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Dividend Policy, Corporate Financing, and Mergers and Acquisitions in Finland; A Survey

ABSTRACT

This paper surveys empirical research in Finland on central topics within the area of corporate finance, that is, topics related to corporate financing (including issues of equity and debt), dividend policy, and mergers and acquisitions. For each of these three core topics, a brief overview of the papers surveyed and their connections to each other is provided. Some central results are described in more detail. Finally, these results are summarised in order to provide a picture of level of current knowledge of the empirical regularities observed on the Finnish market, and the theories gaining support in explaining these. The paper ends with suggestions for future research.

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Key words: *Capital Structure, Security Issues, Dividends, Mergers*

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1. INTRODUCTION

Early empirical research in corporate finance in Finland dates back to the 1970's. However, the main upheaval of empirical research took place in the 1980's. This is the period when in international research, many of the Modigliani & Miller (1958), and Miller & Modigliani (1961) assumptions (the assumptions producing capital structure irrelevancy and dividend policy irrelevancy) were being removed in a large number of theoretical corporate finance applications. The empirical research in Finland focused on testing different models and implications of these more recent theoretical papers. Especially, the implications of asymmetric information and agency costs for corporate financing decisions have been studied in different settings.

The general purpose of this paper is to give a survey of empirical research done in Finland and using Finnish data, within the area of corporate finance. The goal is further narrowed to only consider work associated with dividend policy, corporate financing decisions, and mergers and acquisitions.¹ Theoretical contributions by Finnish researchers on the selected topics, and papers studying foreign markets, are hence excluded. We find that due to the nearly nonexistent survey literature in combination with the large amount of research work on the selected topics in Finland, there is a call for this type of survey. Although we have tried to survey research from all Finland, we frankly admit a "home bias" in the sense that especially concerning unpublished research (graduate theses), some bias towards work from the Swedish School of Economics and Business Administration is present.

The survey is organised according to the three main areas covered. In section two, work related to dividends is discussed. This section also includes a discussion of stock dividends. In section three, studies related to the external financing decision are covered. The section starts with a survey of capital structure determinants, wherafter research on issues of equity and debt, and initial public issues are surveyed. In section four, a survey of research on mergers and takeovers is given. Section five gives concluding comments.

2. Cash and Stock Dividends

Although one of the seminal papers that with no doubt can be considered representing research within the area of finance in Finland dealt with dividends (Korhonen 1976), dividend policy as such has been the main concern in relatively few empirical studies. The empirical research related to dividend topics can be divided into three main categories, those modelling the dividend policy and / or investigating the informational content of unexpected cash divi-

¹ Within the area of corporate policy, a large part of the theoretical and empirical questions investigated internationally falls traditionally within these topics (see e.g. the topics covered in Copeland & Weston (1988)). The same is true for research in Finland.

dend announcements (and the incremental power of these as compared to earnings announcements), those investigating stock price behaviour on the ex-dividend day for cash dividends, and finally those investigating price reactions at the announcements of a suggested alternative form for increasing the future gross cash dividend amount paid out, the stock dividend.

Theoretically, the first two lines of research on cash dividends follow the paths opened when the basic assumptions of the Miller and Modigliani (1961) dividend irrelevancy proposition are relaxed, namely the assumptions concerning no taxes, no informational asymmetries, and no agency costs. Whereas relaxing the latter two assumptions can lead to value effects produced by dividend announcements, the effect of differential tax treatment for cash dividends and capital gains can cause clientele effects and ex-dividend day behaviour where the stock price drop does not correspond to the size of the dividend paid out.

Studies of price effects of stock dividend announcements have in turn traditionally often been investigated together with other forms of security issues. Since the dominating explanation, and the one gaining some support in studies using Finnish data, is related to dividend signalling arguments, studies of stock dividends and also splits are discussed in this section of the survey.

2.1. Dividend Policy and the Information Content of Dividends

Relaxing the assumption of equal and immediate information for all opens the path to dividend signalling models (pioneered by, e.g., Bhattacharya (1979) and followed by many others). Assuming agency costs related to free cash flows, an unexpected increase in dividend payments can also, due to that reason, produce a positive price reaction. Investigation of the informational content of dividend announcements in Finland is, however, to some degree blurred by the fact that dividend announcements regularly occur simultaneously with earnings announcements. Also, most companies pay dividends only once a year contrary to companies, e.g., in the U.S., a fact that might enforce the informational content of dividends in Finland and thus make it an issue worth more attention.

Central to studies of unexpected dividend announcements is, of course, the correct modelling of expected dividend payments, i.e., the modelling of dividend policy. Therefore, these two issues are dealt with in this same section, starting with studies that have their main emphasis in modelling the dividend policy.

In Yli-Olli (1980) and (1982), both the dividend policy and the information content (predictive power) of dividends are investigated for a sample of Finnish firms, and in Yli-Olli (1982) also for Japanese and Swedish firms. Two dividend models are estimated; one is a Lintner (1956) type of model, the other a model investigating the power of dividend changes in predicting future earnings. In Yli-Olli (1982), the time periods are somewhat different for the three coun-

tries, but included within the time range of 1958 to 1980. The results indicate that the lagged dividend was the main determinant of current dividends, and the speed of adjustment coefficient (the sensitivity of dividends to target dividends) was rather low, 0.26 in Japan, 0.10 in Sweden, and 0.07 in Finland. Contrary to a previous study by Wahlroos (1979), some support for the predictive power of dividends was also obtained especially for Japanese and Swedish firms.

In Kasanen and Niskanen (1992), the dividend policy is modelled in a changing taxation environment. Using data for 1953 to 1985, a Lintner (1956) type of behavioral model for dividend determination is tested. The findings show that the major tax reform of 1969 (the lowering of the dividend taxation) had a positive effect on the dividend level. Lagged dividends appeared to be more important determinants of current dividends than current earnings.

Finnish companies have a lot of discretion in their earnings reporting. Kasanen, Kinnunen and Niskanen (1996) therefore investigate whether reported earnings are determined on the basis of the (mainly institutional) demand for dividends. The study is based on financial statement data for the years 1970 to 1989. Two measures for target earnings, based on current dividends, are used. The relationship between actual earnings management, and the management needed in order to meet target earnings, is investigated and found highly significant.²

In the first study of stock price reactions to dividend announcements by Korhonen (1976), a close proxy for actual announcement days (information available in Helsingin Sanomat) was used. This study remains in fact as one of the few studies using actual or close to actual announcement days in an event study of dividend announcements. The data is for the years 1955–1970 (1966–1970 in the event study). The paper investigates both the predictive power of dividends concerning future earnings, as well as announcement date price reactions. For the first topic, rather low explanatory power (although coefficients with expected signs) are obtained. The investigation of the price reactions to dividend announcements starts with the estimation of a Lintner (1956) type of model to predict expected dividends. The event study is performed using weekly data, and residuals from the market model. This part of the study resulted in no observed price effects around dividend announcements for the two groups of stocks with unexpectedly positive and unexpectedly negative dividend changes. The result is not surprising considering the long event window, and the fact that no account was taken of other simultaneous information releases (earnings announcements and others).

In Martikainen, Rothovius and Yli-Olli (1991, 1993), using data for the accounting years of 1977 to 1986, an association study of stock price reactions to announcements of annual

² Also in Yli-Olli (1980), the correlation between dividends and reported net earnings was rather high, which led to a conclusion of reversed causality, i.e., that firms may report only the net income needed to pay target dividends.

earnings and dividends is performed. The study is performed using daily data (market-deducted returns), but the analysis is subject to several approximations. Naive expectations models are used to determine unexpected changes in earnings and dividends, the annual shareholders meeting date is used as the announcement day³, and dividend announcements are in the main treatment analysed as such (with no reference to the corresponding earnings surprise). Finally, the study also investigates the incremental information content of earnings and dividends by regressions including both variables, and by regressions of residuals from one model (e.g., cumulative abnormal returns as explained by unexpected earnings) on the other variable (unexpected dividends). The results report first of all a strong relation between unexpected dividends and stock prices both prior to as well as after the event day. Both variables seemed to have informational content in multiple regressions, whereas the incremental explanatory power of dividends was not significant at the 10% level.

Many of the problems in previous studies are reduced or eliminated in Felixson (1993). The purpose of his study is to find out if there is a corroboration effect, as evidenced, e.g., in Kane, Lee and Marcus (1984) and Hoskin, Hughes, and Ricks (1986) between earnings and dividend announcements. The sample includes 91 observations for the years 1980 to 1989. Actual announcement dates (days preceding publication in Kauppalehti) are used, and the sample is restricted to earnings and dividend announcements within 10 trading days from each other. Expectations are computed using both time series models (Lintner's for dividends, a time series model including current market wide changes in earnings for the earnings variable) as well as naive models. Residual analysis is based on the market model. The results indicate that a corroboration effect exists, i.e., dividend and earnings announcements have incremental informational effects and strengthen each other. The results are not sensitive to the specification of the model for expected earnings and dividends.

Heikkilä's (1997) study strives to improve the analysis of the information content of earnings and dividends both datawise as well as methodologically. Actual announcement days are used for the years 1983 to 1994, and great care is taken in order to use a clean sample with respect to other information than earnings and dividends. The final sample includes 369 announcements divided into categories of separate versus simultaneous earnings and dividend announcements. Both pure and simultaneous announcements are investigated. Using daily data, residuals from the market model and the mean adjusted model are computed. One drawback, however, remains, the use of naive expectation models. Especially for earnings, such a model is likely to produce much noise during the latter part of the time period when quarterly finan-

³ The annual shareholders meeting date can in fact lag the actual announcement date for dividends (which usually is the board meeting date) by several months.

cial reports are common. Significant event day price reactions are observed in the pure dividend announcement set, especially during the first subperiod. Contrary to results such as in Asquith and Mullins (1983), dividend initiations do not seem to contain additional information. However, dividend omissions are seen as strongly negative events. This study of simultaneous dividend and earnings announcements indicate, contrary to most of the previous studies in Finland (but consistent with Venkatesh 1989), that in the case of simultaneous announcements the informational content is largely due to dividends.

The results are summarised in Table 1. Based on the evidence from the most detailed studies of the informational content of dividends on Finnish data, dividends do seem to have an incremental informational content. A place for improvement would seem to lie at least in better models for dividend and earnings expectations. Due to the simultaneity problem, these events mostly have to be analysed jointly. Better use of financial analysts' forecasts and other conditioning information, as well as previous quarterly reports, would be expected to bring down the noise in the event classifications. Also, relatively few attempts to model the dividend policy of Finnish companies, and especially studies investigating the predictive power of current dividends with respect to future earnings have been performed. During a time period when the ownership structure of Finnish companies is changing towards more international owners, and the dividend policy seems to be under change (increasing payout ratios), such studies would improve our understanding of the issues governing dividend decisions.

2.3. Ex-dividend day effects

Following Elton and Gruber (1970), the ex-dividend day behaviour of stocks has been investigated in attempts to infer clientele effects. If dividends and capital gains are taxed differently, arbitrage would force the ex-dividend day drop to a level which would equalise the after tax values of either selling the stock immediately before or on the ex dividend day⁴. In that case, it has been suggested that the ex dividend price drop in relation to the cash dividend might give an indication of the marginal tax rate of the marginal investor. Counter-arguments to this view have, however, been put forward, e.g., by Green (1980) and Kalay (1982).⁵

In Finland, the ex-dividend day behaviour of stock prices has been investigated mainly in order to test the tax hypothesis, i.e., to infer marginal tax rates and to verify effects of changes in taxation, or differential taxation for restricted and unrestricted stocks. Since the potential interval given by the short-term trading argument within which the dividend drop has to lie is

⁴ I.e., the return between these two dates should correspond to a normal daily return.

⁵ While Green (1980) shows that the ex-dividend day behaviour can give a biased estimate of the marginal investors' marginal tax rate due to timing effects, Kalay (1982) points out that the ex-dividend day drop has to lie within boundaries given by short-term traders' total transaction costs (including taxes).

TABLE 1. Empirical results from studies of dividend policy, and the information content of cash dividends, measured by their predictive power concerning future earnings or by market reactions, on Finnish data.

PANEL A. DIVIDEND POLICY AND THE PREDICTIVE POWER OF DIVIDENDS.			
Authors	Data	Dividend policy	Predictive power
Korhonen (1976)	1955–1970	Lagged dividends, reported net income significant determinants of cash dividends.	Weak support.
Wahlroos (1979)	1963–1977	– " –	No support.
Yli-Olli (1980)	1967–1978	– " –	No support.
Yli-Olli (1982)	1966–1980	Lagged dividends main determinant. Speed of adjustment to target dividends only 0.069 on average.	Weak support.
Kasanen, Niskanen (1992)	1953–1985	Lagged dividend plays a dominant role. Tax reform of 1969 caused a significant change in dividend policy.	
Kasanen, Kinnunen, Niskanen (1996)	1970–1989	Evidence on earnings management in order to support a smooth dividend stream.	
PANEL B. STOCK PRICE REACTIONS TO CASH DIVIDEND ANNOUNCEMENTS.			
Authors	Data	Price reaction	
Korhonen (1976)	1966–1970, weekly data, 18 firms, actual announcements.	No significant price reactions.	
Martikainen, Rothovius, Yli-Olli (1991, 1993)	1977–1986, daily data, 30 firms, shareholders' meeting date as t=0.	Unexpected earnings and dividends associated with the stock price development.	
Felixson (1993)	1980–1989, daily data, 91 actual announcements.	Dividends and earnings matter, support for a corroboration effect.	
Heikkilä (1997)	1983–1994, daily data, 369 actual announcements.	Strong support for the information content of dividends, weak for earnings. In simultaneous cases, dividends the main determinant.	

quite large in Finland, the arbitrage argument has been considered as not binding and the dividend day drop has been assumed to give an inference of the tax treatment of dividends vs. capital gains.

In Hietala (1990), the ex-dividend day drop was estimated for the period from 1974 to 1985. Depending on the model used to measure expected returns, and the trading frequency in the sample, the ratio of the price drop to the dividend is estimated to be between 92.5% and 89%. The results support the tax hypothesis since the ratio is consistent with several alternative investor categories' expected preferences for capital gains over dividends.

In Sorjonen (1987), the ex-dividend behaviour during 1960–1985 is measured, whereas Sorjonen (1995) studies the changes in the ex-dividend day ratio around the 1990 tax reform. In 1990 a new system to tax dividend income, an imputation system, in Finland called *avoir fiscal*, was introduced. The reform did not change the tax treatment for some long-term investors such as corporations, foundations, or mutual funds, but changed the preferences for other long-term investors such as individuals, banks, or insurance companies. For these latter ones, the dividend tax rate fell, implying an increase in the ex-ratio if this group dominated. The results report increasing (but not always significantly so) ex-dividend day ratios, from 51% in 1989 to 1990, to 79% in 1991 to 1992. Also price and volume reactions around the ex-date are investigated. The return and volume behaviour suggest that short-term trading is not important in the Finnish market. Some evidence suggesting rising ex-ratios for higher yield portfolios is found.

In Hietala and Keloharju (1995), the ex-dividend day behaviour of two classes of shares, whose trading is potentially dominated by investors under different tax regimes, is investigated. The groups are restricted stocks (only Finnish investors) and unrestricted stocks. For the time period from 1984 to 1990, mean ex ratios between 61% and 69% for restricted shares are reported. These are significantly different from the ratios for unrestricted stocks, which are between 13% and 17%. The ratios for unrestricted stocks are surprisingly low even assuming double taxation of dividends for some foreign investors. The results are interpreted as supporting the hypothesis that long-term investors are the marginal investors and that the unrestricted shares face much higher taxation of dividends.

In general, ex-dividend day ratios broadly consistent with the tax treatment of major investor categories are found on the Finnish market. The results are summarised in Table 2. No results supporting short-term trading activity are reported.

2.4. Stock Dividends and Splits

Ever since Fama, Fisher, Jensen and Roll (1969), signalling has been suggested as one possible explanation of price reactions to stock dividends and splits. Grinblatt, Masulis and Titman

TABLE 2. Results on ex-dividend day ratios in the Finnish stock market. If different samples (clean and noisy) and different measures / adjustments are used, we report the smallest and the largest values from the study in question.

Authors	Data	Sample	Average ex-day ratio
Sorjonen (1987)	1960–1985	All stocks; 5–6 year subperiods	From MIN 0.718 (1981–1985) to MAX 0.958 (1976–1980)
Hietala (1990)	1974–1985	Restricted stocks	0.890–0.925
Hietala, Keloharju (1995)	1984–1990	All stocks	0.613–0.691 (restricted stocks) 0.134–0.167 (unrestricted stocks)
Sorjonen (1995)	1989–1992	All stocks	0.506–1.037 (1989–1990); 0.790–1.303 (1991–1992)

(1984), who found larger price reactions to stock dividends as compared to splits, suggested that the two events might be interpreted as different types of announcements by the market. This is consistent with the retained earnings hypothesis, i.e., the idea that the retained earnings “lost” (tied to stock equity) in stock dividends would constitute the signalling cost preventing false signalling. Later, Lakonishok and Lev (1987) concluded that stock dividends are altogether different from splits.

Grinblatt, Masulis and Titman (1984) proposed four different explanations for stock dividends and splits, the retained earnings hypothesis, the “reputation” hypothesis, the “attention” hypothesis, and the “optimal trading range” hypothesis. In the Finnish tests of stock dividends, however, somewhat different versions of signalling hypotheses are suggested and tested. These are the “capital market exclusion” hypothesis by Berglund, Liljebloom, Wahlroos (1987), and the “indirect dividend increase” hypothesis by Hietala and Löyttyniemi (1991a).

Again, the seminal study of the announcement effects of stock dividends dates back to Korhonen (1975). A sample of 17 events during the years 1960 to 1971 was analysed, using weekly data and residuals from the market model. No actual announcement days were used; the event date was defined as the last week when the right could be exercised. A positive price run-up prior to that is detected.

In Berglund, Liljebloom, Wahlroos (1987), both stock dividends and rights issues are investigated using weekly data for the years 1972 to 1981, utilising several models for determining abnormal returns. An +8% average excess return is detected in the sample of 15 pure stock dividends, whereas the weekly average return around mixed issues of stock dividends and equity rights (57 observations) is close to +5% irrespective of the residual method used. These are highly significant.

A signalling model in order to explain these excess returns is developed. The basic idea relies on the fact that whenever an equity issue is performed, a legal restriction implied that the account "stock capital" had to be increased by an amount corresponding to the nominal value of new shares distributed. If an equity issue at a stock price below the nominal value of the stock had been performed, the difference had to be provided from elsewhere, e.g. by moving funds from free equity capital, since the balance sheet account "stock capital" would anyway have to be increased by the full amount of the increase in nominal value. If companies both had a stock price below their nominal value and lacked free equity, they could not have access to the market for equity financing. This restriction might produce the signalling cost needed in order to make stock dividends, and rights issues at subscription prices below market prices, into credible signals. Only good companies with high expected future earnings would be able to bear the risks of depressing their share prices closer to the nominal values. In tests performed in the paper, a variable measuring the increased probability of the share price going below its nominal value is indeed found significant in explaining cross-sectional differences in announcement returns.

In Hietala and Löyttyniemi (1991a), a related signalling model is tested for stock dividends and rights issues. The idea is that the company follows a dividend policy based on dividend smoothing, i.e., a wish to keep the dividend at least stable downwards with respect to the nominal value of the stock. Since both stock dividends as well as rights issues at subscription prices below market prices increase the ratio of the nominal value of the share capital to its market value, they in fact (given a stable dividend policy with respect to nominal stock value) increase the ratio of the promised cash dividend payment to the market value of equity, i.e., the promised dividend yield. Therefore, these events could constitute signals similar to simple increases of cash dividends. An event study of announcements of stock dividends (11 observations), pure rights issues (19 observations) and mixed events (44 observations), using daily data for the years 1975 to 1988 is performed. The event day price reactions are the following: approximately 11% for pure stock dividends, 1% for pure rights, and 5% for mixed announcements. In regression tests of the signalling hypothesis, a variable measuring the expected increase of cash dividends⁶ obtained support in explaining announcement excess returns.

In Löyttyniemi (1991a), an investigation of the relative empirical importance of cash dividends vs. share issues (stock dividends and underpriced rights issues) is investigated for the period 1975 to 1989. The results indicate that the average dividend increase was 10% p.a., decomposed into 7.2% caused by stock issues and 2.8% by direct increases in cash dividends.

⁶ This variable is related to that of Berglund et al. (1987). Both variables measure, in different ways, the decrease in the market price towards the nominal value of the stock.

TABLE 3. Price reactions to stock dividends, rights issues, and combined announcements in the Finnish stock market. Sample sizes within parenthesis.

Authors	Data	Stock dividends (1)	Rights issues (2)	Combined events (3)	Directed/general cash offerings (4)
Berglund, Liljeblom, Wahlroos (1987)	1972–1981, weekly data	8% *) (15)	2% (33)	5% *) (57)	n.a.
Hietala, Löyttyniemi (1991a)	1975–1988, daily data, t=0	11% +) (11)	1% +) (19)	5% +) (44)	n.a.
Ikäheimo, Heikkilä (1996)	1972–1987, daily data, t=-1, 0	13% *) (10)	4% *) (15)	6% *) (42)	n.a.
Kivinen (1995)	1980–1994, daily data, t=0	n.a.	0% (22)	4% *) (36)	-1% (40)
Larsson (1997)	1985–1996, daily data, t=0	n.a.	1% (49)	n.a.	-2% *) (14)

*) Significant at the 1% level.
 +) Only joint significance tests for (1)+(2)+(3), and (2)+(3) available; these significant at the 1% level.

An updated version of the Hietala and Löyttyniemi (1991a) study is performed by Ikäheimo and Heikkilä (1996) on data for the years 1972 to 1987. The sample is purer with respect to other simultaneous information as compared to that in previous studies. However, since the sample is a combination of the ones used in Berglund et al. (1987) and Hietala et al. (1991a), the results concerning announcement day returns are highly similar. The announcement returns are positively related to the adjustment factor measuring the implicit dividend increase, and negatively related to extremely low values of current shareholder participation in the rights issue.

A summary of the price reactions detected is given in Table 3⁷. Apparently, security issues which dilute the stock price are consistently reported to produce substantial positive price reactions on Finnish data. This holds above all for stock dividends, and mixed issues with a stock dividend component, whereas only a small and not always significant positive price reaction is detected for pure rights issues. Compared to direct increases in cash dividends, keep-

⁷ Table 3 also includes results from two studies on different forms of equity issues, Kivinen and Larsson, discussed in section 3.2.

ing the cash dividend constant and announcing a stock dividend instead seems to be a major means of increasing actual dividend payments.

The price reaction results on Finnish data are in line with results for international as well as other Nordic markets, although somewhat larger in magnitude. No extensive studies of stock price reactions to pure splits have been performed on the Finnish market. During the 1990's, stock dividends have been scarce, whereas direct cash dividend increases have occurred frequently. Also rights issues have become more scarce. The legislation has also changed, eliminating some advantages with rights issues and stock dividends.⁸ Perhaps the informational content of these announcements is also reduced.

3. THE FINANCING DECISION OF FIRMS

Contrary to the U.S., rights issues have been the dominating equity financing method for Finnish firms prior to the 1990's. If private placements in the connection of mergers are not considered, almost all seasoned equity issues prior to 1986⁹ were in the form of rights issues. As already noted, rights issues were also subject to favourable tax treatment both on the company as well as investor level. Yet outside equity financing constituted only a small fraction of the total financing of firms, and leverage ratios (debt to total assets) were occasionally as high as between 60% and 70% on the average.¹⁰

We divide empirical studies around the financing decision of firms into three groups. Firstly, there are studies of the factors determining the optimal capital structure of the firm. When the basic assumptions of the Modigliani and Miller (1958) capital structure irrelevancy proposition are relaxed, i.e., the assumptions of, e.g., no tax effects, no informational asymmetries, and no agency problems, different determinants for an optimal capital structure can be derived. The first group of studies constitute mainly of cross-sectional studies aimed at investigating the significance of different determinants for the capital structure. Secondly, there are the studies of the price reactions to announcements of different types of external financing for listed firms (equity, convertible and straight debt). Also these studies aim mostly at testing for the determinants of financing decisions and capital structure choice. Finally, as a separate group we discuss studies of financing decisions of previously unlisted firms, i.e., initial public offerings.

8 Previously, stocks owned for more than 5 years were excluded from capital gains taxes. Stocks obtained in a rights issue or a stock dividend were considered as equally old as the original stocks from which the rights were obtained. Also, companies could deduct in taxation part of the dividends paid to new stocks from a rights issue during several years.

9 In 1986, the bank KOP listed on the Helsinki Stock Exchange announced an equity issue open to anyone. Prior to that, some other seasoned companies had organised restrictedly "open" equity issues, e.g., Ålandsbanken had arranged issues directed to all investors permanently living on Åland.

10 See, e.g., Virolainen (1990) for the period of 1980 to 1985.

3.1. Capital Structure Choice

Harris and Raviv (1991) group the different models with implications for capital structure in 1.) models based on agency costs, 2.) asymmetric information, 3.) models based on product / input market interactions, and 4.) theories driven by corporate control considerations. In their survey, they exclude a fifth type of model, 5.) the models based on tax considerations, simply because they have been surveyed in other papers.

The studies surveyed in this section mainly constitute combined tests of many or most of the above mentioned explanations for capital structure choice. Also some theoretical papers are briefly discussed.

Different determinants for leverage are investigated in Kanninen and Airaksinen (1989) and Virolainen (1990). The variables in Kanninen et al. are derived from the pecking order theory (Myers & Majluf, 1984) and tax explanations (DeAngelo & Masulis, 1980), and also variables related to firm risk in a broad sense are tested. Using cross-sectional and time-series regressions for 1967 to 1982, determinants to both leverage as well as marginal leverage are studied. The results give some support for the existence of a financing hierarchy (at least a preference for internal financing). Also higher risk seems to be associated with lower leverage, whereas no evidence of tax effects is obtained. In Virolainen, first the comparative statistics of a tax shelter – bankruptcy cost model are studied. In the empirical part an augmented tax shelter – leverage cost model, also incorporating variables for the agency cost of risky debt financing, is estimated for a sample of Finnish companies during 1981 to 1985. The results reveal differences between firms with different tax status. The nontax exhausted firms appear to be affected by taxes and factors associated with risky debt, whereas the borrowing of tax exhausted firms is explained only by differences in their capital stock. Virolainen suggests that this variable captures the collateral value of the firm's assets.

Also Langenskiöld (1993) deals with tax considerations and agency costs, and focuses on the effect of the asset structure of the firm on its financing decisions. First of all, a model of optimal capital structure incorporating two types of costs for financial distress is developed. These are a direct cost of bankruptcy and an indirect cost of financial distress (an underinvestment problem). The effect of the firm's asset structure on its choice of capital structure is explicitly built in the model. The amount of assets in place will have two implications in the model; they mitigate the underinvestment problem and will lead to higher bankruptcy costs. The optimal amount of debt is shown to be a positive function of the amount of assets in place and the tax rate, and a negative function of the variability of the cash flows of the firm and the bankruptcy costs. In the empirical part of the study, a logit model for the financing decision of Finnish firms raising equity or debt during 1987 to 1989 on the Helsinki Stock Exchange, the OTC-list and the "brokers list" is estimated. The probability of choosing equity instead of debt

is explained by variables related to asset structure, taxes, and bankruptcy costs. The results support Myers (1977) in the sense that firms seem to finance growth options with equity rather than debt. Results supporting agency cost-based explanations were also obtained in Kreander (1997). In his sample of 72 firms during 1991 to 1995, firms with more fixed assets and higher issuance costs had higher leverage ratios.

The pecking order theory is the sole central issue in Hansén (1994). The study reports results of a questionnaire sent to Finnish firms, which indicate that a target capital structure is perceived as more important than issues related to financial hierarchy.

The links between capital structure and corporate ownership are investigated in Ihamuotila (1994). In a sample of 40 nonfinancial Finnish firms during 1988 to 1991, the long-term debt ratio is related to variables measuring the amount of collateral, firm profit, a variable measuring the degree of corporate control, and some other variables. The results indicate that firms largely controlled by a few shareholders with well diversified portfolios have a higher leverage ratio. Also, the sensitivity of debt financing to collateral seems to be highest for firms with a large and well diversified investor. A similar relationship between higher leverage and concentrated ownership was detected in Kreander (1997).

Overall, the results are broadly in line with the many determinants suggested by the theory. Agency costs, asymmetric information as well as corporate control considerations seem to affect leverage decisions of Finnish firms. The evidence on tax related variables is mixed, potentially because of the fact pointed out in Virolainen that many firms (the majority in his sample) were tax exhausted. The amount of collateral turns up as a significant determinant in many studies, a result in line with the bank-concentrated market for debt capital especially prior to the 1990's. Since the market for debt capital, as well as the tax treatment of equity versus debt is radically different in the 1990's, there would seem to be a place for fresh studies of capital structure decisions.

3.2. Seasoned Security Issues

Event studies of different security offerings aim at measuring the informational impact of the announcement, and usually also to test whether the observed price effects can be explained by some model or models for the determinants of financing choices. The models tested are numerous. One way to group them is according to those real effects constituting the source of information revealed. The main real effects in different models are the change in leverage, implications for sources and uses of funds, and changes in the claim values of different corporate claimholders.

Models where changes in capital structure play a role are, e.g., the signalling model by Ross (1977), and the model by Masulis (1983), where a change in capital structure reveals

expectations of future cash flows. Models based on implications for sources and uses of funds are, e.g., the investment model by Trueman (1986) and the model by Miller and Rock (1985), where additional need of funds reveals that a budget restriction is otherwise breaking. Examples of models based on wealth redistribution are found in the agency paper by Jensen and Meckling (1976), Leland and Pyle (1977), and the pecking order theory by Myers and Majluf (1984).

In addition to models based on information revealed by the announcement, other hypotheses traditionally tested are those of price pressure (permanent or temporary) by Scholes (1972), and wealth-redistribution in line with equity as an option as in Galai and Masulis (1976).

The empirical studies in Finland have mainly focused on rights issues, and tested for some signalling-based explanation for the observed price reactions (identical explanations to those for stock dividends). The price reactions to rights issues have already been discussed in section 2.2 and are only briefly summarised here. In early studies by Berglund et al. (1987), and Hietala et al. (1991a), only weak price reactions (close to 1%) are detected in the connection of pure rights offerings. In Ikäheimo et al. (1996), a higher and significant price reaction of 4% is in turn obtained, but in Kivinen (1995), an insignificant price reaction to rights issues is reported. The results are in that sense in line with international evidence. In the U.S. the price response to rights issues is less negative than to normal seasoned equity offerings, only -1% or -0.5% (industrials and utilities) (see, e.g., Eckbo and Masulis 1992). In the U.K. Marsh (1979) obtains a slightly positive price effect of 0.6% while Levis (1995) found a slightly negative effect of -1.3% (a two-day return). In Norway, Böhren, Eckbo, and Michaelsen (1995) obtain 1.6% for uninsured rights, and, similar to Finland, some evidence of a positive signalling effect of the offering discount.

Concludingly, the main hypothesis tested on Finnish data on rights issues is the one based on dividends as signals¹¹. Variables measuring the dilution of the stock price towards the nominal value of the stock indeed obtain significant positive explanatory power in several papers, and also size is significantly negative in Kivinen (1995), and in Larsson (1997) for directed issues. One drawback with these studies is that pure rights issues are seldom tested in isolation, but instead together with stock dividends or combined announcements.

The importance of the method for the equity issue is investigated in Kivinen (1995) and Larsson (1997). In Kivinen, an announcement day return of -0.6% (significant at the 5% level) was detected for 40 general cash offerings in 1980 to 1994, compared to a return of -2% in

¹¹ This refers to the hypothesis of Berglund et al. (1987) regarding signalling costs related to the probability of exclusion from the market for equity financing, and the hypothesis of Hietala et al. (1991a) regarding rights issues also including a "dividend component" in that rights issues with subscription prices substantially below market prices depresses the stock price, and given cash dividends proportional to nominal stock values, imply a promise of higher dividend yields.

Larsson for 14 directed offerings in 1985 to 1996. Longer event returns in these studies are –1.6% (Kivinen, a three-day return) and –3.6% (Larsson, a two-day return), which are highly significant. These results are in line with international evidence, and the predictions of the pecking order theory.

The timing of seasoned equity issues is also studied in Kivinen (1995). The amount of new equity issued is observed to be significantly positively related to a forecast for near future investment opportunities of Finnish companies, as well as to the level of the general stock market index, and negatively to stock market volatility. As predicted by a timing hypothesis based on the idea of minimising informational asymmetries, issue announcements also seem to be heavily concentrated on time periods directly after regular information releases. Also Larsson (1997) obtained some evidence of timing in the different price reactions for directed issues during "hot" and "cold" periods ("hot" and "cold" being based on total volumes of equity issued on the market) .

The aftermarket performance (first 18 months) is positive for rights and combined issues, but negative for general cash offerings in Kivinen (1995). In Viitanen (1997), results updated up to 1996 are presented. Whereas rights issues still overperform 2 years after the issue, the performance turns negative after 3 years. Placements underperform already 1 year after the issue, and after 3 years, their underperformance is close to that for IPOs.

The subsequent consequences of seasoned stock issues to the firm's financial variables and / or financial reporting is investigated in Ikäheimo and Heikkilä (1996) and in Kinnunen, Keloharju, Kasanen, and Niskanen (1994). Ikäheimo et al. found a significantly negative change in net operating cash flows (but not so much in industry-adjusted cash flows) after the announcement of rights and combined issues. Standardised dividends for rights and combined issues were nonnegative after the announcement, whereas they were negative and significantly related to the adjustment factor for stock dividends. Kinnunen et al. studied both the reporting behaviour as well as the dividend policy around seasoned equity issues for an initial sample of 37 firms in 1970–1989 (producing, with a five-year window, 41 rights or combined issue events and 56 non-issuing periods). They found that the issuing firms tend to report earnings over and above the minimum required by current dividends around the issue years (a significant difference with respect to non-issuing firms). These excess earnings are moreover related to the subsequent increases in cash dividends. The findings are interpreted as consistent with the argument that firms use their earnings management opportunities to signal their superior quality, thereby reducing the adverse selection costs of an equity issue.

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The costs of both seasoned as well as unseasoned equity issues during 1986 to 1996 is investigated in Viitanen (1997) by a questionnaire sent to 165 companies (with a response ratio of 49%). The average total costs were estimated at 3.5%, ranging from an average of

1.8% for rights issues to 5.1% for IPOs. On the average 64% of these costs consist of fees for the underwriter, and the costs are sensitive to the issue size and type.

In Hietala and Löyttyniemi (1991b), the pricing of rights issues in dual class companies is studied during 1975 to 1988 (30 observations). If subscription prices are not set in relation to actual market prices for the two share classes (or if the terms of the offering differ as to the number of old shares required to buy a certain number of new ones), wealth distribution can be shown to occur between the stockowners of the two types of shares. A test of announcement day price reactions for the two share classes was performed, and the relation of excess returns for the two shares was regressed on a variable measuring the relation of subscription prices to market prices¹² for the two classes. The variable was significant in explaining differences in the price reactions in the two share classes.

In Löyttyniemi (1991b), share issues which change the relative voting power between two classes of shares in a company are investigated in an event study of announcement effects on data for 1982 to 1989 (77 observations). The model tested is based on the voting premium model by Rydqvist (1986). According to this model, if the voting premium in the company is assumed to be constant, the issuance of more limited voting power shares is expected to increase the price difference between superior and limited voting power shares. The results are in favour of this hypothesis.

The results on seasoned equity issues are summarised in Tables 3 and 4. In general, there are several studies testing price reactions to rights issues, but few tests of determinants of the price reaction in pure rights issue samples. Tests of announcements of other forms of financing decisions are also scarce.¹³ Since other forms of equity issues are becoming more common in the 1990's, there would be room for new studies. Moreover, most of the studies are pure event studies, and questions such as the effect of security announcements on analysts' forecasts (indirect tests of informational value), relations of announcement returns to growth opportunities, and simultaneous tests of price reactions of stocks and bonds (in order to differentiate between various hypotheses) are lacking. Finally, market micro-structure style studies such as investigation of post-issue price stabilisation using intraday data, and issue effects on spreads (or implicit volatility) are missing.

¹² Actually the variable used is defined as the relation between the "adjustment factors" for the two classes, the adjustment factor defined as the relative dilution caused by the terms of the rights issue.

¹³ In Byman and Kjellman (1995), price effects at the announcement of 8 issues of convertible debt are investigated (price reactions only compared to a stock market index, case by case). In 5 cases out of 8, the price change exceeded that of the market, and the average price change in the convertible sample exceeded the market reaction by 2.5%.

TABLE 4. Results for seasoned equity issues (other than direct announcement effects, summarised in Table 3) on Finnish data.

Topic	Authors	Data	Result
• Timing	Kivinen (1995)	1980–1994	Relation to inv. opportunities, market level, volatility, information releases.
	Larsson (1997)	1985–1996	More negative price reactions during "cold" issue periods as compared to "hot" for directed issues.
• Long-run price performance	Kivinen (1995)	1980–1994	Positive for rights, combined issues, negative for general cash offerings (18 months).
	Viitanen (1997)	1986–1996	Positive performance for rights issues during first 2 years, negative after 3. Directed issues underperform more.
• Other long-run effects	Ikäheimo, Heikkilä (1996)	1972–1989	Negative change in operating cash flows (rights & combined issues), nonnegative standardised dividends.
	Kinnunen, Keloharju, Kasanen, Niskanen (1994)	1970–1989	Reported excess earnings around issue dates, related to subsequent dividend increases.
• Issue costs	Viitanen (1997)	1986–1996	Average direct costs of 3.5% (rights issues 1.8%, IPOs 5.1%).
• Issue pricing in dual class companies	Hietala, Löyttyniemi (1991b)	1975–1988	Relative stock price effects if rights issue pricing not neutral.
	Löyttyniemi (1991b)	1982–1989	Relative stock price effects if change in the relative voting power.

3.3. Initial Public Offerings

Several theories have been suggested for the underpricing of initial public offerings (IPOs), and for the long-run underperformance of newly listed firms, with different theories focusing on various aspects of the relationship between investors, issuers and the investment bankers. In general, these theories are not mutually exclusive.

The winner's curse and uncertainty

One of the most plausible explanations for underpricing of initial public offerings is based on the winner's curse. Rock (1986) presented a model in which informed and uninformed investors submit purchase orders for the shares of unseasoned issues and an investment banker allocates the shares in proportion to the purchase orders. In his model, the issuer and the investment banker are assumed to be unable to forecast the market price with certainty. Hence,

some offerings will be underpriced while others will be overpriced. Uninformed investors cannot discriminate between over- and underpriced offerings, while the informed have the information to do so. Hence, in the model informed investors will only attempt to buy shares when an issue is underpriced. Therefore, uninformed investors face the winner's curse: they will only get a small fraction of an underpriced issue, but they will get a large fraction of an overpriced offering. Faced with this problem, a certain level of systematic underpricing is needed to persuade uninformed investors to submit purchase orders in IPOs.

Keloharju (1993) presented evidence supporting the winner's curse hypothesis for a sample of 80 IPOs during 1984–1989 in Finland. He found an average initial excess return, unadjusted for the bias in allocation, of 8.7 percent, whereas average allocation-weighted returns ranged from –5.3 to 5.1 percent. Holmqvist (1996) confirmed the existence of the winner's curse for a small sample of IPOs (5 obs.) taking place in 1990–1995.

An implication of Rock's model, developed in Beatty and Ritter (1986), is that the underpricing depends on the ex-ante uncertainty about the value of the issue: the higher the uncertainty, the higher the underpricing the investors require. To establish a relationship between the level of underpricing of an IPO and the ex-ante uncertainty, proxy measures for this uncertainty are required. Holmqvist (1996) tested this uncertainty hypothesis for a sample of 49 IPOs out of 76 in 1987–1995. Using several proxies for the ex-ante uncertainty (e.g., firm size, age, size of the issue), he found weak support for the Beatty and Ritter-model.

Beatty and Ritter (1986) also discussed the role of the investment banker in the issue process. They argued that IPO firms have no incentive to underprice their issues, since they go public only once. However, an investment banker underwrites many issues over time and can expect to maintain its reputation in future underwriting business only if it prices the IPOs reasonably accurately. In Keloharju (1997), the distribution of information among investors, and the impact of past investment performance on their IPO demand is investigated. This paper hence tests the Beatty and Ritter (1986) prediction that investors would cease doing business with investment banks whose IPOs generate below-normal returns. Using subscription data for 29 IPOs (85 384 investors) during 1987 to 1994, lead-managed by the KOP bank, Keloharju (1997) finds that the past performance influences the IPO participation probability, but with a limited lag.

A contrary view to underpricing is offered by Benveniste and Spindt (1989), who suggest that investment bankers may underprice IPOs to induce institutional investors to reveal information during a pre-selling period. This mechanism allows the investment banker to decrease the uncertainty about the true price of the issue and, hence, to reduce the winner's curse and the required underpricing. In Keloharju (1997), the role of the institutional investor in the Benveniste and Spindt (1989) sense is also studied. He finds that although institutional investors as

a class do not seem to be more informed than retail investors, investors placing large orders seem to be more informed than small investors. Moreover, while the investment bank's privileged investors obtain above-normal allocations in some of the hot issues, they (contrary to Weiss Hanley (1993)) participate in undersubscribed offers significantly less frequently than their matched pairs.

Baron and Holmström (1980) and Baron (1982) hypothesised that investment bankers take advantage of their superior knowledge of market conditions to underprice offerings, which permits them to expend less marketing efforts and ingratiate themselves with buy-side clients. Duncker (1990) tested the difference in underpricing of IPOs underwritten by different investment banks. He did not find a different level of underpricing for issues underwritten by prestigious versus non-prestigious underwriters, although there was a significant difference between individual investment banks.

Signalling theories

Ibbotson (1975) suggested that the issuing firm may underprice its IPOs in order to "leave a good taste in the investor's mouth", allowing the firms to sell future offerings at a higher price than otherwise would be possible. This suggestion has been taken as a starting point for the signalling hypothesis formalised in Allen and Faulhaber (1989), Grinblatt and Hwang (1989), and Welch (1989). In these models IPO underpricing serves as a signal of the issuing firm's future prospects. At the IPO stage, the entrepreneurs sell a part of their shares in the firm, which is either a high-quality or a low-quality firm. At a second stage, subsequently more stock is sold. The price that can be obtained at the second stage depends on how the market perceives the quality of the firm. Hence, high-quality firms may choose to underprice their initial offering in order to credibly signal their true quality, and hence, receive a higher price in the subsequent offering.

Jegadeesh, Weinstein and Welch (1993) suggested another hypothesis, which they call the market-feedback hypothesis. The market-feedback hypothesis postulates that the market is better informed than the issuer about the prospects of the issuing company. Hence, the market-feedback hypothesis differs from the signalling hypothesis in that the information flow is from the market to the issuer and not vice versa. The hypothesis suggests that the initial return provides the issuer with new information about the prospects of the firm.

Keloharju (1993) tested the signalling hypothesis and the market-feedback hypothesis for a sample of 91 Finnish IPOs (1984 – June 1992), and the relation between initial return of public offerings and the characteristics of subsequent equity and debt financing. Consistent with the hypotheses, the results give some support for the prediction that larger initial returns are associated with a higher probability of reissue, whereas they give limited support for the

predictions that firms with larger initial returns issue larger seasoned offerings or that they issue sooner than their less underpricing counterparts. The signalling hypothesis is a more likely explanation for the findings than the market-feedback hypothesis. The lack of empirical support for the implication of the market-feedback hypothesis gives indirect (although weak) support for the signalling hypothesis.

Holmqvist (1996) tested the signalling hypothesis for 49 IPOs (1987–1995) looking at the relation between underpricing and the issuing of seasoned equity. He found a higher underpricing for firms issuing seasoned equity within two years of the stock market introduction, and hence, weak support for the hypothesis.

Using a sample of 60 IPOs (out of 94 in the time-period 1984–1993) Keloharju and Kulp (1996) tested the signalling hypothesis through the relationship between firm value and the equity retained by the original shareholders. Consistent with the hypothesis, they found that firm value, measured by the market-to-book ratio, is positively related to the fraction of equity retained by the initial owners. The result predicts that investors tend to pay more for the shares in companies where the initial owners retain large equity holdings. They also find that management ownership's association with relative firm value is significantly positive at low ownership levels but insignificant at high ownership levels. This gives some support for the agency hypothesis, which suggests that corporate value is a function of managerial equity ownership.

Legal liability hypothesis

Ibbotson (1975) first suggested that IPO underpricing could constitute a form of insurance against legal suits. Tinic (1988) develops the idea further and suggested that underpricing the IPO both reduces the probability of a lawsuit and decreases the conditional probability of an adverse judgement if civil action is brought. Moreover, underpricing has an effect on the dollar amount of the damages that can be recovered from the issuer and/or the underwriter, because the maximum recoverable damage is often limited to the offer price.

According to Keloharju (1993), the lawsuit-avoidance hypothesis is not likely to explain the observed initial return in Finland. Because of the characteristics of Finnish law, subscribers to Finnish IPOs have much less incentive than subscribers to U.S. IPOs to take legal action if the prospectus contains false or inadequate information about the issuing firm.

All of the above explanations involve rational strategies by buyers. Several other theories, involving irrational strategies by investors, have also been proposed for the underpricing phenomenon. These theories may also serve as an explanation for the long-run underperformance of IPOs. One explanation, first documented in the academic literature by Ibbotson and Jaffe (1975), is the "hot issue" market, suggesting that the underpricing (and hence the initial return) is large in some periods of times (hot periods) and low in other periods (cold periods). Miller

(1977) argued that investors who are most optimistic about an IPO will be the first buyers in the aftermarket. If there is a great deal of uncertainty about the value of an IPO, the valuation of optimistic investors may be much higher than those of pessimistic investors, and hence, the initial return will be large. Shiller (1990) presented a hypothesis in which he argued that the market for IPOs is subject to fads and that IPOs are underpriced by investment bankers to create the impression of excess demand.

Keloharju (1993) showed that a sample of 79 firms entering the stock market substantially underperformed a value-weighted as well as an equally-weighted index in the long run (for a holding period of 36 months). His analysis also suggested that the long-run underperformance is not industry-specific. Small firms seem, however, to underperform to a higher degree than large firms. Keloharju argued that, since the Finnish IPO market was exceptionally active in the sample period, the results may reflect a temporary overoptimism by IPO investors that turned into disappointment when they learned more about the firms' prospects. Sjölund (1990) studied the underpricing of 49 firms entering the OTC market in 1985–1988, and found that these firms underperformed the Uunitas-index for a one year period. Duncker (1990) confirmed this underperformance (a one-year period) for 61 firms entering the stock market in 1984–1989, and Kulp (1995) for 89 firms during the first 30 months out of 60 in 1984–1989.

Ruud (1993) and Hanley, Kumar and Seguin (1993) present a different view of abnormal initial returns. They suggest that IPOs are not underpriced, but that they are overvalued in the immediate aftermarket due to underwriter price stabilisation. The underwriter price stabilisation hypothesis is tested in Kulp (1995) and Svartbäck (1996). Studying the stock price distribution, the determinants of the bid-ask spread, and the price development in the aftermarket on daily data from 1984 to 1994, Kulp offers some albeit weak evidence on price stabilisation. Svartbäck finds, using daily and intraday-data from 1988 to 1990, that the underwriter during the 10 days following the listing is significantly more active on the buy-side as compared to the sell-side for stocks which have gone down in price by 0–3% since the listing. The results for the stock distribution and spread were not significant in Svartbäck's study.

The results on initial public offerings are summarised in Table 5.

4. MERGERS AND ACQUISITIONS

The market for corporate control encompasses all ways in which control is transferred by changing the composition of the board of directors. In this market, managerial teams compete for the right to manage corporate resources. Transfer of control can be accomplished in several ways. One way is to alter the ownership structure of the firm, e.g., through a partial or non-partial takeover.

TABLE 5. Results on initial public offerings on Finnish data.

Topic	Authors	Data	Result
<i>Underpricing</i>			
• Winner's curse and ex-ante uncertainty	Keloharju (1993)	1984–1989	Underpricing on average. Evidence of the existence of a winner's curse.
	Keloharju (1997)	1987–1994	Institutional investors not more informed than retail investors. Past performance influences participation probability.
	Holmqvist (1996)	1990–1995	Underpricing on average. Evidence of a winner's curse. Weak support for uncertainty hypothesis.
	Duncker (1990)	1984–1989	No significant difference in underpricing between prestigious versus non-prestigious underwriters.
• Signalling	Keloharju (1993)	1984–1992	Larger initial return gives higher probability for re-issue. Weak support for signalling.
	Keloharju, Kulp (1996)	1984–1993	Firm value positively related to the fraction of equity retained by initial owners.
	Holmqvist (1996)	1987–1995	Higher underpricing for firms issuing seasoned equity within two years.
• Legal liability	Keloharju (1993)	1984–1989	Argued that legal liability is not likely to explain the underpricing in Finland.
<i>Long-run performance</i>			
• Underperformance	Keloharju (1993)	1984–1989	Long-run underperformance during 36 months. May reflect overoptimism.
	Duncker (1990)	1984–1989	Underperformance for a one-year period.
	Kulp (1995)	1984–1989	Underperformance during the first 30 months out of 60.
	Sjölund (1990)	1985–1989	Underperformance for OTC-firm, one year period.
<i>Price stabilisation</i>			
• Stabilisation	Kulp (1995)	1984–1994	Weak evidence of price stabilisation.
	Svartbäck (1996)	1988–1990	Weak evidence of price stabilisation.

In the following survey, we start by briefly addressing the main motives for takeovers as suggested in the international literature, before proceeding to the survey of Finnish studies. The main theme in the Finnish studies is the investigation of price reactions to announcements of mergers and acquisitions, and tests of different alternative motives for these takeovers.

4.1. Motives for takeovers

Three major motives for takeovers have been advanced in the literature: the synergy motive, the agency motive and the hubris hypothesis.

The synergy motive assumes that managers of the targets and acquirers maximise the shareholders' wealth and engage in takeover activities only if it results in gains to both sets of shareholders. Among the synergy motives, the first six are consistent with the assumption that additional value is created by takeovers. The remaining three motives cast doubt on whether any additional value is created by takeovers, or if the resulting gain to shareholders is at the expense of other stakeholders (e.g., employees, customers, suppliers, or taxpayers).

According to the inefficient management motive, see, e.g., Manne (1965 and 1967), and Lynch (1971), more efficient firms will acquire less efficient firms and realise gains by improving their efficiency. The operating synergy motive postulates, e.g., economics of scale and that takeovers help achieve levels of activities at which they can be obtained [see, e.g., Williamson (1975), and Arrow (1975)]. The financial synergy motive hypothesises complementarities between merging firms, not in managerial capabilities, but in the availability of investment opportunities and internal cash flows [see, e.g., Levy and Sarnat (1970), Markham (1973), and Prescott and Visscher (1980)]. The theory of strategic alignment to changing environments hypothesises, according to e.g. Summer (1980), takeovers to take place as a response to environmental changes. External acquisitions of needed capabilities allow firms to adapt more quickly to changes, than by developing capabilities internally. The undervaluation theory [see e.g. Bartley and Boardman (1984), and Chappell and Cheng (1984)] states that takeovers occur when the market value of the target firm's stock for some reason does not reflect its true or potential value, or its value in the hands of an alternative management. In line with the undervaluation hypothesis, the information or signalling theory attempts to explain why target shares seem to be permanently revalued upward in a takeover whether or not it is successful [see e.g. Dodd and Ruback (1977), Bradley (1980), and Bradley, Desai and Kim (1983)]. The information hypothesis states that the takeover sends a signal to the market that the target shares are undervalued, or alternatively, the offer signals information to the target management which inspires them to implement a more efficient strategy on their own. All of the above presented motives suggest that additional value is created in takeovers.

The remaining three synergy motives argue that the gains accruing to target and bidder

shareholders are merely a wealth redistribution from other stakeholders in the respective firms. The market power hypothesis [see e.g. Stillman (1983) and Eckbo (1985)] states that shareholders' wealth increases at the expense of customers (or suppliers), due to increased concentration leading to collusion and monopoly effects. Redistribution of wealth is also the case if takeovers are motivated by tax considerations [see e.g. Auerbach and Reishaus (1987)]. In this case, shareholders gain at the expense of taxpayers. Finally, according to the redistribution hypothesis [see e.g. Asquith and Kim (1982), Dennis and McConnell (1986) and Shleifer and Summers (1988)], shareholders' gains can also accrue from bondholders due to unexpectedly increased leverage, or from employees, who are deprived of their benefits.

According to the synergy motives, there should always be a positive gain in takeovers for all shareholders, stemming from efficiency improvements or from other stakeholders. Therefore, it follows that the measured gains to both target and acquirer shareholders would be positive. The division of the gain between target firm and acquiring firm shareholders may, though, not be equally distributed, but may be skewed in favour of the target due to a number of reasons.¹⁴

The agency problem (in line with Jensen and Meckling (1976)) has been suggested as a motive for takeovers, i.e., a takeover can solve an agency problem.¹⁵ It has also been suggested that some takeovers are primarily motivated by the self-interest of the acquirer management.¹⁶ The basic idea in most of these explanations is that acquisitions result in an extraction of value from the acquirer shareholders by the acquirer management. Such management actions result in agency costs that reduce the total value of the combined firm available to shareholders. The important aspect of the above argument is that the target firm has been identified by the acquirer management as one that is most suited to increase its own welfare. Therefore, target shareholders, realising their value to the acquirer management, will attempt to obtain

14 Grossman and Hart (1980) argue that due to potential free riding by the target firm's atomistic shareholders, the smallest tender offer price the equityholders will accept, is the full improvement value after a successful takeover by the acquisition. Hence, the extreme case of the free riding problem suggests that the target captures the entire gain, and consequently, there is no incentive to make takeover bids at all. Fishman (1988), among others, offers bidder competition as one reason for a larger target share of the takeover gain. E.g., Harris (1990) argues that takeover defence measures taken by the target firm's management force the bidder to pay out a large share of the gain to target shareholders. Another reason for a larger target share of the gain is an upward-sloping supply curve as a result of heterogeneity in beliefs and differences in tax status, as suggested by e.g. Stulz, Walking and Song (1990). Finally, one line of thought suggests that if the target has some bargaining power, mainly because it can resist the bidder, target shareholders may be able to extract a larger fraction of the takeover gain in an explicit or implicit negotiation with the bidder [e.g., van Hulle and Sercu (1991), Israel (1992), Zingales (1993), Bergström, Högfeldt and Högholm (1993)].

15 An agency problem can stem from managers avoiding effort [Ross (1973)], risk [Reagen and Stulz (1983)], or managers having short time horizons [Jensen and Meckling (1979)].

16 Several reasons have been advanced to explain this divergence. Among them are diversification of management's personal portfolio [(Amihud and Lev (1981))], use of free cash flow to increase the size of the firm [Jensen (1986)], and acquiring assets that increase the firm's dependence on the management [(Shleifer and Vishny (1989))].

some of this value. To the extent that target shareholders have some bargaining power, they will succeed in doing so, and the value they obtain will increase by the amount that the acquirer management can appropriate. Therefore, the more severe the agency problem, the higher the target's gain. Since greater appropriation by the acquirer management also results in lower (or a negative) total gain, the observed gain to acquirer shareholders should be small (compared to the target shareholders' gain) or negative.

Finally, the hubris hypothesis was suggested by Roll (1986). He hypothesises that managers commit errors of overoptimism in evaluating takeover opportunities due to excessive pride or hubris. The hubris hypothesis assumes strong-form efficiency of markets. Stock prices reflect all information; redeployment of productive resources cannot bring gains, and management cannot be improved through reshuffling or combinations across firms. Roll (1986) claims that the hubris hypothesis thus serves as a benchmark for comparison and is the null hypothesis against which other hypotheses should be compared. Further, the hypothesis does not require conscious pursuit of self-interest by managers. Managers may have good intentions, but can make mistakes in judgement. Since the takeover gain, according to the hubris hypothesis, is presumed to be close to zero, the payment to target shareholders represents a transfer between the target and the acquirer. It follows that the higher the target gain, the lower the bidder gain, and that the total gain is close to zero.

4.2. The effect of corporate takeovers on the wealth of shareholders

All of the above presented motives suggest that target shareholders experience a gain in takeovers. This is also consistent with empirical findings in most stock markets, where the returns to target shareholders are large and significant. On the basis of the presented motives, however, the effect for the acquirer firm shareholders is not clear. This is also evident in the empirical results across different stock markets, where most studies report insignificant gains to the bidder.

Empirical studies of stock market reactions to takeover announcements in Finland are scarce, mainly due to lack of data of matching pairs (both bidding and target firm subject to public trading). The results from the Finnish market are, however, mainly in line with international evidence.

The effect of the takeover announcement for target shareholders has been studied in Storbjörk (1991) and Helsingius (1990), and that of tender offers in Tolonen (1991). The two first studies suffer from a lack of data regarding stock market reactions for the target firm. Helsingius studies 85 takeovers during the time period 1984–1988, where only 10 target firms were publicly listed companies. She finds results indicating a negative (but insignificant) abnormal return for target shareholders for the event period –15 to +15. A major drawback in her study is the identification of the announcement day and the time aggregation. She uses only weekly

data, and specifies the announcement time to the week the announcement was published in Kauppalehti.

Storbjörk looks mainly at the same time period (1985–1989), with a total of 70 takeovers and 8 publicly traded targets. Storbjörk uses daily data, and specifies the announcement day as the day prior to the announcement in Kauppalehti. Using this time aggregation results in a positive significant return for the target's shareholders for an event period of 15 days around the announcement. Tolonen (1991) reports, in a study on daily data of 30 tender offers during 1984 to 1991, an average announcement day return of 12.6% for the target, varying from 6.3% (takeovers) to 18.1% (privatisations).

Helsingius (1990) also found a positive, but insignificant, reaction to the announcement for the bidding firm's shareholders. However, when looking only at the announcement week, the effect was positive and significant for a sub-sample of 42 bidders acquiring "larger targets" (measured as the size of the target firm relative to the size of the bidding firm). This could indicate that larger acquisitions are driven by synergy, while the driving force in smaller acquisitions may be agency costs or hubris. Storbjörk found similar results in his sample, i.e., a negative abnormal return for small acquisitions, but a positive abnormal return for larger acquisitions. The "switch in sign" seemed to happen when the target's turnover was larger than 20 percent of the bidder's turnover.

Tujulin (1994) studied 67 acquisitions during the time period 1986–1992, using daily data. He also found a positive, and significant one-day bidder return at the event, and positive but insignificant longer horizon returns (for 40 days surrounding the announcement day). He did not, though, find a significant difference between the reaction to large versus small acquisitions (using a relative size of 10 percent as the cut-off point). He did, however, find a significant positive reaction to the announcement of a domestic acquisition, while the reaction to foreign acquisitions was slightly negative. Harju (1997) found similar results for a sample of 61 acquisitions during 1993 to May 1995.

Storbjörk, Tujulin and Harju also looked at the stock market reaction for the selling firm, when the takeover event was a divestment. They all found similar results, indicating that the reaction is positive (and significant) on the announcement day, but that the effect is close to zero for an event window of 20 to 60 days around the announcement day. Rudanko (1991) found identical results in a study of 72 divestitures during 1986–1990. In Saarikoski (1997), 71 divestiture events during 1986 to 1996 are studied. The results report a significantly positive price reaction of 1% to divestment announcements, and a positive but insignificant increase in the focus of the firm. Divesting firms have a significantly higher leverage and lower current ratio than average firms. No significant change in seller profitability is found after the divestiture.

Overall, the existing empirical evidence has not been able to distinguish clearly among the different motives. For example, Bradley, Desai and Kim (1988) argue that takeovers are value increasing transactions because total gains are positive in their US sample of takeovers. However, the returns to acquiring firm shareholders are negative for about half the cases, and their average return is also negative, at least in the 1980s. Asquith (1983) reported negative acquirer gains in 42% of his US sample, while the corresponding number was 49% in a sample of 330 US takeovers, as reported in Berkovitch and Narayanan (1993). In a sample of Swedish takeovers, the acquirer gains were negative in 48 percent of the cases [Bergström, Högfeldt and Högholm (1993)]. In Finland, the relation between negative and positive reactions is roughly equal to the ones observed internationally [see, e.g., Storbjörk (1991) and Harju (1997)]. Since the synergy motive implies that acquisitions take place only if there are gains to both target and acquirer shareholders, this finding suggests that hubris or agency may be the dominant factor in many cases.

The results are summarised in Table 6. In general, most empirical findings using Finnish data are consistent with the hypothesis that takeovers do create additional value, but we cannot exclude the possibility that transfers from other stakeholders make for at least a part of the observed gain by shareholders. Since the observed fraction of negative gains to bidding firm shareholders is so high, we cannot either rule out the possibility that there is some wealth redistribution from shareholders in bidding firms to shareholders in target firms (overestimation or agency problems).

5. SUMMARY

This paper surveys empirical research on dividends, financing decisions, and mergers and takeovers in Finland. Although the Finnish capital markets have been considered as rather thin, and also severely regulated as far as the late 1980's, the empirical results are mainly in line with international evidence.

Studies of dividends support severe dividend smoothing, but dividend changes do also seem to have informational content in the case of Finnish data. Also the ex-dividend ratios are broadly consistent with the tax treatment of major investor categories are found on the Finnish market. No results supporting short-term trading activity are reported. Stock dividends have been suggested as a major vehicle of dividend increases in data prior to the 1990's. Lately, however, stock dividends have been scarce.

Agency costs and asymmetric information as well as corporate control considerations seem to affect the capital structure of Finnish firms. The evidence on tax related variables has been mixed, potentially because of the large possibilities for earnings management previously; many

TABLE 6. Results on stock market reactions to takeovers in Finland.

Authors	Data	Sample	Results
Helsingius (1990)	1984–1988 Weekly data	10 targets, 85 bidders	Insignificant target return Insignificant bidder return. "Size" effect.
Storbjörk (1991)	1985–1989 Daily data	8 targets, 70 bidders	Positive target return Bidder return negative for small acquisitions, positive for large.
Tolonen (1991)	1984–1991 Daily data	30 targets	Positive target return.
Rudanko (1991)	1986–1990 Daily data	72 divestitures	Positive return on the announcement day.
Tujulin (1994) Significant	1986–1992 Daily data	67 bidders 64 divesting firms	Significant event date returns. Difference between domestic and foreign acquisitions.
Saarikoski (1997)	1986–1996 Daily data	71 divestitures	Positive return on the announcement day.
Harju (1997)	1993–1995 Daily data	61 bidders	Insignificant returns. Significant difference between domestic and foreign acquisitions.

firms have been tax exhausted. The amount of collateral turns up as a significant determinant in many studies, a result in line with the bank-concentrated market for debt capital prior to the 1990's.

The results concerning price reactions to issues of seasoned equity as well as initial public offerings are also similar to those from international studies. Right issues have been the dominant form of equity issues, and associated with slightly positive price reactions. Strong underpricing of IPOs has also been detected, but once one takes into account the fact that good issues are oversubscribed, leading to a winner's curse, the underpricing is reversed for large uninformed investors.

Most empirical findings concerning mergers and takeovers in Finland are consistent with the hypothesis that takeovers do create additional value, but we cannot exclude the possibility that transfers from other stakeholders make for at least a part of the gains to shareholders. The observed fraction of negative gains to the bidding firm's shareholders is often rather high, indicating some wealth redistribution from shareholders in bidding firms to shareholders in target firms (overestimation or agency problems).

A general impression is that although much basic research has been done in the 1980's and early 1990's, few studies focusing on the radically changed markets (the tax reform of 1990, unregulated market with foreign investors, new capital forms, diminishing bank concentration) in the 1990's have been performed. Empirical research in corporate finance also seems to lag a step behind asset pricing research when it comes to more extensive use of the radically improved data available. Additional insights could probably be obtained e.g. by applying methods from market micro-structure research to corporate finance issues. ■

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