	**0.0046**	0.025	0.961	**0.0183**	0.021	0.950
0	**0.0194**	0.105	1.943**	**0.0377**	0.047	1.176
1	**0.0058**	0.031	1.035	**0.0435**	0.045	1.157
2	**0.0070**	0.038	1.474*	**0.0505**	0.044	1.201
3	**-0.0003**	-0.001	-0.058	**0.0502**	0.042	1.132
4	**0.0032**	0.017	1.202	**0.0534**	0.040	1.139
5	**0.0024**	0.013	0.392	**0.0558**	0.038	1.093
[-1;0]				**0.0241**	0.076	1.533*
Stock	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0102**	-0.031	-1.672*	**-0.0102**	-0.031	-1.672*
-4	**0.0207**	0.062	1.693*	**0.0105**	0.049	1.683*
-3	**-0.0029**	-0.009	-0.273	**0.0076**	0.040	1.383
-2	**0.0100**	0.030	1.346	**0.0176**	0.038	1.374
-1	**-0.0051**	-0.015	-0.492	**0.0125**	0.035	1.248
0	**0.0325**	0.098	1.165	**0.0450**	0.051	1.235
1	**-0.0198**	-0.060	-1.057	**0.0252**	0.052	1.211
2	**0.0019**	0.006	0.166	**0.0271**	0.049	1.134
3	**-0.0016**	-0.005	-0.234	**0.0255**	0.046	1.072
4	**0.0014**	0.004	0.154	**0.0268**	0.044	1.018
5	**0.0100**	0.030	2.084**	**0.0369**	0.043	1.157
[-1;0]				**0.0275**	0.070	0.894
Mixed	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5						
-4						
-3						
-2						
-1						
0						
1						
2						
3						
4						
5						
[-1;0]						

Key:			
	**** significant at 1% level	Cash:	n = 29
	*** significant at 5% level	Stock:	n = 9
	** significant at 10% level	Mixed:	n = 3 (excluded)
	* significant at 20% level		

Figure 40: AR and CAR-values for sample "domestic" transactions (calculation based on MaAM)

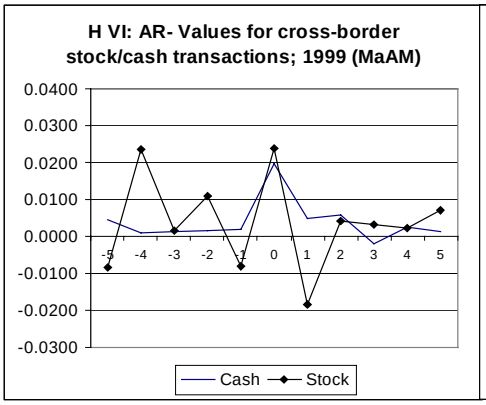


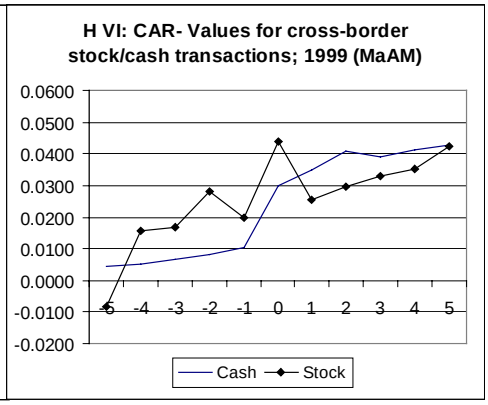


Cash	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0023**	0.009	0.481	**0.0023**	0.009	0.481
-4	**-0.0014**	-0.005	-0.316	**0.0008**	0.007	0.407
-3	**-0.0052**	-0.020	-1.538*	**-0.0044**	0.013	0.948
-2	**0.0010**	0.004	0.175	**-0.0034**	0.011	0.826
-1	**0.0060**	0.023	1.264	**0.0026**	0.014	0.930
0	**0.0062**	0.023	0.680	**0.0088**	0.016	0.893
1	**-0.0072**	-0.027	-0.898	**0.0016**	0.018	0.894
2	**0.0048**	0.018	0.989	**0.0064**	0.018	0.906
3	**-0.0015**	-0.006	-0.156	**0.0049**	0.017	0.856
4	**-0.0012**	-0.005	-0.429	**0.0037**	0.016	0.823
5	**-0.0007**	-0.003	-0.268	**0.0030**	0.016	0.789
[-1;0]				**0.0122**	0.023	1.015
Stock	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0013**	0.003	0.210	**0.0013**	0.003	0.210
-4	**-0.0038**	-0.014	-1.266	**-0.0025**	0.010	0.908
-3	**0.0021**	0.018	0.864	**-0.0004**	0.013	0.893
-2	**-0.0002**	0.002	0.134	**-0.0006**	0.011	0.777
-1	**-0.0070**	-0.026	-1.398*	**-0.0076**	0.016	0.935
0	**-0.0042**	-0.005	-0.116	**-0.0118**	0.014	0.855
1	**-0.0094**	-0.029	-1.160	**-0.0212**	0.017	0.904
2	**0.0137**	0.042	1.763*	**-0.0075**	0.022	1.051
3	**0.0039**	0.001	0.058	**-0.0036**	0.021	0.991
4	**0.0015**	0.000	0.013	**-0.0021**	0.020	0.940
5	**0.0038**	0.010	0.302	**0.0017**	0.019	0.901
[-1;0]				**-0.0112**	0.019	0.992
Mixed	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5						
-4						
-3						
-2						
-1						
0						
1						
2						
3						
4						
5						
[-1;0]						

Key:	**** significant at 1% level	Cash:	n = 14
	*** significant at 5% level	Stock:	n = 14
	** significant at 10% level	Mixed:	n = 24 (excluded)
	* significant at 20% level		

Figure 41: AR and CAR-values for sample "cross-border" transactions (calculation based on MaAM)

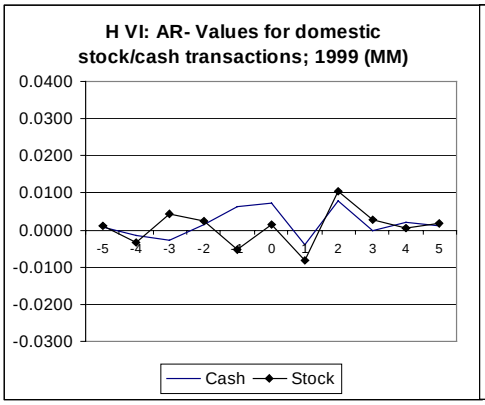


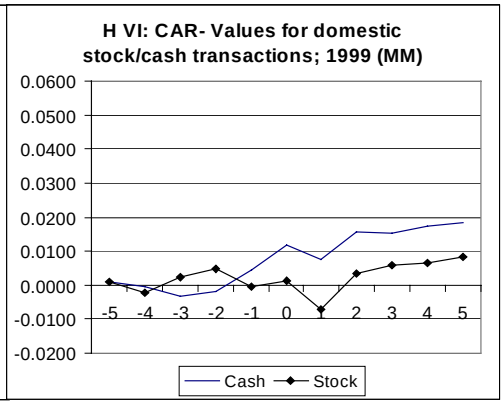


Cash	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0044**	0.024	1.375*	**0.0044**	0.024	1.375*
-4	**0.0009**	0.005	0.276	**0.0053**	0.017	1.054
-3	**0.0014**	0.007	0.277	**0.0066**	0.015	0.875
-2	**0.0017**	0.009	0.309	**0.0083**	0.013	0.774
-1	**0.0020**	0.011	0.480	**0.0104**	0.013	0.725
0	**0.0196**	0.106	1.943**	**0.0300**	0.045	1.009
1	**0.0049**	0.026	0.896	**0.0349**	0.043	0.994
2	**0.0059**	0.032	1.474*	**0.0407**	0.041	1.051
3	**-0.0019**	-0.010	-0.388	**0.0389**	0.039	1.000
4	**0.0026**	0.014	0.863	**0.0414**	0.037	0.987
5	**0.0013**	0.007	0.234	**0.0427**	0.036	0.943
[-1;0]				**0.0216**	0.075	1.533*
Stock	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0083**	-0.025	-1.672*	**-0.0083**	-0.025	-1.672*
-4	**0.0237**	0.071	1.693*	**0.0155**	0.053	1.683*
-3	**0.0015**	0.004	0.182	**0.0169**	0.044	1.415
-2	**0.0110**	0.033	1.202	**0.0279**	0.041	1.365
-1	**-0.0082**	-0.025	-0.819	**0.0197**	0.038	1.275
0	**0.0240**	0.072	0.887	**0.0437**	0.046	1.219
1	**-0.0183**	-0.055	-1.050	**0.0254**	0.047	1.196
2	**0.0043**	0.013	0.333	**0.0297**	0.044	1.125
3	**0.0031**	0.009	0.544	**0.0328**	0.042	1.076
4	**0.0024**	0.007	0.346	**0.0352**	0.040	1.027
5	**0.0072**	0.022	2.084**	**0.0424**	0.039	1.063
[-1;0]				**0.0158**	0.054	0.853
Mixed	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5						
-4						
-3						
-2						
-1						
0						
1						
2						
3						
4						
5						
[-1;0]						

Key:			
	**** significant at 1% level	Cash:	n = 29
	*** significant at 5% level	Stock:	n = 9
	** significant at 10% level	Mixed:	n = 3 (excluded)
	* significant at 20% level		

Figure 42: AR and CAR-values for sample "domestic" transactions (calculation based on MM)

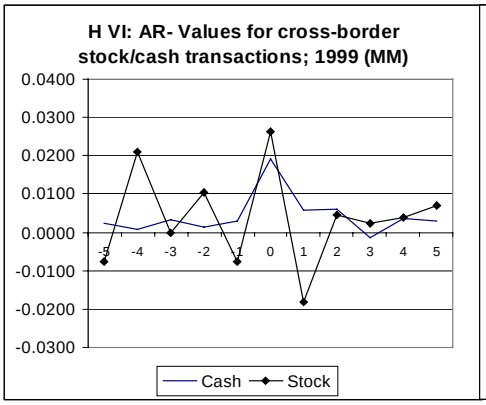


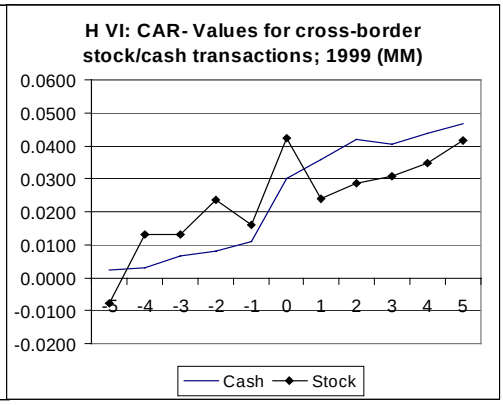


Cash	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0008**	0.003	0.192	**0.0008**	0.003	0.192
-4	**-0.0013**	-0.005	-0.280	**-0.0005**	0.004	0.240
-3	**-0.0027**	-0.010	-1.069	**-0.0033**	0.007	0.647
-2	**0.0014**	0.005	0.271	**-0.0019**	0.006	0.577
-1	**0.0063**	0.024	1.290	**0.0044**	0.012	0.774
0	**0.0073**	0.027	0.808	**0.0118**	0.016	0.780
1	**-0.0041**	-0.016	-0.555	**0.0076**	0.016	0.752
2	**0.0079**	0.030	1.756*	**0.0155**	0.018	0.938
3	**-0.0002**	-0.001	-0.020	**0.0153**	0.017	0.884
4	**0.0021**	0.008	1.007	**0.0174**	0.016	0.897
5	**0.0012**	0.005	0.445	**0.0186**	0.016	0.866
[-1;0]				**0.0136**	0.026	1.076
Stock	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0011**	0.004	0.350	**0.0011**	0.004	0.350
-4	**-0.0032**	-0.012	-1.467*	**-0.0021**	0.009	1.067
-3	**0.0044**	0.016	0.812	**0.0023**	0.012	0.989
-2	**0.0025**	0.009	0.628	**0.0048**	0.011	0.912
-1	**-0.0053**	-0.020	-1.304	**-0.0005**	0.013	1.003
0	**0.0016**	0.006	0.158	**0.0012**	0.013	0.918
1	**-0.0081**	-0.031	-1.131	**-0.0070**	0.016	0.951
2	**0.0103**	0.039	1.965*	**0.0033**	0.021	1.129
3	**0.0026**	0.010	0.474	**0.0060**	0.020	1.076
4	**0.0006**	0.002	0.082	**0.0066**	0.019	1.021
5	**0.0019**	0.007	0.215	**0.0084**	0.018	0.976
[-1;0]				**-0.0036**	0.015	0.929
Mixed	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5						
-4						
-3						
-2						
-1						
0						
1						
2						
3						
4						
5						
[-1;0]						

Key:	**** significant at 1% level	Cash:	n = 14
	*** significant at 5% level	Stock:	n = 14
	** significant at 10% level	Mixed:	n = 24 (excluded)
	* significant at 20% level		

Figure 43: AR and CAR-values for sample "cross-border" transactions (calculation based on MM)





Cash	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**0.0024**	0.013	0.930	**0.0024**	0.013	0.930
-4	**0.0007**	0.004	0.219	**0.0032**	0.010	0.675
-3	**0.0033**	0.018	0.708	**0.0065**	0.013	0.687
-2	**0.0015**	0.008	0.278	**0.0080**	0.012	0.611
-1	**0.0030**	0.016	0.658	**0.0109**	0.013	0.620
0	**0.0193**	0.104	1.868**	**0.0302**	0.044	0.950
1	**0.0057**	0.031	1.046	**0.0359**	0.042	0.964
2	**0.0061**	0.033	1.401*	**0.0420**	0.041	1.029
3	**-0.0015**	-0.008	-0.313	**0.0405**	0.039	0.976
4	**0.0035**	0.019	1.307	**0.0439**	0.038	1.014
5	**0.0029**	0.016	0.493	**0.0468**	0.036	0.978
[-1;0]				**0.0223**	0.074	1.400*
Stock	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5	**-0.0077**	-0.023	-1.362	**-0.0077**	-0.023	-1.362
-4	**0.0209**	0.063	1.661*	**0.0132**	0.047	1.519*
-3	**0.0000**	0.000	-0.003	**0.0132**	0.039	1.240
-2	**0.0105**	0.032	1.126	**0.0237**	0.037	1.212
-1	**-0.0077**	-0.023	-0.804	**0.0160**	0.035	1.142
0	**0.0262**	0.079	0.981	**0.0422**	0.045	1.117
1	**-0.0181**	-0.054	-1.010	**0.0241**	0.047	1.102
2	**0.0045**	0.013	0.374	**0.0286**	0.044	1.040
3	**0.0023**	0.007	0.366	**0.0309**	0.041	0.988
4	**0.0038**	0.012	0.655	**0.0347**	0.039	0.960
5	**0.0070**	0.021	1.286	**0.0417**	0.038	0.994
[-1;0]				**0.0185**	0.058	0.897
Mixed	**AR**	t-Values (A)	t-Values (B)	**CAR**	t-Values (A)	t-Values (B)
-5						
-4						
-3						
-2						
-1						
0						
1						
2						
3						
4						
5						
[-1;0]						

Key:	**** significant at 1% level	Cash:	n = 29
	*** significant at 5% level	Stock:	n = 9
	** significant at 10% level	Mixed:	n = 3 (excluded)
	* significant at 20% level		