TAKEOVER DEFENSES, OWNERSHIP STRUCTURE AND STOCK RETURNS IN THE NETHERLANDS: AN EMPIRICAL ANALYSIS

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This study empirically examines the relationships between a firm's takeover defenses and its ownership structure and stock returns. Analyzing data of Dutch listed companies, we find that multiple antitakeover defenses are increasingly adopted when firms are characterized by relatively lower ownership concentration. The evidence supports the hypothesis that more concentrated ownership of shares provides more effective monitoring of managers. As defense by issuing preferred share has recently been the most widely adopted mechanism in the Netherlands, its impact on shareholders' wealth is also analyzed. We observe the presence of two opposing effects of this antitakeover measure. © 1997 by John Wiley & Sons, Ltd.

INTRODUCTION

Hostile takeover bids are rare in the Netherlands, and were successful, at most, on a few occasions. The reason is that stock exchange listed companies are protected by multiple takeover defenses. Around the turn of the twentieth century, defense mechanisms started to be used to protect Dutch corporations from foreign influences. Later on, they were applied to restrict the power of common shareholders. The use of defense measures to repel corporate raids and unfriendly takeovers has become more important since the 1960s, and has received both criticism and support from various interest groups. Public corporations have been devoting time and resources toward developing diverse tactics to defend against unfriendly takeovers. As a result, the external market for corporate control plays a diminished disciplinary role in the Netherlands. An issue deserving investigation is under what circumstances this disciplinary mechanism becomes ineffective. To address this issue, we investigate vir-

tually the whole population of Dutch listed industrial companies which have adopted multiple defense mechanisms.

The issue of corporate governance is also interesting in an international setting because it differs from country to country. For example, there is an active takeover market in the U.S.A. and the U.K., but this is not so in many other countries. There, as for example, shareholders are considered to be one group of stakeholders in a firm next to employees, suppliers and customers. The equity ownership is also concentrated in the hands of a few investors. Although the pattern of cross-shareholdings in German and Japanese companies may look similar, the governance structures are quite dissimilar. German firms have close relationships with banks which supply both equity capital and debt. In contrast, Japanese firms are characterized by large industrial groups with interlocking directorships. Hostile takeovers are virtually nonexistent in Germany and the Netherlands, but due to two different reasons. Extensive cross-shareholdings provide German companies with a strong defense, while Dutch companies are protected by multiple antitakeover devices. These and other differences imply that the influence of various disciplinary mechanisms will vary

Key words: corporate governance; ownership structure; takeover defense

from country to country. The takeover market is a relatively more important disciplinary mechanism in the U.S.A. and the U.K. But, for Germany and the Netherlands, concentrated ownership and supervisory boards exert a relatively more important role. Various antitakeover measures are adopted in the U.S.A. to protect the interests of shareholders during takeover bids. But, in the Netherlands these measures are primarily directed to limit the power of common shareholders.

A vast literature addresses the interrelationship between ownership structure and different corporate governance devices. Walsh and Seward (1990) examine different internal and external mechanisms of corporate control used in aligning the diverse interests of managers and shareholders. Important internal control mechanisms include the control function of the board of directors, competition within the managerial team, and the monitoring role of large shareholders. The external control mechanisms, on the other hand, are the market for corporate control and the competition in the product market. Walsh and Seward (1990) argue that the failure of one control mechanism triggers the presence of another mechanism. Studies by Jarrell and Poulsen (1987), Ambrose and Megginson (1992), and Gordon and Pound (1993) also suggest that differences in firms' ownership structure (internal control aspect) can explain observed variations in antitakeover defenses (external control aspect). The notion can be illustrated in the following way.

Shareholders with large stakes are expected to participate actively in managerial decision making (Demsetz, 1983; Shleifer and Vishny, 1986). They will not in their own interest allow managers to adopt defensive measures, as disciplining will be more difficult. The same is true for large but passive shareholders who will also try to resist any attempt by managers to adopt defenses. This is because any future possibility of gain through facilitating a third-party takeover will then be reduced. Shareholders with small holdings, on the other hand, may not take an active interest in monitoring management, perhaps because of the 'free-rider' problem. Defense measures are then relatively easily adopted by managers because there are no large shareholders to counteract management's attempt. The purpose of the study is, therefore, to test empirically this theoretically predicted relationship between firms'

ownership concentration and takeover defense measures.¹

Incentives as well as the degree of monitoring can vary depending on the stakes and the types of shareholders. One may be interested to know how institutional shareholders, as a separate group, affect corporate decision making. These investors—usually banks, insurance companies, pension funds and mutual funds—are expected to play a more active role in the affairs of a company. They are in a better position to invest resources for increased monitoring so that management's inclination to adopt defense mechanisms decreases. On the other hand, some institutional investors may align with management because of commercial ties and profitable business opportunities. The role actually played by institutional shareholders, therefore, becomes an empirical issue.²

Although it has been argued that large shareholders who are effective monitors will prevent managers from adopting defensive measures, one can not be sure if shareholders in general are harmed by such adoptions. In fact, adoption of takeover defenses is usually explained under two competing hypotheses (DeAngelo and Rice, 1983; Mahoney and Mahoney, 1993). According to the managerial entrenchment hypothesis, defense measures primarily protect poorly functioning management by reducing the probability of potential takeover. These measures help incumbent management to abuse their power by acting in their own interest at the expense of shareholders. On the other hand, the shareholder interest hypothesis postulates that adoption of defense measures allows current management to focus on long-term strategies of the firm while remaining protected from the worry of hostile takeovers. Through a strong negotiating position, managers can also help shareholders to obtain a fairer/higher premium if a takeover does take place.

Empirical studies from the U.S.A. document

¹ Although several studies have examined empirically the relationship between equity ownership and firm value (e.g., McConnell and Servaes, 1990; Slovin and Sushka, 1993), limited attention has been given to explore ownership concentration vis-à-vis multiple defense measures.

² Empirical evidence on the mixed role of institutional shareholders can be observed from different studies, such as Agrawal and Mandelker (1990), Bhagat and Jefferis (1991), Brickley, Lease, and Smith (1988), Duggal and Millar (1994), Pound (1988), Shivdasani (1993) and Van Nuy (1993).

that while some defense mechanisms are harmful for shareholders, others are not.³ This study, therefore, reexamines the valuation impact of defense measures, using the Dutch data. If shareholders of Dutch companies interpret the adoption of defense measures as managerial entrenchment, stock prices should decline. Alternatively, if these measures allow management to bargain for a higher takeover premium, share prices should increase.

The wealth effect of defense measures needs to be examined in conjunction with the ownership structure of firms. Jarrell and Poulsen (1987) document that value-reducing takeover defenses are adopted by firms with larger insider holdings and smaller institutional holdings. McWilliams (1990) finds that defense measures induce positive effects on shareholder wealth for firms with low insider share ownership. Agrawal and Mandelker (1990) report that the effect is more favorable the larger the level of institutional ownership. Song and Walkling (1993) find that managerial ownership is related both to the probability of being a takeover target and to increments in target shareholder returns. Given these findings, we examine if the shareholders wealth effect of takeover defenses is related to ownership structure.

The remainder of the paper is organized as follows. Important takeover defense measures are first discussed with particular emphasis on those prevailing in the Netherlands. The following two sections describe the sample and the methodology. The results are presented in the next section. A brief summary of the study and the research implications are presented in the final section.

TAKEOVER DEFENSE MEASURES

Takeover defense measures help to make acquisition of a company more difficult, if not impossible, and thereby serve to insulate managers from the free market for corporate control. These measures vary from country to country depending on institutional features and corporate governance

systems (Franks and Mayer, 1990). Moerland (1995) distinguishes two basic types of corporate systems: the market-oriented system (prevailing in the U.S.A. and the U.K.) and the network-oriented system (prevailing in, for example, the Netherlands, Germany, France and Japan). The former is characterized by relatively developed financial markets, large-scale presence of corporations with widely dispersed ownership, and active markets for corporate control. The latter system, on the other hand, features closely held corporations, group membership of corporations, and substantial involvement of banks in corporate financing and corporate control. These differences in governance systems are also reflected in differences in adoption of specific defense devices.

There exist a variety of ways to classify takeover defenses. These can be either structural or technical. The first type arises from prevailing structures of stock market and equity ownership (e.g., relative importance of debt financing, cross-holdings). The second type of defenses are specifically directed to impede hostile takeover attempts (e.g., issuing preferred defense shares, limiting voting power). According to one study,⁴ structural barriers to takeovers are relatively strong in Italy, France, Germany and Switzerland, and of medium strength in Spain and Sweden, but weak in the Netherlands and the U.K. Technical measures, on the other hand, are relatively strong in the Netherlands, Germany and Switzerland, of medium strength in Italy, France, Spain and Sweden, and weak in the U.K.

Defense mechanisms are also classified according to shareholders' approval (Ruback, 1988). Some defenses require shareholders' approval before adoption. These include super-majority provisions, fair-price amendments and classified boards. Other measures may be adopted by management without requiring shareholders' approval. Examples include poison pills and targeted share repurchases.

The Dutch situation offers companies numerous possibilities of defense mechanisms, many of which do not exist in the U.S.A. These include (a) legal measures such as the creation of structure companies ('structuur vennootschappen'); (b) statutory measures such as issuing preferred

³ DeAngelo and Rice (1983) and Jarrell and Poulsen (1987) find an insignificant price effect; Linn and McConnell (1983) find a weak positive effect; and Jarrell and Poulsen (1988), Mahoney and Mahoney (1993), Malatesta and Walkling (1988) and Ryngaert (1988) find a significant negative share price effect.

⁴ Effect of 'Bangeman Proposal' on Barriers to Takeovers in the European Community, Coopers & Lybrand Management Consultants, Amsterdam, 1990.

defense shares, issuing priority shares, making binding appointments of directors and limiting voting power per shareholder; and (c) nonstatutory measures such as the issue of depository receipts of shares ('certificaten van aandelen'). Some important features of these antitakeover devices are explained below.

The law on 'structure companies' compels a large firm to establish a 'supervisory board' (consisting of outsiders and different interest group representatives). This board (thus, not the shareholders of the company) in turn appoints a 'management board' to run day-to-day affairs of the firm. Many decisions of the 'management board', such as adoption of annual accounts, investment plans and company restructuring, require approval of the 'supervisory board', which meets on a few occasions per year. Priority shares are issued to a friendly foundation which reserves the right to approve any amendment of a company's charter. Therefore, the power of the general meeting of common shareholders is restricted. The approval of priority shareholders is also needed for decisions such as hiring or firing of company directors and issuing new common shares. Depository receipts are issued by an administrative office to investors after detaching the voting rights from ordinary shares. The holder of depository receipts has all economic rights attached to common shares, except for the voting right (which rests with the administrative office). Binding appointments of new directors are made by the management board, thereby strengthening their own control. Ordinary shareholders are, thus, deprived of the possibility to appoint their own directors. Only a two-third majority at the shareholders meeting can overrule the binding appointment. Limited voting power mechanism restricts the maximum number of votes that can be cast by one shareholder, regardless of the number of shares actually held.

Besides the above-mentioned takeover defenses, the issue of preferred defense shares is the most widely adopted defense mechanism in the Netherlands. These shares are issued in the name of the holder (usually friendly parties) because of their *control* function, with only the statutory minimum of 25 percent of par value to be paid up. Even though they are not fully paid up, preferred shares have the same voting rights as common shares. In order to resist any unfriendly takeover attempt, common stockholders authorize

company management to issue preferred shares whenever necessary and thus, grant substantial voting power to another entity.

The procedure of defense with preferred shares takes place in three consecutive steps. First, common shareholders approve the necessary charter amendment to *create* the possibility of issuing preferred shares. Second, company management *grants* the option to a friendly party—usually a specially created foundation and/or an institutional investor. Third, management decides to *issue* preferred share. This usually happens when there is a fear of unfriendly takeover attempt. These three steps follow one after another, but do not necessarily take place simultaneously. A company may create the possibility to issue preferred defense shares at a certain point of time, while the shares are actually issued several years later (depending on any threat of hostile takeover).

DATA

Inspired by the European Community initiative, shareholders with holdings of 5 percent or more in Dutch listed companies have been required to disclose their holdings publicly since February 1992. Before that, there was no mandatory disclosure of share ownership, and no way existed even to identify shareholders.⁵ The data on blockholdings are collected from the Dutch financial daily *Het Financieele Dagblad*. In total, we obtained a sample of 177 companies listed on the Amsterdam Stock Exchange. These companies represent more than 90 percent of the Dutch stock market capitalization. Data on takeover defense measures associated with these companies are collected from Voogd (1989) and other publications. Our findings are presented in Tables 1 and 2.

Table 1 shows that more than 90 percent of Dutch companies are protected by at least one defense measure. We find that while only 16 (9%) companies are without any of these defenses, 52 (29%) companies have one defense mechanism, 62 (35%) firms have two defense mechanisms, and as many as 47 (27%) firms are protected by three or more defense devices.

⁵ Public corporations in the Netherlands issue predominantly bearer shares.

Table 1. Number of takeover defenses adopted by Dutch companies

No. of measures	No. of firms	%
0	16	9.1
1	52	29.4
2	62	35.0
3	39	22.0
4	8	4.5
Total	177	100

Table 2. Distribution of different takeover defenses

	Official market ^a	Parallel market ^a	Total
Total number of firms:	141	36	177
Priority shares	63	16	79
Preferred shares	89	16	105
Binding appointment	49	15	64
Limited voting power	7	0	7
Depository receipts	41	19	70

^aThe official market is the first-tier market for larger companies, while the parallel market is for smaller companies.

Table 2 presents a list of widely used antitakeover measures in the Netherlands. We find that 105 (32%) firms have adopted defense mechanism with preferred shares, 79 (24%) firms have issued priority shares, 70 (22%) companies have issued depository receipts, 64 (20%) firms have made binding appointments of directors, and seven (2%) companies have imposed restrictions on voting rights.

After searching sources like the stock exchange publication *Beursplein 5* and the financial daily *Het Financieele Dagblad*, we find that 79 new defense mechanisms were announced by Dutch companies during 1984–90. Defense with preferred share was the most frequently announced mechanism—on 52 occasions, which represents 66% of the total. The next most important antitakeover devices were the issues of priority shares and depository receipts. Both were adopted on seven occasions each. No new defense measure was announced during 1991–92 because of restrictions imposed by the Amsterdam Stock Exchange. Many companies accelerated the adoption of new antitakeover devices before the restriction took effect.

Out of the 52 announcements of defense with preferred shares during 1984–90, we select a sample of 47 to analyze shareholder wealth effect.⁶ The sample is further divided into three groups based on the announcement of three steps followed during the issuing process. The statutory possibility to defend with preferred shares was created for the first time during 1984–90 by 17 companies. During the same period, the announcement of granting an option allowing friendly parties to own preferred shares was made by 12 companies (these 12 companies have taken the first step either during 1984–90 or earlier). Finally, during the period of our investigation, there were 18 companies which actually announced the issue of preferred shares.

We collect daily share price data from Datastream. These are adjusted for stock splits and other capital changes. We also adjust for cash dividends and then compute continuously compounded stock returns for the analysis.

METHODOLOGY

We first divide the aggregate sample into groups with cumulative takeover defense measures, and then determine the average ownership concentration for each group. We calculate ownership concentration of a firm in several ways: the percentage of shares held by the largest blockholder⁷ (C_1), the share of the three largest blockholders (C_3), and the share of all blockholders (C_{block}). We also separately calculate a concentration measure ($C_{\text{inst.}}$) to represent institutional ownership (estimated by blockholdings held by major Dutch banks and insurance companies). On the basis of a t -test we then find out whether average ownership concentration significantly varies among groups of companies with different takeover defenses.

The above analysis is performed by comparing two sample averages at a time. In order to examine the effect of firms' ownership structure on the likelihood of adopting *individual* takeover

⁶ We could not find a definitive announcement date for two companies; three companies were closely involved in a merger or takeover.

⁷ Blockholders are owners of 5 percent or more of the outstanding equity.

defense, we estimate the following logistic regression:⁸

$$p(\text{defense measure}) = f(\text{ownership concentration})$$

Here the dependent variable is equal to 1 if a firm has a particular defense measure and 0 otherwise. Several new proxies are used to calculate ownership concentration. In addition to the four concentration measures defined earlier, we use the logarithmic transformation of these variables as well as the Herfindahl measure of concentration in the regression analysis.⁹

To examine whether shareholders experience any change in their wealth when new takeover defense measures are announced, we follow the conventional event study methodology. This methodology has been widely used in the financial economics literature (e.g., DeAngelo and Rice, 1983; Linn and McConnell, 1983). Recently, it has also become popular in the strategic management literature (e.g., Mahoney and Mahoney, 1993). The purpose of this method is to estimate the deviation of actual stock returns (consequent upon the announcement of a specified event) from expected stock returns. We employ the Market Model and the Market Adjusted Returns Model to estimate these deviations for each stock.

The Market Model supposes that the return on an individual stock is linearly related to the market return. The relationship is written as follows:

$$R_{jt} = \alpha_j + \beta_j R_{mt} + e_{jt}$$

where

$$\begin{aligned} R_{jt} &= \text{the continuously compounded return of stock } j \text{ in period } t; \\ R_{mt} &= \text{the continuously compounded market return in period } t; \\ \alpha_j, \beta_j &= \text{security specific and time independent parameters;} \end{aligned}$$

e_{jt} = the error term of stock j in period t .

The period to estimate the Market Model parameters is selected as the period of 100 days before the start of the event (or announcement) period. We also estimate the parameters using 100 days of data from the postevent period. A period of 20 days before the announcement until 20 days after the announcement is selected as the event period. The impact of takeover defense announcements on stock returns is measured over this period. The parameters are estimated by using the ordinary least squares method. We use the 'CBS-Total Return Index' to calculate the market returns used in the model.¹⁰ The abnormal return (also called excess return or prediction error) is the difference between the actual return during the event period ($-20, +20$) and the return predicted from the estimation period:

$$AR_{jt} = R_{jt} - \hat{\alpha}_j - \hat{\beta}_j R_{mt}$$

The abnormal returns for individual stocks are then averaged across all stocks to obtain average abnormal returns for each day. The excess returns for each stock are also compounded over different time intervals around announcement date to calculate cumulative abnormal returns. A t -test is performed to test whether the average abnormal returns are significantly different from zero. The t -value is obtained by dividing average daily abnormal returns by its standard deviation calculated from the estimation period.

In order to check the robustness of our results, we also perform the stock return analysis using the Market Adjusted Returns Model. The model predicts individual stock return to be equal to the corresponding market return, or in other words,

$$R_{jt} = R_{mt}$$

This model is distinct from the Market Model in the sense that here all stocks are assumed to be of average risk. The abnormal returns are calculated as the difference between the actual stock return and the corresponding market return:

⁸ The logistic analysis is chosen here because the dependent variable is a binary, qualitative variable.

⁹ As the variable C_{block} combines both institutional and blockholders' shares, we have constructed another variable which estimates the share of all blockholders other than those held by institutional blockholders. The Herfindahl measure was calculated by summing squared percentage of shares owned by each blockholder.

¹⁰ The CBS-Total Return Index is a value-weighted index representing all listed stocks. It is the only market index available in the Netherlands which covers all listed companies. In addition, the index is adjusted for cash dividends.

Table 3. Means, medians, standard deviations, and correlations

Variables	Mean	Median	S.D.	C_1	C_3	C_5	C_{block}	$C_{\text{inst.}}$
C_1	30.8	25.5	1.68	1				
C_3	45.1	42.5	24.9	0.89	1			
C_5	49.2	49.8	25.8	0.81	0.97	1		
C_{block}	50.9	55.1	26.5	0.75	0.93	0.98	1	
$C_{\text{inst.}}$	9.9	6.0	12.5	-0.16	-0.02	0.06	0.08	1

The table reports the results of different ownership concentration variables: C_1 , C_3 , C_5 , C_{block} and $C_{\text{inst.}}$ represent the percentage of shares held by the largest blockholder, the three largest blockholders, the five largest blockholders, all blockholders, and institutional blockholders, respectively. The sample consists of 177 industrial companies listed on the Amsterdam Stock Exchange in 1992.

$$AR_{jt} = R_{jt} - R_{mt}$$

The average abnormal returns and cumulative average abnormal returns are then computed as described previously.

EMPIRICAL RESULTS

Ownership structure

A descriptive analysis on Dutch ownership structure is presented in Table 3. We find that blockholders hold more than half of all shares in Dutch companies. The average share of the largest blockholder is 31 percent, that of the three largest blockholders is 45 percent, and the average share of all blockholders together is 51 percent. It appears that the group with the three largest shareholders dominates ownership concentration of Dutch firms. The correlations between these variables are, as expected, very high. Our results show that ownership concentration in the Netherlands is higher than in the U.S.A., the U.K. and Japan, but lower than in Sweden.¹¹ The variation within each measure of ownership concentration is also higher in the Netherlands. The standard deviation of percentage of shares held by the top five blockholders in our sample is 26 percent compared with Prowse's (1995) findings of 16 percent in the U.S.A. and the U.K. and 14 percent in Japan.

Analyzing the distribution of shareholdings, we

find that the largest shareholder has more than 25 percent of shares in 52 percent of the firms in the sample, and more than 50 percent of shares in 22 percent of the firms. A majority of the companies has a blockholding in excess of 50 percent. After searching the identity of these blockholders, we find that the average shares of management and family members, companies, and individual blockholders are 8 percent, 20 percent and 5 percent, respectively. The average share of financial institutions (banks and insurance companies) in our sample is almost 10 percent. The combined share of these investors is less than 25 percent for 90 percent of the companies. The sample contains 18 companies in which banks and insurance companies are the only blockholders. The average share of other institutional blockholders is 6 percent.

In Table 4 we present the average ownership concentrations of companies with cumulative defense mechanisms. We also report in the lower panel corresponding t -values testing the difference in average ownership concentrations. Our results show that the concentration of the largest shareholder for firms without any defense measure is almost 13 percentage points higher than that for firms with only one measure. Similarly, for companies with one takeover defense device, the concentration of the largest shareholder is 11 percentage points higher than that for firms with two devices. Both differences in concentration are statistically significant. In general, we find that the lower the ownership concentrations are, the more takeover defenses companies adopt. This phenomenon is valid for all three measures of ownership concentration. Our evidence is consistent with Bergström and Rydqvist (1990), who observe that Swedish firms with high concen-

¹¹ Prowse (1995) reports average ownership concentration of the five largest shareholders to be 25 percent in the U.S.A., 21 percent in the U.K. and 33 percent in Japan. According to Bergström and Rydqvist (1990), the average ownership concentration of the largest shareholder in Sweden is 43 percent.

Table 4. The difference in ownership concentration of firms with cumulative takeover defenses

No. of defenses	No. of firms	Measures of concentration			
		C_1	C_3	C_{block}	$C_{\text{inst.}}$
0	16	48.51	65.21	73.08	7.83
1	52	35.88	53.01	59.78	12.16
2	62	24.99	37.59	41.48	9.36
3	39	28.99	42.24	49.93	9.01
4	8	20.33	27.04	29.99	7.45
$t(0, 1)$		2.00**	1.91*	2.17**	-1.27
$t(1, 2)$		2.78**	3.46**	3.92**	1.11
$t(2, 3)$		-0.78	-0.96	-1.59	0.13
$t(3, 4)$		0.95	1.72*	2.02**	0.35

**Statistically significant at the 5% level.

*Statistically significant at the 10% level.

The table reports results of four concentration variables— C_1 , C_3 , C_{block} and $C_{\text{inst.}}$ —representing the percentage of shares held by the largest blockholder, the three largest blockholders, all blockholders, and institutional blockholders, respectively. The t -statistic reported in the lower panel tests for the difference of means between two measures of ownership concentrations.

tration of equity ownership rarely adopt antitakeover devices. These findings suggest that firms adopt multiple takeover defenses when shareholdings are diffuse.

Table 4 also reports the results for institutional blockholders (banks and insurance companies). The concentration of these institutional shareholders does not show any particular relationship with multiple takeover defenses. The share of these investors in firms with one defense mechanism is five percentage points higher than in firms without any defense. Afterwards, as institutional ownership concentration declines, firms adopt a higher number of defenses. These differences are not statistically significant.

Next, we examine if the general finding on the negative relationship between ownership concentration and defense mechanisms also holds for *individual* takeover defenses. The analysis is carried out by performing a logit regression. The estimated regression coefficient expresses the relationship between the likelihood of choosing one particular defense mechanism and a measure of firms' ownership concentration. The results are presented in Table 5.¹² The reported coefficient estimates are obtained from running regressions with one explanatory variable at a time. We find

that the results are generally consistent with earlier findings. The probability of a firm adopting any one takeover defense mechanism is negatively related to ownership concentration. The finding is robust to all variables used in computing ownership concentration, including the logarithmic transformations of the Herfindahl measures. The results with institutional concentration variables alone are, however, once again mixed.

Wealth effects

The sample here consists of 44 new preferred defenses announced during 1984–90.¹³ Table 6 presents the cumulated average abnormal returns based on the Market Model for several intervals in the event period. The results from the aggregate sample indicate that the announcement of the preferred share defense mechanism is, on average, associated with a decline in common share price. During the 2-day announcement period $[0, 1]$, shareholders suffer a statistically significant return decline of 1.18 percent. The result is not driven by a few outliers as the number of negative abnormal returns dominates the sample. This is also found to be statistically significant at the 5 percent level after conducting

¹² Because of space limitation and qualitatively similar findings, the regression results of only a limited number of variables are presented.

¹³ Three measures could not be included in the sample because the market model parameters' estimation period coincided with the event period of a previous measure.

Table 5. Estimates of logistic regressions relating the likelihood of adopting a specific takeover defense mechanism to ownership concentration

Measures of concentration	Priority share		Preferred share		Depository receipts	
	Intercept	Coefficient	Intercept	Coefficient	Intercept	Coefficient
C_1	0.06 (0.24)	-0.01 (1.32)	0.94** (3.45)	-0.02** (2.54)	0.40 (1.47)	-0.03** (3.46)
C_3	0.30 (0.97)	-0.01* (1.87)	1.40** (3.99)	-0.02** (3.33)	0.50 (1.55)	0.02** (3.16)
C_{block}	0.31 (0.93)	-0.01* (1.78)	1.65** (4.26)	-0.02** (3.72)	0.37 (1.12)	-0.02** (2.67)
$C_{\text{inst.}}$	0.08 (0.41)	-0.03** (2.24)	0.23 (1.18)	0.01 (1.16)	-0.67** (3.34)	0.02* (1.95)
$LN(C_1)$	0.63 (1.17)	-0.27 (1.63)	1.89** (3.06)	-0.48** (2.58)	1.26** (2.19)	-0.55** (3.04)
$LN(C_3)$	0.97 (1.53)	-0.33* (1.93)	2.48** (3.06)	-0.58** (2.69)	0.94 (1.48)	-0.39** (2.21)
$LN(C_{\text{block}})$	0.93 (1.48)	-0.31* (1.88)	2.66** (3.16)	-0.61** (2.82)	0.73 (1.18)	-0.32* (1.93)
$LN(C_{\text{inst.}})$	0.19 (0.85)	-0.27** (2.36)	0.15 (0.66)	0.15 (1.31)	-0.85** (3.43)	0.26** (2.28)
H_{block}	-0.06 (0.31)	-0.90 (1.09)	0.76** (3.54)	-2.22** (2.58)	0.11 (0.50)	-3.51** (3.15)
$H_{\text{inst.}}$	-0.14 (0.87)	-5.41 (1.04)	0.29* (1.77)	6.34 (1.13)	-0.45** (2.68)	1.55 (0.35)

**Statistically significant at the 5% level.

*Statistically significant at the 10% level.

The concentration variables are defined as follows. The variables C_1 , C_3 , C_{block} , and $C_{\text{inst.}}$ represent the percentage of shares held by the largest blockholder, three largest blockholders, all blockholders, and institutional blockholders, respectively. The LN and H variables are logarithmic transformed and Herfindahl concentration measures, respectively. Absolute t -values are shown in parentheses beneath each coefficient.

Table 6. Cumulative abnormal returns around the announcement of defense with preferred share issue

	Return intervals					
	(-20, -1)	(0, 1)	(-1, 1)	(0, 5)	(-20, 5)	(0, 20)
Full sample ($n = 44$)	1.06 (0.76)	-1.18** (2.67)	-1.17** (2.18)	-2.27** (2.97)	-1.52 (0.96)	-3.56** (2.49)
Create possibility ($n = 17$)	-3.11 (1.41)	1.23* (1.77)	0.71 (0.83)	0.60 (0.01)	-2.51 (1.00)	1.43 (0.64)
Grant option ($n = 10$)	0.50 (0.22)	-0.41 (0.57)	-0.10 (0.12)	-0.42 (0.33)	0.08 (0.03)	-2.81 (1.20)
Actual issue ($n = 17$)	4.93* (1.88)	-4.09** (4.94)	-1.70* (1.68)	-6.40** (4.46)	1.21 (0.41)	-9.64** (3.59)
First issue ($n = 13$)	4.36 (1.32)	-4.18** (4.00)	-2.20* (1.72)	-7.03** (3.88)	1.42 (0.38)	-11.73** (3.46)
Second issue ($n = 4$)	6.78** (2.30)	-3.79** (4.06)	-0.09 (0.08)	-4.37** (2.71)	0.52 (0.16)	-2.85 (0.94)

**Statistically significant at the 5% level.

*Statistically significant at the 10% level.

Abnormal returns are computed employing the Market Model, and are shown as a percentage. Results are presented for six different intervals. The numbers in parentheses below the coefficients are absolute t -values.

a sign test (Z -statistic = 2.34). Over the 6-day postannouncement period, the cumulative abnormal return is -2.27 percent (with a t -value of -2.97).¹⁴

Although the above result tends to support the managerial entrenchment hypothesis, further analysis of the sample reveals some interesting findings. We split the aggregate sample into three subsamples based on the three steps followed in the issuing process. With the announcement of the first step towards defense (creating the possibility of preferred share issue), a positive and statistically significant stock price effect is observed. This evidence does not support the managerial entrenchment hypothesis. Shareholders do not experience any wealth decline from the charter amendment leading to takeover defense. On the contrary, they appear to benefit as there is a significant increase in stock returns (1.23% in 2 days).¹⁵ All other postannouncement intervals also reveal positive (but not significant) price increases. This result indicates that defense measures are indeed adopted allowing shareholders to benefit from increased takeover premiums. The almost negligible stock price impact with respect to the second step announcement is not surprising, since granting a purchase option to a friendly party is an obvious outcome of the charter amendment.

Another interesting finding is obtained when we look at the third step of the defense process. The negative announcement effect of the aggregate sample is in fact determined by the issue of the preferred share itself. We find that the announcement of a preferred share issue is associated with a strong excess decline in stock returns (-4.09%), which is statistically significant (with a t -value of -4.94). For the 6-day period [0, 5], the excess decline in shareholders' wealth amounts to 6.40 percent.¹⁶ However, we find a significant price increase before the announcement

of the preferred share issue. This increase in share price could be an indication of a takeover attempt that eventually led managers to issue the preferred shares.¹⁷ Interestingly, the post-announcement periods indicate a significant decline in shareholders' wealth. This decline might provide an estimate of the lost premium incurred by common shareholders—since the chance of eventual takeover was eliminated by actually issuing preferred shares.¹⁸ Our finding is consistent with prior studies showing that stock prices increase with takeover bids but then decline if they do not materialize. In sum, the evidence provided here suggests that, although defense measures are beneficial to a certain extent, the benefits do not remain when they are used to fend off takeover attempts.

We also examine whether there is a difference in the results between the first preferred share issue and a subsequent issue. The issue sample is further divided into a subsample of 13 companies that issued preferred shares for the first time and a subsample of four companies with a subsequent issue. We find that the first issue is more damaging for shareholders. The abnormal return in the 5-day postannouncement period is -7.03 percent (t -value = -3.88) in case of the first-time issue, compared to -4.37 percent (t -value = -2.71) in case of a subsequent issue. This difference is statistically very significant (with a t -value of -6.24).¹⁹ Other postannouncement return intervals show similar results.

¹⁴ The finding is robust as the two other methodologies (the Market Adjusted Returns Model and the Market Model using postevent period data) show that stock prices decline by 1.50 percent and 1.85 percent, respectively.

¹⁵ The Market Adjusted Returns Model and the Market Model using postevent period data show that stock prices increase by 1.33 percent and 1.27 percent, respectively.

¹⁶ Once again, the results are materially indifferent to one particular methodology used in calculating abnormal returns. The Market Adjusted Returns Model and the Market Model using postevent period data also show a decline in stock returns (-5.06% and -5.62%, respectively).

¹⁷ The increase in stock price followed by a decline on the announcement of share issue could also be seen as an indication of the breakdown of takeover negotiations. To verify this, we searched the financial press throughout the event period, and found no report on any negotiation. This, of course, does not rule out the possibility of undisclosed information.

¹⁸ We also searched the financial press to check if any specific event followed the announcement, but were unable to find any.

¹⁹ We also investigate whether the market reaction varies with firms' ownership concentration. The sample is divided into three portfolios: portfolio 1 contains firms with the lowest concentration, portfolio 3 contains those with the highest concentration, and portfolio 2 is between them. We do not find statistically significant differences in cumulative abnormal returns among these portfolios. Therefore, the results are not reported here. A cross-sectional regression between ownership structure and announcement period abnormal returns also yields insignificant results. Our analysis, however, should be interpreted with caution because the sample size is small and only one defense mechanism is examined.

CONCLUSIONS AND IMPLICATIONS

This paper empirically analyzes the relationship of takeover defenses with firms' ownership structure and shareholders' wealth. A sample of Dutch industrial companies is selected for the study. The Dutch scenario is particularly interesting because almost all listed companies have adopted multiple takeover defenses.

We find that firms with a relatively lower ownership concentration are the ones with a larger number of defense measures. Our analysis suggests that firms with dispersed ownership adopt more defense tactics. The analysis also shows that the likelihood for a firm to adopt takeover defenses is inversely and significantly related to ownership concentration. The result is robust to different ways of measuring ownership concentration. Overall, our evidence is consistent with the hypothesis that company management is more likely to adopt defensive measures when a firm is characterized by diffuse shareholdings. We do not find any significant relationship associated with institutional stock ownership. The evidence provided here, therefore, does not strongly support the hypothesis that institutional shareholders provide better monitoring than other blockholders.

We also conduct a stock return analysis in the case of defense with preferred share—the most widely used takeover defense device in recent years in the Netherlands. Our results indicate two opposing effects of defense on shareholders' wealth: in one situation, the stock market reacts positively, seemingly to allow managers to bargain for a higher premium in takeover bids. In another situation, the stock market reacts negatively as potential takeover attempt appears to be eliminated.

Alternative disciplinary mechanisms have been an area of extensive scrutiny. In this paper, we document that low (high) ownership concentration is associated with greater (smaller) use of antitakeover devices which affect the functioning of the market for corporate control. We also provide evidence on the existence of positive and negative share price effects of takeover defense measures. Some implications of our findings are discussed below.

The empirical results obtained in this study reconfirm the need of analyzing firms' ownership structure as a mechanism to control the agency

conflict between shareholders and managers. Other such mechanisms include the capital market, the market for corporate control, the managerial labor market and the product market. Similar to Walsh and Seward (1990), we believe that much can be learned about one control mechanism when it is analyzed in and around another mechanism. Managers in the Netherlands seem to be immune from the disciplinary threat of the market for corporate control. Since the takeover market is just one disciplinary mechanism, we would expect other control mechanisms to be at work too. Our results in this paper demonstrate this—for example, monitoring by concentrated ownership. As Prowse (1995) points out, concentrated shareholdings are important because they provide investors with both the incentive and the ability to monitor and influence the management. Without such concentration, again other mechanisms of corporate control must be relied upon.

It is usually believed that institutional investors find it in their best interest to more effectively monitor company managers. In the U.S.A., institutional shareholdings have increased over the last years, and a few institutional shareholders have emerged as very active monitors. The findings of Duggal and Millar (1994) suggest that researchers should better split aggregate institutional ownership into different categories to obtain correct results. The results of this study show that in the Netherlands institutional shareholders like banks and insurance companies do not have large holdings, and these have no relationship with the adoption of antitakeover devices. An implication of this finding is that active monitoring by institutional shareholders may not take place in many countries. It is highly unlikely that Dutch institutional shareholders lack the expertise and the ability to serve as effective monitors. Rather, the presence of small stakes may explain why passivity remains the norm. It is also possible that active institutional monitoring may not be a representation of the general pattern in the U.S.A.

There are many types of defense measures, and their effects also depend on situation like the manner in which a particular device is introduced. Our analysis shows that it is difficult to say *a priori* whether defense measures are good or bad for shareholders. Even takeover defenses that are approved by shareholders have the potential to reduce shareholder wealth. This lack of conclu-

sive evidence regarding the stock price reaction could also be attributed to the limitations of event-study methodology and the additional need of analysis using other characteristics of firms that propose takeover defense measures.

Although the results presented here show that one monitoring mechanism has been substituted by another, these do not imply one mechanism being better than another. Analyzing the cost-benefit aspects of each monitoring mechanism is an issue which was beyond the scope of the paper. According to Moerland (1995), there exists a trade-off in the sense that the advantages of one mechanism will generally be the disadvantages of the other. Questions also remain relating the effectiveness of monitoring with corporate performance. Are firms with concentrated ownership more profitable than firms in which ownership is not concentrated? If incumbent managers use defense tactics to deter takeovers, are they completely insulated from the consequences of poor firm performance? The usual finding has been that takeover threat improves performance of a firm. But, as has been mentioned by Walsh and Seward (1990), if managers in a poorly performing firm anticipate a takeover contest, they may adopt antitakeover devices to protect them. On the other hand, managers could be more frequently dismissed when they perform poorly because another disciplinary mechanism—the managerial labor market—then starts functioning. A further analysis of the role of different corporate governance mechanisms represents an interesting area of future research.

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