

RESEARCH PAPERS



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# Financial Management and Stock Markets in Finland

## INTRODUCTION

Since 1991 when Martikainen et al. published the first systematic review of studies examining the Finnish stock market, much new evidence has been published. Their paper provided an extensive review of all quantitative studies in the field. The major concern in the review was whether the markets are efficient or not. They made the following conclusions: "the serial dependence of returns in the Finnish stock market seems to be clearly higher than the returns of stocks in its major counterparts abroad", "some studies concerning semi-strong efficiency report higher level of inefficiency of the Finnish stock market than previously reported in other markets", "some differences are also reported due to the Finnish tax-system concerning dividends and capital gains", and that "international dependencies of Finnish stock returns are observed to be quite weak." Their extensive review offers a good basis for this review.

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Due to the increased number of studies in the field, we have decided to focus our paper on a few specific topics. In our analysis we are interested in studies which are concerned about the influences of financial management activities on stock markets or on individual shareholders. The purpose of this paper is to review, i.e. describe, analyse, compare and summarise, studies which examine how financial management activities influence both stock markets at an aggregate level and shareholders or a group of shareholders at an individual level. Aggregate-level stock market studies, which undoubtedly comprise the largest group of studies in the field, typically assume semi-strong market efficiency and examine how certain financial management features or acts affect shareholders' wealth. Therefore, most studies test simultaneously two hypotheses, one concerning the market efficiency and the other concerning the information content of financial management decisions. If the results indicate that financial management decisions fully and without any delay convey information to the stock market, we confirm that the markets are efficient. However, if the results indicate that stock markets do not behave according to our expectations, either the stock market efficiency hypothesis or information content hypothesis or even both do not gain support. Since no better theory than the efficient stock market theory has been presented, in most studies "it is useful to describe the market as efficient" (Ball, 1994). This topic has not been discussed in the papers which are reviewed in this study.

In individual-level studies, we are interested in how an individual shareholder or a certain group of shareholders perceive or act due to financial management activities of public companies. Such studies are currently rare due to various and rather obvious reasons, such as difficulties in collecting and analysing data compared to aggregate-level analysis. In addition, aggregate-level analysis seems to be more objective in nature, which fits to the positivist paradigm, whereas in the individual-level studies subjectiveness is an explicitly identifiable natural part of a study process.

By financial management we mean financial and dividend as well as capital investment decisions (see van Horne, 1995), and accordingly this study has been structured as follows: first, empirical studies of financial decisions and their relationships with the stock market are presented followed by a review of studies analysing dividend decisions. Next, we discuss capital investments from the perspective of capital markets, and finally, we present our suggestions for the future research on financial management from the stock market perspective. The studies included in this review are mainly comprised of published research monographs or articles in the books or journals examining Finnish stock markets. In this review, we attempt to place the Finnish evidence into the Finnish institutional context to highlight the similarities and differences between the Finnish evidence and financial theories.

## FINANCIAL DECISIONS

Financial decisions from the perspective of stock markets have been studied using five different approaches: first, how capital structures of companies are associated with the share value, stock returns and the systematic risk; second, how do capital structure decisions influence shareholders' wealth *ex ante*; third, what are the longitudinal influences of capital structure decisions; fourth, surveys to examine managers' and shareholders' opinions and actions concerning financial decisions; and fifth, field studies on financial decisions. This field of studies represent most of the reviewed articles, and therefore detailed information of the time period covered, the sample size, the time aggregation and the major results of association and event studies on seasoned equity offers are presented in Appendix 1.

### Association studies

Association studies have been conducted either using the cross-sectional or the longitudinal approach. These studies have typically applied the capital structure irrelevance approach (Modigliani and Miller, 1958), tax influence model (Modigliani and Miller, 1963), bankruptcy cost models (Stiglitz, 1969 and 1973; King, 1974) or pecking order theory<sup>1</sup> (Myers, 1984). The studies show that capital structure decisions are the most crucial decisions made by companies from the stock market perspective. The following patterns of associations between capital structure decisions and the share value or stock returns have been found.

The cross-sectional results suggest that prior to the tax reform in 1969, financial leverage had a positive effect on the market value of firms, but there seems to be a negative relationship between financial leverage and both stock returns and share value from the early 1970's until the changes in Finnish capital markets in the late 1980's (Yli-Olli, 1979; Martikainen, 1989, 1990 and 1992). This could be caused by underdeveloped capital markets since companies did not have good opportunities to raise equity from the stock market. Therefore, financial leverage of companies could be higher than the optimal capital structure. These results do not support tax- nor agency theory-based explanations of leverage. Interestingly, empirical results from the 1960's, early 1970's and late 1980's do not show a negative relationship between financial leverage and either stock returns or the value of the company. However, even slightly positive relationships have been reported (Torkko, 1974; Yli-Olli, 1979; Martikainen, 1990).

Martikainen and Yli-Olli (1990) examined whether systematic risk could be split into various risk factors. Based on the application of the arbitrage pricing theory (APT) they found that the ratio of equity to capital seems to be the most important factor in explaining average re-

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<sup>1</sup> According to the pecking order theory of capital structure, firms prefer retained earnings as their main source of finance followed by debt, and last comes external equity financing.

turns. Similar results were obtained by Martikainen (1993) using factor analysis, but contrary to expectations, high leverage and a high ratio of interest expenses to sales lower stock returns during the period 1975–1983. Although leverage could explain stock returns, leverage could not explain the riskiness of the firm (Martikainen, 1989).

These results suggest that in the Finnish stock market financial leverage does not offer any tax benefits for the firms. This could be due to the high level of available tax shield substitutes (see DeAngelo and Masulis, 1980) prior to the late 1980's, when the tax base was "broadened by cutting the reserves deductible in taxation, curtailing the tax-free status of the capital gains from the sales of fixed assets, and eliminating several other special tax relieves." (Järvenpää, 1996). Therefore, debt might not have a positive tax effect on the market value of listed companies prior to late the 1980's. The shift in the late 1960's, from an insignificant relationship between financial leverage to a negative relationship, could be related to the changes in the tax legislation, but careful examination of tax laws did not offer any simple explanation since several major shifts occurred at the time. Some of them should have had a positive effect on the relationship between financial leverage and stock returns. These include restrictions in the inventory reserves and the clearly defined maximum rate of depreciation. Other changes in tax legislation should have had a negative effect on this relationship. These include partial dividend deduction in taxation and the loss carried forward. These changes still offered a great set of tax shield substitutes.

The negative leverage effect on the stock returns and share value during this time period could be explained by the increased risk of the corporate bankruptcy or by the pecking order theory. Closer examination of the amount of bankruptcies and the real interest rate reveals that the risk of bankruptcy did not differ from the normal level and the real interest rate during the 1970's and early 1980's was exceptionally low<sup>2</sup>. These institutional features contradict the bankruptcy and financial hierarchy explanations. In the future it would be important to examine similar relationships with new data, since the institutional environment has dramatically changed. Simultaneously, systematic cross-country comparisons would help to evaluate the relevance of each theoretical approach to the association studies. Why stock markets have changed their behaviour towards financial leverage, and why financial leverage had a negative effect on stock returns and prices from the early 1970's to mid-1980's, are still unanswered questions that need to be further studied.

### **Event studies and related longitudinal studies**

Event studies examine how certain information influences stock prices during a certain time period such as a day, two days, a week or a month. Therefore, using this approach, it is possi-

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<sup>2</sup> During this time period, Finnish financial markets were not open for international investors.

ble to study how the announcements of capital structure decisions influence shareholders' wealth. The following capital structure decisions have been studied: rights issues, stock dividends<sup>3</sup>, stock splits<sup>4</sup>, cash offers and initial public offers (IPOs). These studies are typically based on information asymmetry models (Ross, 1977; Myers and Majluf, 1984) where company managers have more information than shareholders.

Finnish event studies consistently provide empirical evidence suggesting that announcements of rights issues, stock dividends and combined issues of the two are positive signals to the markets (Korhonen, 1975; Berglund et al., 1985 and 1987; Hietala and Löyttyniemi, 1991a; Ikäheimo and Heikkilä, 1993, 1996; Kivinen, 1995). These studies support the hypothesis that through these capital structure changes, company management conveys an implicit dividend increase signal. This empirical evidence does not support the model by Myers and Majluf (1984), which states that an equity offer announcement is a negative signal to the market due to adverse selection. Although this approach has not gained direct empirical support, some support can be found through the take-up level of current shareholders. Kivinen (1995) and Ikäheimo and Heikkilä (1996) found a positive correlation between the adjustment factor and the current shareholder take-up. Thus, company management may encourage higher take-up through the subscription terms. In addition, Kivinen (1995) found a negative market reaction to cash offers.

*Longitudinal studies* related to event studies have been rare. In Ikäheimo and Heikkilä (1993, 1996), the results confirm the assumption of an implicit dividend increasing signal by showing that for rights issues and combined issues the implicit promise to increase cash dividends ex post existed irrespective of the level of the implicit dividend increasing promise through the subscription terms of an equity offer. For future studies, it would be interesting to learn about stock returns after the equity offer and whether some contingencies could explain differences in the stock price performance.

The theoretical considerations are still under way, and both further theorising and empirical analysis definitely are needed. Four studies have *extended* the traditional event study approach to the new interesting fields. First, Hietala and Löyttyniemi (1991b) examined the effects of changes in the dual-class share structure<sup>5</sup> and whether the voting power has separate value. The separate value arises from the possibility of a take-over. Therefore, a decrease in the take-over probability lowers the price difference between the high voting power and low voting power shares. They conducted an event study with daily data to analyse whether

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<sup>3</sup> Stock dividends are included in the financial decisions instead of dividend decisions, since they are typically combined with rights issues thus normally conveying information simultaneously with the rights issues.

<sup>4</sup> Stock splits are included in the financial decisions instead of dividend decisions, since stock dividends are also included in this section.

<sup>5</sup> Dual-class share structure means that the company has issued both superior (A) and limited (B) voting power shares. The maximum voting difference was restricted in 1980 to the level of 20 to 1.

an equity offer affects the take-over probability. They had a sample of 30 announcements from the time period of 1975–1988. According to their results, the rights issue announcement lowers the take-over probability since the cumulative abnormal return difference between the high voting power shares and low voting power shares decreased after the announcement. Second, Vieru (1993) examined whether the stock returns of companies with various financial characteristics behave differently around the base rate change announcements made by the Bank of Finland. He argued that the financial leverage and profitability of the firm affect the stock price reaction on the base rate change announcements. The data comprised of all base rate changes from summer 1973 to spring 1986. During this time period there were four rate-increase announcements and seven rate-decrease announcements. Using a sample of 30 HeSE-listed industrial firms which were classified into two groups according to the level of the debt-to-equity ratio, he found that interest rate changes not only affected stock prices in general but they also seemed to influence differently depending on the firm's financial characteristics. The returns of less levered firms seem to show more positive market reaction to the base rate change than those of more levered firms. He did not offer any conclusive explanation for these results. Third, Heikkilä and Ikäheimo (1993) examined potential factors affecting the management's decision to set the subscription terms for an equity offer. They were interested in management's need to reduce the level of information asymmetry between the management and investors. They had a total sample of 28 announcements of rights issues or combined issues from the years 1974–1988. They found that following contingencies motivate company management to provide stronger signals to reduce information asymmetry: decreased profitability prior to the announcement, increase in current year performance, increase in current year dividends, and less positive stock market industry trend. These findings supported the information-signalling approach. Fourth, Kinnunen et al. (1994) analysed the income smoothing behaviour prior to equity offers. Their major interest rests on how earnings management can be used to signal the quality of the company prior to an equity issue. They argue that successful companies will manage earnings upwards to report earnings high enough to pay out dividends, which causes a costly signal due to tax consequences. They had a sample of 171 seasoned stock issues by HeSE-listed Finnish manufacturing and trade companies from the period 1970–1989. The results support the claim that by reporting costly excess earnings, firms attempt to decrease information asymmetry and the adverse selection costs of the equity offers. These four studies show the enormous possibilities to apply event study methods by adding various kinds of new variables to further analyse market reactions to the announcements of financial decisions as well as managerial motives and means to decrease information asymmetry and adverse selection costs. Further examination of investor communication would offer a rich area for future research.



Surprisingly, the event study method has not been applied to examine the information content of other financial announcements, like increases in debt, preferred shares or mezzanine finance, although they may provide new insight on the Finnish stock markets as well as on the theories which are employed to explain stock market and financial management behaviour. An exception to this is the Byman and Kjellman (1995) study, where they investigated the stock price reactions to the announcements of convertible bond issues. They had a sample of eight convertible bonds issued during 1990-1994 by Finnish HeSE-listed companies. They analysed the two-day stock price reaction following the announcement. They found a positive market reaction to announcements of convertible bond issues, which could be explained by the reduced potential of bankruptcy costs. In general, the major problem with other than equity offer announcements originates from difficulties to construct an appropriate data set which is large and accurate enough for a proper event study.

Not until recently have initial public offers gained interest among Finnish stock market researchers. One of the major contributions in this field was Keloharju's dissertation in 1992. In this seminal work he employed Rock's (1986) information asymmetry model and the concept of the winner's curse<sup>6</sup> to the new-issue market (see especially Keloharju, 1993). He had a sample of 80 IPOs issued between 1984 and 1989 either on the HeSE, the Finnish OTC list or the Stockbroker's list. He found that in the Finnish IPO markets winner's curse is present. In addition, this underpricing did not appear to be related to lawsuit avoidance. Further, he found that in the long run the IPO firms substantially underperform the market index.

In his dissertation, Keloharju (1992) also examined the association between IPOs and subsequent seasoned equity offers. With a sample of 91 Finnish IPOs between the beginning of 1984 and the end of June 1991, he tested whether the IPO pricing decisions are endogenous to the seasoned equity offers (information asymmetry hypothesis) and whether "the issuer receives information about the value of its projects from the market price of its shares" (market feedback hypothesis). Consistently with the information asymmetry and market feedback hypothesis, he found that larger post-IPO returns are associated with a higher probability and shorter time period from the initial public offer to the subsequent seasoned equity offer. Later, Keloharju has published several papers in the field. Keloharju and Kulp (1996) used a sample of all Finnish IPOs to examine first whether the current shareholders signal their insider information about the value of the company by their willingness to retain equity (signalling hypothesis) second, whether there is a relationship between management ownership and market valuation (agency hypothesis) and third, whether smaller firms raise proportionally larger amounts

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<sup>6</sup> The winner's curse means that uninformed investors are less successful in getting shares in underpriced new equity offers, since informed investors prefer underpriced new issues.

of equity (wealth effect hypothesis). They used a sample of 60 IPOs in Finland between the beginning of 1984 and the end of 1993 which were initiated on the HeSE, OTC list or the Stockbrokers' list. The results suggest that current shareholders signal the quality of the firm by retained equity and that the relative firm value is positive at low levels of managerial ownership but insignificant at higher levels of managerial ownership, and furthermore, the firms with small book equity tend to raise proportionally larger amounts of equity. These results support the signalling approach and wealth effect hypothesis, and offer some support for the agency hypothesis (Keloharju and Kulp, 1996).

Recently Keloharju (1996, 1997) presented very interesting evidence of the anatomy of Finnish IPO investors. He was interested in whether institutional investors realise larger initial returns than retail investors do. He investigated 29 IPOs lead-managed by Kansallis-Osake-Pankki between May 1987 and March 1994. The database comprised of over 85,000 investors. Applying regression analysis, he found that institutional investors were not better informed than smaller investors were. In addition, the results suggest that within each shareholder class, investors placing large orders are better informed than those placing small orders are. Such a classification into various investor groups offers a unique market for creating test settings which fit very well the current major theory development which would have been impossible in any major stock markets.

### Surveys

Survey studies have been rare in the Finnish stock market. Similar rarity is common also for other stock exchanges although such studies could offer very good guidance for hypothesis generation when analysing stock returns surrounding financial decisions.

Kjellman and Hansén (1993) conducted a survey in early 1993 in order to examine whether information asymmetry induces managers to accentuate the importance of long-term financial planning. Both OTC and HeSE firms were examined (54 in total). They found that firm-specific issues, e.g. long-term survivability, cash flows, financial flexibility and risk, are more important than macroeconomic issues. These results are similar to the findings from the U.S. market. According to Finnish managers' conception, both issues of shares and increases in dividend payments are signals that ought to increase the value of a firm.

Using the same data, Kjellman and Hansén (1995) surveyed the financial decision-making of Finnish HeSE and OTC companies by asking managers whether they follow a static trade-off model or the pecking order theory. They found that most Finnish firms attempt to follow a target capital structure strategy with the exception of smaller firms, which were more likely to deviate from a target capital strategy. They found that only two out of fourteen factors were significantly different between the firms following a target capital structure and a financing

hierarchy: firms following a financing hierarchy regarded voting control as more important, and firms following a target capital structure regarded avoiding mispricing of securities to be issued as more important. This implies that one objective for following a financing hierarchy (the majority are OTC firms), instead of a target capital strategy, is to preserve the ownership structure of the firm. Contrary to the *ex ante* expectations, managers who preferred a target capital structure considered the factor, "avoiding mispricings of securities to be issued", as being more important than managers following a pecking order<sup>7</sup>. They found that managers often evaluate investment and financing decisions simultaneously, which is inconsistent with the classical financial theory. Therefore, security price reactions to capital structure changes may reflect revisions in market expectations of the firm's capability of realising the project to be financed. Furthermore, Kjellman and Hansén found that firms listed on the HeSE were more correctly priced than the OTC firms. This finding indicates that the existence of asymmetric information seems to induce some managers to follow a pecking order. An interesting issue for further research would be to examine how managerial perceptions of capital structure decisions have evolved when the market conditions have changed. Also, the increased foreign ownership (including US funds) may have affected management's perception of the capital structure.

### **Field studies and case studies**

A field study means studies of social practices typically in a number of companies or sites and case study normally implies a singly unit of analysis (Scapens, 1990). Field studies and case studies have been rare in stock market studies both in Finland and abroad. The reason for the lack of such studies originates from the strong influence of "social science paradigm" in the field of finance (see Panozzo, 1997).

Jääskeläinen (1991) made an interview study of 20 initial public offer cases during the period of 1985–1990 for HeSE and OTC-list companies. He found that raising risky capital does not play any major role in explaining why companies become public although it is emphasised in the share issue prospectus. For the company managers, an IPO is a strategic choice to change ownership structure, to grow, to guarantee economic conditions and restructuring of the industry. During the time period of 1987–1989, several companies that were not ready for an IPO, were introduced to the market due to the self-interest of the banks which offer emission services. These offers improved the managerial culture of the companies, their financial disclosure policy and the result consciousness of the managers. Thus, management con-

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<sup>7</sup> The pecking order theory of capital structure means that companies prefer retained earnings as their main financing source for capital investments (see Myers, 1984).

trol systems were also improved. The attitudes of the owners become more profit conscious and this improved the power of the owners. These cultural changes are slow. During the period of the study, the issue price was not accurately calculated and dividend payment pressures were underestimated. The most visible benefit came from the improved public image of the listed company. The visibility of the company to stakeholders and especially to customers appeared to be important. Especially in an international context, co-operation with other companies is easier to conduct if the company is public. The image was perceived to be important especially for the companies in consumption products and outside Helsinki. This was the case also for the state-owned companies.

Ikäheimo (1996) conducted a field study in early 1990's where he made an in-depth analysis of a single rights issue by interviewing company representatives, representatives of the underwriter, the auditor, the financial analysts, the press and the shareholders totalling 23 interviews. He provided new insight on questions like: why was the equity offer arranged, how were the subscription terms set, how was the timing of the equity set, how were the financial disclosures managed at the time of the equity offer, what kinds of information asymmetries existed in the share market, and how did the shareholders perceive the equity offer and the financial disclosure management. He found that the way the rights issue was communicated by company management and interpreted by the shareholders was greatly influenced by two competing ideologies, co-operative and corporative ones. By putting more emphasis on the corporative ideology connected to a perceived change in the company production, the current CEO succeeded in raising the reputation of the case company as a public company thus encouraging the company management to issue shares. It was also found that the timing of the equity offer was connected to the expanding stock market with an uptrend, as well as with improved profitability and the promising expectations of the High-tech division of the company. According to the interviews, there were two major reasons to use a rights issue as the flotation method. One relates to the profitable investment opportunities similar to the explanation of Myers and Majluf (1984), but the other one, the intention to reward faithful shareholders, did not fit the simple information asymmetry models. Another interesting feature of the rights issue is the mutual information asymmetry. On the one hand, shareholders did not know as much of the company as managers did, but on the other hand, managers did not know how shareholders perceived the signals managers sent.

These two studies indicate the importance of interpretations while studying and understanding how stock markets actually work when financial decisions are made and therefore such studies are important in order to offer more accurate interpretations of the results obtained in association and event studies.

## DIVIDEND DECISIONS

In this section, Finnish empirical studies examining the relationship between company dividend decisions and stock market returns are reviewed. These studies can be divided into three major categories: first, the relationship between dividend policy and the value of the company; second, the information content of dividend decisions; and third, the ex-dividend day behaviour of stock prices. Of these three areas, the majority of research effort has been focused on the information content of dividend decisions, whereas only a few studies have addressed the other two issues.

### Association studies

Torkko (1974) examined the effect of dividend policy on investors' required rate of return. He tested the Gordon growth model<sup>8</sup> using a sample of 41 listed Finnish companies during the period 1963–1971. The model appeared to work well on average, but for individual companies the model often did not provide reliable estimates of the required rate of return for the company. The association between the market value of companies and their dividend policy was directly examined by Yli-Olli (1979). He analysed a sample of 30 Finnish industrial firms listed on the HeSE during the period 1966–1973. The regressions for the cross-sectional data showed no association between the average market value during the year examined and the dividend policy of the companies. Martikainen (1990) adopted the association type of approach to analyse the relationship between the dividend growth rate and stock market returns. The sample of the study contained 28 Finnish companies listed on the HeSE during 1975–1986. The Spearman rank correlation was used to examine the association between average weekly market-adjusted returns and portfolios of different average dividend growth rates. A significant positive correlation was detected between the dividend growth rate and the abnormal returns. Moreover, this positive association appeared to be strongest during the 1984–1986 subperiod.

Based on the early association studies, there seems to be no clear evidence on the relationships between dividends and the value of the firm. This could be due to conservative dividend policies of the firms, taxation or underdeveloped capital markets. Later evidence by Martikainen (1990) suggests that dividends are related to stock returns. Further studies are needed to make cross-sectional analysis for the various time periods to examine how stock markets and their valuation of dividends have developed over time.

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<sup>8</sup> About the Gordon growth model see Copeland and Weston (1988) p. 21; Brealey and Myers (1996) p. 63; and Heikkilä (1997) pp. 23–25.

### Event studies

The informational characteristics of dividend announcements have been analysed by examining the stock market reaction to dividend announcements and the association between the changes in dividends and the abnormal returns. These studies apply signalling models like Aharony and Swary (1980).

Korhonen (1976) analysed the information content of dividends using a sample of 18 companies listed on the HeSE in 1966–1971. He used cross-sectional data to examine the weekly average abnormal market return during the 50 weeks preceding and 25 weeks following the week of a dividend announcement. He was not able to discern any difference in the market model residuals following the announcements of unexpected increases and unexpected decreases in dividends before, after or concurrently with the dividend announcement. This suggests that the information content of dividends is low. However, Back (1976) reported evidence suggesting that unexpected changes in dividends do convey significant information to the market. She analysed a sample of 25 Finnish companies during the period 1972–1976. One reason for the difference between her results and those of Korhonen (1976) may be the different time-period studied.

More recently, Martikainen et al. (1993) examined the long-term market reaction to dividend announcements during the period 1977–1986. They used daily stock market returns to analyse the market reaction around the dates of shareholders' meetings which were used as proxies for the dividend announcement dates. They found a strong relationship between the sign of unexpected changes in cash dividends and abnormal returns measured by the market-adjusted returns. Moreover, the dividends examined in their study were found to convey information up to 300 days after the shareholder meeting, suggesting that dividend changes may contain information about the future success of companies. However, the relationship between the magnitude of unexpected dividend changes and abnormal returns appeared to be weak.

As in Martikainen et al. (1993), a naïve model of unexpected dividend changes was applied by Heikkilä (1997). He analysed 87 announcements of unexpected changes in dividends during 1983–1994 using the actual announcement dates. The results suggested that both the sign of an unexpected dividend change and the magnitude of it convey relevant information to the market. However, the information content appeared to be considerably weaker during the latter subperiod (1989–1994) of the study. The significant structural changes instituted on the Finnish stock markets since the enactment of the 1989 Security Market Act were suggested as one explanation for the declining information content of dividend announcements. These changes were likely to improve the quality of competing information sources thus reducing the importance of dividend signals.

These studies show that until the early 1980's dividends have not had any major impact on stock returns. Since then, however, some evidence on the information content of dividend announcements has been found. Recent studies suggest that further examination of the environmental and contextual changes is needed to improve the explanations of the stock market reactions on the dividend announcements.

### **Ex-dividend day behaviour of stock prices**

The third category of studies focuses on the ex-dividend day behaviour of stock prices. These studies examine the relationship between the market value of stocks and the differences in shareholders' taxation (see Copeland and Weston, 1988, 578–582).

Hietala (1987, 1990) studied ex-dividend day behaviour of stock prices on the HeSE during the 1974–1985 period. The average stock price drop on the ex-dividend day was about 90% of the amount of the dividend. Furthermore, this price drop was similar in all dividend yield quintiles. These results suggest that all investors prefer capital gains to dividends, and they support the hypothesis that no tax clienteles exist in the Finnish stock market.

Sorjonen (1988) examined the issue using data from the Finnish stock market during the 1960–1985 period. His results suggest that capital gains were preferred to dividends during the 1960–1968 period, dividends and capital gains were equally preferred during the 1969–1976 period and dividends were preferred to capital gains during the 1977–1985 period. In other words, his results supported the dividend yield effect during the first period but during the last period the effect seemed to work to the opposite direction. According to Sorjonen, the reason for this shift in investors' preferences is the tax advantage of distributed profit in corporate taxation, which has more than outweighed the disadvantage involved in personal taxation of dividend income. Sorjonen argues that the difference between his conclusions and those of Hietala is that Hietala ignored the fact that in Finland the effective tax rate on corporate distributions was lower than on retained earnings. The reason for the lower tax rate was the partial deductibility of dividend payments on old equity from the tax base. However, Sorjonen's results support Hietala's conclusion that taxes affect the valuation of dividends

More recently, Sorjonen (1995) re-examined the ex-dividend day stock price behaviour on the Finnish stock market during the period 1989–1992. This data period enabled him to analyse the implications of the 1990 tax reform on the ex-dividend stock price behaviour. Sorjonen concludes that personal taxes affect the valuation of stocks on the ex-dividend day, both before and after the tax reform. Moreover, the behaviour of short-term traders appeared not to be important. Finally, he found no evidence of a tax-based clientele effect on the Finnish stock market.

### Surveys

Kjellman and Hansén (1993) conducted the only survey, where they report that management of companies considering increasing the level of dividend payout considered their companies undervalued by the market. This finding supports the argument that the announcements of dividend changes would have information content.

### Summary

More research is clearly needed in order to determine the effects that the considerable structural changes in the Finnish capital markets have had on the market's perception of dividend decisions. Furthermore, more attention should be addressed on factors that may influence management's dividend decisions and the resulting market reaction. Such factors may, for example, be related to the macroeconomic situation, the size of the firm or the ownership structure of the firm.

## INVESTMENT DECISIONS

Capital investments are major decisions which define the profitability and the future value of a company. The number of studies examining the direct relationship between the market value of companies and their capital investment decisions has been rather limited both in Finland and abroad. Instead, most of the studies have been indirect ones, where capital structure and dividend announcements are examined. This is partly due to the difficulty in analysing the information content of capital investment decisions separately from other simultaneous financial management decisions. In addition, no association studies have been conducted between capital investments and stock returns or share value.

Ikäheimo and Lumijärvi (1990) analysed the stock market reaction resulting from announcements of large investments by 15 Finnish pulp and paper companies during the period 1985–1989. They detected a significant average stock market reaction during the two-day event period. However, this negative market reaction was reversed after the event period, and the returns were mostly positive during the 29 days following the announcement. The authors suggest that the negative average event-period return may be due to short-term investors who expect that new capital investments reduce the short-term profits of the company, and accordingly regard the decision as a selling signal. On the other hand, long-term investors, whose reaction to the announcement is somewhat slower, consider the capital investment decision as an indication of increased long-term profit opportunities.

Juurmaa (1991) analysed the stock market reaction to announcements of acquisitions completed by Finnish and Swedish firms during the period 1983–1988. His sample of Finnish textile, metal and forest companies listed on the HeSE consists of six acquisitions. The results



showed significant positive event-period abnormal returns for both the target companies and the acquiring companies. However, for the period extending from day -40 to day +15 the average cumulative abnormal return for the target companies was positive but insignificant while for the acquiring companies it was significantly negative.

Although this area should be of major concern in capital market studies, it has gained very limited interest among finance researchers. Therefore, more research with larger samples is needed in order to gain a better understanding of the association between company investment announcements and stock market returns.

## CONCLUSIONS

In this review we have presented Finnish empirical evidence of how financial management, i.e. financial, dividend and capital investment decisions, have been studied from the perspective of stock markets. Based on these studies we conclude that the Finnish stock market has not behaved similarly to the U.S. market. For example, financial leverage has had a negative effect on the stock prices and stock returns, equity offers seem to have a positive effect on the stock prices and there is no clear clientele effect in Finland. This could be due to underdeveloped markets, differences in institutional settings or differences in the accepted behavioural models. During the late 1980's and early 1990's, extensive changes have occurred in the Finnish capital markets and financing systems. For example, foreign and institutional shareholders have brought new types of investment behaviour into the Finnish stock market and such changes may affect the managerial acts of the public companies. Our knowledge of the influences of these changes is still limited.

In order to go deeper into the financial management topic from the stock market perspective, we need to know how the attitudes of company managers and shareholders have evolved, and whether there have been shifts in the theories which could explain stock market as well as financial management behaviour during different time periods. For further understanding, we need to make more contextualized and institutionalised studies in the field. Further research could be focused on the following areas. First, further explanatory factors similar to McConnell and Servaes (1995), Ikenberry et al. (1996) and Jung et al. (1996) could be included in regressions to explain the influences of financial management decisions. Second, managerial and shareholders' attitudes towards financial management decisions could be directly examined by applying the survey method, similar to de Klerk (1993). Third, case and field studies could be conducted in order to examine the relevance of current theories in specific cases and to understand actors' perceptions of financial management decisions, similar to Baker (1992), Granlund and Ikäheimo (1993), Wruck (1995) and Radebaugh et al. (1995). ■

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## APPENDIX 1. Review of the previous studies

Study	Background	Time period and sample	Method	Variables of interest	Major results and comments
<b>Association studies</b>					
<b>Martikainen (1989)</b>	CAPM, link between systematic risk and return and financial statement analysis	Years 1974–1985 in three groups (74–77, 78–81, 82–85), 26 HeSE-listed Finnish firms	Cross-sectional and time-series analysis, OLS method and factor analysis	Dep: stock price, return and variance in stock and systematic risk Indep: profitability, capital structure, operating leverage and growth	Financial leverage has a negative effect on both stock prices and stock returns and no effect on systematic risk
<b>Martikainen (1990)</b>	CAPM, link between systematic risks and return and individual and incremental significance of financial characteristics	Years 1975–1986 divided into four sub-periods 28 HeSE-listed Finnish firms	Cross-sectional analysis, OLS method, factor analysis, transformation analysis	Dep: stock return and systematic risk Indep: profitability, financial leverage, operating leverage and growth	Individual significance: Financial leverage has a negative effect on stock returns during 1975–1983, and no effect during 1984–1986. Incremental significance: leverage factor was highly related to stock returns, systematic risk did not appear to be related to financial characteristics
<b>Martikainen (1992)</b> (article based on Martikainen, 1990)	CAPM, link between systematic risk and return and individual significant economic determinants	Years 1975–1986 divided into four sub-periods 28 HeSE-listed Finnish firms	Cross-sectional analysis, correlation analysis	Dep: stock return Indep: profitability, financial leverage, operating leverage and growth	Financial leverage has a negative effect on stock returns during 1975–1983, and no effect during 1984–1986.
<b>Martikainen (1993)</b> (article based on Martikainen, 1990)	Link between stock return and both individual and incremental significance of financial characteristics	Years 1975–1986 divided into four sub-periods 28 HeSE-listed Finnish firms	Cross-sectional analysis, regression analysis, factor analysis, transformation analysis	Dep: stock return Indep: profitability, financial leverage, operating leverage and growth	Leverage factor was related to stock returns, but no single ratio had incremental information content.
<b>Torkko (1974)</b>	Gordon growth model	Year 1963–1971 23 HeSE-listed Finnish firms	Cross-sectional analysis OLS method	Dep: required return Indep: business risk, financial risk, company risk, market risk	Financial leverage has a positive but insignificant effect on the required return
<b>Yli-Olli (1979)</b>	Modigliani & Miller: link between the cost of capital and the market valuation of the firm, taxation benefit	Two different groups: 1966–1969 and 1970–1972 30 HeSE-listed Finnish industrial firms	Cross-sectional analysis 2SLS-regression	Dep: market value Indep: leverage, growth, dividend policy, size and industry	In 1966–1969 leverage has a positive but decreasing effect on market value. In 1972 and 1973, debt has a negative effect. Dividend policy did not affect the market value. Support for traditional theory after considering tax effect.

continued

<b>Event studies (and longitudinal studies)</b>				
<b>Berglund et al. (1985) and (1987)</b>	Semi-strong market efficiency hypothesis, dividend increasing hypothesis	105 announcements of stock dividends, rights issues and combinations in HeSE, 1972–1981	Cross-sectional analysis, CAPM and market model, weekly return from t-15 to t+15 weeks	6 weeks prior to announcement a positive reaction, most of the reaction during the announcement week. Strongest reaction to stock dividends, price movement continues up to +15 weeks. Supported both hypothesis.
<b>Hietala &amp; Löytyniemi (1991a)</b>	Semi-strong market efficiency implicit dividend increase hypothesis	74 announcements of stock dividends, rights issues and combinations in HeSE, 1975–1988	Cross-sectional analysis, standard market model and market model OLS regression	Support for the implicit dividend increase hypothesis, i.e. adjustment factor explain the abnormal returns.
<b>Ikaheimo &amp; Heikkilä (1993)</b>	Semi-strong market efficiency, Myers and Majluf model, implicit dividend increase hypothesis	34 announcements of stock dividends, rights issues and combinations in HeSE, 1974–1988, cash flows from years 1972–1990	Cross-sectional analysis, standard market model, MAR, two-day data OLS regression Ex ante and ex post analysis	Ex ante: Support for the implicit dividend increase hypothesis, especially stock dividends. Ex post: Mainly support for the implicit dividend increase hypothesis, but not for large signals
<b>Ikaheimo &amp; Heikkilä (1996)</b>	Semi-strong market efficiency, Myers and Majluf model, implicit dividend increase hypothesis, Eckbo and Masulis take-up model	67 announcements of stock dividends, rights issues and combinations in HeSE, 1972–1987, cash flows from years 1970–1989	Cross-sectional analysis, standard market model, MAR, two-day data OLS regression Ex ante and ex post analysis	Ex ante: High average take-up by old shareholders, positive market reaction to announcements of rights issues and stock dividends. adjustment factor has a positive effect on abnormal returns. Ex post: No positive changes in cash flows, support for implicit dividend increase hypothesis.
<b>Kivinen (1995)</b>	Market timing, Eckbo and Masulis take-up model, implicit dividend increase hypothesis	Announcements of rights offers and cash offers in HeSE, 1980–1994	Cross-sectional analysis, standard market model, three-day data OLS regression	Adjustment factor has a positive effect on both stock returns and take-up level, and issue size has a negative effect. Price reaction was positive for combined issues, insignificant for rights issues and negative for cash offers.
<b>Korhonen (1975)</b>	Semi-strong market efficiency Dividend increasing hypothesis	17 stock dividends in HeSE, 1960–1971	Cross-sectional analysis, standard market model weekly return OLS regression	Abnormal positive returns several weeks prior to the stock dividend announcement. Abnormal positive returns continue at least 15 weeks after the announcement. Supported the hypothesis.