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ABSTRACT

The Dutch capital market is peculiar, at least because of the three following reasons. Only a relatively small number of Dutch companies is listed at the Amsterdam Stock Exchange, because most Dutch companies raise funds from retained earnings, bank-credits and long term borrowing. Furthermore, the relatively small group of listed companies is heavily dominated by a small number of large companies. Finally, the liquidity of the stock market is relatively low and concentrated in the thirty largest funds.

Not only the structure and functioning of the stock market influences the relationship between shareholders and company management, but also the corporate governance structure of companies. Dutch corporate governance can be characterized as a system aiming at balancing the interests of shareholders, management and workers. One of the side effects of Dutch legislation at this point is that it provides Dutch companies also a large number of measures to prevent hostile take-overs. 4

In this chapter, the most important information about the Dutch capital market will be provided, as well as the most relevant legislation on corporate governance in The Netherlands. This information provides the background for our analysis of the perception by Dutch corporate financial managers of the short term pressures their shareholders place upon them. We will also try to evaluate what the effects of short term pressures are on Research and Development (R&D) policy and R&D management in Dutch companies. A final paragraph gives a brief summary of the most important findings and discusses the most relevant findings of our study.

INTRODUCTION

Bavaria Brewing Company is one of the oldest and most successful family-owned companies in The Netherlands. It has no quotation at the Amsterdam stock market and the current owners see this as a great advantage. Ambrosius Swinkels bought the company in 1764 and his descendants made the company flourish, particularly in the period after the Second World War. At the moment, the Bavaria Company is the second largest brewer in The Netherlands, after Heineken, holding a 16 percent share in the Dutch beer market and making sales of approximately 500 million US dollars in 1996. It's current president, Mr. P.J.J.M. Swinkels, explains Bavaria's recent successes by its capacity to react timely and adequately to the changing tastes of consumers in today's turbulent beer market. In order to cope with competition, Bavaria invested 90 million US dollars during the last two years. These investments caused the 1995 net profit to drop from 20 to 18 million US dollars. According to Swinkels, the stock market would not have accepted his investments and would have reacted with a considerable reduction in the stock price. He sees a quotation at the stock market as problematic: "In that case, I should have to devote 20 to 25 percent of my time to talking with financial analysts. Most financial experts and investors demand much up-to-date financial information, while loosing sight of the longer term strategy of the firm. " (NRC, 1996).

Mr. Swinkels expresses an often heard concern for short-term pressures from the capital market, raising the discount rate applied and/or foreshortening the time horizon of investments. Investments are considered here all expenditures aimed at generating future profits. Notable examples are spending on research and development (R&D) and on intangible assets (like training of employees and developing the brand name). Some authors claim that stockholders, especially those in the UK and US, prefer short-term benefits, like current profits and dividends, at the expense of future gains in order to generate high rates of return (Jacobs, 1991; Dimsdale, 1994; Demirag, Tylecot and Morris, 1994). This position is illustrated by pointing at the lower real cost of capital in Japan and Germany, compared to the cost of capital in the US and UK. This may be due, it is claimed, to the fact that in Japan large industrial conglomerates are concentrated around one or several large banks (*Keiretsu*) and that in Germany banks participate to a great extent in firms' equity (Sykes, 1994). The intensified links between providers of equity (banks) and users may lower the cost of capital.

According to Hirschman's (1970) distinction, stockholders can communicate their discontent with company policy either by 'voicing' or by 'exiting'. Voicing means using the appropriate shareholders' formal powers of participation in company's decision making bodies, like the Annual General Shareholders' Meetings. It is generally believed that Japanese, German and, to a lesser extend, Dutch providers of equity capital use voicing more than exiting to influence company behaviour. The more intensive communication between management and shareholders facilitates the exchange of private information related to future prospects of the firm. If shareholders possess more reliable information, they may be prepared to provide funds more cheaply and for longer periods, permitting corporate management to invest more in the longer term, profitability of the firm, while lessening short term pressures to generate cash for the shareholders. Some authors claim that this explains the success of Japanese and German enterprises in comparison to US and UK firms (Demirag, Tylecotte & Morris, 1994; Dimsdale, 1994). In the UK and US, shareholders are expected to use more frequently the option of 'exiting': they sell their shares, which can lead to lower stock prices. Lower stock prices work in two directions: they increase the danger of a hostile takeover, and at the same time make it difficult and expensive for undervalued companies to raise capital. The threat of a hostile takeover can be counteracted by companies installing barriers to the transfer of control. In Germany, public companies are allowed to issue non-voting shares to an amount equal to that of all voting shares. thus blocking possible hostile take-overs (Prevezer & Ricketts, 1994).

It can be argued that the short term pressure placed upon the company's management by its shareholders is dependent, among other factors, on the following four circumstances: the *capital structure of the firm* (that is the balance between short term debt, long term debt, shares and retained earnings), the *composition of the firm's providers of equity capital* (proportion provided by well informed large institutional investors or by small private investors), the *measures against hostile takeovers* and *arrangements for participation of shareholders* in decision making and control (provisions for accounting, auditing and for the participation of shareholders in decision making bodies). The first two circumstances relate to the sources of funds and the orientation of its providers, whereas the latter two describe some important aspects of the corporate governance structure.

As will be demonstrated, the capital structure of Dutch firms is not very distinct from the capital structure of UK firms. There are, however, some differences in the other three circumstances mentioned, especially in those related to corporate governance. For instance, Dutch companies have a large array of protectionistic measures available to counteract hostile take-overs, of which the most noticeable is the structural law *(Structuurwet).*

THE DUTCH CAPITAL MARKET

The *capital structure* of Dutch firms is not very different from the capital structure of enterprises in some other OECD countries. According to OECD statistics, debt financing comprises short-term debts to banks and others, issuing of bonds and long term loans to third parties. As can be appreciated from table 1, the proportion of debt financing of Dutch companies is lower than the proportion of debt financing of Italian and Japanese companies, but higher than US companies. Quite remarkable are the relatively high proportions short term debt financing in Japan, Italy, Germany and Belgium. In most countries this can be attributed to the involvement of banks in financing private enterprise. These figures also demonstrate that banks do not only participate in equity capital (as has been claimed by Sykes, 1994) but also in providing short term loans as well. In The Netherlands, a relatively large share of capital is provided by long term debt financing, like in the United States. In all countries, except for the US, a tendency seems to exist to diminish short term debt financing in favor of more long term financial arrangements.

** INSERT TABLE 1 AROUND HERE ** ,

The Dutch capital market can be divided into four different segments: the *equity* *market,* where common stocks are traded, the *bond market,* where bonds, mortgage bonds and bank bonds are traded, the *private placements ('over-the-counter') market,* where conditions for capital transactions are directly negotiated between parties, and the *real estate market.*

The Dutch stock market is in several respects different from other stock markets. Only a small number of Dutch companies is listed at the Amsterdam stock exchange. In the 1950's a total of 500 Dutch companies was listed at the stock exchange. Mainly due to a mergers and acquisitions wave starting in the late 1960's, this number has been reduced considerably to 169 companies in 1995 (Camfferman, 1996). Most Dutch companies, among them also large firms, are not listed. These companies raise funds from retained earnings, bank-credits, long term borrowing from institutional investors, capital from an international parent company, or from private placements of common stock at friendly organizations or at co-partnering companies.

The relatively small group of listed companies is furthermore heavily dominated by a small number of large companies. The market-value of the six biggest companies' shares' equals 60 % of the total market-value of the outstanding shares at the Dutch stock market (Dorsman et.al, 1995). Most Dutch companies, especially smaller firms, seem to finance operations by private placement of shares. This market is larger and more important than the official stock market.

The liquidity of the stock market is relatively low, mainly concentrated in the thirty largest funds. The 'free float' (the relative market-value of free tradable funds) is also relatively low and only related to some well-known funds, like Royal Dutch Shell, Unilever and Philips (Frijns, 1995).

The *composition of the providers of equity capital* in The Netherlands is roughly as follows: around 40 % of the shares are in hands of Dutch households and industry, some 20 % is owned by insurance companies, pensions funds and social funds, while the remaining 40 % comes from foreign investors (see table 2).

** INSERT TABLE 2 AROUND HERE **

At the bond market, the Dutch State, banks and insurance companies are almost the only providers of long term bonds. One of the main reasons for the dominant position of pension funds and insurance companies in the provision of debt capital is the postwar legislation in social security, oblying Dutch citizens to take insurances and save money for retirement. In turn, banks, insurance companies, and pension funds do not invest heavily in stocks themselves. The value of common stocks in hands of institutional investors equals 20 % of total market value in 1995 (De Nederlandsche Bank, 1996). This is a relatively low percentage, compared with the US where 40 % and with the UK where more than half of the stock value is in hands of institutional investors. From 1993 onwards, social and pension funds have doubled their investments in shares, holding constant their investments in bonds. It is expected that the Dutch institutional investors will continue investing more in common shares in the near future, given the recent announcements that they would invest more in risk bearing securities.

CORPORATE CONTROL

Issues related to corporate control will be discussed, focusing on the Limited Liability

Company (*besloten* ***vennootschup:*** BV) and Public Limited Liability Company ***(naamloze vennootschup:*** NV). In both the BV and NV, the two most important bodies are the ***General Meeting of Shareholders*** and the ***Management Board.*** Dutch civil law mandates the creation of these bodies, the creation of the ***Board of Directors*** (Supervisory Board) is optional, except for liability companies operating under the so-called Structural Law (*Structuurwet*). Under the Structural Law, the creation of a Board of Directors is mandated (we will come to the Structural Law provisions later).

By law the General Meeting of Shareholders is entitled to appoint, suspend and discharge members of the Management Board and the Board of Directors.* The General Meeting has the right to approve the annual report, to demand information from management and directors, to change the statutes, to buy own shares, to decrease the number of outstanding shares and to dissolve the company. It furthermore has all the authorities which are not given to the other company bodies. Civil Law demands the General Meeting of Shareholders to meet at least once a year, within six months after conclusion of a financial year (Mendel, 1995).

The Board of Directors is mostly composed of more than one member, appointed by the General Meeting of Shareholders (sometimes at the nomination of the meeting of priority stock holders). The responsibility of the Board of Directors is to give advise and to supervise the .Board of Managers, serving the interests of the company at large. **In** this quality, the board has the explicit task of representing all stakeholders, not only the shareholders, but also the workers and management as well.

Before 1971, the General Meeting of Shareholders was entitled to appoint and dismiss members of the Management Board and to approve the financial statements of the firm, In

1971 the Structural Law (*Structuurwet*) took effect, which legally obliges big public and private limited liability companies to transfer these competencies to a Board of Directors. This obligation applies to companies holding more than 25 million Dutch guilders (equalling around 15 million US dollars) in equity-capital, employing at least 100 workers in the Netherlands and holding the legal obligation to have a workers' council.[3] Companies under the *Structuurwet* are also called 'structural liability companies' (*structuurvennootschappen*). The main objective of the legislator was to provide workers a greater say in the composition of and in decision making by the main bodies of the company (Mendel, 1995). Under the structural law, no longer the General Meeting of Shareholders appoints the members of the Board of Directors, but new members of the Board are appointed by the Board itself by a system of co-optation. Shareholders and workers (represented by the workers' council) have the right of proposing candidates and they can also veto the (intended) appointment of a member of the board of directors. The veto will be decided upon by the Enterprise Chamber of the Court of Justice in Amsterdam (Rietkerk, 199 1).

Some responsibilities of the Board of Directors are specified by Dutch civil law, like the following. Important decisions with long lasting consequences for the firm, like mergers, major investments, dismissal of larger numbers of employees and issues of new shares, have to be approved by the Board of Directors (Civil Law, article 162). This board is also entitled to approve the financial statements, while it is the only entity within the firm holding the authority to appoint, suspend and dismiss members of the Management Board as well as members of their own Board. Smaller, public and private companies are not obliged to install a Board of Directors, but they have the option to do so.

The *Structuurwet* applies to roughly half of the listed companies at the Amsterdam Stock Exchange. For these companies, the introduction of the *Structuurwet* caused a significant shift of say from the General Meeting of Shareholders to the Board of Directors. The intention of this law clearly is to voice the interests of more company related parties than those of the shareholders alone (Keuning & Eppink, 1990). The same law, however, has also some protectionistic features against hostile takeovers. If the present directors of the target company are not willing to permit representatives of the acquiring company to take part in their Board, they can effectively hinder the transfer of corporate control. This makes a takeover less attractive. We will discuss protectionistic measures more extensively in the following paragraph.

PROTECTION MEASURES TO HOSTILE TAKEOVERS

The United Kingdom and The Netherlands are the extremes on the dimension of use of 'protection measures' to prevent hostile takeovers. In the UK a free takeover market is propagated, prohibiting the use of protection measures. In contrast, Dutch firms can use a wide array of different protection instruments to defend themselves against possible hostile take-overs. Sir Leon Brittan (former vice-president of the European Commission) noted: '... the managements of Dutch companies have shown an extraordinary ingeniousness in constructing devices that insulate them from the competition for corporate governance.' (Brittan, 1989; also cited by Rietkerk, 1991).

The *Structuurwet* offers the possibility of co-option within the Board of Directors of target companies, defending it against members from companies seeking to takeover corporate control. A widespread alternative protectionistic measure is the use of a *trust office*. The trust office is a foundation holding the shares and the corresponding voting rights. The shareholders whose shares are in hands of the trust office receive certificates in return. Certificates entitle shareholders to legal rights like the right to claim dividend payments. However, the voting rights attached to the original shares remain at the trust office. The trust office's Board of Governors use these voting rights to influence corporate policy in the General Shareholders' Meeting. Legally, the majority of the members of the trust office's board of governors has to be unrelated to the stock issuing company. In practice however, most governors have friendly ties to the company's management. Because of these 'friendly ties', management mostly expects the trust office governors to be much more willing to agree with current corporate policy than individual shareholders. The *Structuurwet* and the trust office are also two common means to obstruct possible hostile take-overs.

In addition, many more protection measures are in use to prevent a hostile takeover. In an attempt to restrict the use of protection measures the Stock Exchange Association issued additional funds rules which are in force from November lst, 1989 (Vereniging voor de Effectenhandel, 1988; Rietkerk, 1991). In short, these rules provide that no firm should use more. than two of the following protection measures:

1. *Preferred (protection) stock:* shares placed in hands of friendly shareholders, mostly governors of a trust office. More than half of these governors has to be unrelated to the preferred stock issuing firm.
2. *Voting-trust certificates:* certificates issued by trust offices, granting holders of

certificates ownership while giving the voting rights to the trust office.

3. *Priority* stock: shares providing holders final decision making power over appointing managers and directors, altering statutes and issuing shares. Priority stocks can be in the hands of managers and directors. Priority stocks cannot be used in combination with the structural liability company (Drok, 1993).
4. *Limitation of voting right per share:* statutory restriction of a maximum number of, mostly 6, votes per shareholder.
5. *Joint ownership of shares:* all shares of the firm are owned by a holding company, while the shares of the holding company are quoted on the stock market. This construction prevents shareholders of the holding company to directly interfere with the firm. Only the holding company's board of governors gets complete control of the affairs of the firm.

The trust office plays a dominant role in Dutch corporate governance. The trust office can be the owner of common shares, it can be used to hold preferred stocks or to issue certificates. Of the 169 listed Dutch companies 96 firms (56.8 %) have a trust fund in which part of the shares and votes are placed. For corporate governance purposes, the voting rights placed in trust funds are important. Table 3 contains a summary of the voting rights in hands of trust funds (Stichting Toezicht Effectenverkeer, 1995). As can be appreciated, one-third of the trust funds has more than 33.3 % of the voting rights, being able to block changes of statutes, which normally need a two-third majority. In case of a threat of a hostile take-over, trust funds are capable to issue preferred stock, permitting 37 % of the trust funds to have a two-third majority right, enabling these funds to impose statutory changes if necessary.

** INSERT TABLE 3 AROUND HERE **

Besides these protection measures, a large array of other measures is also available to protect firms from shareholders' influence. Some of these are 'legalistic' protection measures, like restriction of the voting rights of shareholders and application of special majority rights. Others are 'structural' measures, like cross participations, 'poison pills' and 'crown jewels' constructions. A recent study of protection measures and laws of mergers and acquisitions in 23 countries revealed that in the Netherlands more use is made of 'legalistic' protection measures, while in Germany and France more 'structural' measures are used (KPMG, 1995). EC's proposals to counteract protection measures (alteration of the second directive and implementation of the fifth and thirteenth directive) are primarily targeted at reducing the 'legalistic' protection measures.

RECENT DEVELOPMENTS IN CORPORATE GOVERNANCE

In 1997 new legislation will take effect to counteract protection measures. This legislation is based on a common proposal by the Stock Exchange Association (VvdE) and the Association of Stock Issuing Companies (VEUO, a managers' association). In case a shareholder owns at least 70 % of the stocks of a target company during 12 months and yet is not able to influence company policy because of protection measures, the shareholder then is entitled to appeal to the Amsterdam Court of Justice's Enterprise Chamber. This court can lift the protection measures if it comes to the conclusion that these measures conflict with the interests of the parties involved or with the interests of the public at large (VvdE & VEUO, 1995). The newly proposed legislation already provoked several reactions of interested parties. The Association of Investors (VEB) and the large pension funds see the proposal as insufficient: they perceive the one year's period too long and demand stronger measures to counteract protection measures (NRC, 1995). Banks, on the other hand, announced to participate more in 'promising' firms, trying to protect them against possible hostile takeovers. This would bring Dutch banks in similar positions as the German banks are at the moment (NRC, 1995). In reaction to the bill, several larger private firms like Hoogovens, Ahold and DSM issued preferred stock and placed it in hands of friendly stockholders (see also Boot, 1996). These companies are apparently trying to install a 'circle of friendly shareholders' in order to discourage or hinder third parties in trying to acquire a seventy percent share in the company. DSM introduced in the Netherlands a unique *share buy back* programme. The company bought shares back from the Dutch government for an amount of 600 million guilders. The company converted these shares into preferred stock and placed it in hands of friendly banks and insurance companies. The revenues of 500 million guilders payed by the friendly shareholders were transferred to the government. Stock prices rose considerably because of these transactions.

These events, the international debates on corporate government and the large number of Dutch shares. in hands of foreign investors (see also table 2) called for a public debate on the peculiarities of existing legislation and current corporate governance practice in The Netherlands. The *Investors' Platform* and the *Association of Stock Issuing Companies (VEUO)* installed a committee on Corporate Governance, the so-called 'Committee Peters'[4], which published its recommendations in October 1996 (Committee Corporate Governance in Nederland, 1996). The committee recommends that the position of the shareholder should be strengthened and that the Board of Directors should play a truly independent and critical role as supervisor and adviser of the Management Board. At the same time, the committee recognizes the value of protection measures and the Structural Law. It therefore does not recommend to change legislation on these issues, but to improve corporate governance practices.

The committee proposed a list of 40 practical recommendations, aimed at-improving the functioning of the Board of Directors, The Executive Board and the General Meeting of Shareholders and of the interplay between these three parties. Most of these recommendations aim at strengthening the position of investors and relaxing protectionistic measures, especially when these measures only lead to a limitation of the shareholders' participation while no clear and direct threat of a hostile takeover really exists. The Board of Directors should periodically publish a public document, explaining what the size and composition of the Board will be, how the tasks will be distributed among its members and what working-methods will be employed. These recommendations should be based on a thorough analysis of the position of the company.[5] The Board should also publish yearly a paragraph in the annual report about its assessment of the company strategy, the business risks and the quality of the corporate internal control systems. The most important recommendation is on the relationship between the company and its shareholders. The committee invites the Management Board and the Board of Directors of Dutch companies to evaluate the relationship with their shareholders on six main topics[6] and to report their findings as well as specific recommendations to improve these relationships on a General Shareholders' Meeting in 1998.

PERFORMANCE PRESSURES

In order to assess corporate financial managers' perception of capital market short termism a survey was prepared, partly based on a survey by Demirag (1995). In December 1995, after reversed translation and extensive pretesting of the questions, the survey was sent to the controllers (or financial directors) of all 167 Dutch public firms[7] listed on the Amsterdam stock exchange. Nearly 40 % returned the survey. From this response, 82 % was usable for analysis. In our analysis, almost one third of the listed companies from the Amsterdam Stock Exchange was included (see panel A of table 4). Analysis of the nonresponse does not give any reason to expect that the composition of the responding firms is biased (panel B of table 4).

** INSERT TABLE 4 AROUND HERE **

Table 6 shows that all economic sectors in The Netherlands are represented in the sample.

** INSERT TABLE 5 AROUND HERE **

In order to measure managers' perceptions of short-termist capital market pressures, we used an instrument developed by Demirag (1995). From this eight item instrument, four questions turned out to be highly positively correlated. These questions were the same Demirag found in his survey.

The first question attempted to determine *in general terms* whether it is difficult to provide profit figures which satisfy shareholders whilst funding R&D projects which are right for the business. The mean of 2.491 indicates that, on the whole. Dutch managers do not perceive this issue as problematic.

The second question focuses on the *concrete experiences* financial managers might have balancing short term profit maximization pressures from their owners against long term interests of the company. It turned out that Dutch managers do not have experienced this dilemma (mean of 2.442).

The third question relates to the position *analysts and major shareholders* take in prioritizing lower-risk short-term *product development* over high-risk long term *research*. Dutch financial managers don't perceive analysts and major shareholders prioritise lower-risk projects over high-risk projects, although the mean for this questions is somewhat higher than for the other questions (2.627).

The fourth question is used to assess whether financial managers perceive their firms to be a possible *candidate for take-over*. As may be expected, Dutch financial managers do not perceive this to be the case (mean is 2.472).

The scores on the four items were added to a new and comprehensive measure of 'short term pressure' from shareholders (or the capital market at large) on firms as perceived by financial managers in Dutch companies.

This new variable is a reliable measure of short term pressure, displaying a Cronbach alpha of 0.60. Generally, lower limits around 0.50 or 0.60 are felt to be acceptable (Nunnally , 1967).

The data show that significant differences in 'short term pressure' exist between economic sectors (F-value = 7.0013, p = 0.0023). The newly constructed variable has a lower limit of 4 and a higher limit of 20. The overall mean for all sample firms is 10.1. High short term pressure firms are in Consumer Goods, Transport and Communications and Banks & other financial institutions (group mean of 11.6). Low short term pressure firms are in Capital Goods, Insurance Companies and Mineral and Mining Industry (group mean of 7.7). Firms experiencing medium short term pressures -are in the remaining four sectors Basic Industry, Construction Industry, Non-financial Service Industry and Trade (group mean of 10.2) (see table 6). These results partly confirm Demirag's finding of pharmaceutical and chemical firms perceiving low short term pressures (Demirag, 1996). Most of the Dutch pharmaceutical and chemical companies are located in the trade group and some in the basic industry group.

** INSERT TABLE 6 AROUND HERE **

SHORT TERM PRESSURES AND CORPORATE R&D POLICY

In this section, the relationship between short termism and corporate R&D policy will be analyzed. High short term pressure indicates that corporate management perceives their shareholders as being more interested in short term financial results than in the longer term prosperity of the firm. High short term pressure should therefore lead to less investments in R&D which do not promise a good return in the short term. We will analyze these effects, looking at different company decisions and activities on R&D, divided into two groups, namely *R&D Strategy* and *R&D Management*. In the first group issues related to R&D spending and corporate policies on R&D are analyzed. In the second group, company decisions regarding planning, budgeting and evaluation of R&D activities will be discussed.

R&D Strategy

It is to be expected that firms perceiving high pressure from their shareholders for short term results (which we call 'high pressured firms' or HPFs), will in general invest less in Research and Development in comparison with firms not perceiving these short term pressures. If we use real expenditures on R&D, this hypothesis is confirmed (see table 7, upper part). Real expenditures on R&D is a figure which cannot be used across the companies of our sample, since differences in company size are also included in these figures. If we express R&D expenditures as a percentage of sales, which we call R&D intensity, no significant relation between perceived high pressure and R&D spending appears to exist. The hypothesis can therefore not be confirmed. The difference between these results show that in the whole larger firms perceive less short term pressure. The Spear-man rank correlation between sales (as a measure of size) and perceived short term pressure confirms this relationship ($R^2 = - 0.5161$ ($p < 0.0001$)).

We also hypothesized that high pressured firms would also invest relatively more in applied research than in fundamental research. The results however do not indicate a significant relationship between 'perceived short term pressures' and the portion of fundamental research to total research expenditures. This is contrary to what we expected to find. One possible explanation is that it turns out to be difficult to indicate in practice which research activities are fundamental in nature and which are applied. We didn't provide the respondents specific clues on the distinction between applied and fundamental research.

** INSERT TABLE 7 AROUND HERE **

Apart from the actual expenditures on R&D, we also asked corporate financial managers about their intentions and aspirations regarding R&D, in other words: their *R&D policy* (see table 7, lower part). High pressured firms turn out not to invest heavily in R&D, therefore it is to be expected that these firms compete not so much on innovative product characteristics, but much more on low cost production. The results do not show a significant relationship between ‘low cost strategy’ and high short term pressures. A good reason for this finding could be that for either strategy, being it product innovation or low cost production, research and development activities are indispensable.

Perhaps we should look at R&D expenditures as a whole and think of them as overhead activities. It can be expected that high pressured firms would be more inclined to cut back R&D expenditures in times of financial crisis than firms which are less pressured for short term financial results. Our sample firms do not confirm this idea. A possible explanation for this result could be that high pressured firms as well as low pressured firms do not consider R&D exclusively as ‘overhead activities’. Both types of firms appear to handle R&D expenditures differently from other overhead expenditures.

Another dimension of R&D activities is the time dimension: investing in R&D results in immediate expenditures while the pay off will only take place in a (more or less) distant future period. It is to be expected that high pressured firms are striving more to shorten the pay back period than low pressure firms do. The results of our sample firms however indicate the opposite: high pressured firms appear to believe more strongly that innovation through acquisitions (that is: buying innovation in stead of developing it) is less effective than innovation generated internally.

R&D Management

Corporate financial managers in the Dutch sample firms appear to be quite heavily involved in strategic planning of R&D programmes and in setting the budget for R&D activities. It is to be expected that corporate management of high pressure firms will even be more involved in planning and budgeting R&D activities, because of shareholders' demand for short term financial results. Our results indicate that this is the case for top management's involvement in the strategic planning of R&D programmes, but not in budgeting of R&D activities (see table 8, upper part). A reason for this difference in involvement could be that top management's active participation is mostly restricted to strategic matters, while the budgeting process is carried out mostly by financial staff and other line managers. The results confirm active participation of top management in planning R&D activities when high shareholders' emphasis on short term financial results is perceived.

Although there is no indication of top management's direct involvement in the budgeting process of R&D activities, it could be possible that budgeting of R&D programmes will be carried out differently under high shareholders' pressure than under low pressure. In general, the most important criteria in setting R&D budgets by the sample firms were 'company's targets in terms of growth and marketshare', 'competitors' activities' and ‘evaluations and financial reports on current projects’. The least important criteria were: ‘last year’s sales’. ‘last year’s budget’ and ‘the company’s cash position.’ Factor analysis confirmed that two sets of budget criteria can be distinguished: *financial criteria* (containing three criteria: ‘last year’s profit’, ‘next year’s profit forecast’ and ‘the company’s cash position’ (eigenwaarde of 2.33) and *market criteria* (consisting of the two criteria ‘company’s targets in terms of growth and marketshare’ and ‘competitors’ activities’ (eigenwaarde of 1.70). Summation of the criteria scores in each of these two sets lead to two new factors: financial criteria (Cronbach alpha of 0.73) and market criteria (Cronbach alpha of 0.49). It was expected that high pressure firms would pay relatively more attention to the financial criteria than low pressure firms. Our results indeed confirm this hypothesis: high pressure firms pay significantly more attention to financial criteria than low pressure firms (see table 8, middle part). The increased attention to financial criteria does however not automatically lead to lower attention to market criteria. Our results do not show significant differences between high pressure and low pressure firms in emphasizing market criteria. It seems that high pressure firms add financial criteria to already existing market criteria in order to accommodate the shareholder’s concern for short term financial results.

** INSERT TABLE 8 AROUND HERE **

In evaluating R&D performance, we hypothesize that high pressured firms will emphasize financial criteria more and non-financial criteria less than low pressured firms. These hypotheses are analogous to those stated earlier for the budgeting process.

The sample firms appear to use many different criteria of which the most important are 'the alignment of the R&D project under review with existing R&D projects', 'the added value of the R&D performance' and 'return on capital invested in the R&D project'. Surprisingly, the least important criteria are 'originality, creativity and innovativeness' and 'discounted cash flows.' As with the budgeting criteria, factor analysis confirmed the existence of two sets of evaluation criteria. The first set is labelled financial criteria and consists of the following four criteria: 'pay back period', 'return on invested capital', 'added value' and 'discounted cash flows' (eigenwaarde of 2.11). The second set can best be characterized as *inherent criteria,* as it is composed of the following three criteria: 'the alignment with existing R&D projects', 'originality, creativity and innovativeness' and 'increase in market share' (eigenwaarde is 1.69). Two new evaluation criteria were constructed by summing the scores of the underlying criteria, leading to a *financial criteria* factor (Cronbach alpha of 0.66) and a *inherent criteria* factor (Cronbach alpha of 0.70). Relating these two factors to perceived shareholders' pressure for short term financial results does not result in significant correlations (see table 8, lower part). Apparently, both high as well as low pressured firms use financial and inherent criteria in evaluating R&D performance. A possible explanation for this surprising result may be that the managerial implications of the assessment of R&D performance is not as important as the allocation decision during the budgeting process. R&D expenditures are mostly considered as 'discretionary costs', for which the most relevant decision is the decision how to allocate funds among the R&D projects available. In the assessment process, evaluation information on R&D projects must be as divers as the many different dimensions because of the multidimensionality of R&D outcomes and of the uniqueness of each R&D project. Considering performance criteria after concluding the R&D project does not seem to be managerially very useful, since no other relevant decision can be based upon this information. Short term or longer term strategic considerations will therefore not have great impact on the way the final assessment of concluded R&D projects is done.

CONCLUSIONS

The amount of short term pressure corporate financial managers perceive from their shareholders can be influenced by at least four factors: the *capital structure of the firm,* the *composition* of *the firm's* providers of debt capital, the *measures against hostile takeovers* and *arrangements for participation of shareholders* in decision making and control. In The Netherlands, most capital is provided by institutional investors and foreign investors. It is to be expected that these investors will be quite well informed about the longer term consequences of current (R&D-)decisions. Dutch structural law, the use of trust offices and a wide array of provisions against hostile takeovers restrict even more the influence of less informed or less friendly shareholders in company policy matters. It therefore is not very surprising to notice that the corporate financial managers of the sample firms do not perceive a high short term pressure from their shareholders.

Some differences in short term pressure however show up in our data: financial managers of enterprises in consumer goods, transport and communications, banks and other financial institutions perceive significant higher short term pressures from their shareholders than firms in the capital goods, insurance companies and the mineral and mining industry. It is striking to notice that most hypothesis about *R&D strategy* were not confirmed by the results, while at the same time they did confirm some important hypothesis related to *R&D management.* Apparantly , R&D policies are influenced by many other considerations than the short term orientation investors put on corporate financial managers. On the other hand, if shareholders requir short term financial results, corporate managers seem to be more involved in planning R&D programmes and they appear to put more emphasis on similar financial criteria in the preparation of the R&D budgets.

Some hypothesis however were not confirmed by the data. One of the most striking examples is the result that no clear correlation exists between short term pressure and strategy in terms of low cost production versus product innovation. Apparently, for each of these strategies R&D is needed, and short term versus long term pressures play an equal role in both strategies. We found an analogous example in the way financial managers see R&D expenses. We hypothesized that high pressure firms' managers would perceive R&D more as an overhead activity which needs to be cut back in times of financial crisis. The results show that R&D activities are not considered differently by high pressure firms in comparison with low pressure firms. It seems as if overall, R&D activities are considered quite different from other 'overhead activities' both by low pressure as well as by high pressure firms.

To conclude, the partly confirming results give the impression that the distinction 'low pressure' versus 'high pressure' firms captures an important factor of the influence shareholders may have on corporate policy, but this distinction provides only a partial image of the complex relationship between company owners and corporate management. It is therefore needed that we analyze more fully the different factors that are at work in shaping this important relationship.

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TABLES

Table 1: Equity and Debt of Non-financial enterprises in different OECD-countries as proportion of total sources (data in percentages) in 1992 and 1993

Countries	1992			1993		
	Equity	Debt		Equity	Debt	
		Long term	Short term		Long term	Short term
United States	49.4	34.3	16.3	47.2	30.0	22.8
Japan	32.8	22.4	44.8	33.5	23.7	42.8
Spain	38.5	23.2	38.3	37.9	25.0	37.1
Italy	23.6	22.3	54.1	22.9	24.1	53.0
Germany	38.7	16.0	45.3	38.7	16.5	44.7
Belgium	39.3	19.7	41.0	40.6	19.9	39.5
Netherlands	42.3	26.1	31.6	38.4	32.0	29.5

Sources: OECD Statistics, CBS Statistics 1995 and 1996, Sdu/uitgeverij, 's-Gravenhage.

Table 2: Ownership of shares in The Netherlands (in percentages of the total value of shares)

Owner categories	1986	1990	1994	1995
Banks	0.8	0.7	0.6	0.8
Institutional investors [1)]	13.4	19.0	18.8	19.1
Foreign owners	47.2	44.0	41.8	39.3
Investment companies	1.6	1.5	1.2	1.3
Other [2)]	36.9	34.8	37.6	39.4
Total	100.0	100.0	100.0	100.0

Sources: Committee Peters, *Corporate Governance in Nederland*, Secretariaat Corporate Governance, Beursplein 5, Amsterdam, 1996.

[1)]: insurance companies, pension funds and social funds
[2)]: the remaining shares, mostly in hands of households and industry

Table 3: Percentages of listed Dutch companies having a trust fund, according to the voting rights exercised by them in 1994 (N = 96).

	Less than 33.3 %	Between 33.3% and 50%	Between 50% and 66.6%	More than 66.6 %	Total voting rights
Real voting rights	64.5 %	6.5 %	5.9 %	23.1 %	100 %
Voting rights including potential rights	52.1 %	5.9 %	4.1 %	37.3 %	100 %

Source: Stichting Toezicht Effectenverkeer, 1995.

Table 4: Analysis of the Response and Nonresponse of the survey

Panel A: Response to the Survey.

Number of Questionnaires sent	167 (100%)
Number of Questionnaires received	65 (39 %)
Number of Questionnaires used in analysis	54 (32 %)

Panel B: Analysis of the Nonresponse (n = 26 (16%)).

too busy to respond	62 %
too many surveys received	8 %
information required is too sensitive to disclose	4 %
no interest in the subject	15 %
illness and holidays	11 %

Table 5: Distribution of sample firms according to Economic Sector

Economic Sector	Number of sample firms	Percentage of all firms in sector
1. Consumer Goods	6	22 %
2. Capital Goods	4	16 %
3. Basic Industry	10	42 %
4. Construction Industry	3	25 %
5. Transport and Communications	4	50 %
6. Non-financial Service Industry	12	50 %
7. Trade	10	29 %
8. Banks & other financial institutions	2	18 %
9. Insurance Companies	1	25 %
10. Mineral and Mining Industry	1	50 %

Table 6: Means of Perceived Short Term Pressure by Economic sector

Economic Sector (number of companies)	Perceived Short Term Pressure	
Low Pressure Group (7)	7.7	
Capital Goods (4)		8.8
Insurance Companies (2)		6.0
Mineral and Minig Industry (1)		7.0
Medium Pressure Group (30)	10.2	
Basic Industry (9)		10.3
Construction Industry (3)		10.7
Non-financial Services (10)		10.3
Trade (8)		9.6
High Pressure Group (9)	11.6	
Consumer Goods (5)		11.8
Transport and Communications (3)		10.7
Banks & other financial institutions (1)		13.0
All groups	10.1	

Table 7: Relationship between R&D Strategy and Shareholders' Short Term Pressures as perceived by Dutch Corporate Financial Managers
(Spearman Rank Correlation Coefficients, significance tests between parentheses (1 -tailed))

	Hypothesis	Sample size	Coefficient	(p-value)
	R&D Expenditures [1]			
1	'High Pressured Firms' (HPF) will have lower expenditures on R&D	42	- 0.4311	(0.002)
2	HPF will have lower R&D intensity')	37	- 0.0401	(0.407)
3	HPF will have relatively lower expenditures on fundamental research in comparison to applied research	44	- 0.1327	(0.195)
	R&D Policy			
4	HPFs tend to place more emphasis on costs than on product innovation	48	- 0.1586	(0.141)
5	HPFs consider R&D more as an 'overhead activity' which needs to be cut back in times of financial crisis	49	- 0.0040	(0.489)
6	HPFs believe that innovation generated internally is more effective than innovation through acquisitions	49	0.1955	(0.089)

[1]: Corporate expenditures on R&D in 1995
[2]: R&D intensity is calculated as 'corporate expenditures on R&D' divided by 'total sales' (both are 1995 figures)

Table 8: Relationship between companies' systems of R&D Planning, Budgeting & Performance Evaluation and Shareholders' Short Term Pressures as perceived by Dutch Corporate Financial Managers
(Spear-man Rank Correlation Coefficients, significance tests between parentheses (1 -tailed))

Hypothesis	Sample size	Coefficient	(p-value)
R&D Planning			
1 HPFs involve top management actively in strategic planning of R&D programmes	49	0.2579	(0.037)
2 HPFs involve top management actively in budgeting for R&D activities	48	0.0238	(0.436)
R&D Budgeting			
3 HPFs place more emphasis on financial criteria (like last year's profit, next year's profit forecast and the firm's current cash position) in setting the R&D budget	46	0.2854	(0.027)
4 HPFs place less emphasis on market criteria (like sales growth, market share and the competitiors' positions) in setting the R&D budget	47	0.0357	(0.406)
Evaluation of R&D Performance			
5 HPFs place more emphasis on financial criteria while evaluating R&D performance	44	- 0.1042	(0.251)
6 HPFs place less emphasis on creativity, market success and alignment with existing activities while evaluating R&D performance	46	0.0240	(0.437)

NOTES

1. These companies are (in order of size): Royal Dutch Shell, Unilever, Royal Telecom Company (KPN), ING-Group, ABN-AMRO bank and Philips.

2. The General Meeting of Shareholders' right to appoint members of the Management Board and the Board of Directors can however be limited. Provisions in the statutes may give the right of nomination to a priority shareholders' meeting. Civil Law also permits other (external) parties, for instance the Dutch State, to appoint up to a third of the members of the Board of Directors.

3. A company is legally obliged to install a workers' council if the company employs more at least 100 workers, or if the company employs at least 35 workers for at least one third of a full-time position.

4. This committee was named after its president, drs. J .F.M. Peters, who is former president of the Dutch insurance company AEGON. The committee was composed of three respresentatives of the the Association of Stock Issuing Companies (VEUO), three members representing investors (including intstitutional investors), three experts on corporate governance, two representatives of the Amsterdam stock exchange, a counseler and an independent chairman.

5. In this analysis explicit attention should be given to the technological and financial innovations, the nature of the core business of the company, the globalization of its activities, and medium- as well as longterm business risks.

6. These topics are: (1) company strategy, including growth scenario, the presence in specific branches of industry, risk profile and profit level; (2) major changes in nature and size of the corporation; (3) dividend policy; (4) size and composition of shares; (5) changes in company statutes; (6) approval of annual reports.

7. Two investment funds are seperately listed at the Amsterdam Stock Exchange while belonging to the same (listed) investment firm. These two funds were excluded from the survey, preventing duplication of data.