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AN EMPIRICAL INVESTIGATION OF THE DIVIDEND DECISION IN IRISH COMPANIES

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To my best friend and wife AnneMarie, and our three greatest gifts
Michael, Luke and Catherine

You light up my life

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DECLARATION

I hereby declare that I am the author of this thesis; that the work of which this thesis is a record has been done by myself, and that it has not previously been accepted for a higher degree.

Signed: Thomas G. Mc Cluskey.
Thomas G. Mc Cluskey.

Date: 02/06

CERTIFICATE

We certify that Thomas G. Mc Cluskey has worked the equivalent of six semesters on this research, and that the conditions of the relevant ordinance and regulations have been fulfilled.

Signed: David M. Power
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Date: 02/06.

Bruce Burton
Dr. Bruce Burton.

Date: 2/6

ABSTRACT

This thesis investigates corporate Ireland's attitude to dividend payments and examines how the Irish stock market reacts to company announcements about dividends. Prior to this study, the attitude of company executives and investors to dividend policy in Ireland was not reported in the academic literature in a systematic fashion. A number of small studies on the topic had been undertaken but the findings of those studies are relatively old and the perspective adopted limited.

In the mid-1980s, company managers in the US and the UK aggressively altered dividend policy because the disadvantageous income tax rates to which dividends were subject meant that paying dividends was not an efficient way to return money to shareholders (Campbell, 2003). The double taxation of cash dividends was the primary motivation behind the decision of corporations to repurchase their own shares rather than implementing or increasing dividend payouts (Wood, 2002). In addition, for much of the 1990s dividends seemed unimportant to company executives and investors, as much of the share valuation analysis undertaken by financial commentators, appeared to focus on top line and bottom line growth rather than expectations about periodic dividend distributions (Goodbody, 2003). However, dividends have recently become more important as growth rates in earnings have declined (Jones, 2004).

The Irish economy has changed dramatically over the last decade with greater wealth, increased numbers at work and an ageing population (E.S.R.I., 2003). In this new environment, Irish dividend distributions, and more specifically the taxation treatment of those distributions, is an increasingly important issue for Irish economic policy makers as they seek to encourage companies to re-invest their profits for the long-term and to provide incentives to individuals to increase savings and provide for retirement.

The current research finds that dividend policy matters to Irish investors. Specifically, Irish investors appear to react to a dividend announcement as if that announcement conveys important news about the future prospects for the firm. This reaction was very pronounced on the dividend announcement date. Irish firms support the suggestion that dividend policy affects share valuations. In particular, quoted firms believe they know the nature of their shareholder base, and perceive that Irish investors discriminate, according to their tax status, between those companies which pay dividends and those which do not, when selecting securities for their portfolios. In addition, Irish quoted companies follow a policy in which dividend reductions are anathema and an increased dividend will only be declared if management are convinced that the new dividend level can be maintained. Finally, for unquoted firms, dividend policy is strongly driven by the taxation status of their owner shareholders. Tax advisors play a key role in determining dividend policy for such companies and a case can be made for re-examining the inflexibility of Irish tax rules on dividends, particularly for those relating to small and medium-sized companies.

The findings represent a contribution to understanding as to why Irish firms pay dividends. In particular, the findings relate to a recent period for Ireland where little evidence exists. In addition, the findings emerge from a comprehensive investigation of the topic using a large-scale sample questionnaire, an event study and a sizable number of interviews. The focus of the investigation is also novel in that the views of unquoted company executives are sought in addition to the perspectives of managers from listed companies. What emerges is a comprehensive investigation of the dividend decisions of Irish companies.

CHAPTER 1: INTRODUCTION

1.1 Introduction

The almost universal corporate policy of paying substantial dividends to shareholders represents one of the longest standing puzzles in the modern corporate finance literature. For most tax environments, there is a considerable levy on paying dividends to investors. Specifically, in many jurisdictions, dividends are taxed at a higher rate than capital gains while there is no concurrent tax liability on retained earnings. The rise in the market value of a share that results from retained earnings is taxed only when the shareholder sells the share and then a substantial part of the gain may not be taxed because of indexation relief, tax allowances and certain capital gains tax exemptions.

Prior to 1974 companies in Ireland paid income tax and corporation profits tax on income only. Capital gains tax was introduced in the Republic of Ireland on the 6th of April 1974 and in 1976 a new single rate corporation tax was introduced, which replaced the previous income tax and corporation profits tax regime. The scheme of the 1976 legislation was similar to the corporation tax regime introduced in the UK in 1965 in that companies were liable to corporation tax on profits, which included income and capital gains. As in the UK, Irish companies pay the same rate of corporation tax whether or not they choose to distribute profits by way of dividend.[1]

A key feature of the Irish corporation tax regime when it was introduced was that shareholders were entitled to income tax relief on dividend income received through the provision of an attaching tax credit on the dividend to reflect the underlying corporation tax paid by the paying company (i.e. the imputation system).[2] As the imputation system entitled

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[1] The exception to this generalisation is a close company (a company under the control of five or fewer shareholders). An additional tax (the close company surcharge tax) applies to the after tax investment income, rental income and professional service income of close companies if such income remains undistributed after eighteen months of the end of the accounting period in which the income is earned (TCA, 1997).

[2] Although the original scheme of UK Corporation introduced in 1965 did not provide shareholders with income tax relief on dividend income through the provision of an attaching tax credit to reflect the underlying corporation tax paid by the paying company the UK regime was changed to the imputation system in 1973.

shareholders who were exempt from income tax to claim a repayment of the imputed tax credit, companies were obliged to pay advance corporation tax amounting to the value of the imputed tax credit on payment of any dividend.[3] The advance corporation tax paid was allowed in full as a tax credit against the company's main corporation tax liability.[4] As is common in many jurisdictions, Irish capital gains tax only arises on inter-vivos disposals so the effective capital gains tax liability might be zero if the investor chooses not to sell or to pass his/her shareholdings on to estate beneficiaries after death.[5]

The overall effect of the tax legislation introduced in the mid-1970s was that dividends from Irish companies were taxed at approximately the same rate as that which applied to capital gains. However, since the late 1980s successive reductions in the imputed tax credits on dividends, a change in the tax treatment of scrip dividends (re-invested dividends) and the introduction and extension of various capital gains tax reliefs have resulted in a higher rate of tax on dividend income compared to capital gains. In recent years, the difference in favour of capital gains has widened significantly.

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[3] When the Corporation tax regime was introduced in Ireland in 1976 the scheme did not include an advance corporation tax (ACT) requirement. This resulted in a number of abuses. The Irish Department of Finance estimated that the annual cost to the exchequer of those abuses was in the region of €50 million (Dukes, 1983). Anti-avoidance legislation was introduced in 1983 to prevent such abuses.

[4] From 1983/84 if a firm paid a dividend amounting to €1 the Irish government would take 35 cent as advance corporation tax. The tax liable shareholder would receive only 65 cent. Individuals paying tax at the standard rate paid no further tax but exempt taxpayers (e.g. pension funds) in receipt of the 65 cent could claim a full refund of the advance corporation tax, amounting to 35 cent, from the Irish Revenue Commissioners

[5] An investor who decides to sell a holding of stock around its ex-dividend date faces a timing decision regarding whether to sell on the cum-dividend day or the ex-dividend day. If that person is resident in Ireland for tax purposes, then under Irish tax legislation, if he or she sells cum, they receive the cum-dividend price and pay tax at the capital gains tax rate (current rate 20%), on the cum-dividend price minus the adjusted indexed cost of the share. An inflation adjustment in the form of indexation of the base cost of a capital asset by reference to the movement in the Irish consumer price index over its holding period was available from 1978 to 2003. Indexation relief was abolished for tax periods commencing on or after 1st January 2003. If he or she sells ex-dividend, they receive the dividend and pay income tax at their marginal income tax rate (current standard rate 20% and top rate 42%) plus social security levies (current rate 5%) minus the dividend withholding tax and capital gains tax on the ex-dividend price minus the adjusted indexed cost of the share. For a buy decision, timing causes a change in the cost of the investment. For a given holding period buying cum rather than ex increases the initial outlay and increases the after income tax dividend flow, but reduces the future capital gains tax liability.

Specifically, from 3rd December 1997, the capital gains tax rate was halved from 40% to 20%. In July 1998 the Irish government obtained the agreement of the EU for the introduction of a single low rate of Corporation Tax on trading income of 12.5%. The then Irish Minister for Finance in delivering his 1999 budget speech to Dáil Eireann (the Parliament of Ireland) announced a major change in the income tax charge on Irish dividends. He stated:

> *"Since the owners of capital in the form of shares will benefit from the reduced tax rate on [company] profits I believe it right that the government should accordingly take action to ensure that [shareholders in companies pay] income tax on dividends.... [I propose therefore to abolish] the existing tax credits on dividends from the 6th April 1999 and to introduce a dividend withholding tax at the standard rate ...Those individual shareholders liable to tax at the higher rate will be required to pay the balance [of any income tax] due under the self assessment system."*
>
> (Charles Mc Creevy, T.D., Budget 1999, 3rd December 1998)

In view of the abolition of the imputation system and the reduction in the capital gains tax, it might have been expected that Irish companies would change their dividend distribution policies. Indeed, in July 1997 the British Chancellor of the Exchequer in delivering his budget speech to the House of Commons, made a clear attempt to use the tax system to encourage lower dividends and greater investment by abolishing refunds of tax credits on dividend income. He stated:

> *"The present system of tax credits encourages companies to pay out dividends rather than re-invest their profits. This cannot be the best way of encouraging investment for the long term.....so, this is the right time to undertake long-needed reform [and] with immediate effect I propose to abolish refundable tax credits [on dividends]..."*
>
> (Rt. Hon. Gordon Browne, M.P., Budget Speech, 2nd July 1997)

However, in spite of the severe tax penalty, a substantial number of Irish companies continue to pay dividends to their shareholders (McCluskey et al., 2003). By paying dividends, Irish companies effectively impose a substantial tax liability on their shareholders. This dissertation investigates, in the context of such a severe tax penalty, why Irish companies continue to pay dividends; specifically, it attempts to identify the explanatory factors that justify this apparently irrational behaviour.

Behavioural finance theorists have offered several possible explanations of why investors continue to exhibit preferences for cash dividends despite the apparent departure from wealth maximisation. Many of these theoretical explanations have been tested in the literature and yet the results, largely based on US data, raise almost as many questions as they answer. However, in terms of overall conclusions, four themes can be identified from the literature.

First, since the early 1930s, the literature has identified a desire on the part of investors for a steady stream of income with which to finance consumption. Although the same level of consumption might be financed in a more tax efficient manner by selling shares, the transaction costs and the psychology of dipping into 'principal' to finance consumption is often thought to be a deterrent to that course. Indeed, Shefrin and Statman (1984) noted that shareholders appear to behave in a manner as though consumption can only be financed out of dividends and not out of capital. Shareholders seem to prefer companies to supply them with a dividend pattern that matches their consumption pattern thereby relieving them of the burden of having to adjust this cash flow for themselves. In that context, a particular company may appeal to a clientele of shareholders whose consumption patterns accord with its dividend pattern (Miller, 1977). Examination of the clientele argument in an Irish context is one of the areas considered in this work.

Second, the empirical literature suggests that dividend payments have a direct and

measurable impact on equity returns. The analysis requires the actual share return to be compared with the expected share return around the period of the dividend announcement date in order to determine whether or not any stock market reaction has occurred. If the flow of information to the market ensures that the announcement of a change in dividend does not come as a total surprise to the investor community, there will not be a statistically significant abnormal share return generated during the announcement period. According to this methodology, a statistically significant abnormal share return generated during the announcement period clearly indicates that the dividend announcement has not been fully anticipated, and consequently conveys important additional information to the market. An observation of small and statistically insignificant post-announcement abnormal returns indicates that the market is informational (semi-strong form) efficient; it reacts quickly to new information releases and impounds that information into share prices rapidly, leaving no opportunity to earn above-average returns using publicly available information. If post-announcement abnormal returns are statistically significant it may indicate that the market takes time to respond to the news implicit in the announcement once any uncertainty about the implications of a dividend change have been resolved (Brown et al., 1990).[6] This study employs that conventional event-study methodology to examine the reaction of the Irish stock market to dividend announcements by Irish quoted companies.

Third, dividends are normally required because of the separation of ownership and management (Jensen, 1986). In particular, dividends may be a reliable signal of the

[6] This approach is not new. Watts and Zimmerman (1986) have noted that there is a substantial academic literature that has documented stock market reaction to firm specific announcements such as earnings news, mergers, etc. For example, in their early work Ball and Brown (1968) observed that positive (negative) unexpected earnings changes were associated with positive (negative) abnormal returns and that while the majority of the share price movements in response to earnings news occurred before the earnings release date, a significant response also occurred in the announcement month. Similar conclusions have emerged from the studies of Brown (1970), Brown (1978), Foster (1975, 1977), Watts (1978), Randleman, et al., (1982), while the findings of Beaver (1968) and Beaver et al. (1979) indicated that both the sign and the magnitude of the earnings news influence the stock market response.

sustainability of corporate profits (Pettit, 1972). Management therefore selects a dividend policy to communicate the level of (and anticipated growth in) profits because conventional accounting reports are not entirely adequate guides to current earnings and future prospects. Since the mid-1950s, the published literature has indicated that most companies follow a policy in which dividend reductions are anathema but an increased dividend will only be declared if management are convinced that the new dividend level can be sustained (e.g., Lintner, 1956). In this context, management may view the level of and rate of change in dividends as a key variable in financial planning. A number of investigations drawing on data from several developed markets have reported directors' belief that dividends communicate special information to the market (e.g. Baker et al., 1985). While this theory remains to be refined and elaborated on, it does suggest that a steady dividend policy provides reassurance to shareholders in a dynamic and uncertain environment. A major focus of this dissertation is an examination of the extent to which belief in the utility of the signalling concept is prevalent among Irish company directors.

Finally, and closely-related to the signalling argument, is the suggestion that shareholders distrust management and fear that retained earnings will be wasted through poor investment decisions, leading to excessive management salaries and benefits. Shareholders are often assumed to prefer current dividends to future dividends (the-bird-in-the-hand-theory) because management is subjected to the scrutiny of the capital markets more often than if no dividend is paid (Keane, 1985); this preference is strong enough to pressure management to make dividend payments despite the associated tax penalty. Moreover, it appears that shareholders are willing to bear the tax burden penalty and the additional funding costs, because they are far outweighed by the benefits from a reduction in both monitoring (agency) costs and information asymmetries. In this context, the academic literature argues that it is hard to understand why there appears to be no pressure for 100% payouts.

To date, very little is known about the current dividend payout policies of Irish firms. The few studies that have been undertaken are either based on small samples or were conducted more than 10 years ago. The attitude of Irish managers is of particular interest given the significant growth in inward investment, particularly from the US to Ireland, over the past fifteen years and the changing pattern of foreign investor participation in the Irish stock market. Moreover, Irish institutional investors have significantly reduced their exposure to Irish equities from an estimated weighting of 90% in the early 1980s to a predicted 12% in 2003 (Davy, 2003). Irish managers' attitudes to dividend policy may have changed since the previous studies were undertaken, given the change to a more globalised shareholder base in recent years.

The central objective of the research in the current thesis is to ascertain whether dividends are relevant to Irish share valuations. This study both ascertains the views of Irish corporate managers about their firms' dividend policy and investigates how the Irish stock market responds to company announcements about dividend payments. It accomplishes these goals using a questionnaire survey, interviews and a market-based event study.

The questionnaire and interviews seek to explain; (i) how Irish firms determine the amount of dividends to pay to shareholders, (ii) perceptions about the relationship between dividend policy and firm value, in particular whether belief in the effectiveness of the 'signalling' concept is widely held; and (iii) the role of earnings, risk preferences and tax clienteles in determining the payout ratios of Irish companies. The questionnaire survey instrument was administered in the autumn of 2001 while the interviews were conducted between December 2002 and May 2003.

The event study spanned a fifteen-year period from 1987 to 2001. Capital market regulators require directors of companies to make news releases about earnings, new capital expenditure, capital structure, dividend payout, share buy-backs, etc. on a timely basis. When

such announcements are made, financial analysts and commentators interpret and analyse the news releases as signals of the present health of the company and also as indicators of its future performance. The publishing of information about these decisions is therefore analogous to the release of a variety of different signals (sometimes simultaneously), making it difficult for investors to decode the complex messages often contained in mixed signals and to disentangle relevant information conveyed by the individual decisions. Improvements in econometric techniques have made the interpretation of such information less formidable; the signalling literature of modern finance increasingly uses advanced statistical models to analyse the joint effect of a variety of different signals on the share values of companies.

The impact of complex signals on share values has been examined in a number of US, UK and Australian academic papers. No such analysis has been conducted on Irish data. This study addresses that gap. One major problem addressed in this thesis is whether the dividend and earnings signals are interactive when announced jointly. Arguing that investors tend to give more credence to the consistent signals of dividend and earnings which are released at about the same time, academic papers have examined the dependence of the marginal information contained in one signal on the content of the other; they have documented convincing evidence for the existence of a corroboration effect between jointly announced dividend and earnings news. The general flow of information from company management to Irish stock market participants provides an excellent opportunity for researchers to test for evidence of an interaction between the dividend announcement and the earnings announcement because news about Irish dividends is almost invariably published simultaneously with information about corporate earnings.

1.2 Structure of the Thesis

In summary, this dissertation investigates corporate Ireland's attitude to dividend payments and examines how the Irish stock market reacts to company announcements about dividends. Its primary objective is to come to an understanding as to why Irish firms continue to distribute profits as dividends despite the shift in the tax regime. The dissertation consists of 7 further chapters, which have been organised as follows.

Chapter 2 describes the Irish economic and investment environment during the time period of the study. The chapter: (i) provides a review of the recent performance of the Irish economy; (ii) highlights current issues; (iii) discusses likely future trends; (iv) outlines the primary characteristics of the Irish equity market; (v) provides a review of the relevant Irish taxation regulations during the period of the study; and (vi) sets out the scheme of taxation in Ireland as it applies to corporation profits, dividend income and capital gains.

Chapter 3 reviews the literature on dividends with a specific focus on the signalling debate and the influences of taxation. It begins with the dividend irrelevancy argument proposed by Miller and Modigliani (1961) and extends the analysis by recognising that corporate dividend decisions are relevant to investors in an environment; (a) where there is an information asymmetry between company management and the outside investors: and (b) where dividends are taxed at a higher rate than capital gains. It traces the development of the theoretical models and empirical tests from: (i) the simplistic notion of a single dividend signal to outside investors to; (ii) a more realistic scenario in which the dividend is just one of many items of information which investors consider when valuing shares. This review integrates the literature on the information needs of shareholders, on agency theory and on taxation policy in an attempt to produce a comprehensive backcloth against which to judge the empirical evidence.

Chapter 4 sets out the research methodology and methods underpinning the present study. It identifies the core philosophical assumptions that guided decisions about the research approach for the empirical investigation of dividend decisions by Irish companies documented in subsequent chapters. In the context of these assumptions the choices of primary quantitative and qualitative methodological approaches and the rationale for the chronological order of the empirical work are explained. In addition the chapter provides a detailed discussion of each of the research methods of the survey design, the event study and the interviews.

Chapter 5 investigates the views of Irish corporate managers regarding dividend policy using a questionnaire survey sent to the chief executives of top Irish companies. It seeks to explain: (i) how Irish firms determine the amount of dividends to pay to shareholders; (ii) perceptions of Irish chief executives about the relationship between dividend policy and firm value, in particular the extent of adherence to the effectiveness of the 'signalling' concept; and (iii) the role of earnings, risk preferences and tax clienteles in an Irish context when payout ratios are being determined. The chapter also examines whether responses to these topics differ between quoted and unquoted firms, dividend paying and non-dividend paying companies and across companies which have recently changed their dividend.

Chapter 6 conducts a wide-ranging study of the dividend announcement effect by examining the share return behaviour around the announcement of changes in the payout levels of a large sample of quoted Irish companies. The same methodology is also used to test for an interaction effect (i.e. whether the stock market reaction to dividend announcements differs from one group to another according to the character of the change in the reported dividend and earnings figures). Finally, a more formal investigation of the

interaction effect between dividend and earnings announcements is investigated using the analysis of variance (ANOVA) technique.

Chapter 7 presents an analysis of interviews with management and with investor surrogates (i.e. leading Dublin brokerage houses). The interviews with management compliments and expands the analysis of the survey evidence while the interviews with leading Dublin brokerage houses provide an alternative point of view on whether dividends influence share prices and compliments the event study results. Central to these interviews is an examination of financial directors' perceptions about the relationship between dividend policy and firm value; in particular, whether the conclusions reported in Chapters 5 and 6, which suggest that dividends may provide a robust signalling mechanism to Irish investors, are confirmed. The interviews also sought information about the influence which taxation has in determining payout ratios. In keeping with the research approach taken in Chapter 5, the analysis of interviews examines whether responses to these topics differ between quoted and unquoted firms, dividend paying and non-dividend paying companies and across companies which have recently changed their dividend.

Finally, Chapter 8 of the thesis assesses the different empirical findings and draws conclusions. In addition, it highlights the limitations of the work in this thesis by critically discussing the research choices made by the author. The chapter makes a number of recommendations about what future work might be conducted in this relatively under-researched area.

CHAPTER 2: THE IRISH INVESTMENT ENVIRONMENT

2.1 Introduction

The purpose of this chapter is to describe the Irish investment environment during the period of the study. It provides a context for the empirical work discussed in the following chapters. An explanation of this context is necessary because of the dramatic transformation of the Irish economy from a depressed, debt-ridden, discouraging environment in the 1980s to a buoyant, low taxation, prosperous sustainable economy by the end of the 1990s.

Examination of real GDP at constant prices indicates that the Irish economy grew at an annually compounded rate of 9.23% between 1986 and 2001. By comparison, the equivalent figure for Europe as a whole was 3.38% and for the World was 5.24%. One reason for the dramatic expansion of the Irish economy was the significant growth in foreign investment in the country since 1986. The number and size of foreign firms trading in Ireland increased and foreign investor participation in the Irish stock market rose. The abolition of exchange controls in 1988 resulted in Irish investors taking the opportunity to diversify their portfolios out of Irish equities - a process that continued throughout the 1990s. In addition Ireland's entry into the Euro in 1999 eliminated currency risk for Irish investors investing in Euro-zone equities and for European investors investing in Irish equities. These developments have resulted in Irish institutional investors significantly reducing their exposure to Irish equities from an estimated weighting of 90% in 1986 to a forecasted 12% in 2003 (Davy, 2003)[7] while at the same time foreign participation in the Irish equity market has increased.[8] In practical terms these changes have resulted in a more globalised shareholder base for Irish equities. Finally, the recent changes in the Irish system of company taxation (including the abolition of the imputation system, the introduction of a dividend withholding

[7] Irish equities represented 2% of all Euro-denominated shares at the beginning of 2003 (Davy, 2003).
[8] The Irish Stock Exchange has no data on the extent of foreign ownership of Irish quoted firms. However, Murphy (2003) examined the share registers of firms in four different sectors quoted on the Irish Stock Exchange and noted that foreign participation constituted on average 28% of total holdings in Irish quoted firms.

tax and the new 12.5% rate of Corporation Tax) may have had a profound impact on the way in which Irish firms determine dividend policy. Taxation issues are therefore explored in detail.

The current chapter is split into six sections. Section 2.2 provides a review of the performance of the Irish economy during the period of the study while Sections 2.3 and 2.4 discuss current issues and future trends, respectively. Section 2.5 outlines the primary characteristics of the Irish equity market and provides a brief review of the empirical work published about the performance of shares traded in the market. Section 2.6 provides a review of relevant changes to Irish taxation regulations over the period of the study and sets out the scheme of taxation in Ireland as it applies to corporations, dividend income and capital gains. Section 2.7 concludes the chapter by summarising the previous sections and linking forward to the next chapter.

2.2 A Review of the Recent History of the Irish Economy

After a long period of protectionism, which began in the 1930s, the Republic of Ireland progressed to a small[9] open[10] economy by the end of the 1960s. O'Grada (1997) noted that in the early 1960s protectionism and obstructions to inward investment were replaced by subsidies to manufacturers, government grants for foreign direct investment (FDI) and the introduction of a tax holiday for exporters of goods manufactured in the Republic of Ireland.[11] These incentives significantly increased the productivity of the Irish manufacturing sector and by the end of the 1960s overseas firms accounted for 60% of

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[9] "Small" relates to the relatively small size of Irish GDP compared with other economies. For example in 1970 Irish GDP was €2,070 million (CSO National Income and Expenditure Accounts) compared with UK GDP of €60,625 million (Brooman, 1973, p.25).

[10] "Openness" is defined as the ratio of exports to GDP. In 1960 the ratio of exports to GDP was 32%; in 1965 the ratio was 35% and by 1970 the ratio was 37% (CSO National Income and Expenditure Accounts).

[11] Andersen (1969) reported that a 0% tax rate on profits applied to exporters of goods manufactured in the Republic of Ireland for 15 years and reduced rates for a further 5 years. The incentive expired on 5th April 1990.

industrial output (NESC, 1996).

However, Sweeney (1998) noted that while exports expanded significantly in the 1960s and 1970s[12] the indigenous sector was unable to survive the removal of tariffs or respond to government grant incentives and many firms in traditional sectors failed. Kirby (1997) reported that the major failing in Ireland's industrial policy of the 1960s and 1970s was the lack of linkages between the indigenous sector and the foreign-owned sector. Notwithstanding the closure of many indigenous firms during the 1970s economic growth in Ireland averaged 4.5% per annum in the ten years period from 1971 to 1980 (NESC, 1996). That growth rate was sustained by substantial increases in government spending. The increased public expenditure commitments undertaken in the 1970s contributed to an unsustainable public debt burden that had carry over effects to the 1990s (Forfas, 1996).

2.2.1 The Economic Crisis of the 1980s

The first half of the 1980s saw the Irish economy experience some of its toughest times to date. Gross National Product (GNP) grew by only 0.2% per year, on average, over the years 1981-1986, compared to the EEC average growth rate of 1.7% per year (NESC, 1996). Leddin and Walsh (1997) noted that there was a rapid decline in the public finances, substantial balance of payments deficits and increased unemployment despite high levels of emigration. Two factors in particular contributed to this poor performance.

Firstly, at the time, the international economy was quite sluggish as European governments tightened fiscal policies by cutting public expenditure and increasing taxation thus limiting economic growth.[13] A lack of international demand, high levels of domestic

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[12]Mc Cluskey (1999) noted that the expansion of foreign owned firms, attracted to Ireland by government grants together with the tax holiday for exporters of manufactured goods, and Ireland's entry into the European Economic Community (EEC) in 1973 accelerated exports to Europe and significantly reduced Ireland's traditional reliance on the British market.

[13] The United States was the only economy that experienced notable growth during this period (Forfás, 2001).

inflation and the Irish government's commitment to remain within the European Monetary System (EMS) resulted in a marked deterioration of Ireland's relative price performance from 1979 onwards (Forfás, 1996).[14] Taking price inflation and movements in the Irish pound/punt exchange rate together, there was a real appreciation of 17% in the effective (i.e. trade weighted) exchange rate of the Irish pound/punt index between 1980 and 1985. Against EMS currencies and UK Sterling, the real appreciation was more than 30%. Only the strength of the US dollar, which had appreciated by 15% in real terms until 1985, gave Irish exporters any kind of competitive advantage in the first five years of the 1980s (Forfás, 1996).

Secondly, as a consequence of low growth the Irish public finances deteriorated rapidly. The deficit in the public finances required heavy taxation and significant public borrowing. Mc Cluskey (1999) reported that excessive government spending during the first half of the 1980s resulted in unsustainable levels of government debt and brought the State to the brink of insolvency. Leavy and Wilson (1994) observed that political instability and a series of weak governments at the time made corrective action difficult. In 1986 the crisis in the public finances forced the then coalition Government to propose severe public expenditure cuts. That coalition Government collapsed but the minority government subsequently elected in 1987 implemented the public expenditure cuts (with the support of the main opposition party in the Irish parliament) and introduced reforms to the taxation system. These policy changes brought the public finances under control and stabilised the national debt.

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[14] From the foundation of the Irish State in 1922 until 1979, the Irish currency (Irish pound/punt) was exchangeable at full parity with the British pound Sterling. Ireland joined the EMS in 1978 and the formal link with Sterling ceased.

2.2.1 Economic Recovery from 1987

Table 2.1 shows key economic statistics for the Irish economy from 1986 to 2003. Inspection of the table reveals that from 1987 onwards, the Irish economy began to experience an improvement in its fortunes.

In 1987 important changes occurred in domestic policy that saw the emergence of a social-partnership approach to governance and policy formulation. The approach involved three-year centralised agreements on employee pay; personal taxation; public expenditure and government borrowing, between the government and the 'four pillars' of Irish society. [15] O'Donnell and O'Reardon (1996) noted that the same period witnessed a change in Irish party politics towards a more consensual and cooperative arrangement rather than the previous adversarial approach. In particular, in 1989 the largest political party in the State accepted for the first time in its history the principal of coalition rather than single party government. All governments since 1989 have been coalition governments.

The social partnership model has contributed to a reduction in industrial disputes, provided moderate wage increases, ensured strict public expenditure discipline, permitted significant tax reductions and enhanced overall policy stability. The resulting policy mix concentrated on supply-side reforms to the economy, improving the attractiveness of Ireland as a location for overseas investment and increasing competitiveness. The 10% Corporation Tax rate for manufacturing and international traded service companies, together with generous government grants for both fixed capital expenditure and employee training to export-oriented multi-national companies and domestic firms, significantly improved the climate for business.

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[15]The four pillars in Irish society include the trades unions, the employers, the farmers and the voluntary sector. The present agreement will expire in 2006.

Table 2.1 Economic Statistics for the Irish Economy 1986 to 2003

Fiscal Year	GNP Growth %	Employment Change %	F.D.I Change %	Government Debt / GDP %	Government Surplus Deficit (–) / GDP %
1986	-0.9	-0.11	16	119	-14.2
1987	4.4	0.00	-25	119	-10.8
1988	2.6	-0.18	-24	115	-6.0
1989	5.4	4.22	-4	100	-3.0
1990	7.3	0.00	86	98	-2.9
1991	1.9	0.44	-5	94	-2.6
1992	2.0	0.62	18	87	-2.7
1993	3.7	3.14	-26	89	-2.5
1994	6.3	3.27	13	87	-2.0
1995	8.2	5.00	53	78	-2.6
1996	7.8	3.65	6.7	70	-0.6
1997	9.7	3.87	-	60	0.8
1998	7.9	8.30	-	42	2.1
1999	8.9	6.46	242	41	2.3
2000	10.2	5.00	155	38	4.5
2001	3.8	2.74	-270	36	1.7
2002	2.7	1.95	300	34	-0.4
2003	5.1	2.61	165	31	1.4

Note: This table provides details of key economic statistics for the Irish economy over the study period. Prior to 1997, Forfás maintained statistics on grant-aided foreign investment. Since 1998 the Central Statistics Office (CSO) maintains these statistics. The indices are not comparable as the Forfás figures relate to fixed capital flows while the CSO records total flows.

(Source: Department of Finance Economic Review and Outlook 1986-2005)

Table 2.1 shows that during the period 1987-1992 the recovery in growth was strong and as a result substantial progress was achieved in reducing the fiscal imbalance. The same period saw the relative price performance of the country becoming positive with a lower rate of inflation and reductions in interest rates. With the balance of payments moving into

surplus Ireland's exchange rate commitment to the EMS appeared credible (Forfás, 1996). These positive developments were sustained and Ireland qualified for membership of Economic and Monetary Union (EMU) under the 1992 Maastricht Treaty.[16] In addition, substantial transfers to Ireland under the European Structural and Cohesion Funds[17] significantly assisted with the development of the country's infrastructure.

The policies of offering tax breaks and various grants to industry together with a highly educated workforce meant that Ireland has become one of the most favoured foreign investment locations in the European Union (EU). In particular, the reduced corporation tax rate for manufacturing and financial services firms has enabled Ireland to capture almost 10% of total annual US FDI into the EU compared with only 2.5% in the 1980s (Forfás, 2000). The sectors that witnessed the largest investments included the chemical industry, electrical and electronic equipment, and manufacturing.[18] Ireland's market share of FDI projects in Europe, including manufacturing, pharmaceuticals, chemicals, biotechnology, software, shared services, financial services and tele-services, amounted to 23% of the total or more than 20 times its share of the EU population (Forfás, 2000). This infusion of capital has had a dynamic impact on the Irish economy. It has enabled Irish-based entrepreneurs to take advantage of a booming economy which has in turn helped in sustaining high productivity projects in both the manufacturing and the services sectors (Forfás, 2000).

The economic policies pursued since 1987 have brought about a fundamental strengthening of the economy. Over the past eighteen years, exports have grown at an average rate of 20% per annum. Much of this economic growth has come from the high-technology sector where many subsidiaries of multi-national companies have invested in

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[16] With a fiscal deficit of less than 3% of GDP, Ireland qualified in May 1998 as a participant in EMU, along with 10 other EU states (ESRI, 1999).
[17] Ireland received almost €12 billion in aid from various European funds from 1988 to 1997 (AIB Bank, 1998).
[18] In 1997, Ireland received over $4 billion of US FDI. Ireland has 7% of the stock of US investment in chemicals in the EU; 14% in electrical and electronic equipment; and 10 % in manufacturing (Forfás, 2000).

Ireland. These firms have provided a substantive increase in technology transfer and management know-how, together with significant supply-chain opportunities for Irish-owned industry. This growth is reflected in the astonishing success of the Irish economy in the seven years from 1994 to 2000. Economic growth, measured as GNP,[19] averaged 8% in each of the seven years to 2000; unemployment fell from 14.7% in 1994 to 5.0% in 2000. In particular, employment in the Irish services sector increased significantly during this period. For example, employment growth in tourism has been remarkable, increasing by almost 40%, while total employment in Ireland increased by only 14% (ITIC Report, 1998).[20]

Irish national income doubled in real terms between 1987 and 1998 (Sweeney, 1999). Demographic trends together with significant immigration produced a bulge in the numbers available for work. As a result Ireland has a much smaller economically dependent population than in the 1980s (Sweeney, 1998). The policy of providing a very high level of state intervention in industry (with development grants and tax allowances) was the key to generating this prosperity and in overcoming the country's longstanding problems of high unemployment and emigration (Sweeney, 1999). The improvement in the state of the public finances, which had been initiated in the late 1980s, has been sustained and by the end of 2003 the national debt was reduced to 31% of GDP, a massive fall from 1986 when the national debt stood at 119% of GDP (see Table 2.1).[21] Since 2003 economic growth has continued and by the end of 2004 unemployment stood at an all time low of 4.3% (Forfás, 2005). As a result of the increase in employment, average living standards in Ireland now exceeds the EU average.[22]

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[19] A large number of multi-national companies in a small economy can distort the national figures, so the most appropriate figure to use is GNP, rather than GDP, because the MNC profit adjustment has been made.
[20] The growth in tourism exports has outpaced that in the indigenous manufacturing sector. Moreover, tourism has now out-stripped agriculture as Ireland's second most important industrial sector. (ITIC Report, 1998, p.17.)
[21] Ireland now has the second lowest national debt to GDP ratio of all EU states (E.S.R.I., 2005).
[22] GNP per capita was 65% of the EU average in 1995 (Forfás, 1996) and over 100% in 2003 (E.S.R.I., 2004).

In summary, the transformation of the Irish economy from a depressed, debt-ridden, discouraging environment in the 1980s to a buoyant, low taxation, prosperous sustainable economy has been remarkable. The increase in FDI engendered an entrepreneurial spirit amongst the Irish business community; as a result of this investment and a sharing of knowledge and competencies, many Irish owned enterprises have established niches for themselves in many sectors and are growing to become significant players in the world's markets.

2.3 Current Issues

In the late 1990s disclosures regarding payments of substantial monies by prominent businessmen to politicians (including cabinet members) led to the establishment of two tribunals of enquiry: the Moriarty Tribunal and the Mahon Tribunal (formally the Flood Tribunal). The present concern of these enquiries is whether such payments might have influenced decisions on planning consents, the award of licences for national and local radio stations, the granting of certain government contracts, and the process for the award of the licence for the operation of the country's second mobile telephone network. A more recent enquiry is investigating whether such payments may have influenced certain changes to the Irish inheritance tax code. As a result of the enquiries some politicians may face charges of corruption. The tribunals are still sitting and it is expected that the investigations will continue for a number of years.

The disclosures at the tribunals have prompted several investigations by the Irish tax authorities (the Revenue Commissioners) of tax offences. To date these investigations have

led to criminal prosecutions of a former cabinet minister and a senior Dublin City Council planning official.[23] Other named politicians may face criminal prosecutions for tax evasion.

As a result of parliamentary hearings initiated by the Public Accounts Committee all of the clearing banks and some building societies have made substantial settlements with the Revenue Commissioners after admitting having facilitated the setting up of bogus non-resident bank deposit accounts in order to enable certain depositors to evade income tax, capital gains tax, capital acquisitions tax and deposit interest retention tax (Sunday Business Post, 2002). Taxpayers who held such bogus non-resident accounts were permitted to settle all outstanding taxes due under a Revenue Commissioners incentive scheme.[24] More recently, one clearing bank has been found guilty of deliberately and fraudulently overcharging interest and fees to its customers' accounts (Irish Times, 2004; Sunday Business Post, 2004). Arising from a report by government appointed inspectors into the management of the bank in question the Irish Director of Corporate Enforcement has banned certain senior executives at the bank from holding company directorships for life.

Related investigations have revealed that a substantial number of Irish resident taxpayers had funds deposited in offshore and Northern Ireland bank accounts since the late 1970s.[25] Taxpayers, with undeclared funds in such offshore accounts, were also permitted to regularise their affairs under an incentive scheme[26] while in May 2005 the Revenue Commissioners announced a separate enquiry into funds placed in single premium life

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[23] The former government minister was convicted of tax evasion and he is currently serving a jail term.
[24] Under the arrangements taxpayers who made voluntary disclosures of such funds and paid all tax, interest and penalties due by a specified date had their tax, interest and penalties liabilities capped at 100% of the amount of funds in such accounts. Taxpayers who availed of the voluntary disclosure scheme were granted immunity from prosecution for tax offences and were assured that their names would not be published as having made a settlement with the Revenue Commissioners.
[25] In accordance with the Irish Exchange Controls Regulations such funds should have been repatriated in 1979.
[26] Under the arrangements taxpayers who made voluntary disclosures of undeclared offshore funds and paid all tax liabilities (including interest and penalties) due on or before 28th May 2004 qualified for reduced penalties, immunity from prosecution for tax offences and have been granted assurances that their names will not be published as having made a settlement with the Revenue Commissioners.

insurance products since 1980.[27] Finally, the country's largest bank has admitted overcharging its customers for certain foreign exchange transactions and facilitating offshore tax avoidance transactions for top executives of the bank.

Many have suggested that these exposures have proved beneficial for Irish society. Specifically, the Revenue Commissioners have been granted extensive new powers of investigation under various Finance Acts to ensure compliance with tax regulations. In this regard the Revenue Commissioners (2005) have reported that they are satisfied that there is now substantial compliance with the tax code by both individuals and businesses. The annual Report of the Revenue Commissioners (2004) noted that taxation arrears 'have dropped to a historic low of 2.5% of gross receipts' (Revenue Commissioners 2004, p. 36) compared to 37% in 1998. In a recent interview with the Irish Times the Chairman of the Revenue Commissioners stated:

> *'[The Revenue's] aim is to make voluntary compliance the easy and attractive option and to make sure that non-compliance does not pay.'*
>
> Irish Times, Business (2005, p.2)

2.4 The Future of the Irish Economy

Over the coming decades it is anticipated that a number of global changes will impact upon Ireland's enterprise sector (Forfás, 2001). Two forces in particular are expected to have

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[27] Specifically, the enquiry will initially focus on certain single premium life products with values in excess of €20,000 purchased since 1st January 1980. Under the arrangements taxpayers who make voluntary disclosures of such funds and pay all tax liabilities (including interest and penalties) on or before 22nd July 2005 qualify for reduced penalties, immunity from prosecution for tax offences and have been granted assurances that their names will not be published as having made a settlement with the Revenue Commissioners.

a significant impact on its development: international competition and technological evolution. A recent report by the Enterprise Strategy Group (2005) concluded that:

> *"Ireland's competitive advantage will be defined by demand led innovative products and services. Innovation is the fundamental requirement for competitive success in the services sector as well as in manufacturing. "*
>
> Enterprise Strategy Group Report (2005)

In that environment the services sector has been identified as the catalyst to sustain economic growth and in 2003 services accounted for over 60% of all jobs in Ireland (E.S.R.I., 2003). Indeed, projections by Sweeney (1999) indicated that the services sector in Ireland has the potential to employ almost 1.4 million by 2010 while the Forfás (1996) report noted that an additional 300,000 jobs could be created in the services sector over the period 1997 to 2011.

The Forfas (2005) report noted that internationally traded services were the main source of export growth in 2004. During 2004 traditional manufacturing sectors continued to experience decline while modern sectors with strong export bases continued to prosper and enjoy increases in employment and output. This shift was particularly evident in the entrepreneurial indigenous firms operating in computer software and food products. In addition internationally traded services continued to expand during 2004. The World Trade Organisation (2005) estimated that Ireland had 2.2 per cent share of global trade in services in 2004 with computer services accounting for 35.5% of total services exports while the net trade surplus in financial services was €4.9 billion. The Forfas (2005) report also noted that in 2004 Ireland was for the first time in its history a net exporter of FDI. The Forfás chief executive in the Forfas (2005) report noted that:

"In the future, Ireland will increasingly have to compete on the basis of its ability to manage the development, efficient production and sale of high value products and services tailored to meet global demand. Firms with an eye on long term growth in international markets will ensure that they have clear plans to introduce higher value products and services, improve operating efficiency and build and leverage international sales and marketing capability."

Although educational attainment is expected to increase among the smaller cohorts passing through schools and colleges substantial immigration will be required to sustain growth in services as the falling birth rate experienced during the 1980s has reduced the number of new entrants to the workforce annually (E.S.R.I., 2002).

2.5 The Irish Stock Exchange

One of the main sources of finance for Irish companies is the stock market. This was especially true during the late-1990s when initial public offerings (IPOs) increased. This part of the chapter presents the primary characteristics of the Dublin Stock Exchange; these characteristics are compared with those of the world's largest capital markets; key developments in the market during the period of the present study are highlighted and a brief review of previous empirical work on the behaviour of prices and returns in the market is presented.

The Irish Stock Exchange (ISE) has been trading for over two hundred years. From its modest beginnings in 1793, the ISE has developed significantly and today provides the main national market for Irish equities and Irish Government bonds. The exchange also provides markets for covered warrants, corporate bonds, investment funds and specialist securities. At present, there are over 7,000 securities listed on the ISE with most trading activity concentrated in equities and Government bonds. Table 2.2 presents the six basic

types of security listed on the ISE alongside a brief description of each type of these different securities.

Table 2.2: Types of Security Listed on the Irish Stock Exchange

Type of Security	Description
Domestic Irish equities	Ordinary shares issued by Irish companies.
Overseas equities	Ordinary shares issued by non-Irish companies.
Covered Warrants	Securitised derivatives issued by a financial institution over an underlying asset such as an equity stock, an index or a basket of securities rather than by the issuer of, for example, the equity itself. The term "covered" means that when the issuer sells the warrant to an investor, the issuer will cover or hedge its exposure, typically, by trading in the underlying shares on the market.
Irish Government Bonds	Securities issued by the Irish government to meet its Exchequer borrowing requirements. They entitle the owner to regular interest payments and the repayment of the underlying capital sum at a given date in the future.
Bonds / fixed interest stocks	Usually issued by companies or local authorities.
UCITS & Investment Funds	Collective investment schemes that are established to passively invest in a portfolio of investments on the basis of spreading risk. The Investment Funds are both Irish and non-Irish domiciled and may take a number of legal forms or investment structures.
Specialist Securities	Securities, which because of their nature, are normally bought or traded by a limited number of investors who are particularly knowledgeable in investment matters. Securities listed include: Asset Backed Debt, Eurobonds, Medium Term Notes and Warrants.

(Source: Irish Stock Exchange Website, Profiles and Functions of the Exchange, 2003).

The Irish equity market is comprised of four markets: the principal market (known as the Official List) the Developing Companies Market (DCM), the Exploration Securities Market (ESM) and ITEQ, the technology market of the ISE. At 31 December 2003 there were 66 companies listed on the various markets of the ISE, while the market capitalisation of the Official List was €157,604 million, the DCM was €49 million, the ESM was €125 million and the ITEQ was €840 million. Therefore in total, the Irish equities market had a market capitalisation of €158,618 million at 31 December 2003.

By international standards the market is relatively small. Of the 20 exchanges registered with the Federation of European Security Exchanges, Ireland had the eighth lowest market capitalisation at 31 December 2003. Table 2.3 presents summary annual statistics for the Irish stock exchange for the period of the study 1986 to 2003.

Inspection of this table reveals that the number of listed firms has not changed dramatically over the period of this study. The number of listed firms increased from 73 in 1986 to 101 in 1999 at the height of the stock market boom. However, since 2000 the number of listed firms has fallen as IPOs declined in popularity, a number of firms de-listed and various mergers resulted in the combining of several entities. Market capitalisation and turnover have also fallen in recent years although the trend in turnover was reversed in 2001. The final point to note from Table 2.3 is that a sizeable population of the firms listed on the Irish exchange have a dual listing (mainly on the London Stock Exchange); this number has remained relatively constant throughout the period.[28]

[28] Appendix 2.1 presents a detailed analysis of market capitalisation of each stock listed in each of the four categories on the Irish Stock Exchange in 2003. A review of Appendix 2.1 shows that of the 66 companies listed on the ISE at 31 December 2003, the top ten companies (Allied Irish Bank, Anglo Irish Bank, Aviva, Bank of Ireland, CRH, Diageo, Irish Life & Permanent, Kerry Group, Ryanair Holdings and Tesco) had a market capitalisation of €131,798 million (i.e. 83% of the total market).

Table 2.3: Annual Statistics for the Irish Stock Exchange between 1986 and 2003

Year	Number of Firms Listed	Market Cap. €m	Turnover €m	Number of IPOs	Number of Dual Listings
1986	73	7,651	4,347	4	61
1987	70	7,209	4,789	1	60
1988	73	8,112	3,359	4	62
1989	74	8,812	3,873	2	65
1990	77	8,714	4,196	3	67
1991	81	10,252	4,393	2	72
1992	82	9,411	4,147	0	73
1993	83	15,652	7,635	0	71
1994	80	16,518	8,180	1	70
1995	79	20,467	10,483	1	68
1996	82	26,304	9,292	1	69
1997	91	47,098	29,226	10[29]	71
1998	93	95,654	74,286	3	69
1999	101	137,897	93,461	8[30]	89
2000	96	197,925	31,463	3	85
2001	87	191,067	51,042	2	76
2002	76	167,292	70,255	0	66
2003	66	158,618	76,321	0	60

(Source: Irish Stock Exchange Annual Review: 1986-2003).

Note: This table provides details of annual statistics for the Irish stock exchange for the period of the study. For years prior to 1998 statistics on volume and market capitalisation are only available in respect of domestic equities only. From 1998 statistics on volume and market capitalisation relate to both domestic and foreign equities traded on the exchange.

A number of key developments occurred in the market during the period covered by the present study. Specifically, the breaking of the link with the London Stock Exchange, the

[29] New entrants to the market in 1997 included four technology firms; Iona Technologies, BCO Technologies, Rapid Technologies and ITG Group plc; two manufacturing firms; Qualceram and ILP; an exploration firm Providence Resources; a personnel recruitment firm Marlborough International; the low cost airline Ryanair Holdings and a former farmers co-operative society, Donegal Creameries.

[30] New entrants to the market included three technology firms; Horizon Technologies, Trinity Biotech and Icon; two telecommunications firms Eircom and Esat Telecom; a manufacturing firm; Oakhill; a personnel recruitment firm; CPL Resources, and an auctioneering firm; Sherry FitzGerald Group.

abolition of Exchange Controls, and the move towards a Single European Market for Financial Services all took place.

First, in 1973, the Irish Stock Exchange (ISE) merged with the UK regional exchanges and the London Stock Exchange (LSE) (Thomas, 1986). In 1984, the ISE was delegated the position of Competent Authority for listings in Ireland under an EC Listings Directive and the LSE assumed the same role in the UK (Healy, 1995). As company law in both jurisdictions developed differences between the two countries with respect to the regulation of their respective stock markets occurred. In the UK, the Financial Services Act (1986) delegated to the LSE the responsibility for regulating day-to-day market operations and listings. In Ireland, in line with the European Commission Investment Services Directive, The Stock Exchange Act (1995) provided for 'home country control'. Under this legislation the ISE was charged with responsibility for both the regulation of brokers and regulation of the market. The Stock Exchange Act (1995) formally broke the link with London. Murdoch (1996) reported that the main problem for the Irish Stock Exchange after the break with London concerned fund raising - IPOs became much more difficult post 1995.[31] In addition, market volumes were considerably reduced.[32]

Second, as was mentioned previously, from the foundation of the State in 1922 until 1979, the Irish currency (Irish pound/punt) was exchangeable at full parity with the British pound Sterling. Ireland was part of the Sterling area and the Irish government adopted the various Exchange Controls Acts passed by the parliament at Westminster. Ireland joined the EMS in 1978 and the formal link with Sterling ceased. For the first time, exchange controls operated between Ireland and the UK. The controls placed restrictions on Irish investors

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[31] Murdoch (1996) noted that within three months two Irish companies decided against an Irish listing and listed in London instead. Packaging company ILP and telecommunications company Stentor, both of whom had been planning an IPO in Dublin, opted instead for London's Alternative Investment Market – AIM.

[32] The number of transactions carried on by the Irish exchange fell from 106,800 in 1995 to 72,700 in 1996.

(including institutional investors) investing overseas (including the UK) and monitored the export and repatriation of capital (Exchange Control Acts 1954-1986). In an assessment of the controls Thomas (1986) observed that the regulations severely restricted investors from exercising the fullest degree of diversification of their portfolios and imposed a significant distortion in investment holdings. On 1 January 1988, restrictions on the purchase of medium and long-term foreign securities by Irish residents were relaxed and from 1 January 1989 all restrictions were removed. In January 1992, all limitations on foreign currency borrowing were lifted (Alles and Murray, 2001). Doddy (1992) noted that after Exchange Controls on long-term investments were lifted, the investment policies of Irish funds managers changed significantly towards markets offering good liquidity and good value.[33]

Finally, the introduction of the Single European Market has influenced the Irish Stock Exchange. The free movement of capital has always been a priority for the EU. Although the Single Currency has helped the volume of trade both internally and externally to the EU, Murray (2001) noted that the former EU competition commissioner, Peter Sutherland, observed that further changes were needed. Specifically he noted that unless the legislation governing EU equity markets is overhauled European companies might not achieve the benefits that a pan-European equity market offers. In May 1999 the European Commission published proposals that aimed to remove all barriers to a Single European Market for Financial Services by 2005 (The Financial Services Action Plan). The plan was approved at the Lisbon European Council meeting in March 2000. To date, 39 of the 42 measures have been implemented with the remainder under negotiation.

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[33] A notable casualty of the relaxing of exchange controls was the closure of a number of the smaller stockbroker firms in Ireland and the merger of a number of brokerage houses (Murdoch, 1992).

2.5.1 Empirical Studies on the Price Behaviour of the Irish Stock Exchange

Although the Irish Stock Exchange is over two hundred years old, it is relatively small; most of the shares are thinly traded, and most quotes typically have large bid-offer spreads. However, unlike smaller markets in developing countries, the Irish Exchange is highly regulated and the rules for investor protection are similar to those that apply in the larger developed Western stock markets. Despite this unusual characteristic, very little is known about the performance of shares traded in the market. Most of the published empirical work has focused on tests of the weak-form of the EMH. Very few studies have been published on the semi-strong form or strong form of EMH and in general those that have been conducted have been based on very small samples and provide a partial view of the behaviour of the market. This section presents a brief review of the published work in this area.

A considerable amount of empirical work has been published on seasonality, (day-of-the-week effect and month-of-the-year-effect) for Irish equities. For example, McKillop and Hutchinson (1988) investigated movements in the share prices of 28 companies over the period from May 1979 to May 1986. The authors reported the existence of an April effect, which they attributed to tax selling strategies by Irish investors.[34] Donnelly (1991) provided a further insight into seasonality in the Irish market by investigating both the day-of-the-week effect and month-of-the-year effect. The author examined daily returns for Irish equities from 6 January 1975 to 27 July 1988 and tested the hypothesis that all days of the week had an identical distribution of returns. In contrast to most Western markets, he reported that Monday had the highest mean return and Tuesday had the lowest mean return of the week.

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[34] Prior to 2001 the tax year ended on 5th April each year. Dublin stockbrokers offer clients discounted commission rates on 'Bed & Breakfast' transactions whereby the broker will arrange for shares to be sold and immediately re-acquired at an identical price facilitating client claims for the annual tax free capital gains tax exemption or crystallising capital losses.

Donnelly suggested that the settlement system in Dublin distorts the weekend effect in the Irish market[35] and noted that the average Tuesday return on the Irish stock market index was at least partly attributable to the lag between trading in Dublin and transactions in the UK market on the previous day. Donnelly also examined the month-of-the-year effect by reviewing the performance of a monthly index of shares over a 38-year period from January 1951 to December 1988. Using ANOVA to test for the equality of means across different months the author rejected the null hypothesis of equal monthly returns. The paper reported evidence of both a January and an April effect suggesting that the April effect might be tax driven while the January effect could be explained by portfolio re-balancing.

Lucey (1994) examined the daily closing values on the Irish Stock Exchange Index (ISEQ) from January 1987 to September 1991 and confirmed Donnelly's (1991) evidence of a Tuesday effect. In a later study, Lucey (2000) using a longer time series, from 1 January 1973 to 31 December 1998 documented no negative Monday or Tuesday returns but, somewhat surprisingly, found a midweek effect, combined with specifically persistent and positive Wednesday returns.[36]

Lucey and Whelan (2004) sought to extend the literature in this area by examining data over a longer time span. Their study examined the monthly and semi-annual behaviour of the Irish equity market over the period from 1934 to 2000. The data was compiled using a month-end arithmetic value-weighted index maintained by the Central Statistics Office (CSO) up until 1986, and the official stock market index (ISEQ) thereafter. The authors

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[35] Donnelly explained that in the Dublin market the year is split into account periods, which commence on a Monday and are of a two-week duration. Bargains are settled on the second Monday following that account period. As a result, returns in the first few days of the account period tend to be upwardly biased. Donnelly confirmed this bias by the result of difference-in-means tests, which revealed – firstly, that the average return on the first Monday of the accounting period is greater than that for other Mondays; and secondly that the average weekly return for non-account weeks is negative.

[36] The author used two data indices – the Datastream DC-Total Market index and the DC-Financial index.

discovered the presence of significant monthly seasonality, in particular a combined December-January effect and an April effect.

Lucey (2004) suggested that the pattern of seasonality in Ireland differed from that found elsewhere. Having criticised earlier methodologies the author identified four data sets: the official Irish stock market index (ISEQ); a total returns version of the ISEQ price index (ISEQR); a financial sector index (ISEFIN); and a general market index (ISEGEN). Patterns for these indices were analysed over the ten-year period from January 1989 to December 1998. In contrast to the international literature, the Irish market was found to have its highest mean returns on Wednesdays and the lowest on Mondays. Furthermore, the pattern of returns does not seem to be clearly and obviously related to risk patterns. In terms of daily seasonality, there was only evidence of Monday seasonality for the ISEQ and ISEFIN.

The Irish stock market therefore has many features which are typical of emerging stock markets: high levels of volatility among prices (Kearney, 1998), a non-normal distribution of returns (Lucey, 1994; Hamill, et al., 2000; Stevenson, 2000) and evidence of a distinctive seasonality pattern and spill-over effects in returns (Lucey and Whelan, 2004). Yet it exhibits many characteristics associated with a developed market. It is an old well-established stock exchange with a sizable body of corporate law which protects investors. In addition over 80% of the equities have another listing on an exchange in a larger and developed market (Appendix 2). Most of these second listings are in London or the US indicating that the dividend decisions of Irish companies may be unusual in that they may be influenced by factors in foreign markets.

2.6 A Review of the Irish Tax Regime

Recent changes in the Irish tax regime for dividends and capital gains provides an opportunity for a comprehensive investigation of the relevance of dividend taxes in the Irish context. Specifically, the regime has changed from the imputation to the classical system while a series of Finance Acts has accelerated the collection of tax liabilities for all taxpayers. This part of the chapter provides a brief review of the relevant Irish taxation regulations in force during the period of the study in order to establish the context in which the dividend-paying decisions of Irish companies can be evaluated.

As Section 2.2 explained, the first half of the 1980s was a particularly difficult period for the Irish economy. The deficit in the public finances required heavy taxation. In 1986 the Government introduced reforms to the taxation system. As part of the reform programme both the 1986 and 1987 Finance Acts provided for the introduction of a self-assessment tax regime based on the recommendations of the First Report of the Commission for Taxation (1982).[37] The self-assessment regime requires all individual taxpayers to pay income tax and capital gains tax liabilities for the year on or before 31 October each year and to file tax returns within ten months of the end of the tax year.

From the late 1980s corporation tax rates and dividend income tax credits were reduced in tandem. In 1997, the rate of capital gains tax was cut to 20%, while in 1998 a new corporation tax rate of 12.5% for trading income was introduced for accounting periods beginning after 1st January 2003 with transitional reductions applying in each of the years

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[37] Prior to the full implementation of the self-assessment system taxpayers were given an interest and penalties amnesty to bring their tax affairs up to date. To avail of the amnesty taxpayers had to file all outstanding tax returns and pay all outstanding taxes on or before 30th September 1988 (Finance Act, 1988). The yield from the tax amnesty was € 821 million (Central Statistics Office, National Income and Expenditure Accounts). In addition the 1993 Finance Act provided a special incentive rate of tax of 15% for all previously undeclared income and gains. To avail of the 1993 incentive taxpayers had to file a return of all previously undeclared income and gains to a Special Commissioner and pay the 15% tax on or before 15th January 1993 (Finance Act, 1993). The yield from the 1993 tax amnesty was €380 million (Central Statistics Office, National Income and Expenditure Accounts).

1998 to 2002 (See Appendix 2.2). The public finances moved into substantial surplus in the late-1990s (see Table 2.1), which allowed for significant income tax reductions in 1997 and 1998; Ireland now has the fourth lowest income tax of all OECD countries (Irish Times, 2005). In 1999, the imputation system was abolished and a new dividend withholding tax (DWT) was introduced from 6th April 1999.

The introduction of the DWT was a significant change to the taxation regime for dividend income. DWT applies to all dividend payments to individual taxpayers. However, DWT does not apply where either the dividend recipient is a company resident in Ireland for Corporation Tax, or is a non Irish resident person provided that such non residents are resident in an EU member state, or are resident in a country with which Ireland has a double taxation treaty, or is a company quoted on a recognised stock exchange (Finance Act, 1999).

The abolition of the imputation system has significantly reduced the yield on dividend income for both Irish tax resident individuals and pension funds. Table 2.4 considers the after tax dividend yield assuming dividend income received amounting to €100 for both types of shareholders (i.e. an Irish tax resident individual and a pension fund) in 1987 and 2003. The example in the table also assumes that the dividend income arises from a portfolio of shares with a market value of €1,000 in each year and that an individual taxpayer pays income tax at a marginal rate of 50%. The pension fund is exempt from income tax and prior to 1999 was entitled to claim a refund of the imputed tax credit on dividend income received. In 1987 the imputed tax credit was 53.85% of the cash dividend received. The table shows that as a result of the abolition of the imputation system the dividend yield after tax in 2003 had been reduced by approximately 14% for an individual and by approximately 26% for a pension fund compared with the after tax yield in 1987.

Table 2.4: Comparative After Tax Yield on Dividends 1987 and 2003

	Imputation Regime 1987	Classical Regime 2003	Imputation Regime 1987	Classical Regime 2003
	Individual	**Individual**	**Pension Fund**	**Pension Fund**
Dividend	€100	€100	€100	€100
Taxable	154*	100	0	0
Tax @ 50% / 0%	77	50	0	0
Tax credit	(35)	-	(35)	-
Net Dividend	58	50	135	100
Dividend yield	5.8%	5.0%	13.5%	10%

NOTE: * Under the imputation system a taxpayer in receipt of a dividend of €100 in 1987 would have been deemed to have received a gross dividend of €154 and a tax credit amounting to $36/65^{th}$ of the amount of the dividend received.

2.7 Conclusion

The Irish economy is small, open and highly trade-dependant; the last two decades have seen it experience periods of recession, of recovery and of the establishment of a more secure growth path. The shape of the economy has been transformed from one that was heavily reliant upon agriculture, to one that now relies upon a dependable manufacturing sector and an enterprise sector. The enterprise sector includes both Irish owned and foreign owned companies located in Ireland that are involved in either the manufacture of goods or the provision of services. The changes in the economy and to the tax regime may have had an impact on attitudes of Irish companies towards dividend payout policies. Accordingly, a comprehensive study of the views of Irish corporate managers regarding dividend policy is timely. The conclusions of that research will be complemented by an examination of how the

Irish stock market responds to company dividend announcements and the views of Irish financial analysts on dividends.

Although the Irish stock market is small by international standards, unlike smaller markets in developing countries it is highly regulated and the rules for investor protection are similar to those that apply in the larger developed Western stock markets. In addition, many stocks listed on the Irish exchange have dual listings, having both a listing in Dublin and on at least one larger market such as London or New York. In this context, the disclosure of information and stockbrokers' research analysis is as sophisticated as that which exists on larger markets. Prior studies (e.g. Burton et al., 1999) have suggested that the size and visibility of firms can have an impact on the market response to signals emanating from companies. By studying the relatively small Irish market the role of market and firm size can be investigated directly. In that context, the Dublin exchange appears to be ideally suited to a meaningful examination of the dividend question.

The next chapter examines in detail the literature on dividends. It explores the conflicting theories that have been put forward regarding whether dividend payments matter to valuation and examines the literature on the information content (signalling) effect of the dividend announcement and the impact of taxation on dividend policy. The chapter also considers the literature on managerial behavioural attitudes to dividend policy.

CHAPTER 3: LITERATURE REVIEW

3.1 Introduction

Lintner's pioneering work on dividends, published in 1956, observed that the payment of regular cash dividends to shareholders is a long-established tradition in developed capital markets. The author suggested that company managers: (i) believe that shareholders are entitled to a fair share of the firm's profits in the form of dividends; (ii) advocate a target dividend payout ratio; (iii) perceive that shareholders prefer a steady increase in dividends, so that only gradual changes to the dividend are made; and (iv) seek to avoid making changes in the payout rate that may have to be reversed within a year or so. As a result managers attempt to smooth dividend payments in the short-term to avoid the necessity for frequent changes.

Despite Lintner's observations the question of why companies pay dividends - and how such dividend payments are determined - is perhaps the most elusive and controversial area of contemporary finance theory (Feldstein and Green, 1983). Black (1976) referred to firms' and investors' fixation with regular dividends as a puzzle, asserting that nobody actually knows why firms pay dividends. In the course of attempting to resolve this question, academics have uncovered many specific aspects of dividend behaviour that lack obvious rational explanations. These issues have led to many years of substantive research efforts, but 'pervasive, time-invariant answers to such questions appear to be lacking' (Frankfurter and Wood, 2002, p.2). Despite the fact that a number of conflicting theories have been proposed to explain why firms pay dividends, no one theory appears to be conclusive.

This chapter reviews the theoretical and prior empirical literature on the dividend puzzle and provides the background for the exploration of the dividend question in an Irish context. Section 3.2 reviews the classical theoretical perspective of dividend irrelevance; discussing the traditional view of dividends, the 'bird-in-the-hand' argument and the arguments for dividend relevance. Section 3.3 examines the dividend signalling literature and

considers the conflicting theories and empirical evidence that explain why dividend payments might signal fundamental information to investors. Section 3.4 investigates the role of taxation and includes a review of the academic arguments concerning the tax disadvantage of dividends relative to capital gains. Section 3.5 summarises the findings of prior survey and interview evidence regarding managerial attitudes to dividends before Section 3.6 concludes the chapter.

3.2 Dividend Irrelevance

The classical theoretical perspective of dividend irrelevance is that a company's dividend payment does not influence the market value of its shares. Marsh (1993) noted that the origins of the 'dividend irrelevance' view date back to the propositions put forward in the paper by Merton Miller and Franco Modigliani (MM) "Dividend Policy, Growth and the Valuation of Shares" which was published in 1961. In the paper, MM proved that in a world without taxes, transaction costs or other market imperfections the sole determinants of a company's value were the expected level and risk of its cash flows (Marsh, 1993).

MM asserted that no relationship exists between a company's dividend policy and the wealth of its shareholders. The authors demonstrated that if a dividend was paid, an equivalent amount of new equity must be issued to maintain investment levels. Consequently, the decline in share values suffered by existing equity holders arising from the distribution of part of the firm's assets (i.e. the payment of a cash dividend) exactly matched the value of the dividend received by shareholders; total shareholder wealth was unchanged provided that dividend income and capital gains were valued equally. If certain shareholders preferred more cash income than the dividends paid by the firm, they could obtain such funds by selling part of their shareholding in the firm. MM contended, therefore, that in a perfect capital market the investor will not pay a premium for any company policy that can be

replicated by the investor. The authors concluded that a firm's dividend payout policy was irrelevant to security valuation. As Bar-Yosef and Kolodny (1976) noted:

> *"As long as a firm's investment decisions are known, the capital market will evaluate the firm's shares according to its potential profitability. If certain shareholders prefer more cash income than dividends paid, they can obtain such by liquidating part of their stock holdings. Doing this, these investors would realise the same return as those who maintain their original stock holdings regardless of the firm's dividend policy."*
>
> (Bar-Yosef and Kolodny, 1976, p. 181)

The traditional view[38] is that dividends are relevant to firm valuation. The traditionalists argue that at any particular point in time one euro paid out as dividend is more valuable than one euro of retained earnings (capital gains), despite the fact that the funds used to pay dividends may have been earmarked for profitable investment opportunities. This position is referred to in the literature as the 'bird-in-the–hand' theory. The traditionalists do not accept that manufacturing a dividend - by liquidating part of a shareholding in the market, thereby crystallising a capital gain - is a perfect surrogate for a cash distribution.

Traditionalists agree that if the assumption of perfect capital markets is accepted, the dividend irrelevancy argument holds. However, traditionalists argue that once this fundamental assumption is removed the dividend issue becomes problematical. Specifically, capital market imperfections interfere with the hypothesis of dividend irrelevancy. Therefore, the pattern of dividend distributions by the firm is relevant to the firm's valuation. As Lumby (1994) pointed out:

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[38]Lumby (1994) noted that the traditional view is so called because it is the view which is widely held amongst both stock market investors and analysts.

> *"capital market imperfections mean that [if an investor] cannot [easily] adjust his dividend pattern to fit his preferred consumption pattern.....the pattern of wealth receipts [may be] important."*
>
> (Lumby 1994, p. 548)

The origins of the "dividend relevance" position date from observations by Graham and Dodd (1934) who asserted that the only reason firms exist is to pay dividends to their shareholders. Gordon (1959, 1963) provided the fundamental valuation model that links the market value of a firm's shares to the discounted value of its future dividend payments. According to Gordon (1959), regular dividend payments reduce uncertainty in the mind of an investor and therefore the risk of his/her future cash flow (i.e. the bird-in-the-hand theory). An early cash distribution (i.e. a dividend) might not actually change a company's business risk, but it can favourably alter an investor's perception of that risk. Accordingly, current dividends are viewed as more valuable than retained earnings because the investor's perception of risk is imperfect.[39] This imperfection may lead investors to undervalue the future dividend stream that retained earnings may generate (Gordon, 1959). The investor's perception of lower risk reduces the discount factor and increases the market value of the share. Therefore traditionalists conclude that dividends are relevant to valuation.

The next section of this review focuses on two other major challenges to the dividend irrelevancy argument: (i) whether the announcement of any change in the dividend conveys information (signals) to the market; and (ii) whether taxation has any effect on dividend decisions. Both of these issues are of primary interest in this dissertation.

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[39] Frankfurter and Lane (1992) observed that dividends are partially a tradition and partially a method to allay investor anxiety.

3.3 Dividend Signalling

Arnold (2002) observed that capital markets are imperfect in the sense that information is neither costless nor universally available to all shareholders. In that environment investors may make many investment decisions based on imperfect or incomplete information. For the investor the cash dividend is a free and universally available piece of data. In that context Keane (1974, 1985) noted that the tangible nature of cash dividends means that investors may regard the payment of a dividend as a powerful signal about the future performance of the firm. It is against this background that management must determine the amount of dividend to pay.

In order for dividends to convey information, managers must have access to knowledge about the firm not available to outsiders, but which can be signalled to the market via the dividend payment policy. The dividend signalling hypothesis is that: 'dividends convey information about future earnings that enables market participants to predict future earnings more accurately' (Watts, 1973, p.191). In reality corporate managers ("insiders") and shareholders ("outsiders") do not have the same (symmetric) information; in particular, managers will have access to information about their firm over and above the amount of information that is disclosed to the company's shareholders and to the market. This creates an imbalance between managers and shareholders conventionally known as 'informational asymmetry'.[40] Therefore, dividend signalling models suggest that in a world of information asymmetry, changes in dividend levels convey information about future returns; dividend increases (decreases) convey favourable (unfavourable) information about the future cash flows of the firm. Bernartzi et al. (1997, p. 1,008) suggested that dividends are explicit signals about the firm's future earnings sent 'intentionally and at some cost to its

[40]Brealey et al. (2005) noted that the term 'informational asymmetry' is a term indicating that managers know more about their companies' prospects, risks and values than do outside investors.

shareholders'.[41] Asquith and Mullins (1986a) noted that the use of dividends as signals implies that alternative methods of signalling are not perfect substitutes for the signal conveyed by dividends while Frankfurter and Wood (2002) suggested that an appropriate dividend policy can lead to lower signalling costs than would be the case with alternatives.

Building on the notion of asymmetric information, the remainder of this part of this chapter reviews the dividends literature on each of the following: (i) the information needs of shareholders; (ii) the role of agency theory; and (iii) the empirical relationship between dividend payments and security prices.

3.3.1 Dividends in the Context of the Information Needs of Shareholders

Corporate shareholders suffer all of the uncertainty[42] in a business venture and are only entitled to share in the residue of the company's net assets (i.e. share capital plus accumulated profits or minus accumulated losses). Therefore corporate investors are primarily interested in the amount and pattern of the distribution of the firm's net assets (i.e. share buy backs, periodic dividend payouts and the final dividend payment). Such payments and their pattern are by their very nature uncertain.

Ryan et al. (2002) noted that the notion of uncertainty in investment decision-making first emerged in mainstream financial economics literature. The authors noted that the related theories found their way into the field of finance via the investigation of risk measures that might assist investors in investment decision-making. In particular, these risk measures facilitated the portfolio selection process of investors, given the subjective attitudes of investors to risk. Francis and Archer (1979) noted that the concern with uncertainty in the

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[41]Bernartzi et al. (1997) identified several signalling costs associated with dividend payments. Specifically, these costs include: the cost of issuing new shares; the cost of forgone investment, and, higher income taxes on dividends relative to capital gains.

[42]The notion that 'uncertainty' differs from 'risk' is that the latter exists when objective probabilities can be assigned to outcomes (Pike and Neale, 2003).

context of investment decision-making in a portfolio selection context had its origins in the work of Markowitz (1952 and 1959) and is supported by the Efficient Market Hypothesis developed by Fama (1965 and 1970). Watts and Zimmerman (1986) noted that shortly after the promulgation of this theory, a substantial number of research papers concerned with market-determined risk measures appeared in the academic literature (e.g. Beaver et al., 1970).

However, despite the concern with market-determined risk measures and efficient capital markets Dykeman et al. (1975, p.90) noted that: 'a substantial number of individual investors are not well diversified, and there is no *a priori* reason to assume such behaviour irrational, particularly if the world is not adequately reflected by the simplified economic models which support the efficient markets hypothesis'.[43] In that context and against the background of investor uncertainty, the cash dividend is part of the information set that investors may rely on as a reliable source of information.

3.3.2 Theoretical Models of Dividend Signalling

Several researchers have observed that management are careful in the selection of dividend policy because the information conveyed by the dividend payment is seen by investors as a reliable signal of managements' views about future prospects.[44] Frankfurter and Wood (2002) asserted that the mitigation of information asymmetries between managers and shareholders via unexpected changes in dividend policy is the cornerstone of dividend-signalling models. The authors noted that the dividend payment acts as a signal of management's insider forecast of prospective earnings. The dividend signalling hypothesis is

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[43]Griffin (1982, p.42) argued that 'for investors who are not well-diversified information about company specific risk is paramount'.

[44]For example, Lintner, (1956) observed that company management will only declare an increased dividend if they are convinced that the new dividend level can be sustained into the future.

that company management use dividends to signal asymmetric information which 'induces a reassessment of the firm's expected future earnings and a simultaneous adjustment of share price' (Manakyan and Carroll, 1990, p.201).[45] Pettit (1976) summarised the key points regarding the potential of dividends to convey information to the market participants as follows:

> *"The original rationale for the conveyance of information through dividend announcements was that reported earnings may not be an accurate reflection of real earnings since they are subject to random nonrecurring factors that cannot be specifically and exactly identified by the investing public. Since management may have greater insight than the rest of the market as to the level of present and future earnings power, they may use dividend payments as the medium through which their expectations are conveyed."*
>
> (Pettit, 1976, p. 86)

The underlying assumption of theoretical models of dividend signalling is that outside investors understand a dividend increase to represent "good news" about the future profitability of the firm, while they identify a dividend cut as "bad news" which signals a less profitable future for the firm (e.g. Pettit, 1972; Ghosh and Woolridge, 1991; Lonie et al., 1996).[46]

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[45]Manakyan and Carroll (1990) examined the relationship between the dividend signal and changes in actual short-term earnings performance. Based on a sample of 278 unexpected dividend increases and 453 unexpected dividend decreases during the period 1979 to 1983 the authors confirmed that unexpected dividend changes precede changes in short–term earnings in a direction consistent with the signal given by the unexpected dividend changes.

[46]Paradoxically, despite the fact that MM asserted that no relationship exists between a company's dividend policy and the wealth of its shareholders, MM's original analysis acknowledged the informational importance of dividend payments to shareholders. Specifically, in their paper MM conceded that if a firm adopted a target payout ratio, shareholders were likely to interpret a change in that dividend payout rate as a change in management's views of future profit prospects for the firm. Although that interpretation may lead to a change in the company's share price MM asserted that the dividend change provides the occasion for the price change but is not the reason for the price change. The authors reiterated their view that company share prices are not determined by the amount of any dividend payout but exclusively by the firm's future earnings prospects. The dividend change merely signals management's reassessment of those future earnings prospects.

In addition to the view that dividend increases convey good news about future profits, while dividend cuts tend to signal bad news, a number of theoretical models have been developed to show how dividends can act as a signal of the company's future investment opportunities. John and Kalay (1982) noted that it is costly for companies with poorer investment prospects to mimic a high payout level. The authors concluded that high quality firms signal investment opportunities by committing the firm to restricted dividend payments and financing new investment opportunities with low-cost retentions. Soter et al. (1996) noted that firms that retain funds to finance profitable investments rather than paying dividends avoid having to incur transaction costs when issuing new shares.

A critical assumption of this argument is that issuing new shares is expensive relative to using low cost retained earnings. Lintner (1967) noted that a new issue of shares may cause an immediate decline in share values by signalling that the company is unable to fund its investments by cheaper debt finance. The argument that internal finance costs are significantly less than external finance has been extensively documented in the literature (e.g. Lintner, 1967) while a number of papers have reported that the marginal cost of external finance is higher for financially vulnerable firms (e.g. Greenwald and Stiglitz, 1988). In addition several empirical studies have reported evidence of negative reactions by shareholders of quoted companies to the announcement about issues of new shares. For example, Asquith and Mullins (1986a and 1986b) reported that the announcement of a new share issue reduced the market value of a typical firm by approximately 3% and that more than 80% of the firms studied experienced share price reductions at the time of equity issue announcements. More recently Burton et al. (2003) summarised the essential conclusions of several such studies and noted that:

"The average two-day market-adjusted return following the announcement of an seasoned equity offering has consistently been shown to be negative and in the region of -3%; in contrast debt issues appear to exert no significant influences on share prices whatsoever. In addition there is strong evidence of price drift in the months and years following the announcement of the share issue."

(Burton et al., 2003, p. 24).

Brealey et al. (2005) noted that asymmetric information affects the choice between internal and external financing and between new issues of debt and equity. The authors noted that this argument is a facet of the pecking order hypothesis, which predicts that companies with many investment opportunities will finance those investments according to the perceived lowest costs of alternative funding methods.[47] Such companies prefer a low dividend payout to their shareholders thereby increasing their capacity to finance their capital expenditures from retained profits rather than by external sources. Lintner (1956) observed that management are reluctant to allow dividends to fluctuate and attempt to smooth dividend payments in the short-term to avoid the necessity for frequent changes. On the other hand, profitability and investment opportunities are unpredictable so retained profits may be insufficient to finance investments and external funds may be required. In these circumstances Myres (1984) suggested that management issue debt in the first instance and new equity as a last resort. The author concluded that a firm's debt to equity ratio reflects its cumulative requirements for external finance.[48]

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[47] Myres and Majluf (1984) noted that the pecking order hypothesis of corporate finance predicts that because firms prefer to finance investments with retained profits they adapt their target dividend policies to reflect investment opportunities while avoiding sudden changes in dividends. According to the theory there is no defined target debt to equity capital structure ratio so external fund raising reflects gaps between retained earnings and investment opportunities net of dividends.

[48] The alternative explanation of the debt-equity ratio choice in the literature is trade off theory. Myres (1984) noted that the trade off theory of capital structure recognises that target debt-equity ratios may be derived by balancing the tax benefits of debt financing with financial distress costs at high gearing levels. Low risk firms with significant tangible assets and high tax capacity will have high debt-equity ratios and unprofitable companies with risky intangible assets will rely primarily on equity financing.

A number of academic researchers have attempted to model the costs associated with using dividend changes act as market signals. Bhattacharya (1979) analysed a scenario in which the reliability of accounting reports about earnings are enhanced by the payment of cash dividends. Specifically, if investors have incomplete information about the future profitability of the firm because of the inadequacies of corporate reports, the payment of dividends signals information to investors about the firm's future cash flows. The author demonstrated that under appropriate conditions a dissipative signalling equilibrium emerges with the level of dividends serving as the signal and the personal tax disadvantage with dividend payments as the signalling cost for shareholders. Specifically, the author asserts that the extra tax burden on dividend income is the major signalling cost because dividends are taxed at a higher rate than capital gains. In a subsequent paper, Bhattacharya (1980) analysed the dividend announcement as a non-dissipative signal to investors by using a labour market model which the author demonstrated is relevant to the modelling of the information content of corporate dividends as an ex ante signal of future earnings. The author noted that company management would avoid using the dividend payment to mislead the market because any such attempt might result in the termination of their employment contracts with the firm.

Miller and Rock (1985) developed a dividend information model under asymmetric information conditions. The authors noted that the cash dividend provides investors with information concerning the firm's current earnings. Their model demonstrated that an informational consistent signalling equilibrium exists arising from a decision to change the existing level of dividend payout. The dividend announcement enables market participants to confirm the firm's current earnings and that these earnings are used to predict future cash flows. In their model the dividend announcement effect can be partitioned in two; - the dividend surprise itself and an earnings persistence factor. In these circumstances management are tempted to pay out higher dividends than the market is expecting (thereby

increasing the price of the company's shares) even if that means cutting back on investments. Therefore the price of allowing for asymmetric information and the dividend announcement effects is the loss of optimal investments by the firm. The authors concluded that the opportunity cost measured by productive investment forgone is the cost of maintaining the dividend signal.[49]

Finally, Keane (1974) observed that a high dividend payout policy requires firms to raise fresh funds (either new equity or debt) in the market regularly to finance capital expenditure. In contrast a low dividend payout policy may indicate that capital expenditure is financed through retained earnings. Keane (1974) argued that investors prefer firms to pay high dividends and raise new funds in the market on a regular basis because a substantial amount of information is usually disclosed about a firm's proposed investments in the prospectus when the new funds are raised. In contrast if retained earnings are used to finance capital expenditure, uncertainty is greater because most of the information about the proposed investment remains undisclosed. Closely related to this argument is the suggestion that shareholders distrust management and fear that retained earnings will be wasted through poor investment decisions. Easterbrook (1984) suggested that high dividend payments reduce shareholder unease with management (i.e. the shareholders' agents) by subjecting the firm's investment and financing decisions to the scrutiny of the capital market. The next section builds on the notion that a high dividend policy ultimately requires management to raise new funds and therefore provides more information to the market than would be the case with a low dividend policy.

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[49] Miller and Rock (1985) extended their analysis to consider the financing announcement effect and noted that the financing announcement effect is merely the dividend announcement effect in reverse. The sign and size of the price change following an announcement of new financing will depend on the relation of optimal investment to the pre-announcement expectation of earnings. If internal net cash flow had been expected to be positive, financing is bad news. The larger-than-expected external financing indicates lower-than-expected cash flows. Therefore a decision to increase the level of dividend by either reducing the anticipated level of investment, or increasing external financing may indicate to investors that the firm's expected cash flows will be lower.

3.3.3 The Role of Agency Theory

Agency costs result from information asymmetries. Corporate managers are agents of shareholders - 'a relationship fraught with conflicting interests' (Jensen, 1986, p.323). The notion of agency costs is not new; Frankfurter and Wood (2002) observed that differences in managerial and shareholder priorities have been recognised for more than three centuries while Jensen and Meckling (1976) noted that agency costs inevitably arise when owner-managers sell off portions of their firm to outside shareholders who have no day-to-day involvement with the firm and no voice in management. Roseff (1982) suggested that the discrepancy between the value of the 100% owner-managed firm and the less than 100% owner-managed firm is a measure of agency costs. Jensen and Meckling (1976) suggested that one way to reduce agency costs is for managers to increase their equity ownership in the firm which would better align managers' interests with the interests of shareholders. Jensen (1986) noted that shareholders reduce agency costs by incurring monitoring costs (e.g. audit fees) while Barnea et al. (1981) observed that that agency costs could be further minimised through the use of complex contractual arrangements between management and shareholders. In addition the authors noted that although agency costs potentially result in reductions in the market value of shares, agency costs are likely to be lower if firms regularly go to the market to raise new capital.

Easterbrook (1984) agreed that since cash dividends paid out to investors force firms to raise funds in the capital market more frequently, a high dividend payout policy diminishes the agency conflict between managers and shareholders; the dividend provides a mechanism to monitor managers at relatively low cost. The author observed that the principal value of keeping firms constantly in the market for capital is that the contributors of capital are very good monitors of the investment and financing decisions of management. Otherwise managers may behave in their own interest rather than the interests of investors.

Jensen (1986, 1988) recommended that companies should adopt a high dividend payout policy because such a practice reduces the capacity of management for independent decision-making and subjects their investment polices to the scrutiny of the capital market. The author noted that the more shareholders are rewarded by cash dividends, (and capital expenditures are therefore financed by new issues of shares or debt), the greater the amount of external monitoring. This in turn reduces the agency conflict between managers and the shareholders of the firm, thereby diminishing the agency cost of equity. Jensen (1986) asserted that if managers of firms with substantial free-cash flows have a tendency to over-invest by accepting marginal investment projects with negative net present values, a dividend increase reduces the extent of over-investment and increases the market value of the firm; a decrease in dividend will produce the opposite result.

Roseff (1982) suggested that the payment of a dividend is a device like a bonding cost or an auditing cost which is employed to reduce the agency cost of equity. On the other hand firms incur substantial transaction costs by going to the market regularly to raise new capital. Roseff (1982) presented a model of optimal dividend payout in which he demonstrated that although increased dividends lower agency costs that benefit is offset by the increased transaction costs associated with new external funding. The set off of these two opposing costs determines an optimal dividend payout.[50] In conclusion the author suggested that a firm's investment policy influences dividend payment policy in that firms with greater investments tend to have have lower dividend payouts.

Crutchley and Hansen (1989) suggested that management select their ownership, leverage and dividend structures simultaneously in order to control agency costs. The authors

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[50] Using data from a sample of 1,000 observations drawn from 64 different unregulated industries Roseff (1982) conducted an empirical test of the model and concluded that the dividend payout is a significantly negative function of the firm's past and expected future growth rate of sales, a significantly negative function of its beta coefficient, a significant negative function of the percentage of stock held by insiders and a significantly negative function of the number of the firm's shareholders.

identified five firm specific characteristics that proxy for agency costs and examined the effect of these characteristics on managerial stock ownership, leverage and dividends.[51] Based on a sample of 603 industrial firms during the period 1981-1985 the authors reported that increased earnings volatility impacted both managerial ownership and dividends positively.

Moh'd et al. (1995) argued that shareholders are willing to bear the cost of new funding that arises from a high dividend payout because the benefits of the reduction in information asymmetries far exceed the costs incurred. The study examined agency theory across different firms and through time, using annual financial statement data for 341 US firms for the period 1972 to 1989. The authors reported that dividend policy appeared to be a function of firm size, growth rates, operating/financial leverage, intrinsic business risk and ownership structure; the findings also indicated that managers of sample firms seem to minimise agency cost and transaction costs in a manner consistent with the existence of an optimal dividend payout ratio. The authors concluded that 'firms adjust their dividend payout in response to dynamic shifts in the agency cost/transaction cost structure as changes are observed to occur' (Moh'd et al., 1995, p.383).

3.3.4 Empirical Evidence on the Relationship between Dividends and Security Prices

One of the first studies to examine how share prices respond to dividend announcements was published by Pettit (1972). That study spawned many subsequent academic papers that have investigated the market reaction to the announcement of changes

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[51] The specific characteristics were: earnings volatility; advertising and research and development expenses; flotation costs; firm size; and diversification loss to managers. Sample firms characterised by greater advertising and research and development expenditures rely less on debt finance, while managers rely more on outside leverage and more on managerial ownership if flotation costs are large. Greater share ownership diversification positively affected managers' stock ownership, negatively affected leverage and negatively affected dividends. Finally, larger firms were characterised by lower managerial ownership, increased leverage and increased dividend payout.

in regular dividends (e.g. Charest, 1978; Divecha and Morse, 1983; Marsh, 1993). Virtually all of these studies have observed a strong positive relationship between dividend announcements and security price movements.[52] In particular, when dividends are increased (or initiated) prices tend to go up, whereas, when dividends are cut (or omitted) prices fall.[53]

Pettit (1972) attempted to measure the response of share prices to dividend changes announced by US firms using a sample of 698 dividend announcements made by 625 NYSE quoted companies over the period January 1964 to June 1968. Sample firms were categorised according to dividend and earnings performance; dividend announcements were sub-grouped into seven mutually exclusive classes based on their quarter-to-quarter change in dividend payments.[54] In an attempt to control for the effect of reported earnings firms were classified according to whether actual earnings during the period exceeded or fell short of expected earnings (Pettit, 1972). Three conclusions were drawn from the study. First, dividend changes convey information to the market; market participants appear to make use of the information signalled in dividend announcements. Second, a dividend announcement typically conveys considerably more information than an earnings announcement. Thirdly, capital markets are not efficient in interpreting the information implicit in dividend change announcements.

Charest (1978) examined the effects of dividend announcements by US firms over the period 1947-1968. Based on a sample of 177 dividend increases and 49 dividend decreases the study reported evidence of significant abnormal returns on the day of the announcement

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[52] Most of the extensive related literature has its origins on investigating the empirical relationship between dividends and share prices. Specifically, these studies have examined the issue of whether the returns earned by a firm at the time of change in its dividend policy is associated with the sign and / or magnitude of the dividend change. Other studies have examined the dividend announcement effect in other contexts, for example, by studying trading volume patterns around dividend announcements (e.g. Richardson et al., 1986).

[53] Benartzi et al. (1997) noted that there appears to be considerable evidence that the market treats changes in dividends as conveying important information.

[54] The sub-groups were: dividend omissions, reductions, initial payments, no change, less than 10 percent increase, 10 percent to less than 25 percent increase, and 25 percent or greater increase.

which were generally in the same direction as the change in the dividend (the average abnormal return for dividend increasing companies on the day of the announcement was 1.00% and for dividend decreasing companies was –3.18%).

Divecha and Morse (1983) examined returns surrounding the announcement day performance of US firms that increased their dividends. A sample consisting of all non-regulated and non-bank firms on the NYSE for the period May 1977 to February 1979 was employed. Dividend increases were found to be associated with an average abnormal return of 0.84% on the day of announcement. Moreover, the abnormal returns observed during this period were directly related to the proportional change in the dividend.

Fehrs et al. (1988) studied US stock price reactions to announcements of dividend changes using daily returns data for the period 1980-1984. A sample of 1080 dividend changes comprised of 1015 increases and 65 decreases was compiled[55] and a significant positive share price reaction (averaging 0.8%) for sample firms that increased the dividend and a negative reaction (averaging 2.8%) for dividend decreasing firms was reported.

Several studies have examined the relationship between dividends and future earnings. Watts' (1973) hypothesis was that dividends provided information about future earnings streams. Using earnings, dividend and share returns data for a sample of 310 US firms during the period 1946 to 1967, Watts regressed earnings for the following year on the dividend for the current year. The results revealed that while the average coefficients across firms were positive, the average t statistics were very low; the author concluded that: (i) the relationship between current dividends and future earnings was, on average, positive but relatively weak;[56] (ii) the relationship between the unexpected change in dividends and the

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[55] Firms that made dividend and earnings announcements within seven days of each other were eliminated from the analysis to avoid any complexity in interpreting the results.

[56] A later study by Gonedes (1978) also observed that in the time-series forecasts of future earnings, current and past dividends appear to have little predictive power over and above current and past earnings. Penman (1983) also reported that knowledge of future dividends is of little value in predicting future earnings.

change in future earnings was generally positive, but again weak; (iii) the relationship between the sign of an unexpected change in dividends and the sign of an accompanying unexpected change in future earnings was positive but trivial; and (iv) the relationship between unexpected dividend changes and monthly share prices was insignificant.

Bernartzi et al. (1997) investigated the information content of dividends with respect to future earnings. The authors examined 1,025 NYSE and AMEX firms who made at least two dividend announcements in the period 1979-1991 which provided a sample of 7,186 observations. Consistent with Watts' (1973) findings, the authors were unable to find any evidence to support the view that changes in dividends have information content about future earnings changes. They noted that:

> *"...there is a strong past and concurrent link between earnings and dividend changes; the predictive value of changes in dividends seems minimal. Indeed the only strong predictive power we can find is that dividend cuts reliably signal an increase in future earnings."*
>
> (Bernartzi et al., 1997, p. 1031).

However, the authors reported that firms that increased their dividend were less likely to have subsequent earnings decreases than firms that do not change their dividends despite similar earnings growth and that dividend changes appeared to provide a signal about the present earnings figure, in that the current increase in earnings is, 'permanent rather than transitory' (Bernartzi et al., 1997, p.1032). From this analysis the authors concluded that Lintner's (1956) model of dividends remains the best description of the dividend setting process.

A number of investigations have examined the influence of firm size on the dividend decision and noted that smaller firms typically have lower payout ratio than larger firms. For

example, Fox and Green's (1992) UK study revealed that between 1984 and 1990 the dividend payout ratios of the FTSE companies in their sample were approximately 50% on average, whereas the comparable ratios for USM companies[57] - which had much smaller capitalisations - were on average approximately 30%. In an Irish context Goodbody (2003) reported that the smaller Irish quoted companies typically pay lower dividends compared to the larger Irish quoted firms. Several studies have reported that announcements of dividend changes by small firms appear to contain greater surprise value than those of large firms (Eddy and Seifert, 1988; Marsh, 1993) and that small firms are more likely than large firms to cut dividends (Chowdhury and Miles, 1987; Lonie et al., 1996).

A range of US studies have investigated differences in dividend policies across industries. For example, Michel (1979) studied US data from 13 industries during the period 1967-1976 with 13 firms randomly selected from each (except for paper and paper products where only 12 firms were selected). The findings demonstrated that industry classification is a direct determinant of dividend policy. The sample was further divided into equal size categories to determine whether the differences within the industries could have contributed to the results, but no such variation was identifiable. However, later research suggested that 'a firm's industry type has little influence on the views that managers have on .....dividend policy' (Baker and Powell, 1999, p.32). These findings contrasted sharply with the earlier evidence of Baker et al. (1985). In the latter study the authors reported evidence that the dividend decisions of regulated utility firms differ from manufacturing firms and wholesale/retail firms in substantive ways. Baker et al. (1985, p. 83) concluded 'managers of regulated firms have a somewhat different view of the world than managers operating in a

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[57] The Unlisted Securities Market (USM) was established in November 1980 as a second tier stock market in the United Kingdom and Ireland. The London Stock Exchange regulated the market. Access to the market was made considerably cheaper for smaller companies by a number of relaxations of the main market's requirements (Touche Ross, 1986); In June 1995 the Alternative Investment Market (AIM) replaced the USM in the UK. The market was closed in Ireland after The Stock Exchange Act (1995) was introduced (see Chapter 2).

competitive environment'. However, Soter et al. (1996) noted that the economic environment had changed since the mid-1980s in that utilities found themselves increasingly subject to competition.

3.3.4.1 Dividend Initiations, Cuts and Omissions

Several researchers have analysed the market response to the announcement of major changes in a firm's dividend policy such as a dividend initiation or omission.[58] The findings of these studies are consistent with the proposition that changes in existing dividend levels are both preceded and followed by distinctive earnings patterns.

Michaely et al. (1995, p.573) asserted 'when a firm initiates the payment of a cash dividend, or omits such a payment, the firm is making an extremely visible and qualitative change in corporate policy' while Asquith and Mullins (1983) noted that dividend initiations or resumptions provide an ideal opportunity to tackle the problem of modelling the market's expectations about dividend news. Asquith and Mullins (1983) examined US listed firms that either paid their first dividend ever or initiated dividends after a hiatus of ten-years or more to investigate the impact of dividends on shareholders' wealth. Based on a sample of 168 firms during the period 1963 to 1980 the authors reported that announcement date abnormal returns were on average +3.7% and that the returns were positively related to the size of the initial dividend. The authors concluded that investor behaviour supports the view that dividends convey important information to shareholders. Benesh et al. (1984) agreed that dividends convey important news to the market, but asserted that initial dividends are generally unexpected and therefore convey much more relevant information than other potentially

[58] A common assumption in the studies documented in this section is that the dividend changes made by firms are essentially unexpected and that the majority of studies have adopted the naïve dividend expectation model (Ofer and Siegel, 1987). However, Woolridge (1982) noted that where the market expects a dividend change the actual announcement does not provide any additional information.

favourable announcements. A study by Aharony and Swary (1980) found that earnings continued to increase for at least four quarters after the dividend change while for a sample of 35 firms which increased their dividends by more than 20%, Brickley (1983) reported a significant earnings increase in the year of the dividend increase and the year after the dividend increase.

Healy and Palepu (1988) noted that most of the dividend-initiating firms in their sample of 131 observations between 1969 and 1980 experienced earnings growth for at least one year prior to the dividend announcement; this growth continued throughout the year of the dividend initiation and went on for two subsequent years. In contrast, for the 172 firms in their sample that omitted the dividend, the authors noted a significant decline in earnings two years before the omission and also in the year of omission, but this decline was reversed in subsequent years.[59]

Studies by De Angelo and De Angelo (1990) and De Angelo et al. (1992) have established a link between persistent poor earnings (or losses) and dividend reductions. For example, the analysis of factors responsible for dividend reductions in the former study revealed that declining earnings and losses were the most influential firm-specific factors in managers' decisions to reduce existing levels of dividends. The authors also noted that corporate managers were more inclined to reduce dividends than simply omit them;[60] that the propensity to reduce dividends increases with any current year loss and future earnings

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[59] These results confirmed the earlier findings of Wansley and Lane (1987) who also found that their sample of dividend-initiating US firms experienced a significant increase in profitability prior to the dividend initiation (which lasted for four years rather than two years) and that changes in liquidity were not a significant determining factor for US companies in their decision to initiate dividends payments. In this context the authors suggested that the initial dividend decision did not appear to be a means of disposing of excess cash despite the fact that companies in their sample experienced a significant reduction in long-term debt and interest expenses prior to the initiation of the dividend payment.

[60] DeAngelo and DeAngelo (1990) found that the larger public corporations responded to financial distress with rapid and aggressive dividend reductions.

difficulties and that managers of firms which have a long history of paying dividends appeared to be especially averse to dividend omissions.[61]

Ghosh and Woolridge (1991) examined US firms that made successive dividend omissions in the period 1962 to 1984. Based on a sample of 358 first omissions, 160 second omissions, 72 third omissions, 29 fourth omissions and 55 fifth or higher omissions, the authors reported that management appeared to use dividend omissions to convey negative news and that in most cases dividend omissions are followed by lower earnings announcements or trading losses. Moreover, it appeared that an initial dividend omission announcement is typically associated with a large share price loss, but subsequent omission announcements are not.[62]

Michaely et al. (1995) studied dividend initiations and omissions by NYSE and AMEX companies in the twenty-five years period from 1964 to 1988. The study was based on a sample of 561 firms that initiated dividends and 887 firms that omitted the dividend. The authors computed excess returns for the year before the initiation (omission) and during the three-day window around the dividend initiation event (the day before the event to the day after the event). The average performance of portfolios for the 561 firms in their sample that initiated dividends was significantly better than the benchmark portfolios (non initiation

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[61] De Angelo et al. (1992) noted that more than half of the sample of financially distressed NYSE companies examined in the study faced binding debt covenants in the years where dividends were reduced. The authors also suggested that some dividend reductions are strategically motivated to facilitate favourable outcomes such as enhanced bargaining powers against trades unions. One condition that appeared to lead to dividend cuts for firms with stable earnings and dividends histories was an annual loss. However, a loss does not necessarily result in a dividend reduction; for example, DeAngelo et al. (1992) reported that only 50.9% of the 167 NYSE firms that made losses during 1980-1985 reduced dividends.

[62] A number of researchers have also analysed share return behaviour for periods greater than a year for dividend announcing firms. For example a recent study by Gunasekarage and Power (2002) analysed the long-term financial performance of firms that announced simultaneous dividend and earnings changes during the five years period 1989 to 1993. Based on a sample of 1,787 announcements which were sub-divided into six categories, depending on the direction of changes in dividends and earnings, the authors noted that companies that announced increased dividends coupled with increased earnings (good news companies) suffered a decline in profitability in the five years after the announcement. On the other hand the performance of companies that announced reduced dividends and profitability (bad news companies) were noted to have increased their profitability by a substantial amount in the five years following the announcement.

firms) experiencing an excess return of +15.1% in the year before the dividend initiation. During the three-day announcement (event) period dividend initiation portfolios experienced a significant additional excess return of +3.4%. In contrast, for the 887 firms in their sample that omitted the dividend, the authors noted a significant decline in excess returns for the year before the omission and during the three-day window around that event. The average performance of portfolios that omitted dividends was significantly worse than the benchmark portfolios (non omitting firms) experiencing an excess return of -31.8% in the year before omission. During the three-day announcement (event) period dividend omitting firms experienced a significant excess return of -7.0%. The authors concluded that average short-term performance of portfolios that initiated dividends in that period was significantly better than benchmark portfolios while the average short term performance of portfolios that omitted dividends in the period was significantly worse than the benchmark portfolios.

Dyl and Weigand (1998) reported that dividend announcements convey information about the level of the firm's risk to the market. The authors examined 240 NYSE and AMEX firms that initiated dividend payments between 1972 and 1993, and observed that both a firm's total risk and systematic risk is significantly reduced in the year following the initial dividend announcement; the decrease in total risk was more pronounced for the larger firms in the sample, while for smaller firms the decrease in systematic risk was more pronounced. Howe and Shen (1998) considered the intra-industry effects of announcements of dividend initiations. The authors examined 613 firms that initiated dividends between 1973 and 1990 and concluded that: (a) dividend initiations are firm-specific; (b) dividend initiation announcements do not affect industry rivals' stock prices; and (c) dividend initiations do not encourage analysts to revise their earnings forecasts for competitor firms which do not announce the initiation of dividend payments.

A separate strand of this literature argues that dividend cuts may, in fact, signal good

news, since they indicate that a firm is retaining funds to finance profitable investments rather than disbursing cash and subsequently having to incur transaction costs when issuing new shares (Woolridge and Ghosh, 1985; Soter et al., 1996). Alternatively, several authors have suggested that the response to a dividend cut should be positive, since it usually signals a turnaround in the future performance of the firm (Johnson and Jensen, 1997). According to this hypothesis, dividend increases may signal reduced investment opportunities and lower future earnings, while dividend cuts might be interpreted as a sign of increased investment opportunities and higher potential future earnings.

Woolridge and Ghosh (1985) examined the circumstances in which managers convinced the market that dividends were being reduced to provide funds for new projects that might not otherwise be undertaken. The authors analysed the performance of dividend-cutting companies by considering the stock market response to the announcement of dividend cuts and omissions made during the period 1971-1982 by large NYSE companies.[63] Based on a sample of 408 dividend cuts the authors reported that although all the groups in the sample earned negative market adjusted returns in pre-announcement periods, during the year following the dividend cut all companies in the sample outperformed the market.[64]

In summary, the findings of the studies highlighted in this section are consistent with the proposition that changes in dividends are proceeded by and followed by distinctive earnings patterns. The next section of the chapter considers the impact of confounding events on share returns which is additional to that associated with the dividend announcement.

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[63] The authors divided their sample into three main categories as follows: (i) firms for which the dividend cut is accompanied by a simultaneous announcement of an earnings decline or a loss; (ii) firms which announced a dividend cut after an earnings decline or loss had been reported; and (iii) firms for which the dividend cut was accompanied either by an announcement of higher earnings and/or a statement by management that significant future opportunities for profitable investment and growth existed.

[64] In addition, companies that announced a dividend cut accompanied either by an announcement of higher earnings and/or a statement by management that significant future opportunities for profitable investment and growth existed, outperformed the market in the quarter following the announcement of the cut.

3.3.4.2 Dividends in a Complex Signalling Setting

Although many studies have reported that dividends convey information to capital markets, the issue may not be clear cut because of the simultaneous release of earnings data, earnings forecasts, capital expenditure announcements, etc. The occurrence of confounding events around firm-specific announcements is a particular problem with event studies in general. Litzenberger and Ramaswamy (1982) reported that the relationship between share price returns and dividend yield is non-linear, implying that the relationship is not solely attributable to the information content of dividends.[65] Venkatesh (1989) examined the quarterly dividends of a sample of US firms for the years 1972-1983 and reported that earnings and dividend announcements were partial, but not perfect, information substitutes.

In circumstances where firms make their dividend and earnings announcements either simultaneously or within a few days of each other, the unexpected effects of dividend announcements on share prices may not be solely attributable to the dividend announcement alone. For example, Eddy and Seifert (1992) demonstrated that when dividends and earnings announcements occur simultaneously, the share price reaction is significantly greater in magnitude than the reaction to a single announcement.[66]

Kane et al. (1984) argued that in view of the corroborative effect associated with simultaneous earnings and dividend announcements, investors are interested in the extent of consistency among these signals. In a study of US data the authors examined a sample of 352 observations of US manufacturing firms that announced quarterly dividend and earnings that

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[65] Divecha and Morse (1983) examined the joint signal effects of dividend and earnings increases. Based on a sample of 1,039 US firms that increased their dividends between 1977 and 1979, they noted that both dividends and earnings announcements influence abnormal returns and that earnings have a significant influence on the manner in which investors interpret a dividend increase.

[66] However, Aharony and Swary (1980) demonstrated that the effects of a dividend announcement are the same regardless of whether it precedes or follows earnings news. The authors also reported that the US stock price reaction to unanticipated changes in earnings and dividends is invariant with respect to the announcement pattern; the concurrent announcement of earnings and dividends did not have any greater impact on shares prices than two separate announcements with similar content.

occurred within 10 days of one another between the fourth quarter of 1979 and second quarter of 1981. Their interaction regression model took the following form:

$$CAR = b_0 + b_1 D^u + b_2 E^u + b_3 I(-, 0) + b_4 I(-, +) + b_5 I(+, -) + b_6 I(+, 0) + b_7 I(+, +) \qquad [3.1]$$

where CAR is the cumulative abnormal return , D^u is the unexpected dividend, E^u is the unexpected earnings, I (+, -) is an interactive dummy variable which takes a value of 1 if the earnings surprise is positive and the dividend surprise is negative and 0 otherwise, the other dummy variables are defined analogously. The authors reported that unexpected earnings and dividend announcements appeared to induce abnormal returns and that when both dividends and earnings increase, the stock market reaction is more favourable than when only one variable increases in isolation, although the dividend signal appeared to dominate. The paper also reported that company shareholders appeared to give more credit to unexpected dividend increases or decreases when earnings are also higher or lower than anticipated and that the interaction or corroborative effect was statistically significant.

In a study of Australian data Easton (1991) also examined the interaction between dividends and earnings announcements on share returns. The author's sample was drawn from 339 Australian industrial firms quoted on the Melbourne Stock Exchange that announced half yearly dividend and earnings announcements that occurred simultaneously between December 1975 and December 1981. A total of 896 announcements (525 first half announcements and 371 second half announcements) were considered. Using the same interaction regression model specified by Kane et al. (1984) the author concluded that the results strongly support the existence of an interaction effect.

Lonie et al. (1996) carried out a similar study on UK data. The authors employed a sample of 620 simultaneous announcements of dividends and earnings made in the UK during 1990 and 1991 again using the same interaction regression model specified by Kane et al. (1984). The authors reported that when dividends and earnings are both increased the stock market reaction is more favourable than when only one of the variables increase, although earnings were shown to dominate. A more recent UK study by Green and McAree (2003) found an interaction effect between earnings and dividends with respect to raw returns. [67]

Chang and Chen (1991) re-examined the hypothesis proposed by Kane et al.(1984) using a more recent sample of announcements, and found no evidence to support the existence of a corroboratory signal. The authors' sample consisted of 1,334 pairs of dividend and earnings announcements during the five years period January 1981 to December 1984. While Kane et al. (1984) considered quarterly dividend and earnings announcements that occurred within 10 days of one another Chang and Chen (1991) analysed dividend and earnings announcements that occurred within 1 day, 2-5 days, 2-5 days, 6-10 days, 11-15 days, 16-20, and 20 plus days one another. Using the same interaction regression model specified by Kane et al. (1984) and a nonparametric test of the interaction effect the authors concluded that the results support the existence of an interaction effect. However their empirical results also indicated that the interaction effect is very sensitive to both the length of the announcement interval between the two signals and the period over which abnormal returns surrounding the announcements are cumulated. The results suggested that the interaction becomes less obvious for a short event window, but is significant when daily abnormal returns are aggregated for long windows.

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[67] An earlier study by Green and McAree (2001) on Irish data found an interaction effect between earnings and dividends that acted as a signal of future earnings.

In summary, the empirical evidence to date has suggested that dividend announcements cannot be fully understood without considering other news releases that occur concurrently or otherwise. Identifying the independent effects of the dividend component of the joint signal can be difficult. The problem is particularly acute when investigating markets such as Ireland because the dividend and earnings announcements are nearly always made simultaneously.

3.4 Tax Considerations

The payment of dividends imposes a substantial tax liability on shareholders each year.[68] This income tax penalty potentially interferes with the value equivalence between dividends and retained earnings suggested by MM (1961).[69] For example, many shareholders may prefer 'home-made' dividends (generated through liquidating part of their shareholding) to cash dividends as the rate of capital gains tax in most countries is lower than the top income tax rate.[70] In contrast if shareholders are partially or totally exempt from income tax they may prefer cash payouts because their marginal tax rate is either zero or lower than the capital gains rate.

Farrar and Selwyn (1967) were the first to extend MM's analysis to allow for more complex tax structures, simultaneously encompassing personal taxation, capital gains taxation and corporate taxation. The study reported that when all three taxes are taken into account, a firm's financial policies appeared to affect share values. In particular, the authors

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[68] In Ireland the yield from dividend withholding tax for 2003 was €196 million (Irish Revenue Commissioners Annual Report, 2004). The estimated income tax paid on dividend income in the US was $10 billion in 2002 (Frankfuter and Woods, 2002).

[69] Brittain (1966) observed that for the period 1920 to 1960 dividend payments varied inversely with the differential between the taxation rates on dividend income and capital gain. More recently, Lasfer, (1996, p.456) noted that 'corporate and personal taxes affect a firm's dividend payout ratios, its subsequent share price movements and the composition of its shareholders.'

[70] For details of recent changes to the US tax regime see Brealey et al. (2005). The authors noted that in 2004 the top US rate of tax both on capital gains and on dividends was 15%.

concluded that it is always optimal for a company to use residual earnings for share re-purchases rather than pay dividends, provided that each shareholder's marginal tax rate on dividends is greater than their marginal tax rate on capital gains.[71] Brennan (1970) argued that some of the criteria employed by Farrar and Selwyn (1967) were limited because they concentrated on the net income received by investors at given rates of tax. The author derived an after-tax CAPM that accounted for the differential taxation of dividends and capital gains and for a progressive income tax scheme. Although Brennan's model made no allowance for clienteles, short-term capital gains, transaction costs or tax arbitrage, the tests indicated that there was a positive relationship between after-tax dividend yield and risk-adjusted returns.

In view of Brennan's observations many authors have argued that the income tax liability on dividends raises shareholders' required pre-tax returns on higher dividend-paying shares, thereby causing them to sell at a discount relative to lower dividend-paying shares. Black and Scholes (1974) attempted to measure the impact of different dividend yield strategies on the expected returns. Using monthly data on dividends, prices and returns for every firm listed on the NYSE from 1926 to 1966, the authors introduced a dividend yield variable into a CAPM-based model and noted that the dividend yield variable was insignificantly different from zero. The authors' results therefore did not support the hypothesis that the market demands higher pre-tax returns on dividend-paying shares to compensate for the increased income tax liability on dividend income compared to the lower tax liability on capital gains. Black and Scholes (1974) concluded that it was not possible to demonstrate that the expected returns on high dividend-paying shares differed from the expected returns on low dividend-paying shares either before or after taxes. Litzenberger and Ramaswamy (1979) criticised Black and Scholes' (1974) analysis on the grounds that the

[71] The study also found that lower income investors prefer corporate leverage to private leverage.

latter had used average values of *ex-post* dividend yields as a surrogate for the expected dividend yield. The authors argued that Black and Scholes' (1974) study understated the expected dividend yield in ex-dividend months and overstated it in those months when shares are priced cum-dividend. Litzenberger and Ramaswamy (1979) addressed the problem by using yield variables that distinguish between ex-dividend months and non ex-dividend months; they substituted the *ex–post* dividend yield for the expected dividend yield for ex-dividend months and set the expected yield to zero for the other months. The study also derived an after-tax version of the CAPM. Based on a sample of the 504 months period from 1936–1977, the results indicated a strong positive relationship between before-tax expected returns and the dividend yields. The authors reported that a 1% increase in dividends yield required an additional 0.23% in expected pre-tax returns and concluded that investors' tax brackets do influence their portfolio choices.

Kalay and Michaely (2000) provided a resolution to the conflicting results of Black and Scholes (1974) and Litzenberger and Ramasawamy (1979). The authors argued that the difference between the results of both previous studies was due to methodological issues and the distinction between time–series and cross-sectional return variations. Specifically, Kalay and Michaely (2000) demonstrated that the different results obtained in both studies were due to the use of different time horizons to define and measure the dividend period. The authors replicated the study by Litzenberger and Ramaswamy (1979) and concluded that the significant dividend yield coefficient documented in that study was a result of time-series return variations, i.e. higher risk-adjusted returns during ex-dividend periods and that the excess returns were concentrated in the ex-dividend week. Kalay and Michaely (2000) noted that each of the earlier studies found long run risk-adjusted returns to be uncorrelated with dividend yield; this 'evidence [was] inconsistent with Brennan's (1970) model, but not with the tax hypothesis' (Kalay and Michaely, 2000, p.73).

Elton and Gruber (1970) found evidence of a statistical relationship between the dividend policy of firms and the tax bracket of their shareholders - shareholders with higher income tax brackets were associated with low dividend shares and those with lower income tax brackets were associated with high dividend shares. The authors demonstrated that when dividends are taxed at a higher rate than capital gain, ex-div day share prices drop by less than the amount of the dividend and that the drop-off ratio reflects the tax differential between dividends and capital gain.[72] In this context, Miller (1977) hypothesised the existence of different dividend clienteles, arguing that investors in high income tax brackets will tend to hold low dividend yielding shares while investors in low income tax brackets will prefer high dividend yielding shares.[73] Miller's hypothesis is that a firm's dividend policy is independent of the tax position of its shareholders and that for a given set of dividend policies, investors are expected to hold portfolios chosen on the basis of their after-tax rates of return. It follows that ex-div day prices of high yield securities should not decrease by less than the amount of the dividend as such securities are likely to be held by low-tax-paying investors. However, Modigliani (1982) examined a sample of US firms and reported that the clientele effect is only responsible for insignificant alterations to portfolio composition, rather than the major differences predicted by Miller (1977). Hess (1982) attempted to clarify the controversy on dividend related clientele effects. The author defined ten clienteles on the basis of average dividend yield and examined a sample of 439 daily return observations from 1962–1979, divided into ten sub-periods. The paper's findings were inconsistent with the clientele–effect model but suggested an important association between dividend yield and

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[72] However, in a subsequent paper, Elton et al. (1984) argued that the observed ex-div day drop may understate the size of the tax effect because the magnitude of the price decline may be capped by the transaction costs involved in short-term trading.

[73] A model by Masulis and Trueman (1988) predicted that heterogeneity in tax status lead investors to differ in terms of their idealised dividend policy. In particular, as the tax liability on dividends increases, the dividend payment is predicted to decrease while earnings reinvestment increases. Differences are maximised by segregation of investors into clienteles.

stock returns. The author concluded that the clientele effect model is rejected as evidence of the across security dividend yield effect.

Miller and Scholes (1978, 1982) advanced the strategy that shareholders purchase dividend-paying stocks while simultaneously borrowing funds to invest in tax-free securities. The authors concluded that the extensive number of tax shelters, gradual reductions in marginal income tax rates and the increasing domination of the market by tax-exempt institutional investors, combine to neutralise any potential tax disadvantage of dividend payments.[74] Lasfer (1996) noted that the Elton and Gruber (1970) hypothesis is difficult to test because of possible simultaneous short-term trading effects. Lasfer (1996) in a study of UK data did not find any evidence of a tax-induced dividend clientele. Based on a sample of 550 ex-div day dividend yields for the period 1973 to 1983 the author reported that ex-div day share prices decreased on average by 64% of the gross dividend. However inconsistent with the tax-induced dividend clientele hypothesis, the highest dividend yield group's average drop-off was 36.5%.[75]

Poterba and Summers (1984) were the first to examine the effects of dividend taxes on investors' relative valuation of dividends and capital gains in the context of changes in the taxation treatment of dividend income and capital gains. The authors asserted that British data offered an excellent opportunity to investigate the extent to which the impact of dividends on equity returns is affected by tax regimes. The authors noted two radical changes (and several

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[74] However, DeAngelo and Masulis (1980) contended that the tax shelter strategy was not sufficient to induce positive dividend payments at equilibrium, and noted that any given firm is likely to be indifferent to dividend policies when dividend-specific tax shelters (for example the annual personal dividend exclusion) are introduced.

[75] Booth and Johnston (1984) examined the ex-dividend day price ratio for Canadian firms quoted on the Toronto Stock Exchange for each year from 1970 to 1980. Based on a sample of 144 firms the authors reported that the ex-dividend day price ratio was significantly different from zero or one. The authors concluded that Canadian investors appeared to prefer capital gains to dividend income and that the ex-dividend day price ratios did not provide much evidence in support of dividend tax clienteles.

minor reforms) in British dividend tax policy during the 30 years prior to their study.[76] The study suggested that examination of the changes that occur in the relationship between dividends and stock prices when tax regimes alter represent an ideal controlled environment for assessing the effects of taxes on investors' valuation of dividends. Based on a sample of 16 large UK firms and daily share price data for non ex-dividend days and ex-dividend days from 1955 and 1981 the authors demonstrated that taxes do affect the equilibrium relationship between dividend yield and market returns. The authors concluded that their evidence supports the view that taxes are important determinants of security market equilibrium.

The introduction of the 1986 Tax Reform Act (TRA) in the US offered a similar opportunity to test the effects of taxation changes on dividend policy. The Act reduced the difference between the tax treatment of realised long-term capital gains and dividend income in 1987, and by 1988 the differential was largely eliminated for most investors. Michaely (1991) analysed the behaviour of stock prices around ex-dividend days during the period 1986-1989. Based on a sample of 4,306 observations in 1986, 4,499 observations in 1987, 4,785 observations in 1988 and 4,799 observations in 1989, the study reported no evidence of a negative tax effect, either before or after the TRA. The author's conclusion was that "a change in the individual investor's tax rates has no significant effect on ex-dividend day prices" (Michealy, 1991, p. 857). Moreover, the evidence suggested that it was mainly short-term and corporate traders who favour dividend income over capital gains sufficiently to influence the ex-dividend price.[77]

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[76] The first radical change in British dividend tax occurred in 1965, when capital gains tax at a statutory rate of 30% was introduced. The second major reform occurred in 1973, when the corporation tax regime was amended to provide income tax relief for shareholders through the provision of tax credits to reflect the underlying Corporation tax paid by companies (i.e. the imputation system). The amendment reduced the dividend tax rate on personal and corporate investors and provided a refundable tax credit to exempt institutions.

[77] Robin (1991) found that the TRA 1986 resulted in a decline in ex-day abnormal returns, implying that the TRA 1986 caused the tax premium to decrease.

In summary, taxation is a serious challenge to the "dividend irrelevance" argument proposed by MM. Differential rates of personal income tax, a taxation distinction between income and capital gains, and the general instability of tax regimes represent serious capital market imperfections. In addition, the fact that a company might have private, institutional and corporate shareholder groups that are taxed under different tax rules adds a further complication. In response, those who support the MM position argue that the dominance of the market by tax exempt institutions, the availability of tax shelters and recent substantial reductions and convergence in both income tax and capital gains tax rates have combined to neutralise any potential tax disadvantage of dividend payments.[78] However the general conclusions that appear to emerge from the literature in this area is that taxation matters - the net of tax amount of the dividend payment does in practice affect the level of returns and, therefore, share prices.

The research in this dissertation plays close attention to the tax related factors outlined in this section. Although the general conclusion in the literature is that taxation does affect the value attached to dividend payments, most of the studies focus on larger markets. To date, very little is known about how the taxation issue affects the dividend policies of firms in smaller developed markets such as Ireland and so both Chapters 5 and 7 of this thesis explore the taxation issue in detail.

3.5 The Dividend Behaviour of Management

From a managerial perspective, the dividend decision is essentially a problem of allocation; management must decide how the company's reported profits should be divided between dividend payments to shareholders and retentions for reinvestment. Most managers

[78] In the UK individual taxpayers now pay marginal income tax rates on both dividend income and capital gains.

appear to believe in the virtue of regular dividend payments to investors, but as Warren Buffett (1984) pointed out in a letter to shareholders of Berkshire Hathaway Inc., 'Dividend policy is often reported to shareholders, but seldom explained' (Arnold, 2005, p. 1,015)

To date, researchers have mainly attempted to explain and model the dividend behaviour of corporate managers by seeking their views through survey questionnaires and face-to-face interviews. Lintner (1956) developed the first of these models based on discussions with 28 financial directors of US firms and noted that "the level of current earnings was almost invariably the starting point in management's consideration...in determining the amount of any change in dividend"(p.102). Lintner (1956) also observed that when firms experience increased profits they tend to increase dividends only after a time lag and then not by the full amount of the increased profits. Conversely, even if profits fall firms are reluctant to reduce dividends. The author continued that 'further increases in the current dividends are to be expected even in years when profits suffer some decline whenever substantial earlier increases in earnings have not yet been fully reflected in dividends' (Lintner 1956, p.103).

Despite these observations Lintner (1956) noted that the relationship between the firm's existing dividend pay-out ratio and its target pay-out ratio was a more significant factor in a firm's dividend decision than the current change in profits. Green et al. (1993) expressed Lintner's observations concerning the inter-temporal behaviour of dividend levels, given that a firm's target dividend level in year t (D_t^*) is related to the earnings in that year (E_t) via a target payout ratio (r), as follows:

$$D_t^* = r\, E_t \qquad [3.2]$$

The authors observed that as firms only partially adjust towards the target dividend level for the year the extent of the adjustment in the current year's dividend from the previous year's dividend is represented by the speed of adjustment factor (c), and is a function of management's confidence with the new target dividend level. Hence, Lintner (1956) specified the actual change in dividends from period t-1 to t by the following equation:

$$D_t - D_{t-1} = a + c\,(D_t^* - D_{t-1}) + U_t \qquad [3.3]$$

The constant term in the equation[79] is introduced to encapsulate the reluctance of management to reduce dividends; U_t is an error term. Substituting equation (3.2) into equation (3.3) produces Lintner's (1956) familiar equation cited in most corporate finance textbooks:

$$\Delta D_{t-t-1} = a + c\,r\,E_t - c\,D_{t-1} + U_t \qquad [3.4]$$

In summary, Lintner's model asserted that the change in dividends is a function of the target dividend payout less last year's dividend multiplied by the speed of adjustment factor. The target dividend payout is a function of the current year's profits.

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[79] Lintner (1956, p.107) noted that ' the constant term will be zero for some companies but will generally be positive to reflect the greater reluctance to reduce than raise dividends'

In addition to earnings Lintner (1956) also identified the availability of cash as an important determinant of a firm's capacity to pay dividends and noted that dividend stability was achieved on the basis that firms were flexible in the management of working capital to facilitate the payment of a cash dividend.[80] Brittain (1966) in a study of dividends from 1920 to 1960 reported that net earnings was an invalid measure of the ability of corporations to pay dividends and that cash flows explained corporate dividends behaviour significantly better than earnings. However, a later study by Fama and Babiak (1968) concluded that earnings were a better predictor of dividend behaviour than cash flows. Subsequent studies of dividend behaviour have been based largely on questionnaire surveys and have confirmed that managers appear to determine dividend payments on the basis of the following factors: anticipated future earnings; patterns of past dividends; the availability of cash; and maintenance of the existing stock price (Fama and Babiak, 1968; Turnovsky, 1967; Baker et al., 1985; Pruitt and Gitman, 1991; DeAngelo et al., 1992). In a similar vein, Jose and Stevens (1989) found that investors value steady growth in dividends per share rather than stable payout ratios. The main features of some of the more recent and more important of these studies are displayed in Table 3.1.

[80] Linter (1956, p.105) observed that, "in general, management's standards with respect to its current liquidity position appeared to be very much more flexible that its standards with respect to dividend policy, and this flexibility frequently provided the buffer between reasonably definite dividend requirements in line with established policy and especially rich current investment opportunities"

Table 3.1: Studies Of Managerial Attitudes Towards Dividend Policy

Study	Sample	Year	Country	Main Conclusions
Baker et al. (1985)	318	1983	USA	Explanatory power of Lintner's model remains high; respondents concerned with dividend continuity; dividend payments affect share values; respondents aware of signalling and clientele effects.
Partington (1985)	93	1983	Australia	Dividend policy supports share prices; dividend policy is not residually determined; Australian company directors attach considerable importance to meeting shareholders' requirements for income and maintaining shareholder loyalty; dividend payments provide an important signal about management's views regarding future profitability.
Allen (1992)	67	1988	UK	Results indicate that the majority of respondent companies use target payout ratios, and dividend payments provide an important signalling mechanism.
Green et al. (1993)	35	1989	Ireland	Dividend decisions by listed Irish companies appear to be taken by 'reference to the exogenous factor of dividend stability, but consideration is also given to investment and/or financing decisions' (p. 74).
Baker & Powell (1999)	198	1997	USA	Explanatory power of Lintner's model high; respondents displayed highest level of agreement with statements about signalling; respondents uncertain about tax preferences and bird-in-the-hand explanations of dividend behaviour.
Dhanani &Edgley (2002)	164	2001	UK	Managers believe that firms should design their corporate dividend policies to maximise shareholder value; shareholder requirements are rated as the most important factor in determining dividend policy, followed by signalling implications.
Baker et al. (2002)	630	1996/ 1997	USA	Dividend policy matters to the valuation of the company's shares and there is an optimal payout ratio; strongest support for statements on signalling; respondents not supportive on tax preferences and agency cost theory.
Frankfurter et al. (2002)	420	2001	Germany	Investors are thought to be interested in increases in dividends that can be maintained in the future.
Frankfurter et al. (2004)	1,206	2001/ 2002	USA Germany UK Hong Kong Turkey	Insignificant differences noted between the three countries USA, Germany and UK on statements concerned with dividend continuity and long-term maintenance of a dividend increase. For other counties there is no clear majority of perceptions.

A number of points emerge from an analysis of the table. First, the surveys that have been conducted vary in terms of sample size and geographic location. Four have been undertaken in the US, three in the UK, two in Germany and one each in Australia and Ireland. The samples employed range in size from 35 in Green et al. (1993) to 1,206 in Frankfurter et al. (2004).

Second, despite these differences, the findings of the various surveys have been proved to be remarkably consistent; most indicate that managers perceive the dividend decision to be important primarily because they believe that shareholders view such payments as signals about the future. In this respect, the findings of virtually all of the surveys confirm Lintner's early conclusion that managers will only raise the dividend if they can maintain the payment at the new level, not least because they fear the consequences of having to make a subsequent cut. For example, Baker et al. (1985) compared the determinants of company dividend policy in the early 1980s with Lintner's behavioural model of the mid-1950s and concluded that the major determinants of dividend payments in the early 1980s were similar to those pertaining 30 years earlier. In a later US study, Baker and Powell (1999) confirmed the existence of managerial beliefs about the relationship between dividend policy and firm value and concluded that managers' views regarding dividend payments were fundamentally the same in the late 1990s as those reported by Lintner in the 1950s; irrespective of time period, managers appeared to be extremely reluctant to make major alterations to dividend levels because of the danger that they might have to be reversed at a later date. A more recent US study by Baker et al. (2002) surveyed managers of 630 NASDAQ firms that paid consecutive quarterly dividends over the two-year period 1996-1997; the responses concurred strongly with Lintner's (1956) findings, with the maintenance of dividend levels thought to be a particularly important influence on the choice of payout policy. The most recent study in this area by Frankfurter et al. (2004) surveyed managers in five different countries during

2001 and 2002. That study also concurred with Lintner's (1956) findings in that dividend continuity and the maintenance of dividend increases were regarded as particularly important factors in the determination of dividend policy in all countries.[81]

Third, all studies reported managerial agreement that dividend policy can affect share prices via a signalling mechanism. The Baker et al. (1985) study provided evidence that managers are aware of the signalling effects of dividend policy while Baker and Powell (1999) in a study of 198 US firms found similar evidence of managerial belief in a relationship between share value and dividend policy. Baker et al. (2002) reported that managers believed that dividend policy affects share prices and asserted that: (i) an optimal dividend payout ratio exists, and, (ii) consistent with other research, managers expressed the strongest support for the signalling explanation for paying dividends. The study by Dhanani and Edgley (2002) analysed the responses from 164 senior executives in UK quoted companies and reported that shareholder requirements were rated as the most important determinant of payout ratio, followed by concerns about the signalling impact of any changes to that dividend payout ratio. Partington (1985) surveyed senior executives in 93 large Australian companies and found that managers perceived dividends to be important in signalling their views about future company profitability. The study also reported that senior managers of Australian companies attached considerable importance to meeting shareholders' requirements for income and maintaining shareholder loyalty; considered dividend increases to be associated with share price rises; the author's overall conclusion

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[81] Several quantitative studies have undertaken examinations of the dividend-paying characteristics of companies. For example, Chowdhury and Miles' (1987) extensive analysis of 653 companies between 1969 and 1984 revealed that smoothing of dividend payments was a common phenomenon in the UK in the 1970s and early 1980s. Comparing the dividend payout ratio with a measure of rate of return, the latter study noted that in years when profits were high the payout ratio had fallen, and in years when profits had been low the payout ratio had risen. The authors suggested that this evidence was consistent with Lintner's notion that shareholders prefer a smooth path of dividend payments. Pruitt and Gitman (1991) also detected continued support for Lintner's model.

was, therefore, that managers had clear motives for believing that dividend payouts should be seen as something more than mere residuals.[82]

Fourth, as regards tax clientele effects, Baker et al. (1985) reported that managers agreed with the notion of investors having alternative perceptions of the risk of dividends and retained earnings and are, therefore, not neutral as to whether they receive returns in the form of dividends or capital gains. Respondents in the same survey were however, unequivocal in their responses to statements that: (i) shareholders are attracted to firms with dividend policies that best suit their tax status; and (ii) management should be responsive to stockholders' dividend preferences. Dhanani and Edgley (2002) for UK data and Partington (1985) for Australian data reported similar findings. However, the Baker et al. (2002) study was not supportive of the tax preference and agency cost theories.

Fifth, most surveys highlighted the importance of liquidity. For example Baker et al. (1985) reported that US managers in the utility, manufacturing and wholesale/retail industries cited the availability of cash as the third most important determinant of their firms' dividend decisions. Similar results have been obtained in countries outside the US. For example, Allen's (1992) questionnaire survey of UK and Australian companies found "an overwhelming concern with the availability of liquid funds" among Australian respondents, which provided corroborative evidence for the findings of an earlier Australian dividend study by Partington (1989). However, Allen's (1992) study of 67 UK listed firms detected a much lower emphasis on liquidity among UK managers.

Finally, several investigations have highlighted that dividend decisions are often related to other important areas of company policy. For example, Green et al. (1993) provided evidence from a survey of financial directors in 1989 that Irish companies appeared

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[82] In the US, managers believe that the motivation for changing dividend policy should be adequately disclosed to investors (Baker et al., 1985).

to subscribe to the view that dividend policy is not established in isolation, but rather that a degree of interdependency exists between dividend, investment and financing decisions. However, the empirical evidence contained in the Green et al. study related to only 35 useable responses from a questionnaire survey of companies listed on the Irish Stock Market in 1989.

3.6 Conclusions

The almost universal corporate policy of paying substantial dividends represents one of the longest standing puzzles in the modern corporate finance literature. In many jurisdictions dividends are taxed at higher rates of tax, while there is no concurrent tax liability on retained earnings. The rise in market value that results from retained earnings is taxed only when the stock is sold, and even then a substantial part of the gain may be untaxed. In spite of this tax penalty, companies continue to distribute a significant proportion of their earnings, but by paying dividends, companies effectively impose a tax liability on their shareholders. As this chapter has demonstrated, several possible explanations of the dividend puzzle have been advanced and tested in the literature and yet the results, largely based on US data, raise almost as many questions as they answer. However, in terms of overall conclusions four themes can be identified from the literature.

First, since the early 1930s, the literature has identified a desire on the part of investors for a steady stream of income with which to finance consumption. Although the same level of consumption might be financed in a more tax efficient manner by selling shares, the transaction costs and the psychology of dipping into 'principal' to finance consumption is a deterrent to that course. In these circumstances, shareholders may prefer companies to supply them with a dividend pattern that matches their consumption pattern, thereby relieving them of having to adjust their cash inflow for themselves. In this context,

the company may appeal to a clientele of shareholders whose consumption pattern accords with its dividend pattern although examination of the literature suggests that further work is required in this area to permit a definite and robust conclusion.

Second, the chapter has highlighted the voluminous nature of the empirical literature that examines the impact of dividends on share prices and returns. While these studies essentially represent tests of MM's original 1961 proposition of dividend irrelevance, the evidence overwhelmingly points to a robust link. While the effects of taxation and the impact of dividend cuts in response to losses or reduced growth opportunities is not entirely conclusive, it does appear that dividends have a direct and measurable impact on equity returns.

Third, dividends are normally required because of the separation of ownership and management. In particular, dividends are a reliable signal of the sustainability of corporate profits and the value of a firm's investment opportunity set. Management therefore selects a dividend policy to communicate the level of (and growth in) profits because conventional accounting reports may not be (or may not be accepted by the market as) entirely adequate guides to current profits and future prospects. Since the mid-1950s the published literature has indicated that most companies follow a policy in which dividend reductions are anathema and an increased dividend will only be declared if management are convinced that the new dividend level can be maintained. In this context, management may view the level and rate of change of dividend as key variables in financial planning. As this chapter has noted, a number of investigations - drawing on data from several developed markets - have reported directors' belief that dividends communicate special information to the market. While this theory remains to be refined and elaborated on, it does suggest that a steady dividend policy provides reassurance to shareholders in a dynamic and uncertain environment.

Finally, and closely-related to the signalling argument, is the suggestion that shareholders distrust management and fear that retained earnings will be wasted through poor investment decisions, leading to excessive management salaries and benefits. Shareholders are often assumed to prefer current dividends to future dividends (the bird-in-the-hand-theory) because management is subjected to the scrutiny of the capital markets more often than would be the case if no dividend was paid; the literature suggests that this preference can be strong enough to pressure management to make dividend payments, despite any associated tax penalty. Moreover, shareholders may be willing to bear the tax burden and the additional funding costs as the benefits from a reduction in both agency costs and information asymmetries far exceed these penalties. In this context, the literature argues that it is hard to understand why there appears to be no pressure for 100% payouts.

These are some of the key issues that are addressed and examined, in an Irish setting, in the remaining chapters of this thesis. By using modern Irish data it is hoped: (i) that contemporary findings will emerge that can be compared with empirical results from earlier periods; and (ii) to establish the extent to which prior evidence regarding large developed markets such as the UK and US can be generalised to smaller markets. By focusing on a small but well regulated market, such as Ireland, it is hoped that meaningful comparisons can be made without the problems associated with the political and severe financial risks existing in many small markets. The next chapter sets out the research methodology and methods underpinning the research approach for that empirical investigation.

CHAPTER 4: RESEARCH METHODOLOGY AND METHODS

Introduction

Chapter 2 described the Irish investment environment during the period from 1986 to 2003. It provided a review of the performance of the Irish economy, outlined the primary characteristics of the Irish equity market and highlighted the relevant changes to Irish taxation regulations during the period of the study. Chapter 3 reviewed the theoretical and prior empirical literature on the dividend question and noted that academics have uncovered many specific aspects of dividend behaviour that lack obvious rational explanations. Based on the review of this literature it seems that despite the fact that a number of conflicting theories have been proposed to explain why firms pay dividends, no one theory appears to be conclusive. Both Chapter 2 and Chapter 3 provided the essential background for understanding and exploring the dividend question in an Irish context.

This chapter sets out the research methodology and methods that are fundamental to the present study. It identifies the philosophical assumptions that guided decisions about the research approach for the empirical investigation of dividend decisions by Irish companies documented in subsequent chapters. In the context of these assumptions the choices of quantitative and qualitative methodological approaches and the rationale for the chronological order of the empirical work are explained.

The remainder of this chapter is organised as follows. Section 4.2 discusses the philosophical assumptions that underpin any research project and identifies and explains the distinction between quantitative and qualitative methodological approaches. Section 4.3 considers research traditions in the field of finance while Section 4.4 addresses the objectives of the current study. Section 4.5 provides an outline of the assumptions underpinning the choice of methodologies in the current study before Section 4.6 outlines the chronological order of the empirical work. Section 4.7 sets out the research methods employed and provides

a description of each method. Section 4.8 concludes the chapter by outlining how the research will progress in the context of the triangulation involved in using a questionnaire survey, a market-based event study and interviews.

4.2 Philosophical Assumptions

Ryan et al., (2002, p.7) noted that 'research is a process of intellectual discovery, which has the potential to transform our knowledge and understanding of the world around us'. Certain fundamental assumptions underpin all research activity and a review of the literature associates these assumptions with methodological approaches. For example Taylor and Bogdan (1984) contended that debates over methodology are essentially arguments about assumptions while Gill and Johnson (1997) agreed that decisions on how to study phenomena require that certain assumptions be made about the research question. Ryan et al. (2002) observed that the selection of the most appropriate research methodology depends on the nature of the phenomenon being researched; they continued:

> *"...the assumptions which the researcher holds regarding the nature of the phenomenon's reality (ontology), will affect the way in which knowledge can be gained about the phenomenon (epistemology), and in turn affects the process through which research can be conducted (methodology). Consequently, the selection of an appropriate research methodology cannot be done in isolation of a consideration of the ontological and epistemological assumptions which underpin the research.* [83] *"*
>
> (Ryan et al., 2002, p.35).

[83] Denzin and Lincoln (1994) claimed that highly abstract principals guide all research. These principals combine beliefs about ontology (the nature of reality), epistemology (the relationship between the researcher and the known) and methodology (how the researcher gains knowledge of the world). Ryan et al. (2002, p.36) noted that 'methodology is concerned with the process of doing research and as such it has both ontological and epistemological dimensions....and that it is important to distinguish methodology from methods...the latter being particular techniques used in research'. Collis and Hussey (2003, p.55) made this distinction in starker terms when noting that 'methodology refers to the overall approach to the research process from the theoretical underpinning to the collection and analysis of data.....methods, on the other hand, refer only to the various means by which data can be collected and /or analysed'.

Two main research paradigms or philosophies are now generally thought to exist. Collis and Hussey (2003) label these as *'positivistic'* and *'phenomenological'* but note that many authors use other equivalent terms, the most common of which are *quantitative* and *qualitative.*

Burrell and Morgan (1979) argued that the interrelated ontological and epistemological sets of assumptions have implications for any choice of methodological approaches. The authors characterised the choice of methodological approaches against the backdrop of *'ideographic'* and *'nomothetic'* approaches to social science. An ideographic approach is based on the view that knowledge is something that has to be personally experienced rather than being known without being acquired.[84] The nomothetic approach uses research methods applied by the natural sciences.[85] The authors noted that the epistemological assumptions underpinning the nomothetic approaches are positivistic while the epistemological assumptions underpinning ideographic approaches are anti-positivistic (i.e. phenomenological).[86] Ideographic and nomothetic approaches do not represent strict dichotomies, but merely extreme choices of methodologies. Such methodologies may or may not influence the form of enquiry into the research question and neither exists in an unadulterated form.

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[84] In this context, Burrell and Morgan (1979) contended that the reality of the social world is considered to relate to the individual's consciousness or perception of the world. Knowledge is assumed to be subjective. Given that assumption, the philosophical orientation of inquiry is on qualitative approaches that attempt to understand social phenomena from the individual's point of view.

[85] The focus of inquiry is on the formulation of objective scientific tests or quantitative methods to test hypothetical observations. Nomothetic approaches deny the importance of subjectivity and the world is assumed to be 'external to the individual' (Burrell and Morgan, 1979, p.2).

[86] Positivistic approaches are grounded in empirical data concerned with explanation and prediction. Such approaches avoid value judgements and theoretical speculations. Phenomenological approaches are concerned with prescription and require the interpretation of data in an attempt to encapsulate the value judgements of respondents. Watts and Zimmerman (1986), in a discussion concerning approaches to accounting theory, argued that such research can only be concerned with 'what is questions', it cannot be used to answer 'what ought questions'. In the context of the present study, positivistic approaches can be used to predict stock market reactions to dividends announcements but cannot prescribe what dividend ought to be paid or what factors should be considered in the determination of the amount of the dividend to be paid. Such speculations can only be determined by phenomenological approaches.

In addition to identifying the two extreme choices of methodologies, Burrell and Morgan (1979) outlined two opposing views, illustrated on a continuum, concerning the nature of society and sociology, namely: "the sociology of regulation" and "the sociology of radical change." The authors viewed the sociology of regulation as an environment wherein current configurations in modern society are characterised as idyllic. The alternative view (the sociology of radical change) characterises modern society as looking for alternatives to current configurations. The latter alternative considers existing societal structures as less than optimal, damaging rather than supporting human development. In the context of both extremes, the authors created a two–by-two matrix that produced four paradigms, each providing a distinct view of the social environment reflecting the different assumptions made regarding the nature of society and social science. The authors specified these paradigms as: radical humanist; radical structuralist; interpretive and functionalist and viewed these as mutually exclusive in that the researcher's acceptance of the assumptions of one paradigm is considered a rejection of the assumptions of all others.

Chua (1986) in a critique of traditional mainstream approaches to research in accounting and finance noted that the dominant focus of the research approach in both topics has emphasised 'hypothetico-deductivism and technical control' (Chua, 1986, p. 601). The author noted that the philosophical assumptions underpinning mainstream accounting and finance research draw heavily on an objectivist approach and largely utilise quantitative methods of data analysis. She pointed out that such traditional approaches do not attempt to evaluate institutional structures; have largely neglected developments which offer new insights into the power effects of accounting within organisations and societies; and have demonstrated a lack of awareness within the philosophy of social science of controversies which have questioned realism and the empirical testability of theories. Chua (1986) observed that in the early 1980s academics proposed the classification of accounting

literature relying on Burrell and Morgan's (1979) classification concerning the nature of society and social science. The author rejected that classification on the basis that 'transplanting an unmodified framework from sociology [into accounting thought] implies some equivalence between the two disciplines' (Chua, 1986, p. 603). In the absence of any detailed exposition of such commonalities the author criticised the suggestion of mutually exclusive dichotomies suggested by Burrell and Morgan (1979); instead she set out three sets of assumptions concerning research: - beliefs about knowledge, beliefs about physical and social reality and beliefs about the relationship between theory and practice[87] and noted that 'these assumptions were chosen because they reflect dominant themes currently being debated in the social sciences' (Chua, 1986, p. 605). In the context of these beliefs she suggested alternative approaches to research in accounting and finance – the interpretative perspective and the critical perspective. These perspectives stress the worth of employing both quantitative and qualitative methodologies to research in accounting and finance. The fundamental assumptions of both the interpretative and critical perspectives are a continuum and neither categorise social perspectives into permanent classifications and do not employ mutually exclusive dichotomies.

Laughlin (1995) noted that there is no comprehensive approach to understanding the empirical world and that all methodological choices are contestable. However the author criticises the bipolar dualism of Burrell and Morgan (1979) as being too simplistic and contended that Burrell and Morgan's (1979) continuum limits choice in research approaches. The author expressed Burrell and Morgan's (1979) five part schema as three bands: theory, methodology and change, and noted that before undertaking empirical work the researcher

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[87] Chua (1986) divided beliefs about knowledge into two related sets of epistemological and methodological assumptions. The author noted that epistemological assumptions decide what is to count as acceptable truth by specifying the criteria and process of assessing truth claims. Methodological assumptions indicate the research methods deemed appropriate for the gathering of valid evidence. The author specified three assumptions concerning beliefs about physical and social reality: - ontology, human intention and social order.

must make choices within these three bands. The theory dimension refers to the level of theorisation prior to the research; methodology is concerned with assumptions about the nature of social science while change is concerned with assumptions about the nature of society.[88] The author viewed each of the three choices on continuums ranging from low to high[89] and presented an argument for choosing the middle point on each (i.e. middle range thinking). Laughlin (1995) noted that middle range thinkers are more strategic in their attitude to change; open to investigating aspects of current functioning (i.e. the status quo) but also open to challenging the status quo. The approach supports ontological beliefs that generalised convictions about reality are acceptable, but require empirical work to substantiate such self-assurance and inculcate understandings. While the methodology recognises the importance of investigating the reality of the social world in the process of intellectual discovery, it also acknowledges the possibility of amendment and refinement during the conduct of empirical work to take account of changed circumstances in view of experience. The methodologies permit both quantitative analysis and qualitative approaches; as such they represent a conditional approach that implies that researchers examine the current functioning (i.e. the status quo) but be open to the possibility of carefully planned change.[90]

In summary, the debate concerning the choice of research methods revolves around the choice between quantitative and qualitative methodologies. Quantitative methodology is

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[88] Laughlin (1995) noted that the choice relating to assumptions about the nature of society requires a position to be taken on whether empirical work is focused on achieving change in the phenomenon being investigated.

[89]Laughlin (1995) asserted that the descriptors of high, medium and low are not precise, definable or measurable. Ryan et al. (2002) noted that Laughlin (1995) regarded high levels as indicative of a world that has been well researched allowing generalisations. On the other hand with low levels it is inappropriate to derive insights from previous studies and generalisations are difficult.

[90] Laughlin (1995,p.84) noted that "Habermas, with his complex theoretical and methodological model, provides the most complete example of 'middle range thinking' to empirical research in not only accounting but also other social dimensions. It has a more balanced approach to the social world maintaining that current configurations are not all inappropriate with the supply of various models to allow some judgements on this issue to be made. Already the literature in the accounting area is starting to use and adapt Habermas' insights in empirical research in accounting but this literature has only scratched the surface of this important endeavour".

based on the nomothetic approach to research that emphasises the measurement and analysis of causal relationships between variables of interest. This is a positivist perspective and typically uses methods such as questionnaires or time series data sets that produce information which facilitates statistical analysis, mathematical modelling and graphs. Patton (1990) noted that quantitative research methodologies provide a broad generalised set of findings as distinct from qualitative approaches where the focus is on increasing the understanding of phenomena. Typically, the qualitative approach provides findings with reduced generalisability and is based on the ideographic approach to research. Collis and Hussey (2003) highlighted that the qualitative approach emphasises the subjective aspects of human activity by focusing on the meaning rather than the measurement of social phenomena. As such, qualitative approaches are subjective in nature and involve considering and thoughtfully analysing the perceptions of others in order to gain an understanding of social behaviour or activities. Collis and Hussey (2003) noted that Van Maasen (1983, p.9) observed that 'the research methods used in this approach are an array of interpretative techniques which seek to describe, translate and otherwise come to terms with the meaning, not the frequency of certain more or less naturally occurring phenomena in the social world'. Such interpretative techniques include obtaining data by surveillance or conducting interviews. Qualitative research is perceived as permitting the development of concepts, insights and understandings by tracing and critically assessing patterns and consistencies in data. It provides for an understanding of other people's views and attitudes rather than a search for definitive prescriptive findings.

Despite the fact that quantitative and qualitative methods constitute alternative strategies for research they are not viewed as mutually exclusive, but as two extremes of a continuum (Chua 1986; Patton, 1990; Laughlin, 1995). Quantitative data provides breath to a study while qualitative methods provide depth. Both types of data are used in this thesis. The

next section considers traditions of research approaches in finance while the following sections address the objectives of the current study, outline the philosophical assumptions underpinning this thesis and specify the methodological choices made.

4.3 Traditional Approaches to Research in Finance

Since the early 1930s, corporate finance related topics have generated a wealth of research. However, Ryan et al. (2002, p.52) in *Research Methods and Methodology in Finance and Accounting,* observed that 'while the successes of research in finance are many there are still interesting problems to be resolved'. One such problem is the puzzle as to why companies choose to pay dividends to their shareholders. The current thesis addresses this puzzle in an Irish context.

As was noted in Chapter 3, much of the finance research literature has its origins in neoclassical economics. Thus, finance research is based on a capital markets perspective where all decision-makers (investors) are assumed to behave in a rational fashion. This rationality manifests itself in what Van Horne (1972) termed '*the formulation of axioms*' regarding the behaviour of investors when making investment decisions.[91] Based on these axioms of an investor's decision-making behaviour, a utility function can be formulated which can be used as the basis for specifying a model about an investor's attitude towards risk. In this context Ryan et al. (2002) noted 'individual investor behaviour is aggregated up to a market level to develop stock market pricing relationships and it is through this aggregation process that the rationality assumption,...manifests and reinforces itself' (Ryan et al., 2002, p.52).

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[91] Investors are assumed to act rationally and consistently. Specifically, investors are assumed: to choose between alternatives by ranking them in some order of merit; that any such ranking of alternatives is transitive; that investors do not differentiate between alternatives which have the same degree of risk; and that investors are able to specify for any investment whose returns are uncertain, an exactly equivalent alternative which would be equally preferred, but which would involve a certain return.

The notion of risk measures in investment decision-making and the portfolio selection process had its origin in the work of Markowitz (1952, 1959). Ryan et al. (2002, p.55) noted that it was through Markowitz's work that the concept of portfolio diversification became 'operationalised in terms of portfolio variances and covariances between constituent securities'. Subsequently, Sharpe (1964) and Lintner (1964) developed the capital asset pricing model noting that the only risk that is priced at equilibrium in the capital market is covariance or systematic risk as measured by beta. These studies spawned several market-based tests of the value relevance of different elements of financial statements, including earnings and dividends announcements. Underpinning these tests was the concept that the stock market is one in which prices react quickly and in an unbiased manner to the public release of new information (i.e. semi-strong form market efficiency). As was identified in Chapter 3, one area in which such techniques proved particularly useful was in the analysis of the ability of the dividend signal to encapsulate management views about the firm's future prospects and to signal those views to investors (e.g. Pettit, 1972; Watts, 1973).

However, Ryan et al. (2002) noted that despite the existence of substantial evidence in support of semi-strong form market efficiency, a considerable number of academic papers have documented results that are apparently inconsistent with its central tenets. The authors highlighted papers by Basu (1977) and DeBondt and Thaler (1985) to illustrate this observation. Basu (1977) analysed price earnings (P/E) ratios and reported that a profitable investment strategy can be achieved using the mechanical rule of buying and holding shares with a low P/E ratio (low rated stocks) and selling short shares with a high P/E ratio (high rated stocks). DeBondt and Thaler (1985) provided empirical evidence in support of the overreaction hypothesis and reported that in the long term stock prices overreact to economic news. Specifically, the authors noted that strongly performing shares in one period experienced lower returns in a subsequent period while poorly performing shares in one

period experienced higher returns in a subsequent period. The authors put forward a behavioural rationale for the phenomenon suggesting 'that investors were poor Bayesians in the sense that they over-weighted sample information relative to priors' (Ryan et al., 2002, p.66).

Burton et al. (2003) observed that since the mid-1990s a substantial number of research papers concerned with behavioural research methodological approaches in finance have appeared in the academic literature. The authors highlighted studies by DeBondt and Thaler (1995), Schleifer (1999), Statman (1999) and Olsen (2000) and noted that these research approaches seek to explain a number of apparent 'puzzles' unresolved by the mainstream finance approach outlined above. The authors identified these puzzles to include: the behaviour of corporate management and investors when assessing risk (Helliar et al., 2001); investor reaction to poorly performing investments (Wilson and Zhang, 1997); investor over-confidence (Daniel et al., 1998) and stock market excesses such as price herding (Eguiluz and Zimmerman, 2000). Burton et al. (2003) noted that:

> *"The important advance provided by behavioural research ..... is to indicate that.....irrational behaviour is sometimes quite normal when actions of human beings are involved. In particular, individuals are prone to biases whereby loss aversion, stereotyping, over-confidence and a tendency to adjust to new information very slowly are common."*
>
> (Burton et al., 2003, p.10)

Most dividend theories and hypotheses to date are based on the assumption of the 'existence of the economically rational human being' (Frankfurter et al., 2004, p.75). Frankfurter et al. (2004) recommended that researchers should think carefully about the ontology and epistemology of the dividend phenomena. Specifically, the authors noted that

the scale and sophistication of complex econometric models imported into the field of finance from neo-classical economics in order to test the dividend phenomenon might no longer be appropriate.[92] Specifically, the authors highlighted an empirical test of the taxation effects of dividend payments by Kalay and Michaely (2000) in which they hinted that increasing model complexity 'might show results one wants to finds, that is, the verification of rational behaviour' (Frankfurter et al., 2004, p.77). For the purposes of their analysis, Frankfurter et al. (2004) set out the axioms of dividend behaviour as follows: dividends evolved over the existence of the modern corporation; dividend policies of firms change over time, given economic conditions; the availability of worthwhile investment opportunities, and other factors. The authors asserted that no academic model of dividends accounts for the evolution of the dividend phenomena; because of its evolution (and because of cultural influences) the perceptions of dividends will not be universal. The authors concluded that:

> *"...dividend research must take a different route than the one it has been travelling for much too long; that is choose a path better oriented to what is generally called behavioural economics".*
>
> (Frankfurter et al., 2004, p.75)

The next section considers the objectives of the current study while the following section outlines the philosophical assumptions underpinning this thesis and specifies the methodological choices made. In both sections, an attempt is made to respond to the

[92] Frankfurter et al. (2004) noted that dividend theories and hypotheses can be grouped into six distinct classes: (1) the bird in the hand theory; (2) tax effects both for corporations and for individuals; (3) clientele effects; (4) signalling with dividends; (5) agency theory and free cash flows; and (6) Sociological and psychological theories. The authors noted that the first five classes of theories assume rational behaviour while class (6) is based on dissimilar rationalities.

expectations of academics discussed in recent literature for a broader investigation into the dividend puzzle i.e. one which adopts a behavioural perspective.

4.4 Research Objectives

A review of the prior empirical literature on the dividend question revealed that the dividend decision is one of the most elusive and controversial areas within the field of finance. Despite the fact that a number of conflicting theories have been proposed to explain why firms pay dividends, no single theory appears to be conclusive. Lumby (1994, p. 541) stated the position in starker terms commenting that 'the theory in this area [of finance] is the least evolved and least complete'.

A number of potential perspectives on the dividend puzzle were discussed in Chapter 3. From an academic perspective, the fundamental issue relating to the study of dividends is whether the pattern of dividend payouts affects equity share valuations, and if it does, whether a particular pattern of payout maximises equity share prices. Based on a review of the literature since the 1960s, the consensus amongst academics suggests that dividend payments themselves act as signals and affect share valuations but it is the earnings number that ultimately matters. Marsh (1993) summarised the present theoretical perspective as follows:

> *"Although dividend policy remains a controversial issue there is now substantial agreement within the academic community that a company's value is not affected by its dividend [payout pattern] policy, i.e. that there is no systematic exploitable relationship between a firm's dividend policy and the value of its shares. The latter is instead governed by the company's earnings.....and hence future cash flows."*
>
> (Marsh, 1993, p.3)

From a managerial perspective, the dividend decision primarily represents a choice between allocating funds to make dividends payments and/or retaining funds for reinvestment. In that context, any empirical findings on whether an observable pattern of dividend payouts affects equity share valuations are of equal importance. However, as was noted in Chapter 3, the relatively small number of survey and interview based studies suggested that most managers try to have a stable dividend policy and only increase dividends when they are confident that the new dividend level can be sustained.

The core objectives of this dissertation are to consider both managerial and investor perspectives on dividend payments in an Irish setting. Specifically, the thesis seeks to ascertain the perceptions and motivations of Irish corporate managers concerning dividend policy and to examine whether the pattern of dividends paid by Irish companies affects share valuations. The objectives and methodological choices made in the current study necessitated the use of both quantitative and qualitative research techniques. In particular three strands of empirical work are involved:

1. A study of questionnaire survey responses which seeks to explain: (i) how Irish firms determine the amount of dividends to pay to shareholders; (ii) the perceptions of Irish managers about the relationship between dividend policy and firm value, in particular whether belief in the 'signalling' concept is widely held; and (iii) the role of earnings, risk preferences and tax clienteles in an Irish context when payout ratios are being determined.

2. An empirical investigation of the value of the dividend announcement as a signal of future prospects. This approach involves capital-market research in a conventional event study setting. As such, the approach draws on prior market-based

accounting research literature that examines the predictive ability of certain variables in financial statements that are of potential interest to investors, e.g. future cash flows. Because of the difficulty in estimating future cash flows these studies typically examine the relationship between earnings, investment and dividend announcements and current share prices.[93]

3. An analysis of interviews with management and with investor surrogates (i.e. leading Dublin brokerage houses). The interviews with management compliments and expands the analysis of the survey evidence while the interviews with leading Dublin brokerage houses provide an alternative point of view on whether dividends influence share prices and compliment the event study results.

4.5 Philosophical Assumptions of the Thesis

This section discusses the philosophical assumptions underpinning the current dissertation in view of the research objectives outlined in Section 4.4. It explains the researcher's perceptions regarding the nature of society and the nature of social science. Specifically, the section sets out the ontological and epistemological assumptions that provide the justification for using both the quantitative and qualitative methodological approaches adopted in the thesis.

The views of Burrell and Morgan (1979) concerning the nature of society and sociology - "the sociology of regulation" and "the sociology of radical change"- are understood. It is accepted that Irish society is an ordered cohesive entity. However it is also

[93] Gordon's (1959) fundamental valuation model noted that current share prices are assumed to be a surrogate for the summation of the expected future dividend stream discounted to present value.

accepted that Irish society is capable of change in view of the history of conflict in its underlying structures. Given the changing nature of the social, economic and technological environment in Ireland this conflict is on-going.[94] Therefore, although in the first instance this thesis investigates the status quo, the research reflects the inevitability of change during the empirical investigation process and as such the views of Laughlin (1995) are accepted. Therefore, while the simplistic nature of bipolar dualism and the descriptive paradigms put forward by Burrell and Morgan (1979) are recognised, the mutually exclusivity of these paradigms is not accepted.

Given the assumptions made regarding Irish society, the ontological assumptions do not perceive Irish society as external to the individual or that empirical research in an Irish context should focus exclusively on the causal relationships between various components of the Irish environment to test hypothetical deductive generalisations. While the investigation of causal relationships in Ireland is accepted as a starting point in understanding phenomena, such generalisations about reality in Irish society are overly simplistic and can only be viewed in the context of the role that individuals play in constructing that reality. Accordingly, the way in which knowledge can be gained about Irish phenomena (epistemological understanding) can come both from considering the perspectives of individuals involved in particular activities and from studying events, which are by definition, external to the perceptions of individuals. Therefore, in this thesis knowledge is attained in the first instance by searching for causal relationships and secondly considering the perspective of individuals involved in shaping those relationships. This position inevitably leads to the conclusion that both quantitative and qualitative approaches are required in any empirical study of the dividend phenomena in an Irish context neither of which are based necessarily on the assumption of the existence of economically rational human beings.

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[94] Chapter 2 highlighted the changing nature of the Irish environment during the period of this study.

To summarise, the methodological approach in this thesis recognises the requirement to investigate the status quo in Ireland but also recognises the importance of the researcher being open to the possibility of amendment and refinement during the conduct of empirical work to take account of changed circumstances in light of experience. Accordingly, the empirical work in this thesis will progress on the basis that the Irish environment is external to the individual but is open to the suggestion that the social world in Ireland may be the product of an individual's consciousness. Thus, the methodologies in this thesis will be quantitative while allowing for some qualitative analysis. As such the approach is a conditional approach implying an investigation of the status quo but openness to the possibility of carefully considered refinement during the conduct of empirical work.

4.6 Chronological Order of the Empirical Work

The core objective of this thesis is to consider whether dividends are relevant to Irish share valuations from both the investor and managerial perspectives. As Section 4.5 explained, the methodological approach adopted means that the status quo has to be investigated but in the context of the researcher being open to the possibility of amending and refining the approach during the conduct of the empirical work, as experience develops. This methodological choice necessitates the use of both quantitative and qualitative research techniques; accordingly in this thesis knowledge of the dividend phenomenon in Ireland is examined using a number of empirical approaches.

The next section of the chapter describes the three research methods used in the present study in detail. The methods used are: (i) a large-scale questionnaire survey sent to the managers of the 1000 largest Irish companies; (ii) an event study of the stock market's reaction to dividend announcements made by 50 Irish firms over a recent 15-year period; and (iii) a series of interviews with 20 Irish company managers and 4 major investors regarding

their views of dividends in an Irish context. The three pieces of empirical work were deliberately conducted in the chronological order set out above. It was considered sensible to begin with a questionnaire survey as this allowed for the largest sample of firms to be studied and provided the researcher with a useful gauge of overall thinking regarding the nature and impact of dividend payouts. The event study then provided the opportunity to focus on some of the more notable findings from the survey, in particular regarding the role of the dividend as a signalling mechanism and the complexity caused by the tendency for Irish firms to make a simultaneous announcement of their earnings figure. The interviews were then conducted as the final piece of empirical work. These facilitated an open-ended discussion of the issues emerging from the questionnaire and the event study and allowed the researcher to further explore the inconsistencies identified in the postal survey and the complexities noted in the event study. For example, the interviews considered whether the impression conveyed (by both the postal survey and the event study) that dividends in isolation may not provide a robust signalling mechanism to Irish investors was re-examined and discussed with the participants. As such, the interviews sought to examine financial directors' perceptions about the relationship between dividend policy and firm value and compliment and expand on the survey evidence. The interviews with leading Dublin brokerage houses provided an alternative point of view on whether dividends influence share prices, and complimented the event study results in a useful way by focusing on whether dividends are relevant to share values and provide signals of future prospects.

In summary therefore, the study identifies Irish attitudes to key traditional dividend issues, investigates how the Irish stock market responds to company announcements about dividend payments and ascertains the views of Irish corporate managers about Irish dividend policy. This approach contributes to an understanding of the dividend decisions in Irish companies given the background findings (or lack of findings) of any causal relationships

between dividend changes and share price changes. For this purpose, data are drawn from quoted and unquoted companies; dividend-paying and non-dividend-paying companies; and from firms which have recently changed their dividend payout policy and those which have not. The next section provides details of the research methods used to achieve the research objectives.

4.7 Details on the Research Methods

The central objective of the research in the current thesis is to ascertain whether dividends are relevant to Irish share valuations. The methodological choices outlined in Section 4.5 suggest that both quantitative and qualitative strategies can usefully be applied to this investigation while Section 4.6 sets out the chronological order of the empirical work in the context of using open-ended techniques of a questionnaire survey, a market-based event study and interviews. A full description of each method is provided in the following sections.

4.7.1 The Questionnaire Survey

Questionnaires have become a very popular method of gathering information in social science research (Howard and Sharp, 1983). This popularity arises mainly from the relatively large sample of a population that can be consulted about their views on a particular issue and the ease with which a questionnaire can be distributed. As a result, generalisations can be made from a relatively high response rate, with statistical tests performed to allow robust inferences to be drawn. However, despite these advantages, Chapter 3 of the current thesis reported that dividend related questionnaires 'fall into a scant minority of research efforts on this topic' (Frankfurter et al., 2004, p.74). In order to gain insight into corporate managers' understanding of dividends Frankfurter et al. (2004) analysed the results of a survey that was administered in five countries on five continents.

The attitude of company executives and investors to dividend policy in Ireland has not been reported in the academic literature in a systematic fashion. As noted in Chapter 3, a number of small surveys on the topic have been undertaken but the results are relatively old and the sample sizes limited. Given the inadequacy of Irish dividend surveys, it was decided that a postal questionnaire survey should be used to seek the views of managers of the largest 1,000 companies operating in Ireland about various aspects of the dividend decision.[95]

The present study differs from previous investigations of the Irish market in three main respects. First, the sample of firms employed in the present study is larger than that used in previous analyses and should provide better grounds for comparison with previous large-scale US investigations. Also, such a large-scale survey should enable the researcher to generalise from the findings with a greater degree of confidence. Second, data are drawn from both quoted and unquoted companies, to facilitate a comparative analysis of the views of managers in both types of firm. Finally, the study provides a direct comparison of the views of Irish managers in: (i) dividend-paying and non dividend-paying companies; and (ii) firms which have recently changed their dividend payout policy and those which have not. No such analysis has been performed in the previous Irish investigations of the topic that were discussed in Chapter 3.

There is substantial guidance in the literature on postal surveys for researchers attempting to achieve the best possible response rate to a questionnaire. Sekaran (2000) has identified the actions to be taken to reduce possible problems with a questionnaire and minimise any resulting bias in the research. Specifically, the language in the questionnaire should be understandable, while the questions included should be short; long questions tend to discourage respondents from completing the survey instrument. The aim of the

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[95] This information was obtained from the Business and Finance Top 1,000 Companies (2001) in the Republic of Ireland.

questionnaire is to ascertain the perceptions and motivations of Irish corporate managers concerning dividend policy and to reduce any ambiguity in the questions. To achieve the latter Saunders et al. (1997) suggested using closed-end questions, because such an approach encourages respondents to reply and helps with the coding of the information for analytical purposes. Howard and Sharp (1983) argued that lengthy questionnaires are likely to reduce the percentage response rate and should be avoided, while Dillman (1978) asserted that sensitive questions should not be asked as respondents might react by ignoring the document. Finally, Jobber and O'Reilly (1995) suggested that response rates in questionnaires are improved considerably by offering an incentive to all recipients who complete the survey.

Accordingly, the design of the questionnaire in this study took the following issues into consideration:

(i) The questions were worded in such a way as to make it easy for the respondents to understand the questions and answer in a clear fashion;

(ii) The questions were kept as short as possible to ensure that the document was not time consuming to complete;

(iii) The number of questions was kept to a minimum to reduce the length of the questionnaire with the hope of improving the response rate;

(iv) The respondents were given the chance to make quick decisions by ensuring that most of the questions were closed-end. Respondents were required to choose among five available alternatives, by ticking one of five boxes: strongly agree, agree, uncertain, disagree and strongly disagree. Only three questions, one at the end of each of the three sections of the questionnaire, were open-ended to allow the participants to add any comments if they wished;

(v) Sensitive questions were avoided and questions requiring specific details about respondent firms were asked only to facilitate the categorisation of respondents into

several sub-groups and to allow for an examination of whether, based on answers to questions for the various groupings, identifiable differences existed;

(vi) It was decided that the questionnaire should not take more than fifteen minutes to complete and would be no more than four A4 pages in length. A freepost reply envelope was provided to ensure that the respondents would not incur any mailing expenses;

(vii) All respondents were included in a free draw for a case of champagne if the completed questionnaire was returned by a fixed date.

An initial draft of the questionnaire was prepared drawing heavily upon the literature reviewed in Chapter 3. Some of the original questions were adapted from: US surveys by Baker et al. (1985) and Baker and Powell (1999); an Australian survey by Partington (1989); and Allen's (1992) questionnaire survey of UK and Australian companies. Previous survey research on the Irish Stock Market by Green et al. (1993) also helped to frame many of the questions for inclusion in the final version of the research instrument.

4.7.1.1 Administration of the Survey

In addition to incorporating the previous literature, extensive consultation took place regarding the content of the statements to be included in the questionnaire and on the overall layout of the document. A pilot study was undertaken whereby an early version of the questionnaire was posted to 40 major Irish fund managers and stockbrokers licensed by the Central Bank of Ireland, and to 10 full-time academic staff at Dublin City University Business School. Some 32 responses to the pilot were received. The pilot respondents confirmed that the average time taken to complete the questionnaire was 11 minutes. Where respondents indicated that a specific question lacked clarity, this was subsequently rephrased to eliminate any ambiguities.

It was thought that individuals might be more inclined to reply to the questionnaire if the survey was conducted in conjunction with a well-known finance house and the Irish Stock Exchange. Both a leading firm of stockbrokers in Dublin, Davy Stockbrokers, and the Irish Stock Exchange agreed to support the survey. Davy Stockbrokers permitted the use of their logo in correspondence associated with the questionnaire while the Irish Stock Exchange allowed the inclusion of a paragraph in the covering letter referring to the Exchange's support for the survey. In addition, the head of research at Davy signed the covering letter.

The final version of the questionnaire (which is included in Appendix 5.3 together with the covering letter shown in Appendix 5.1) was divided into four main sections. Section 1 comprised 10 closed-end questions and one open-ended question seeking the views of respondents about the factors that a firm should consider when setting its dividend level. Section 2 asked respondents about whether dividends act as a signal and how the market responds to dividend announcements; this section included 13 closed-end questions and one open-ended question. Section 3, which comprised nine closed-end questions and one open-ended question, sought views of respondents on taxation issues. Section 4 obtained background information regarding respondents and their firms (for example: the respondent's role within the firm; whether the firm was quoted or unquoted; the firm's main activity, etc.). Section 4 also sought details about whether the firm currently paid a dividend, whether the level of dividends had changed since the previous year, whether respondents believed that the reasons for dividend payments should be explained to investors and how such information could best be conveyed to the market. The responses in Section 4 facilitated the categorisation of respondents into several sub-groups and an examination of whether identifiable differences existed, based on answers to earlier questions.

The questionnaires, along with an explanatory covering letter, were sent to the chief executive officer of each of the top 1,000 Irish companies on the 7th of September 2001. After

one month, a second letter, together with another copy of the questionnaire, was sent to non-respondents (see Appendix 5.2).

4.7.2 The Event Study

The thesis also employs a conventional event-study methodology. An event study is an empirical investigation of the relationship between security prices and economic events. The focus of most papers in this field is 'testing whether the stochastic behaviour of share prices is affected by the disclosure of firm-specific events' (Strong, 1992, p.533). The present thesis examines the stock market reaction to the firm-specific news of a dividend announcement. The analysis requires the actual share return to be compared with the expected share return around the period of the dividend announcement date in order to determine whether or not any stock market reaction has occurred.[96] If the flow of information to the market ensures that the announcement of a change in dividend does not come as a total surprise to the market, there will not be a statistically significant abnormal share return generated during the announcement period. According to this methodology, a statistically significant abnormal share return generated during the announcement period clearly indicates that the dividend announcement has not been fully anticipated and consequently, conveys important additional information to the market. An observation of small and statistically insignificant post-announcement abnormal returns indicates that the market is information-efficient in the semi-strong sense, reacting quickly to new information releases, impounding that information into share prices rapidly and leaving no opportunity to earn above-average returns using publicly available information. If post-announcement abnormal returns are

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[96] Although a number of event studies have investigated trading volume reaction to announcement events (e.g. Beaver, 1968; Morse 1981) in the Irish context reliable volume data did not become available until 1999 (Gallagher, 2004). Accordingly the focus of this thesis is on stock prices.

positive and statistically significant it may indicate that the market takes time to evaluate the news implicit in the announcement, with share prices reacting slowly as a result.

Strong's (1992) seminal paper sets out the basic structure of the standard form of event study as follows:

(i) Identify event dates for a sample of firms subject to the disclosure of interest (dividend announcements in the present study) and group observations into a common event time.

(ii) Within the overall test period of interest calculate the abnormal return for each firm and for each period around the announcement date.

(iii) Compute the mean abnormal return across firms in the sample (possibly cumulated) over the test period and examine whether the mean abnormal return is non-zero.

Strong's paper analysed alternative abnormal return metrics and provided guidance on: the calculation of returns; measurement intervals; alternative specifications of the benchmark expected return; the choice of estimation and test periods; and the choice of market index. The author noted two methods of calculating returns: - discrete returns and logarithmic returns and suggested two reasons why logarithmic returns are preferable:

> *"Theoretically logarithmic returns are more tractable when linking together sub-period returns to form returns over longer intervals (simply add up the sub-period returns) [and] empirically..... are more likely to be normally distributed and so conform to the assumptions of standard statistical techniques."*
>
> (Strong, 1992, p.535)

Accordingly, Strong recommends that share returns be estimated according to the following identity:

$$R_{i,t} = Ln\,(P_{i,t} + D_{i,t} \;/\; P_{i,t-1}) \qquad [4.1]$$

where, $R_{i,t}$ is the actual return on share i on day t, $P_{i,t}$ is the price of share i on day t, $D_{i,t}$ is the dividend paid during period t and $P_{i,t-1}$ is the price of share i on day t-1.

As regards the measurement interval, Strong (1992) observed that Brown and Warner (1985) noted that daily return data were more powerful than weekly or monthly return data in detecting statistically significant abnormal returns and concluded that the influence of confounding events was less pronounced over the shorter time horizon.[97] Brown and Warner also asserted that although daily security returns and daily abnormal returns typically deviate from normality, the mean abnormal return across a large sample of shares converges on normality, enabling the researcher to use Ordinary Least Square (OLS) and t-statistics with a reasonable degree of confidence. Finally, Strong (1992) noted that Brown and Warner's findings confirm the earlier results of Dyckman et al. (1984), which suggested that any skewness in daily abnormal returns had little effect on event study tests.[98]

Accordingly, for the purposes of this study, daily return data are used to detect the presence or absence of abnormal share performance in a 41-day event window surrounding the dividend announcement day.[99] This relatively lengthy event window was selected to allow an examination of whether: (i) there was any market reaction to a leakage of the news beforehand; or (ii) the market instead required a number of periods to respond to the news

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[97] As noted in Chapter 3, a confounding event is an event that occurs around the same time as the dividend announcement that might cause share prices to change.

[98] Morse (1984) analysed the econometric trade off between using monthly or daily data, noting that shorter measurement intervals are more efficient in detecting information effects.

[99] Kane et al. (1984) have noted that some authors have reported that abnormal returns persist for longer periods after the earnings and dividend announcements (e.g. Marsh, 1993) but even in those studies most of the abnormal returns occurred within a few days surrounding the announcement. The authors highlighted dividend studies by Aharony and Swary (1980) and Divecha and Morse (1983) noting that the effect of the dividend announcement was impounded into stock prices within the 20-day period surrounding the announcement. Rendleman et al. (1982) noted that more than two-thirds of cumulative abnormal returns typically appeared within 20 days surrounding the earnings announcement.

contained in the dividend announcement.

Day t is designated as the announcement date, where t is the precise day on which the dividend announcement was published in the Extel card records or Bloomberg.[100] If the signalling hypothesis is correct, the day t abnormal return should be significantly different from zero. The hypothesis predicts that: (i) the shares of those companies which announce dividend increases should, on average, earn positive abnormal returns; (ii) the shares of those companies which disclose dividend decreases should, on average, earn negative abnormal returns; and (iii) the shares of companies which do not alter their dividend should, on average, earn normal returns.

Daily share price data were obtained from Datastream, Davy Stockbrokers and the Irish Stock Exchange[101] and daily share returns estimated according to the following identity:

$$R_{i,t} = \text{Ln}\,(P_{i,t}/P_{i,t-1}) \qquad [4.2]$$

where, $R_{i,t}$ is the actual return on share i on day t, $P_{i,t}$ is the price of share i on day t and $P_{i,t-1}$ is the price of share i on day t-1.[102, 103]

Strong (1992) noted a number of alternative specifications of benchmark expected returns used in the literature, including: mean adjusted returns; market adjusted returns; the

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[100] The dates of the dividend announcements were checked with several sources to ensure that correct dates were employed. Specifically, archived information at the library of University College Dublin and newspaper archives at Dublin City Council's business library were examined to confirm dividend announcement dates.

[101] Care was taken to adjust for stock splits, rights issues and capital reorganisations, some of which Datastream had not recorded. Nine adjustments had to be made by the author following visual inspection of the data.

[102] All ex-dividend dates were recorded. A review of these dates revealed that none fell in the 41-day event window surrounding the dividend announcement.

[103] In calculating returns according to equation [4.2] dividends were not included for a number of reasons. First, it was believed that only two return observations might have been affected –on the date of the interim and final payment. Second, this decision was taken to maintain comparability with other UK studies in the area e.g. Lonie et al., (1996). Finally, interim dividends were omitted because reliable interim payments dates were not readily available to the author.

capital asset pricing model; the matched / control portfolio benchmark; and the market model benchmark. The author observed that the most popular benchmark method employed in calculating abnormal returns in event studies is the market model benchmark. The market model does not make any assumptions about how equilibrium prices are established, but assumes instead that returns are generated according to the following mechanism:

$$E(R_{i,t}) = \alpha_i + \beta_i R_m, \qquad [4.3]$$

where, $E(R_{i,t})$ is the expected return on the stock i , $R_{m,t}$ is the return on the market portfolio (proxied for in this study by the ISEQ Index), and α_i and β_i are market model parameters. Equation 4.3 partitions the return on a security into a systematic component which is linearly related to the return on the market and an unsystematic component; e_{it} is uncorrelated with the return on the market. Strong (1992) pointed out that the effect of firm specific events is fully captured in the unsystematic component assuming that the information signal and the return on the market are independent. Both α_i and β_i are estimated via regression analysis, resulting in a predicted abnormal return of:

$$AR_{i,t} = R_{i,t} - (\alpha_i + \beta_i R_{m,t}) = e_{i,t} \qquad [4.4]$$

where $AR_{i,t}$ is the return on the stock i , $R_{m,t}$ is the return on the market portfolio (proxied for in this study by the ISEQ Index), α_i and β_i are market model parameters and $e_{i,t}$ is the random error term

Cumulative abnormal returns (CAR) were computed as follows:

$$CAR_{i,t}^{*} = \sum_{T-20}^{T+20} AR_{i,t} \qquad [4.5]$$

where, t* is t+20 to t-20.

Beaver (1981) noted that the market model produces smaller correlations across security abnormal returns giving closer conformity to standard statistical tests, while Strong (1992) observed that the market model results in smaller variances of abnormal returns relative to raw returns.

Strong (1992) noted that there have been a number of simulation studies of the various event study methodologies. Specifically, the author highlighted the work of Brown and Warner (1980) who demonstrated that a simple methodology based on the market model performs well under a wide variety of conditions. Strong (1992) also pointed out that both Brown and Warner (1985) and Dyckman et al. (1984) find that daily data result in more powerful test statistics than do monthly data and concluded that identifying announcement dates and concentrating on abnormal returns in a small event window results in much more powerful hypothesis tests.

A number of studies have detected that share betas are non-stationary over time. Blume (1975), in a study of betas and their regression tendencies, noted that a key factor in

obtaining reliable estimates of beta is that the surrogate used for the theoretical market equilibrium portfolio should approximate that portfolio. Roll (1977) in a critique of the capital asset pricing model noted that the divergence between the theoretical market portfolio and empirically observed surrogates for it are considerable.[104]

In addition, Blume (1975) has identified problems of instability in beta estimates. The author noted that instability arises from errors in both equations and in variables. A number of event studies which examined aspects of market overreaction (Chan, 1988; Ball and Kothari, 1982) have documented evidence from US data that beta can alter dramatically between successive test periods. Strong (1992) observed that numerous event studies have shown that the explanatory power of the market model regression equations and the mean cross-sectional value of beta rise as the measurement interval increases. Dimson (1979) has identified that serious bias arises where beta estimates are calculated for shares that are infrequently traded. The author identified the major source of bias as the tendency for prices recorded at the end of a time period to represent the outcome of a transaction that occurred prior to the period in question. Therefore, such share price data are an average of the temporally ordered underlying share values; as a consequence positive serial correlation is introduced into returns and the estimated variance of returns is biased downwards. Dimson (1979) reported that the estimated betas of infrequently traded UK shares rise as the interval increases, while to a lesser extent, the opposite holds for frequently traded shares. Thus, infrequently traded shares have a beta estimate which is biased downwards, while the measure for frequently traded shares is biased upwards.

A number of methods of correcting for thin trading bias have been proposed in the

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[104] In theory the market portfolio contains all marketable assets but since no theoretical market portfolio exists completely valid empirical tests of capital market theory are unavailable. However, both Sharpe (1964) and Frankfurter et al. (1976) in performance evaluations of single index models concluded that their superior performance vis a vis a Markowitz full covariance model were too appealing to disregard so the use of single index models have become prevalent in estimating beta factors for particular stocks.

literature. Scholes-Williams' (1977) beta estimator assumes that although trades are non-synchronous, a transaction takes place in every measurement interval and price-adjustment delays arise only through non-synchronous trading; an observed transaction price is therefore the true price at the time of the transaction. The beta estimator suggested by the authors is a simple regression of the return on the security against the return on the market. Dimson (1979) suggested an aggregate coefficient estimator, which does not require that a trade occurs in every return interval and advocates running multiple regressions of share returns against lagged, matching and leading values of the market index. A consistent estimate is obtained by aggregating the slope coefficients in the estimated regression.

Despite the recognition of the thin trading effect on beta estimates, some authors (e.g. Lavely et al., 1980; Hawawini and Vora, 1983) have rejected the argument that betas need to be adjusted, on the basis that there is significant loss in the predictive value of betas if inappropriate techniques are used. These authors suggest that simple, no change, unadjusted betas be used. Strong (1992) has noted that both Brown and Warner (1985) and Dyckman et al. (1984) have reported results for the impact of thin trading corrections on simulated event studies using daily data. Brown and Warner reported that using either Scholes-Williams' (1977) beta estimator or Dimson's (1979) aggregate coefficient estimator results in a reduction in the bias but 'results in no improvement in either the specification or power of event study tests' (Strong, 1992, p.544). Dyckman et al. performed an event study simulation separately on low, medium and high trading volume shares using both Scholes-Williams' and Dimson's estimators and found that they fail to 'increase the ability to detect abnormal performance on daily returns for thinly traded securities' (Strong, 1992, p.544). Strong (1992) concluded that:

> *" Although the OLS market model abnormal return may be biased for an individual security, in an event study, the bias in conditional abnormal returns may average out to zero in the sample".*
>
> (Strong, 1992, p.544)

To summarise, when share trading is infrequent, attempts to calculate β may be biased because many of the returns have a value of zero. Prior attempts to deal with thin trading include the use of lead adjustments for the most frequently traded shares and lag adjustments for the most infrequently traded shares. However, Strong (1992) concluded that the performance of such approaches has not significantly improved the power of event study tests and that obtaining accurate event dates is more important than sophistication in modelling or statistical techniques.

In the specific circumstances of Ireland the limited published empirical evidence on attempts to calculate β for Irish stocks have concluded that many Irish beta estimates are biased because many of the returns have a value of zero due either to thin trading or non-existent trading (McKillop and Hutchinson, 1987; McCluskey, 1990; Murray, 1997). In addition, these studies have concluded that the use of lead adjustments for the most frequently traded shares and lag adjustments for the most infrequently traded shares does not significantly improve the stability of beta estimates for Irish shares. However, a notable observation in all of these studies is that applying lead adjustments to the most frequently traded shares and lag adjustments to the most infrequently traded shares does move beta estimates of Irish shares closer to unity. Accordingly, in this study, to provide a check on the market model findings, market adjusted returns (imposing a unitary beta) for each share in the sample during the test period were calculated and all empirical tests were also performed on the basis of assuming the expected return to simply be the return earned by the market

portfolio.[105] The market adjusted return model (i.e. the zero-one model) assumes that *ex-ante* expected returns are the same for all securities and therefore equal in any period to the expected market return in that period i.e.:

$$E(R_{i,}) = E(R_m) \qquad [4.6]$$

The *ex-post* market adjusted return ('excess' return) on a security i in period t that controls for market affects is given by:

$$u_{i,t} = R_{it} - R_{mt,} \qquad [4.7]$$

where, $u_{i,t}$ is the excess return and the marginal expected return on a security i in period t is conditioned on the realisation of the market return in period t.

The number of daily observations used in estimating the parameters of the market model varies widely in the literature. For example, Lambert and Larcker (1985) used as few as 60 observations in their study, while Dodd et al. (1984) used 600 values when estimating their model. Strong (1992) noted that in practice, there is a trade-off between increasing the

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[105] McKillop and Hutchinson (1987) used monthly prices data from a sample of 27 stocks during the period 1979 to 1984 and a Dublin stockbrokers' index (the J+E Davy index) and reported that the Dimson adjustment moved the beta estimates of Irish shares closer to one in the majority of sample cases. In a follow up study applying the same methodology, McCluskey (1990) used weekly price data from a sample of 41 stocks during the period 1984 to 1989 and noted that the Dimson adjusted betas measured approximately one in the majority of cases. Murray (1997) used daily price data on 79 companies quoted on both the official list and the unlisted securities market over the period 1987 to 1996. The author calculated ordinary unadjusted beta estimates and compared these with estimates using two adjustment techniques – a generalised form proposed by Cohen et al. (1983) and a specific adjustment technique proposed by Vasicek (1973). The author reported that when an adjustment technique is used, beta values for stocks in the Irish market clearly move toward one but concluded that there was 'no justification for using a large number of leads and lags as any potential benefit may be lost because of estimation noise ' (Murray, 1997, p.15). In the light of the reported studies on Irish data, which cover over two-thirds of the event study sample period employed in this thesis, and in view of Strong's (1992) observation that various simulated event studies using either Scholes-Williams' (1977) beta estimator or Dimson's (1979) aggregate coefficient estimator results in no improvement in either the specification or power of event study tests, a decision was taken to use the zero-one model to complement the market-model results.

number of observations to improve the statistical accuracy of the estimated α and β and not going too far back from the test period in case the parameters of the model change across time.

For the purpose of this study, 180 observations were used to estimate the market model parameters, using OLS. Specifically, the time from day t-200 to day t-21 was used as the estimation period for each dividend announcement.[106] The daily abnormal returns were then averaged across the portfolio of firms, which increased, decreased or did not change their dividend level:

$$UR_{p,t} = (1/N) \sum_{i=1}^{n} UR_{i,t} \qquad [4.8]$$

where, $UR_{p,t}$ is the equally weighted average portfolio abnormal or excess return and p = DI for dividend-increasing firms, DD for dividend-decreasing firms and DNC for dividend no-change firms. The information content hypothesis (H1 on p.157) predicts that the UR for shares in those sample companies that increase dividends will be positive, the UR for shares in those sample companies that decrease dividends will be negative and the UR for shares in those sample companies that do not change dividends will be zero. For the purpose of testing the hypotheses stated on page 157 the mean abnormal returns (and mean excess returns) for the sample firms for 41 days around the dividend announcement date (Day t) were computed. Standard deviations were also computed and a two-tailed test of the null hypothesis that the mean is equal to zero at the 5% level was also performed (p-values). The t-test statistic is:

[106] The decision to use 180 days was taken to maintain comparability with other UK studies in the area (e.g. Lonie et al., 1996).

$$t = (MEAN - 0) / (SD / \sqrt{n}) \quad [4.9]$$

where, MEAN is the mean of the abnormal returns or the excess returns data, 0 is the hypothesized population mean specified in this one-sample t-test , SD is the sample standard deviation, and n is the sample size.

To date, most research into the stock market response to dividend announcements has focused on large developed markets such as those in the US and the UK. In the US, dividend news is generally conveyed to investors as an isolated event, enabling researchers to investigate a "unique" dividend announcement effect (Aharony and Swary, 1980). However, in Ireland (and the UK where the same conditions occur) the identification of a "unique" dividend information announcement effect is particularly difficult, because dividends are rarely disclosed in isolation; their disclosure usually accompanies the announcement of company earnings, often along with the other events that may generate a certain amount of market noise. As was noted in Chapter 3 the occurrence of such confounding events around firm-specific announcements is a problem for event studies in general. The problem poses a particular difficulty for Irish studies given that dividend news is not disclosed in isolation, but is published at the same time as other data such as earnings.[107] Specifically, the companies in the sample employed in Chapter 6 announced their annual dividends and earnings on the same day resulting in the problem of separating the dividend announcement event from reported earnings. This contemporaneous release of both dividends and earnings news requires the interaction between dividend and earnings announcements to be analysed in order to observe the influence of different combinations of dividend and earnings

[107] One of the few studies to examine dividend signals in isolation was a US investigation by Aharony and Swary (1980), which identified 149 firms that made no earnings announcements for 10 days either side of the dividend news. Such cases are unusual, however, in countries such as Australia, Ireland and the UK. For example, in an analysis of 1787 dividend announcements made by UK companies between 1989 and 1993, Gunasekarage and Power (2002) detected fewer than ten instances where a company announced its dividend per share separately from its earnings per share.

announcements on share values.

Disentangling the importance of the dividend component of the joint signal can be difficult (Kane et al., 1984; Easton 1991, Lonie et al., 1996; Gunasekarage and Power, 2002). Previous attempts at disentangling the news in a joint signal have focused on: (i) examining the abnormal returns for different dividend-earnings categories; and (ii) regression-based analysis where the interaction of the dividend-earnings news is modelled using dummy variables. Results from these investigations have been unanimous in their conclusion that both dividends and earnings information appear to convey important news to the stock market. However, empirical findings about which of the two signals is the more dominant have been less than conclusive and do not permit robust conclusions to be drawn about which of the two components of the joint signal is most important. For example, as was noted in Chapter 3, Chang and Chen (1991) re-examined the interaction regression model specified by Kane et al. (1984) and noted that the interaction effect was very sensitive to both the length of the announcement interval between the two signals and the period over which abnormal returns surrounding the announcements are cumulated. Chang and Chen's (1991) results suggested that the interaction becomes less obvious for a short event window, but is significant when daily abnormal returns are aggregated for long windows.

In view of the fact that both dividends and earnings news is released contemporaneously in Ireland there is no event window between the dividend announcement and the earnings announcement in the sample employed in this study. Therefore, it was decided to deal with the interaction of the dividend-earnings news issue in the current study in two ways. First, in keeping with the approach used by Kane et al. (1984) (and applied by Easton (1991) for Australian data and Lonie et al., (1996) for UK data) the companies in this sample were divided into six classes, grouped according to various combinations of trends in dividends and earnings. The share returns of the groups of companies that exhibited the

different types of dividend-earnings combinations were examined to observe the influence of different combinations of dividend and earnings announcements on Irish share values. Second, empirical findings about which of the two signals is the more dominant is investigated using an Analysis of Variance (ANOVA) where the abnormal return on the announcement day is investigated in terms of company and signal characteristics.[108] The ANOVA approach is different from the dummy-variable method employed by Kane et al. (1984). Specifically, it allows for more levels in the data (i.e. high, median and low) rather than the binary approach adopted with the dummy variables method. In addition it enables different variables (firm, sector, size) to be considered and interactions between more variables to be accounted for in the analysis. As a result, the ANOVA approach is adopted in this thesis.

Finally, Strong (1992) identified a particular problem with event studies where sample firms have contemporaneous event dates in calendar time (e.g. circumstances where all sample firms make earnings announcements on the same day or in the same week). Strong (1992, p.546) noted that 'cross-sectional dependence in abnormal returns [in an event study] is likely to induce spurious inferences in particular samples'. Specifically, Strong (1992) asserted that where the event of interest is not spread diffusely over a long period in calendar time for different securities, averaging the abnormal returns across securities might distort any residual price variation that is unrelated to the particular type of event interest. The problem may be exacerbated when the event studies are clustered along industrial or size dimensions. Table 6.1 in Chapter 6 shows that event-date clustering was not evident in the current study. The reported dates for dividend and earnings news were spread diffusely over a long period in each year of the study.

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[108] The ANOVA technique separates the total variation present in samples into separate independent variables (e.g. firm, sector, size, etc.). Hayslett (1986) noted that it is a very powerful technique for researchers.

To summarise, a clean, previously un-examined extensive database of Irish equity prices, announcement dates of dividends and earnings was constructed in order to examine how Irish investors react to dividend announcements. The objective of this market-based event study is to seek an understanding of how Irish investors react to dividend announcements and whether or not the earnings announcement supplies corroborative evidence to the dividend announcement. Chapter 6 sets out the results of the study.

4.7.3 The Interviews

This section outlines how interviews were employed to investigate the complexity of the findings reported in Chapters 5 and 6 and to clarify inconsistencies in the postal survey responses. The process of selecting the interviewees and the decisions taken about the conduct of the interviews are detailed in this section.

This part of the study involved interviews with 20 financial directors to explore the question of how firms determine the amount of dividends to pay to shareholders, and to examine financial directors' perceptions about the relationship between dividend policy and firm value. Because of recent changes to the corporate taxation framework in Ireland, (see Chapter 2), the interviews also enquired about the influences which taxation has in determining payout ratios. In keeping with the research approach taken in the postal survey, the interviews considered whether responses to these topics differed between quoted and unquoted companies and across dividend-paying and non-dividend-paying firms. Finally, to obtain an alternative point of view, and to compliment the rest of the analysis, 4 financial analysts from leading Dublin stockbroker firms were interviewed.

The interviews took place between December 2002 and May 2003. The interviews were based on the postal survey questionnaire (see Appendix 5.3), but in a semi-structured form. Collis and Hussey (2003) noted that the advantage of using a semi-structured

questionnaire format in the interview process is that it ensures that the interviewer focuses on certain key questions but allows interviewees to build on their replies thereby enhancing discussion about the questions raised. Although this approach may appear to impose a rigid structure on the interview the questions raised were sufficiently open-ended to allow the interviewees to participate in conversation. In accordance with the recommendations of Saunders et al. (1997) multiple questions were avoided to prevent confusion and uncertainty among the interviewees.

In this thesis the semi-structured questionnaire was the basis of the interview guide (i.e. a list of questions/issues that were to be explored in the course of each interview). Patton (1990) noted that an interview guide ensures that essentially the same material is addressed during each interview; that comparable information is obtained; and that the process of interviewing a large number of people is made more systematic and comprehensive. The questions included in the guide were specifically shaped by a review of the literature documented in Chapter 3 together with the results of the survey questionnaire. The interview guide is shown in Appendix 7.2. The open-ended nature of the interview guide allowed for better exploration of replies; spontaneous commentary by interviewees; and facilitated additional questions that might enhance particular perspectives relating to specific areas of dividend policy. Although the same key questions were covered in each interview, given the open-ended nature of the discussions, the sequence in which the questions were asked inevitably varied as the order of questions essentially depended upon interviewee responses. This approach facilitated conversation within a particular dividend topic; did not restrict other related topics from emerging during the course of the interviews; and allowed for the introduction of topics and questions in a spontaneous manner. As a consequence the rapport established with each interviewee was excellent.

4.7.3.1 Sample Selection

Finance directors in Irish companies from a range of sectors together with financial analysts from leading Dublin brokerage houses were selected for the interviews. There were a number of reasons for selections made. First, just over half of the financial directors selected for interview worked for companies that formed part of the sample of the chief executives of companies circulated in the postal survey conducted in September 2001.[109] The interviews allowed the interviewer to follow up and probe further the responses obtained in the postal survey and to explore issues covered therein in greater depth. Second, financial directors, given their education, practical training and experience, could be expected to deal easily with questions concerning the formulation of dividend policy for their companies. Third, the interviews with financial analysts could be expected to compliment the discussions with finance directors by focussing on whether dividends are relevant to share values and provide signals of future prospects; these discussions took place in the context of the event study results.

The interviewees were personal contacts and former colleagues in the accountancy profession now working in industry or brokerage firms. Both listed and unlisted firms were targeted to focus on any substantive differences in attitudes to dividends between the two, in terms of the assumed relationship between dividend policy and firm value, as well as signalling, specific tax-related issues and more general perceptions. In keeping with the research approach adopted in the postal survey the views of Irish finance directors in: (i) dividend-paying and non-dividend-paying companies; and (ii) companies which have recently changed their dividend payout policy and those which have not, were obtained.

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[109] There were 9 interviewees who worked for companies not included in the questionnaire sample in Chapter 5. Thus, 11 of the interviewees' firms had participated in the postal survey. An inspection of the comments from the two groupings revealed no major differences in responses; thus, chapter 7 does not report their views separately.

Telephone calls were made to each of the 20 financial directors selected requesting interviews and the heads of research at 4 major Dublin stockbroker firms. The telephone conversations provided an outline of the research topic and highlighted in a broad sense the types of questions to be raised. All interviewees were guaranteed confidentiality. A number of interviewees were concerned that because their companies never pay dividends they might have nothing relevant to discuss. These interviewees were assured that the very fact that their firms did not pay dividends made their views on dividends particularly relevant to the research project. Two interviewees requested a copy of some prior Irish research work undertaken in the dividend area. A copy of the paper presented by the researcher at the Irish Accounting and Finance Association 2002 annual conference at NUI Galway reporting the results of the postal survey was forwarded to both.

Follow up e-mails confirmed the date, time and venue for each meeting and reminded the interviewees that the interview would be tape recorded, but that this would not occur if the interviewee was uncomfortable with the tape or did not give permission (see Appendix 7.1). All interviewees displayed a great willingness to participate and all meetings were conducted at their corporate headquarters.

4.7.3.2 Conduct of the Interviews

In preparation for each interview background information concerning market capitalisation (for quoted companies); capital structure; industry sector; turnover;[110] profitability; dividends paid; number of shareholders (for unquoted companies) and numbers employed[111] was collected for all of the companies in the sample. In addition, the most recent

[110] Given the nature of the financial services sector, no data could be used as a comparable measure of turnover.
[111] For the larger companies in the sample this information was obtained from the Business and Finance (2002) Top 1,000 list of companies. For the smaller companies the details were obtained from the Irish Companies Office where available and where the information was not available in the Companies Office the details were recorded at the interview.

annual reports together with recent financial press commentary for each company were scrutinised in order to come to an understanding of the current problems/issues confronting the interviewees.[112] This preparatory work facilitated introductions and helped to develop a rapport with each interviewee. At the commencement of each interview the guarantee of confidentiality was re-iterated and interviewees were assured that no prior academic or theoretical knowledge of the dividends phenomenon was required, nor was any specific taxation knowledge expected. It was emphasised that the objective was to ascertain the personal perspective of each interviewee on the dividend phenomenon. The approach adopted established a cordial and very relaxed atmosphere during each interview and all of the interviewees indicated that they were willing to provide further help if required.[113]

The interview meetings ranged from one hour and fifteen minutes to one hour and fifty minutes in duration, and explored the perspectives of interviewees relating to the three broad areas identified in the interview guide i.e.: (i) the determination of dividend policy; (ii) the role of dividend signalling; and (iii) the effects of taxation on dividend payouts. The use of the tape recorder increased the accuracy of the data collection process and allowed the interviewer to be more attentive to the interviewee. For the ten interviewees who did not wish to be tape-recorded manuscript notes were taken during each meeting. All interviewees allowed the researcher time to remain at their corporate offices immediately after the interviews to facilitate the interviewer in documenting the notes taken during each meeting. The manuscript notes written up at that point facilitated the identification of the key responses and ensured accurate documentary summaries of data and the recording of the interviewer's general observations of the meeting.

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[112] Annual reports for all listed companies are maintained in the Dublin City University library. For each unlisted company the company file at the Irish Companies office was reviewed where available.

[113] Subsequent to the interviews two of the interviewees e-mailed details of dividend elections by shareholders on various issues such as those electing for scrip dividends and those electing for high and low tax credit dividends.

4.7.3.3 Post Interviews Process

Following each tape-recorded interview the tape was played in the interviewer's car while travelling back to the interviewer's office.[114] On return the tape was transcribed immediately and while the transcription process was being undertaken notes identifying recurring replies from the interviews were separately recorded. Every interviewee was given a specific alphabetic code for ease of reference (see Table 7.1) and each of the transcripts were read in conjunction with the notes taken during and after each interview. All transcripts together with the manuscript notes taken at each meeting were then scrutinised to ensure complete knowledge of the data.

The first reading of each interview transcript was undertaken with the tape of the interview running. The key points that emerged from that review were summarised and recorded under the relevant sections of the interview guide. Saunders et al. (1997) noted that such an approach allows the researcher to formulate the data into thematic categories; a process that assists the later recovery of data categorised under the same theme. A further reading of all transcripts was undertaken, again with each tape running, in order to ascertain if any new perspectives or apparent contradictions in the replies from interviewees on specific issues could be established.[115] There were no additional perspectives identified and no conflicts with the data that had been documented at the earlier stage of the process were apparent. This second reading facilitated the preparation of detailed data summaries that highlighted emerging core views on various dividend issues amongst interviewees.

After eight separate interview transcriptions were read in depth repetition in the replies of interviewees became apparent. Despite that observation the identification of new

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[114] The data analysis for the 10 interviews where no tape recording took place was similar except that those steps involving listening to tapes were omitted.

[115] Miles (1979) noted that searches for "negative evidence" provide substantial protection against the presentation of unreliable or invalid evidence.

perspectives on the data during the analysis of the remaining interviews was not prejudiced and care was taken to ensure that there was no attempt to make the data fit the perspectives that were previously observed.

Miles and Huberman (1994) noted that after each interview is transcribed, matrices summarising the essential replies identified in each interview should be drawn up in order to highlight core findings. The authors noted that matrix presentations facilitate the identification of predominant views and patterns in the interview data and assist the research process by distinguishing the relative incidence of different perspectives. In this thesis, the preparation of simple manuscript matrices for each interview displaying the predominant views emerging provided a means of interacting with the data. The process also sustained the search for the identification of apparent contradictions in the predominant views emanating from the data. Although the matrices were excessively detailed initially, they were reduced gradually, systematically and progressively into essential findings, by splitting the interview data according to the three potentially influential categories (i.e. dividend determination; signalling issues; taxation aspects). This process provided the first draft of reportable findings. [116]

In September 2003 all of the transcripts were read again and the matrices reviewed and a final draft of reportable findings was prepared independently of the earlier draft. Both drafts were compared to ascertain if any new insights had been ascertained. These were then again reduced gradually and combined into prominent observations in order to collapse the data into manageable data sets. The prominent observations that emerged formed the basis of

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[116] At that stage these preliminary findings were presented by the researcher in a conference paper at The Irish Accounting and Finance Association 2003 annual conference at the Institute of Technology, Tallaght, Dublin. Considerable comment and feedback was obtained from conference participants. The comments and suggestions made were immediately documented and placed in the transcripts file.

the findings reported and discussed (with relevant quotations) in the analysis presented in Chapter 7.

4.8 Conclusions

This chapter set out the research methodology and methods underpinning the present study. It identified the core philosophical assumptions that guided decisions about the research approach for the empirical investigation of dividend decisions by Irish companies. Several academics have recently argued that research into the dividend puzzle should take a different course than the capital market based approaches of the past. In particular, these authors have noted that the use of complex econometric models to test the dividend phenomenon may no longer be appropriate. Specifically, the authors recommend that it is important to augment quantitative studies of the dividend phenomenon with different empirical approaches. Typically, such approaches offer insights into the behavioural aspects of dividends research and permit the triangulation and validation of capital market based studies. This thesis responds to these expectations and adopts both a capital market based approach and a behavioural perspective to the empirical investigation of dividend decisions by Irish companies. In this context the empirical work focuses on the triangulation involved in using a questionnaire survey in Chapter 5, a market-based event study in Chapter 6, and interviews in Chapter 7.

CHAPTER 5 : SURVEY EVIDENCE: IRISH MANAGERS' VIEWS ABOUT DIVIDEND POLICY

5.1 Introduction

This chapter investigates the views of Irish corporate managers regarding dividend policy using a questionnaire survey sent to the chief executives of Irish companies. It seeks to explain: (i) how Irish firms determine the amount of dividends to pay to shareholders; (ii) perceptions of Irish managers about the relationship between dividend policy and firm value, in particular whether belief in the 'signalling' concept is widely held; and (iii) the role of earnings, risk preferences and tax clienteles in an Irish context when payout ratios are being determined. The chapter also examines whether responses to these topics differ between quoted and unquoted firms, dividend paying and non-dividend paying companies and across companies which have changed their dividend. The central objective of the survey is to ascertain whether Irish corporate managers believe that dividends are relevant to share valuation.

Data were obtained from a mail survey sent to the chief executives of the top 1,000 Irish companies. Based on 269 usable responses, the empirical results highlight several clear patterns in the general attitudes of Irish firms to dividend policy as well as a number of areas where specific differences in perceptions exist across the respondent groups.

The approach in this chapter surveys managers of Irish companies and thereby directly gauging their perceptions regarding the factors that determine dividend levels. To date, very little is known about the dividend payout policies of Irish firms. The few studies that have been undertaken are either based on small samples or were conducted more than 10 years ago.[117] As Chapter 2 indicated there has been significant growth in inward investment

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[117] As was explained in Chapter 3, the published empirical evidence is consistent with Irish companies having a policy of dividend stability. Stewart (1987), Barrett and Cotter (1990) and Green and McIlkenny (1991) provide evidence from an analysis of published financial data – at both the aggregate and individual firm level - which supports the contention that the Lintner (1956) model is descriptive of the dividend policies pursued by Irish companies. Green and McIlkenny (1991) found the constant term in the model to be statistically insignificant, whilst Barrett and Cotter (1990) suggested that there appeared to be a strong tendency for Irish companies to maintain dividends at constant levels.

in Ireland over the past decade and Irish institutional investors have reduced their exposure to Irish equities during that period. In such an environment, the attitude of Irish managers is of particular interest given the changed pattern of foreign investor participation in the Irish stock market. Irish managers' attitudes to dividend policy may have changed since the previous studies were undertaken, given the change to a more globalised shareholder base in recent years. Finally, the recent changes in the Irish system of company taxation (including the introduction of the dividend withholding tax and the new 12.5% rate of Corporation Tax) may have had a profound impact on the way in which Irish firms determine dividend policy and so the taxation issue is also explored.

The remainder of the chapter is divided into four main sections. Section 5.2 sets out an analysis the survey responses while Section 5.3 provides a test for non-response bias. Section 5.4 presents the research findings and compares these findings with prior empirical evidence. Finally, Section 5.5 summarises the main conclusions.

5.2 Analysis of Survey Responses

The survey yielded a total of 285 replies of which 269 were usable (a 26.9% response rate). Table 5.1 provides an analysis of all the usable responses, supplies a breakdown of the sample by sector and shows that respondents were drawn from companies with a range of different characteristics and operating across a large variety of industrial sectors.

The table shows that a similar number of quoted and unquoted firms responded (132 and 137 respectively). A majority (66%) of these firms pay dividends and most of these had changed their dividend level in the financial year prior to the survey. A particular feature of the results presented in the table is the high number of companies that do not pay dividends; 91 (or 34.0%) of the respondents had a payout ratio of zero. This finding may not be surprising in view of the unprecedented high growth levels achieved by Irish industry

throughout the period which may have encouraged firms to retain cash for investment rather than to pay out funds to investors.[118]

Table 5.1: Descriptive Statistics for the Questionnaire Respondents

Sector	Total	Quoted	Unquoted	Dividend Paid	Dividend Unpaid	Dividend Changed	Dividend Unchanged
Building/ Construction	24	7	17	15	8	15	8
Energy	9	2	7	5	4	5	3
Banking/Financial Services	33	21	12	24	9	21	9
Communication/ IT	30	12	18	13	17	13	13
Manufacturing/ Packaging	52	33	19	39	13	37	14
Storage/ Transport	10	4	6	6	4	1	9
Healthcare/ Medical	21	16	5	14	7	14	6
Retail/ Distribution	43	13	30	28	15	26	14
Food/Drink/ Agribusiness	35	20	15	27	8	19	15
Tourism/Leisure	10	3	7	5	5	3	6
Other	2	1	1	1	1	1	1
Total	**269**	**132**	**137**	**177**	**91**	**155**	**98**

Note: The table provides details about the 269 usable responses to the questionnaire survey. The disaggregated totals do not always add up to 269 because the required information was omitted by some of the respondents. The quoted/unquoted characteristic was determined by responses to the question 'Is your company quoted on a stock exchange?'; the dividend paid/dividend unpaid characteristic was based on responses to the question 'Does your company pay an annual dividend?', while the dividend changed/dividend unchanged characteristic was determined by responses to the question 'Has the level of the dividend changed recently?'

An analysis of Table 5.1 reveals that firms from most key industrial sectors are represented in the sample. The "Manufacturing and Packaging" sector provided the highest number of respondents (52 replies) while the "Wholesale, Retail and Distribution" and "Food Drink and Agribusiness" sectors were next with 43 and 35 respondents respectively. The

[118] This figure is however, considerably lower than the 79.2% of US firms reported not to pay a dividend in 1999 by Fama and French (2001). Chowdhury and Miles (1987) report that only 0.9% of UK firms failed to pay a dividend in 1978, whereas six years later the figure had risen to almost 10%. The authors suggested that such a rise might have resulted from the UK Government's decision to abolish dividend controls in 1979. The rise may also have been associated with the severe economic recession in the UK during the early 1980s.

"Banking and Financial Services" sector provided 33 respondents while the "Healthcare and Medical" sector provided 21 respondents. The sectors that provided the lowest number of usable responses were "Energy" with nine and "Others" with two. Overall, the range of sectors represented in the sample suggests that the results of this study are based on responses from a wide cross-section of Irish industries.

Examination of the respondent numbers reveals several trends across and between the various sectors. For example, other than the "Banking and Financial Services", "Manufacturing and Packaging", "Healthcare and Medical" and "Food, Drink and Agribusiness" industries, a majority of respondents from every sector work in unquoted firms. In addition, with the exception of the "Communications and IT" and "Tourism" sectors, a majority of firms in every sector paid a dividend. Finally, in 7 out of the 11 sectors a majority of firms reported changing their dividend in the past.

5.3 A Test of Non-Response Bias

The research methodology literature on survey samples noted that researchers must exercise caution when drawing inferences from the results of mail questionnaires in circumstances where a large proportion of those in the survey sample do not reply to the mail questionnaire, or where those who do reply fail to complete all the questions in returned questionnaires. A low response rate may lead to substantially biased interpretations of the findings of survey samples. The presence of non-response bias, if it exists, suggests that the viewpoints of non-respondents are significantly different from those of respondents (Wallace and Mellor, 1988). Section 5.2 noted that the usable response rate in this research is 26.9%. However, in the research methodology literature there is no consensus on what type of response rate is "proper" or "satisfactory". For example, a return of 25% to 30% of the distributed questionnaires is considered large enough in Saunders et al. (1997). However,

Wallace and Mellor (1988, p.132) note that it not unusual to find low response rates and researchers 'normally content themselves with returns as low as 30% to 50%'. As far as the response rate of the current survey is concerned, it meets the average proposed in the research methodology literature and is above the average for similar type studies.

The conventional method for testing non-response bias is to compare mean responses for one or more variables of interest returned by respondents in later weeks with those of a random sample of respondents drawn from the returns of the earlier weeks, to identify if there exists any significant difference between the two sets. Wallace and Mellor (1988) suggested that such an analysis is necessary because 'it has been found that respondents who send in their questionnaires very late are roughly similar to non-respondents' (Oppenheim, 1966, p.34). Therefore, the responses to the questionnaire in this study were divided into two groups: those replies received within the first month (i.e. on or before 7th October 2001) were placed in the first group, while the remaining questionnaires were included in the second group. The first group consisted of 156 usable responses while the second group comprised of 113 usable responses.

Table 5.2 provides details of the test for non-response bias. The table summarises the responses between those received on or before 7th October 2001 (Early) and those received after that date (Late). Each group is analysed between: (i) quoted and unquoted companies; (ii) dividend-paying and non dividend-paying companies; and (iii) firms which have recently changed their dividend payout policy and those which have not. A chi-squared test was performed for responses received early and late for those questions based on the categorical scale; i.e. whether the firm was quoted or unquoted; whether the firm currently paid a dividend; whether the level of dividends had changed since the previous year.

Table 5.2: Results of Non-Response Bias Tests

Question	Answer	Early	Late	Total	χ^2 (p-value)
Is your company or parent company quoted on the stock exchange?	Yes	79	52	131	0.817
	No	76	61	137	(0.366)
Total		**155**	**113**	**268**	
Does your company or parent company pay a dividend on ordinary shares each year?	Yes	113	64	177	6.799
	No	43	48	91	(0.009)
Total		**156**	**112**	**268**	
Has the level of dividend paid changed since the previous year?	Yes	96	49	155	1.629
	No	53	45	98	(0.202)
Total		**149**	**94**	**253**	

Note: The table provides details about the 269 usable responses to the questionnaire survey analysing the responses between those received on or before 7th October 2001 (Early) and those received after that date (Late). Each group is analysed between: (i) quoted and unquoted companies; (ii) dividend-paying and non dividend-paying companies; and (iii) firms which have recently changed their dividend payout policy and those which have not. The disaggregated totals do not always add up to 269 because the required information was omitted by some of the respondents.

From the test results there was no difference at the 5% level of significance between the two sets of responses for quoted/unquoted companies or for those firms where the level of dividend paid changed since the previous year. However for dividend paying companies, the difference was significant. Intuitively, given the subject of the survey, it was expected that dividend-paying companies would be the most likely to return the completed questionnaires quickly. Furthermore, it may be that potential respondents in non-dividend paying firms may

have taken the view that as their firm does not pay dividends, the questionnaire survey was not relevant to their circumstances. Indeed, five of the unusable replies received were returned blank with covering letters or statements stating that their firms did not pay dividends and for that reason they could not complete the questionnaire. This pattern in responses needs to be borne in mind when the results are discussed later in the chapter.

A further test of non-response bias was performed on the basis of splitting respondent firms (except banking and finance companies) on the basis of sales turnover. Quartiles were identified and responses analysed between those responses received early and those received late. The details of this analysis are presented in Table 5.3.

Table 5.3: Results of Non-Response Bias Tests for Non Financial Firms

Firm Size	Early	Late	Total
Largest quartile	47	19	66
2nd largest quartile	30	27	57
3rd largest quartile	39	23	62
Smallest quartile	23	28	51
Total	**139**	**97**	**236**

Note: This table provides details about usable responses to the questionnaire survey (except banking and finance companies) splitting respondent firms on the basis of sales turnover. Quartiles were identified and responses analysed between those responses received on or before 7th October 2001 (Early) and those received after that date (Late).

The results in Table 5.3 show that the Chi-Square test of the numbers in this table indicated that there was no significant difference between early and late responses (χ^2 = 5.080, p-value = 0.166) on the basis of firm size. Hence, in view of the findings presented in Tables 5.2 and 5.3 it was felt that confidence in the results from the empirical analysis would be high.

5.4 Empirical Findings

The mean response and the standard deviation of the response from the five-point Likert scale are presented in Tables 5.4, 5.5 and 5.6. The five possible responses to each statement were "strongly agree" (assigned a value of 1 for the analysis of the results), "agree" (2), "uncertain" (3), "disagree" (4) and "strongly disagree" (5). The assigned values indicate that the lower the mean score, the stronger the level of agreement with the statement in question. This information is supplied for the whole sample and for the different groupings of quoted and unquoted firms, dividend-paying and non-dividend-paying companies as well as dividend-changing and dividend-unchanging firms. For the different pairs of groupings a p-value is shown which tests the null hypothesis that the mean responses are equal.[119]

5.4.1 Determinants Of Dividend Payments

Table 5.4 shows the results from Section 1 of the questionnaire where respondents were asked about the factors that influenced their dividend decision. A number of points emerge from a visual inspection of this table.

First, when the responses are analysed for the whole group, those replying displayed the highest level of agreement with the statement that firms should base current dividends on cash flow considerations. This statement had the lowest mean score of 2.02 and the lowest

[119] The extent to which the results of the independent samples t-tests in tables 5.4, 5.5 and 5.6 depend on the assumption of normality of the means of these independent samples, was addressed by performing an equivalent set of non-parametric (Mann-Whitney) tests, which do not rely on the normality assumption. The results of the two sets of tests are broadly similar, with material disagreement regarding significance of the p-values occurring in only 5 cases out of 92. There are 3 cases where the t-test finds significance when the non-parametric test does not and 2 cases where the reverse is true. In only one of these 5 instances does the difference between p-values from the two sets of tests exceed 0.03. Specifically these cases are: question 1.04 which asks about whether a firm should avoid changes in its dividend rates that may have to be reversed in a year or so (quoted 0.04, unquoted 0.11); question 1.05 which asks about whether a firm should strive to maintain an uninterrupted record of dividend payments (quoted 0.03, unquoted 0.06); question 1.09 about whether a firm should base the current dividend on the firm's current earnings (quoted 0.04, unquoted 0.07); question 2.02 about whether dividend payments provide a signal of future earnings prospects (dividend changed 0.08, dividend unchanged 0.05); question 2.07 about whether a decrease in dividends will usually lead to a fall in share price (dividend changed 0.06, dividend unchanged 0.04).

standard deviation of 0.74. The associated p-value of 0.00 allows rejection of the null hypothesis that the response mean is neutral. Such a result is consistent with the findings in a 1989 survey of Irish quoted companies (Green et al., 1993) where respondents considered cash resources to be an important factor in the dividend setting decision. However, a significant difference emerges when the responses are separated into those from quoted and unquoted firms. Quoted companies' directors were significantly less inclined to believe that firms should base current dividends on their cash flow situation (mean score of 2.18 and standard deviation of 0.80) than were unquoted companies' directors (mean score of 1.87 and standard deviation of 0.65). This finding is not unexpected given that quoted companies' directors should have easier access to external funds, other things being equal. Indeed, in Chapter 7 interviewees of quoted firms confirmed that cash flow was not a major factor in the dividend setting decision. Moreover, quoted firms' desire to maintain dividends which was originally identified by Lintner (1956), may imply borrowing funds to make payouts rather than disappointing investors with a dividend cut. A significant difference also emerges when the responses are analysed between firms, which pay dividends, and firms that do not. As expected directors whose companies paid dividends were significantly less inclined to believe that firms should base current dividends on cash flow (mean score of 2.09 and standard deviation of 0.75) than were company directors whose firms did not pay dividend (mean score of 1.88 and standard deviation of 0.70).

Second, there was support amongst respondents as a whole for the suggestion that firms should base current dividends on existing earnings levels (mean score of 2.12). As with the statement on cash flow/liquidity considerations, a significant difference emerges when the responses are assessed separately for quoted and unquoted firms but there was no significant difference on this issue between the views of managers in dividend-paying and non dividend-paying companies and between firms, which have recently changed their dividend payout

policy and firms that have not. Specifically, unquoted companies' directors believed strongly that firms should base dividends on their current earnings (mean score of 2.02) whereas quoted companies' directors appeared to be less certain on this issue, with a significantly higher mean of 2.23 emerging. This result is again consistent with the survey findings reported by Green et al. (1993), where respondents indicated that profitability (both current and expected) was the most important factor in the dividend decision. However, unlike those replying in the earlier study, respondents in the present survey were less certain about the view that a firm should base its dividend on expected future earnings (mean score of 3.02 and standard deviation 1.06). No significant differences were noted on this issue between quoted and unquoted companies; companies that pay dividends and those who do not; and, companies that recently changed their dividends.

Third, the survey responses as a whole were generally consistent with Lintner's (1956) model. For example, there was strong support for the views that firms should maintain an uninterrupted dividend, avoid making changes in dividend rates that might have to be reversed in a year or so, and that a target payout ratio should exist (mean scores of 2.15, 2.22 and 2.23 respectively). All three statements had relatively low standard deviations, indicating some degree of consensus among firms. The associated p-values of 0.00 allow rejection of the null hypothesis that the population means are neutral. However, a significant difference emerges when comparing responses from quoted and unquoted firms. Quoted companies' directors provided significantly higher support for the view that firms should maintain an uninterrupted dividend than did those working for unquoted companies. This finding is not surprising, given that quoted companies may face greater pressure from current and potential investors to provide a tangible signal of their financial strength. Such companies may wish to avoid the adverse reaction to a dividend cut which has been identified in several studies of the share price response to a reduction in the dividend payment (Aharony and Swary, 1980;

Gunasekarage and Power, 2002). The finding is also consistent with the results reported by Baker et al. (1985) who recorded an average score of 2.26 for a similar question in their 1983 survey of quoted firms. Predictably, although not significant, support for a stable dividend policy was weaker among firms that reported having changed their payout levels in the past, particularly so when views about reversing changes were sought.

Fourth, there was support for the notion that a firm should be responsive to shareholders' preferences regarding dividends, with a mean score of 2.23 being recorded. One implication of this finding is that respondents were sympathetic to the view that clienteles of investors were attracted by particular dividend policies because of their need for a stable income stream (Keane, 1985). Irish corporate managers therefore appear to consider the views of their investor group when setting dividend policy. This evidence regarding the influence of shareholder views on Irish companies' dividend decision-making is similar to that reported for US firms by Baker et al. (1985) and for Australian firms by Partington (1985) and is confirmed by the findings of the interviews with financial directors in Chapter 7 of this thesis.

Fifth, despite agreeing that dividends should be maintained, respondents also supported the arguably contradictory view that the dividend should be allowed to fluctuate in accordance with current investment and financing needs. No significant differences were noted on this issue between quoted and unquoted companies and companies that pay dividends and those who do not. Baker and Powell (1999) reported that although nearly 90% of respondents in their 1997 survey believed that a firm's investment, financing and dividend decisions were related, the respondents held widely different views about whether a firm

should consider the dividend as a residual after financing desired investments from earnings.[120]

Finally, there were two statements showing mean scores of significantly above 3.00 for the whole group. Specifically, respondents disagreed with the view that a firm should base its current dividend decision on last year's dividend or the amount of dividend paid by its competitors (mean scores of 3.13 and 3.69 respectively). Both statements had relatively high standard deviations, indicating very little consensus among firms. The associated p-values of 0.04 and 0.00 allow rejection of the null hypothesis that the response means are neutral on these issues. This result is surprising when compared with respondents' views about investors' expectations. Indeed, in Chapter 7 interviewees of quoted firms are shown to believe that a starting position in setting the current year's dividend is the amount paid in the previous year. In addition, the interviewees indicated that they would not like their dividend to be out of line with the dividend paid by competitors, particularly competitors in Ireland and the UK. Indeed, responses to the questions in Section 2 of the questionnaire reported below strongly indicated that chief executives believe investors base their expectations about this year's dividend on last year's payment and on payout trends within their sector. It appears that, despite believing investors base expectations about this year's dividend on both last year's figure and sector trends, survey respondents did not regard those expectations as being very important in setting dividend policy.

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[120] Partington (1985) concluded that on occasions when Australian firms did not have sufficient external funds available for investment they adopted a simultaneous policy for dividends and investment (i.e. the dividends were allowed to fluctuate in accordance with current investment and financing needs).

Table 5.4: Analysis of the Factors which Influence Dividend Decisions

		Total		Quoted		Unquoted		*Quoted V. Unquoted*	Dividend Paid		Dividend Unpaid		*Paid V. Unpaid*	Dividend Changed		Dividend Unchanged		*Changed V. Unchanged*
	Mean	SD	p-value	Mean	SD	Mean	SD	p-value	Mean	SD	Mean	SD	p-value	Mean	SD	Mean	SD	p-value
A firm should determine the current dividend based on cash flow/ liquidity considerations	2.02	0.74	0.00*	2.18	0.80	1.87	0.65	0.00*	2.09	0.75	1.88	0.70	0.03*	2.05	0.71	2.01	0.77	0.66
A firm should base the current dividend on the firm's current earnings	2.12	0.82	0.00*	2.23	0.88	2.02	0.74	0.04*	2.11	0.80	2.14	0.86	0.78	2.12	0.79	2.13	0.81	0.98
A firm should strive to maintain an uninterrupted record of dividend payments	2.15	0.98	0.00*	2.02	0.87	2.27	1.06	0.03*	2.10	0.95	2.24	1.03	0.25	2.16	0.98	2.08	0.90	0.53
A firm should avoid changes in its dividend rates that may have to be reversed in a year or so	2.22	0.99	0.00*	2.15	0.98	2.28	0.99	0.27	2.22	0.99	2.22	0.99	1.00	2.30	1.03	2.05	0.84	0.41
A firm should have a target payout ratio	2.23	0.87	0.00*	2.29	0.92	2.16	0.82	0.21	2.23	0.89	2.21	0.84	0.82	2.26	0.90	2.18	0.81	0.46
A firm should be responsive to shareholders' preferences regarding dividends	2.23	0.84	0.00*	2.18	0.75	2.28	0.92	0.29	2.23	0.84	2.23	0.84	0.99	2.23	0.87	2.15	0.66	0.38
A firm should allow dividends to fluctuate in accordance with its current investment and financing needs	2.44	1.20	0.00*	2.52	1.18	2.37	1.22	0.32	2.42	1.16	2.48	1.28	0.72	2.32	1.16	2.76	1.24	0.01*
A firm should base the current dividend on the firm's expected earnings	3.02	1.06	0.77	2.96	1.06	3.07	1.07	0.39	3.04	1.09	2.98	1.01	0.65	3.07	1.11	2.82	0.94	0.06
A firm should determine the current dividend based on last year's dividend	3.13	1.08	0.04*	3.02	1.06	3.23	1.09	0.10	3.12	1.05	3.13	1.14	0.96	3.11	1.07	3.05	1.07	0.68
A firm should base the current dividend on the amount of dividend paid by its competitors	3.69	0.90	0.00*	3.68	0.84	3.69	0.96	0.99	3.77	0.87	3.53	0.96	0.05*	3.80	0.88	3.41	0.87	0.00*

Note: The table shows the responses to ten statements relating to influences on dividend policy. A five-point Likert scale was used where 1= 'strongly agree' 2 = 'agree' 3 = 'uncertain' 4 = 'disagree' and 5 = 'strongly disagree'. SD is the standard deviation and the p-value tests the null hypothesis that the mean response to a statement for two subgroups is equal using a two-tailed t-test. An * indicates that the p-value is significant at the 5 % level.

5.4.2 Market Signals

Table 5.5 contains the responses to statements about whether dividends convey indications of future earnings to capital market participants. A number of important observations can be made from the table.

First, the whole sample analysis shows that responses to the various statements averaged 2.46, suggesting that the respondents were generally supportive of the arguments raised in the dividend signalling literature. For example, respondents agreed that dividend payments provide a signal of future earnings prospects (mean score 2.56) which is the central theme dominating the current dividend signalling literature.[121] Although the standard deviation of 0.94 indicated that the views of respondents on this issue varied considerably the associated p-value of 0.00 allows rejection of the null hypothesis that the response mean is neutral. Indeed, Irish managers appear as supportive about the signalling issue now as they did in 1989 when Green et al. (1993) reported support for the view that dividends are a very important mechanism for signalling management's expectations about future profitability. No significant differences were noted on this issue between the various groupings. This finding is particularly surprising for the quoted/unquoted dimension, because the former group of companies might have been expected to be more interested in signalling information to capital market participants in order to maintain or improve market value. The latter category, because of the small equity base and the preponderance of closely held shares, might have been expected to place less emphasis on the need for market signals.

Second, respondents disagreed with the view that the market considered dividend announcements entirely independently of concurrent earnings announcements (mean score 3.40). No significant differences were noted on this issue between the various groupings

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[121]This finding contrasts sharply with the findings in Baker and Farrelly (1989), where only 3.3% of institutional investors were reported as believing past and current dividends to be a useful signal of future profitability.

although the standard deviations of almost 1.00 in each case indicated that the views of respondents on this issue varied considerably. However, the associated p-value of 0.00 allows rejection of the null hypothesis that the population mean is neutral. It is clear that respondents believe that the market does not consider dividend announcements separately from earnings news but instead views the two as joint signals. This observation confirms the empirical evidence reported in the academic literature for larger markets (Kane et al., 1984; Easton, 1991; Lonie et al., 1996) and supports both the results of the event study and the findings of the interviews reported in Chapters 6 and 7 of this dissertation.

Third, although respondents agreed with the conclusions of previous empirical studies that dividend changes convey unanticipated information to the market, the level of concurrence is considerably lower than that reported in Baker and Powell (1999). In particular, respondents agreed that a rise (fall) in dividend is typically associated with a share price increase (decrease) with mean scores of 2.78 and 2.56 respectively. However, the standard deviations of almost 1.00 in each case indicated that views on these issues varied considerably but the associated p-values of 0.00 in each case allow rejection of the null hypothesis that the response means are neutral. The figures on both of these questions reflect significant differences in the responses from various sub-groups of firms. For example, the responses from the quoted companies to the statement that a rise in dividend was typically associated with a share price increase was neutral at 3.02, whereas the mean response for unquoted companies was more in agreement at 2.55; this difference was significant at the 5% level. This position is confirmed by the findings reported in Chapter 7 where quoted company financial directors indicated that they would not expect the share price to rise (fall) with the dividend announcement. In particular, they confirmed that a dividend cut would not be used to convey bad news to the market; investors would be informed about poor trading conditions in advance of the dividend announcement.

Fourth, when the responses in Table 5.5 are analysed for the whole group, those replying displayed the highest level of agreement with the statements concerning investors' expectations. In the opinions of respondents, these expectations were based on several variables, most notably last year's dividend and forecast earnings (mean scores of 2.06 and 2.27 respectively). Respondents strongly believe that the reaction of the market to an increase or decrease in dividends depends on investor expectations (mean scores of 2.08 and 2.17 respectively) and that investors based their expectations about this year's dividend, albeit to a lesser extent, on payment trends within their sector, on current economic conditions and last year's earnings (mean scores of 2.32, 2.32 and 2.38 respectively). The standard deviations recorded for each of these responses indicate that there was considerable consensus on these issues among respondents. The associated p-values allow rejection of the null hypothesis that the response means are neutral. There were a number of differences in the responses to these statements from the various groupings examined. Although the mean scores for quoted firms were higher than for unquoted companies, the p-values which result from a test of the null hypothesis that the mean responses are equal were greater than 0.05. The average responses from firms which pay dividends were in most cases higher than those from non dividend-paying companies. The only exceptions occurring were for: the reaction of the market to an increase or decrease in dividends; investors' use of the prior year's dividend; and, current earnings as the basis for their expectations of current year dividends. The overall results based on this analysis suggest that conventional signalling notions are supported more strongly by firms without recent experience of paying a dividend. The responses from firms that changed their dividends were in most cases higher than for firms that did not change their dividend.

Finally, there were mixed views about whether: (i) investors perceive dividends to be less risky than capital gains; and (ii) investors perceive a change in the existing dividend

payout to be more important than the actual amount of dividends. Responses to the statements produced mean scores (standard deviations) of 2.38 (0.87) and 2.64 (0.99) respectively. Conventional finance theory (e.g. Gordon, 1959; Fama and Miller, 1971) predicts strong support for both these statements. However, the results in this survey are consistent with the findings in Baker et al. (1985) and Baker and Powell (1999), where responses to similar questions produced equally indeterminate results.

Table 5.5 Respondents' Views About The Signalling Capabilities Of Dividends

	Total			Quoted		Unquoted		*Quoted v. unquoted*	Dividend Paid		Dividend Unpaid		*Paid v. unpaid*	Dividend Changed		Dividend Unchanged		*Changed v. unchanged*
	Mean	SD	p-value	Mean	SD	Mean	SD	p-value	Mean	SD	Mean	SD	p-value	Mean	SD	Mean	SD	p-value
Investors base their expectations about this year's dividend on the previous year's dividend	2.06	0.61	0.00*	2.08	0.70	2.04	0.52	0.68	2.05	0.60	2.09	0.63	0.59	2.07	0.62	2.06	0.61	0.97
The market reaction to an increase in dividend will depend on how the new figure compares to investors' expectations	2.08	0.62	0.00*	2.12	0.60	2.04	0.65	0.31	2.15	0.65	1.96	0.56	0.02*	2.17	0.65	1.96	0.60	0.01*
The market reaction to a decrease in dividend will depend on how the new figure compares to investors' expectations	2.17	0.69	0.00*	2.31	0.71	2.04	0.65	0.00*	2.26	0.70	1.99	0.64	0.00*	2.27	0.66	2.03	0.76	0.01*
Investors base their expectations about this year's dividend on forecast earnings	2.27	0.68	0.00*	2.27	0.72	2.26	0.65	0.92	2.27	0.69	2.26	0.66	0.84	2.29	0.71	2.26	0.64	0.74
Investors base their expectations about this year's dividend on trends within the sector	2.32	0.70	0.00*	2.33	0.80	2.31	0.59	0.87	2.35	0.76	2.27	0.58	0.36	2.30	0.74	2.38	0.67	0.43
Investors base their expectations about this year's dividend on current economic conditions	2.32	0.71	0.00*	2.35	0.77	2.28	0.66	0.43	2.37	0.74	2.22	0.65	0.13	2.32	0.74	2.37	0.64	0.60
Investors perceive dividends to be less risky than capital gains	2.38	0.87	0.00*	2.38	0.80	2.39	0.93	0.97	2.40	0.83	2.35	0.94	0.67	2.44	0.82	2.27	0.93	0.12
Investors base their expectations about this year's dividend on last year's earnings announcement	2.38	0.78	0.00*	2.40	0.86	2.35	0.70	0.60	2.36	0.78	2.40	0.78	0.71	2.39	0.79	2.38	0.73	0.92
Dividend payments provide a signal of future earnings prospects	2.56	0.94	0.00*	2.60	0.93	2.52	0.96	0.48	2.63	0.92	2.44	0.97	0.13	2.64	0.91	2.43	0.95	0.08
A decrease in dividends will usually lead to a fall in share price	2.56	0.98	0.00*	2.69	0.99	2.44	0.96	0.44	2.66	0.98	2.38	0.96	0.03*	2.65	0.94	2.41	1.05	0.06
A change in the existing dividend payout is more important than the actual amount of dividends paid	2.64	1.00	0.00*	2.60	0.92	2.68	1.07	0.55	2.70	0.95	2.53	1.08	0.18	2.75	0.94	2.39	0.99	0.00*
An increase in dividends will usually lead to a rise in share price	2.78	0.97	0.00*	3.02	0.92	2.55	0.96	0.00*	2.90	0.91	2.54	1.03	0.00*	2.95	0.90	2.46	0.99	0.00*
The market views dividend announcements entirely independently of concurrent earnings announcements	3.40	0.96	0.00*	3.41	0.97	3.39	0.95	0.82	3.41	0.92	3.38	1.02	0.86	3.36	0.96	3.51	0.93	0.22

Note: The table shows the responses to thirteen statements regarding the signalling effect of dividend announcements. A five-point Likert scale was used where 1= 'strongly agree', 2 = 'agree', 3 = 'uncertain', 4 = 'disagree' and 5 = 'strongly disagree'. SD is the standard deviation and the p-value tests the null hypothesis that the mean response to a statement for two subgroups is equal using a two-tailed t-test. An * indicates that the p-value is significant at the 5 % level.

5.4.3 The Influence of Taxation on Dividend Policy

Table 5.6 summarises responses to nine statements regarding the influence of the Irish tax system on dividend policies and perceptions. As was explained in Chapter 2, Ireland potentially provides an interesting setting for examining this question, as taxation policy has changed in recent years, thereby possibly influencing investors' desire for receiving their returns in the form of capital gain. However, respondents disagreed with the notion that the tax status of the company's shareholders should affect dividend levels (mean score of 3.63, standard deviation 0.92 and p-value 0.00). This result does not support the US-based research findings in Baker et al. (1985) and Baker and Powell (1999). Nevertheless, a significant difference emerged when the responses were separated into those from quoted and unquoted firms. Quoted companies' directors were significantly less inclined to believe that firms should determine dividends on the basis of the tax status of the company's shareholders (mean score of 3.78 versus 3.49 for unquoted firms). Considering that it would be nearly impossible for quoted companies' directors to know the tax status of its shareholders, this result is not unexpected. Consistent with prior research respondents appeared unsure about whether investors in high (low) tax brackets are attracted to low (high) dividend shares (mean scores of 2.80 and 2.74 respectively). The associated standard deviations of 0.99 and 0.96 respectively are the highest recorded in the table, indicating the diverse nature of views on the issue. However p-values of 0.00 and 0.00 respectively allow rejection of the null hypothesis that the population means are neutral suggesting that respondents appeared aware of the clientele effect. Support for the notions of a dividend clientele was also significantly stronger among firms that had not paid dividends or changed their dividend, suggesting that recent experience of the dividend-paying process in Ireland alters corporate perceptions of the likely impact of the payment. An analysis of the responses to both statements for quoted and

unquoted firms revealed that the means for the former group was higher than for the latter, suggesting that taxation issues were more of a concern for unquoted companies, a result confirmed by the interviews reported in Chapter 7.

Respondents agreed that recent changes to the taxation regime in the Irish Republic, such as the treatment of scrip dividends as income; the introduction of a dividend withholding tax; and, the introduction of the new 12.5% rate of Corporation Tax, made dividend payments less attractive to shareholders. Intuitively the effect of these innovations on the tax differential between capital gains and dividends might have been expected to favour a high retention policy, thereby saving investors tax and leading to an appreciation in share values Litzenberger and Ramaswamy, (1979).[122] This may explain why such a high number of the sample firms do not pay dividends. Respondents also agreed that both the new lower capital gains tax rate of 20 % for investors and the abolition of tax credits for dividends had improved the relative attractiveness of capital gains over dividend income. These statements had the lowest mean scores of 2.09 and 2.44 respectively, and the second and fourth smallest standard deviations. The associated p-values of 0.00 and 0.00 respectively allow rejection of the null hypothesis that the population means are neutral.

In contrast, respondents disagreed with the view that the recent introduction of a new capital gains tax treatment for employee share option schemes would lead to higher payout ratios (mean score 3.25 and the associated p-value of 0.00). The views of unquoted firms were slightly stronger on this issue. One possible explanation for this finding is that unquoted

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[122] This result appears at odds with the views expressed about the statement that management should determine the annual dividend based on their perception of the tax status of the shareholders. One possible explanation for these findings lies in the tax clientele argument; it may be the case that Irish management do not explicitly factor tax considerations into their dividend decision-making, but recognise that investors tend to cluster around firms whose policies suit their particular tax circumstances (Elton and Gruber, 1970), a result confirmed by the interviews reported in Chapter 7.

firms may have doubts about introducing or expanding share option schemes without the prior approval of non-employee stakeholders. Typically, such approvals may be conditional on some reward for other company participants, such as a re-designation of existing shareholdings, a change in the firm's profit sharing arrangements, or, indeed, an alteration to the firm's dividend policy.

Finally, the analysis of the responses for quoted and unquoted firms revealed that the mean responses of the former group were generally higher than the latter, suggesting that taxation issues were more of a concern for unquoted companies. This position is confirmed by the interview findings reported in Chapter 7.[123]

[123] The one exception to this general comment related to the statement about the effect of the reduced capital gains tax rate, but even here, the average response from the quoted firms of 2.09 was virtually identical to that from unquoted companies (2.08).

Table 5.6: Respondents' Views about the Effect of Taxation on Dividend Decisions

		Total		Quoted		Unquoted		*Quoted v. unquoted*	Dividend Paid		Dividend Unpaid		*Paid v. unpaid*	Dividend Changed		Dividend Unchanged		*Changed v. unchanged*
	Mean	SD	p-value	Mean	SD	Mean	SD	p-value	Mean	SD	Mean	SD	p-value	Mean	SD	Mean	SD	p-value
Investors prefer returns from capital gains rather than dividends because of the reduction in the capital gains tax rate to 20%	2.09	0.78	0.00*	2.08	0.76	2.09	0.80	0.95	2.09	0.82	2.08	0.70	0.88	2.12	0.82	2.04	0.71	0.45
The abolition of tax credits on dividends has made dividend payments less attractive to shareholders	2.44	0.83	0.00*	2.55	0.85	2.32	0.79	0.02*	2.48	0.87	2.35	0.74	0.21	2.47	0.84	2.36	0.82	0.33
The taxation of scrip dividends as income rather than deferred capital gains has made cash dividends more attractive to shareholders	2.47	0.74	0.00*	2.52	0.73	2.43	0.76	0.37	2.50	0.74	2.43	0.76	0.48	2.54	0.70	2.33	0.78	0.03*
The introduction of the dividend withholding tax has made dividend payments less attractive to shareholders	2.47	0.78	0.00*	2.53	0.81	2.41	0.75	0.29	2.53	0.80	2.36	0.74	0.11	2.53	0.80	2.35	0.74	0.07
Investors in low tax brackets are attracted to high dividend shares	2.74	0.96	0.00*	2.87	0.91	2.61	1.00	0.03*	2.84	0.94	2.55	0.99	0.02*	2.89	0.91	2.45	1.00	0.00*
Investors in high tax brackets are attracted to low dividend shares	2.80	0.99	0.00*	2.90	0.95	2.69	1.02	0.09	2.90	0.98	2.60	0.99	0.02*	2.94	0.94	2.51	1.04	0.00*
The introduction of the new 12.5% rate of Corporation Tax will lead to higher dividend payouts	2.85	0.95	0.01*	2.93	0.90	2.77	0.98	0.17	2.85	0.94	2.85	0.97	0.97	2.80	0.91	2.96	1.01	0.19
The introduction of capital gains tax treatment for employee share options will lead to higher dividend pay-out ratios	3.25	0.83	0.00*	3.32	0.83	3.18	0.82	0.16	3.22	0.79	3.30	0.89	0.48	3.21	0.80	3.30	0.86	0.41
Management should determine the annual dividend based on their perception of the tax status of the shareholders	3.63	0.92	0.00*	3.78	0.72	3.49	1.06	0.01*	3.63	0.92	3.64	0.93	0.94	3.62	0.94	3.66	0.88	0.77

Note: The table shows the responses to nine statements concerning the effect of taxation on dividend decisions. A five-point Likert scale was used where 1= 'strongly agree', 2 = 'agree'; 3 = 'uncertain', 4 = 'disagree' and 5 = 'strongly disagree'. SD is the standard deviation and the p-value tests the null hypothesis that the mean response to a statement for two subgroups is equal using a two-tailed t-test. An * indicates that the p-value is significant at the 5 % level.

5.5 Conclusions

The findings reported in this chapter suggest that several conclusions can be drawn about contemporary Irish dividend policy.

First, taken as a whole, the survey responses were consistent with Lintner's (1956) early fieldwork. For example, three statements which achieved high levels of agreement suggested that firms should maintain an uninterrupted dividend, avoid making changes in dividend rates that might have to be reversed in a year or so and adopt a target payout ratio.

Second, most respondents appeared to agree with the suggestion that dividend policy affects share values. In particular, they agreed that dividend payments provide a signal of future earnings prospects. No significant differences were noted on this issue between quoted and unquoted companies; companies that pay dividends and those who do not; and, companies that recently changed their dividends. Accordingly, the survey appears to provide support for theoretical models which indicate how dividends may provide a signalling mechanism to outside investors. The findings of the survey therefore support the Irish results reported by Green et al. (1993) more than a decade ago but the level of concurrence appears less supportive of the signalling mechanisms to outside investors as the findings of Baker and Powell (1999) for US firms.

Third, respondents disagreed with the view that the market considered dividend announcements entirely independently of concurrent earnings announcements. No significant differences were noted on this issue between the various groupings. It is clear that respondents believe that the market does not consider dividend announcements separately from earnings news but instead views the two as joint signals. This observation confirms the empirical evidence reported in the academic literature for larger markets.

Fourth, there was strong support for the notion that a firm should be responsive to shareholders' preferences regarding dividends suggesting that respondents were sympathetic

to the view that clienteles of investors were attracted by particular dividend policies because of their need for a stable income stream (Keane, 1985). In addition respondents appear to accept that investors in high (low) tax brackets are attracted to low (high) dividend shares. Irish corporate managers therefore appear to consider the nature of their investor group when setting dividend policy. Support for the notion of a dividend clientele was also significantly stronger among firms that had not paid dividends or changed their dividend, suggesting that Irish corporate managers believe that they know the nature of their shareholder base and perceive that Irish investors discriminate between companies which pay dividends and those that do not in portfolio selection.

Finally, in contrast with the findings of Baker and Powell (1999), the respondents to this survey hold relatively strong views about the impact of tax on dividend decisions. For example, respondents agreed that recent changes in the taxation regime in the Irish Republic make dividend payments less attractive to shareholders. These findings may explain why such a high number of the sample firms do not pay dividends. An analysis of the responses for quoted and unquoted firms suggested that taxation issues were more of a concern for unquoted companies, an observation that is confirmed by the interview findings reported in Chapter 7.

The questionnaire used as a research instrument in this chapter has some obvious limitations. For example, while no non-response bias was detected for most categories of companies which took part in the survey, a significant difference based on whether or not a company paid dividends was detected; dividend paying firms tended to reply earlier. In addition, the number of prior questionnaire-based surveys of dividend policies against which to compare the results is limited. Also, there are a number of instances where the findings indicate apparent contradictions in the responses to the questions posed. For example, despite agreeing that dividends should be maintained, respondents also supported the arguably

contradictory view that the dividend should be allowed to fluctuate in accordance with current investment and financing needs. Chapter 7 of this thesis clarifies these inconsistencies.

Nonetheless, the results appear to represent a useful extension to prior investigations of why Irish companies select particular dividend policies. To the extent that the study disaggregates the results according to the listed status of the company and the historical pattern of respondents' dividend behaviour, the findings are novel. In addition, the large sample size and the seniority of those responding makes the views expressed worthy of consideration. Finally, the transformation of the Irish economy since early work was conducted in this area suggested that further research on this topic was necessary. The current findings therefore appear to represent an enhancement of knowledge about the perception of dividends in a modern, high-growth, European context.

The next chapter explores the signalling issue further using an event study methodology while Chapter 7 investigates and develops the issues considered in the survey via interviews with finance directors and analysts.

CHAPTER 6 : EVIDENCE ON THE IRISH STOCK MARKET'S REACTION TO DIVIDEND ANNOUNCEMENTS

6.1 Introduction

As was noted in Chapter 3, most research into dividend behaviour has focused on large developed markets such as in the US, the UK and Australia. These investigations have attempted to quantify how share prices respond to the publication of information about dividends in order to determine whether the news from the signal is favourable, unfavourable or non-existent; they also seek to examine whether firms' payout policies are influenced by the profile of their investor clientele. As was explained in Chapter 4 such studies encounter significant problems when the dividend news is not disclosed in isolation, but is published at the same time as other data such as earnings or capital expenditure plans. As will be explained in Section 6.4 disentangling the importance of the dividend component of the joint signal can be difficult (Kane et al., 1984; Lonie et al., 1996). Also, examining share price reactions may be difficult in smaller markets where equities are thinly traded; this issue will also be addressed in the current chapter.

This chapter investigates how shares quoted on the Dublin Stock Exchange respond to company announcements about dividend payments. It examines the traditional "information content of the dividend" hypothesis with modifications appropriate to the Irish context. Specifically, the chapter considers whether the predictions of the 'signalling' hypothesis appear to hold, or whether more recent findings suggesting that there is no information contained in dividend changes better characterise the Irish market. The question is of particular interest for a number of reasons.

Firstly, very little is known about how the Irish stock market responds to changes in the dividend policy of Irish firms; no large scale studies have been published on this topic. Second, the context of the exceptional GDP growth experienced in Ireland over the past 15 years offers a unique opportunity to examine whether dividend disbursements are viewed less favourably when companies are expanding at an exceptional rate. Third, by international

standards the Dublin Stock Exchange is small; most of the shares are thinly traded, and most quotes typically have large bid-offer spreads. However, as Chapter 2 explained, unlike smaller markets in developing countries, the Dublin Exchange is highly regulated and the rules for investor protection are similar to those that apply in the larger developed Western stock markets. By studying the relatively small Irish stock exchange, the role of market and firm size in explaining investors' response to dividend news can be investigated.

The remainder of the chapter is divided into five sections. Section 6.2 summarises the research approach and identifies the hypotheses to be tested. Section 6.3 describes the data while Section 6.4 presents the findings and compares the results with those reported in previous studies. Section 6.5 summarises the main conclusions and discusses their implications.

6.2 Research Approach and Hypotheses

Chapter 4 explained the research approach in detail and considered the methodological issues involved in an event study. This section of the chapter provides a brief summary of that approach and states the hypotheses to be tested.

This study employs a conventional event-study methodology by examining the stock market reaction to the firm-specific news event of a dividend announcement. The analysis requires the actual share return to be compared with the expected share return around the period of the dividend announcement date in order to determine whether or not any stock market reaction has occurred. As Chapter 4 explained the identification of a "unique" dividend information announcement effect is particularly difficult, because In Ireland dividends are rarely disclosed in isolation; their disclosure usually accompanies the announcement of company earnings. The study deals with the interaction of the dividend-earnings news problem by in the first instance examining the share returns of the groups of

companies that exhibited the different types of dividend-earnings combinations and secondly by using an Analysis of Variance (ANOVA) where the abnormal return on the announcement day is investigated in terms of company and signal characteristics. This examination will facilitate comment on whether or not corporate earnings figures provide information to market participants that appears to corroborate the message conveyed to the capital market by the dividend signal. Accordingly, in this part of the study, three hypotheses are tested as follows:[124]

H1: The announcements of changes in dividend levels are associated with abnormal share returns;

H2: The earnings announcement provides corroborative evidence to the dividend announcement; and,

H3: Simultaneous dividend and earnings announcements interact with one another, to produce a joint effect, which gives rise to abnormal share returns ("an interaction effect").

6.3 Data

As was explained in Chapter 4 daily share price data were obtained for all firms whose shares were quoted on the Irish Stock Exchange over the period from 1st January 1986 to 31st December 2001. This time span coincided with spells of recession, recovery and boom in the Irish economy and during the period there was a considerable influx of foreign direct investment into Ireland (see Chapter 2). Accordingly, the results should not be specific to any one stage in the business cycle, but reflective of all economic conditions.

Dividends and earnings data were obtained for companies whose shares were traded

[124] These hypotheses are stated in their alternative forms for ease of understanding.

on the Dublin Stock Exchange and announced their annual dividends during the period from January 1986 to December 2001. The focus of the study was on annual rather than interim dividend data since statistical analysis and questionnaire survey evidence from managers suggest that dividend policy tends to be determined on a yearly basis (Watts 1973; Healy and Palepu, 1988; De Angelo et al., 1992; Green et al., 1993; McCluskey et al., 2003). Dividend per share rather than total dividend is used in this study for two reasons. First, the former measure is adjusted for equity issues, stock dividends and stock splits.[125] Second, Edwards and Mayer's (1985) survey of British managerial attitudes to dividends reported that the convention in determining dividend policy is the maintenance of dividend per share not total dividends.

To be included in the analysis, firms had to have announced at least 8 annual dividend payments over this 15-year period.[126] Information on the amounts and the dates of the announcements of the dividend per share (DPS) and earnings per share (EPS) data were available from EXTEL cards, Datastream or Bloomberg. As was noted in Chapter 4, in all cases, the dates and amounts were cross-checked with the different sources and compared with reports in national newspapers to confirm that the correct information was being used. These criteria resulted in a sample of 50 Irish listed companies that made a total of 674 dividend announcements over the sample period. These 50 companies represent 71% of the total number of firms quoted on the Irish Stock Exchange in 1987 and 85% of the total in 2003; thus, dividend announcements for the vast majority of quoted firms were examined in this study.

Descriptive statistics for the sample firms over the period are shown in Table 6.1. The

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[125] Given the long period covered in the present investigation many such capitalisation changes will have taken place.

[126] The decision to include such a criterion was somewhat arbitrary. It was taken in order to avoid the sample being dominated by firms which might be initiating dividends for the first time. The decision also ensured that the market was conditioned to the sample firms making dividend announcements.

table provides background details about each of the 50 sample companies. N is the number of dividend announcements for each firm included in the analysis. The size measure is the market capitalisation of each firm in millions of euro at 31st December 2001. The final column of Table 6.1 displays the reporting date for the dividend and earnings news in 2001.

A visual inspection of Table 6.1 reveals that the sample companies were drawn from 16 different sectors and varied in size from a low of €6m (Norish) to a high of €40,773m (Diageo). A wide mix of sectors is included ranging from manufacturing to exploration, indicating that the findings should not be specific to any one industry. The table also shows that 24 of the 50 companies made 15 annual dividend payments announcements over the period while only 1 had the minimum of 8. Therefore, the study will not be concerned with dividend initiations (Healy and Palpeu, 1988), which might elicit a differential market reaction from the normal change in dividend payout. Finally, a review of the reported dates for dividend and earnings announcements in 2001, displayed in the final column of Table 6.1, shows that dividend and earnings announcements were diffusely spread over the entire of calendar 2001. The reported dates for dividend and earnings announcements in every year of the study were diffused in a similar manner. Accordingly, there is no evidence of clustering on either calendar times, industrial or size dimensions.

Table 6.1: Details of the Sample Companies

COMPANY	N	SECTOR	SIZE (€ M)	DATE
Abbey	15	Construction	130	19th July
AIB	15	Banking	11,590	20th February
Aminex	14	Exploration	34	2nd May
Anglo Irish Bank	15	Banking	1,306	28th November
Arcon	13	Exploration	23	28th March
Ardagh	15	Manufacturing	48	11th April
Arnotts	15	Retail	130	30th March
Bank of Ireland	15	Banking	11,632	10th May
Barlo Group	13	Manufacturing	149	24th May
Bula	14	Exploration	49	27th June
CRH	15	Construction	10,431	6th March
Diageo	15	Food & Drink	40,773	6th September
Dragon Oil	12	Exploration	210	15th March
Dunloe Ewart	13	Property	147	22nd March
Dwyer	12	Property	95	12th December
Elan	10	Medical/Health	22,776	6th February
FBD	11	Insurance	186	6th March
Fyffes	15	Food & Drink	338	21st March
Glanbia	12	Food & Drink	272	8th March
Golden Vale	10	Food & Drink	232	16th February
Grafton	15	Retail	594	9th March
Greencore Group	11	Food & Drink	509	30th November
Green Property	15	Property	821	28th February
Heiton Holdings	15	Construction	176	5th July
I.A. W.S	11	Food & Drink	928	19th September
IFG	14	Insurance	197	29th August
Independent News and Media	15	Media	1,327	28th March
Irish Continental Group	13	Storage/Transport	155	17th January
Irish Life & Permanent	8	Banking	4,088	7th March
IWP	13	Manufacturing	136	30th May
James Crean	13	Distribution	8	12th April
Jurys Doyle Hotels Group	15	Hotels	552	11th July
Kenmare Resources.	13	Exploration	57	11th April
Kerry Group	12	Food & Drink	2,283	14th March
Kingspan Group	11	Manufacturing	690	22nd March
Mc Inerney Holdings	15	Construction	76	21st March
Norish	15	Storage/Transport	6	1st March
Oglesby & Butler Group	12	Manufacturing	7	29th August
Premier Oil	15	Exploration	356	14th March
Readymix	15	Construction	150	8th March
Ryan Hotels	15	Hotels	61	25th April
Seafield	12	Storage/Transport	12	2nd March
Smurfit	15	Paper and Packaging	2,297	27th February
Tesco	15	Retail	28,741	10th April
Tullow Oil	12	Exploration	504	5th April
Ulster Television.	15	Media	235	8th March
Unidare	15	Manufacturing	31	28th November
United Drug	12	Medical/Health	364	4th December
Vislink	13	Telecommunications	23	29th March
Waterford Wedgwood	15	Manufacturing	797	6th March

Note: This table provides background details for the companies in the sample regarding industry sectors, size (as measured by market capitalisation at 31 December 2001) and the number of dividend announcements made by each company in the sample period. Date is the reporting date for the dividend and earnings news in 2001.

Table 6.2 summarises the daily raw share returns earned by the sample firms over the sample period.[127] Three main findings emerge from an analysis of the table. First, there was a wide variety in the performance of the different companies over the period. For example, the lowest average daily return was -0.1% (recorded by Dragon Oil) while Grafton performed best, earning investors a mean raw return of 0.1% per day. A majority of companies (33) earned positive returns, on average, while a minority (17) performed poorly over the period 1987-2001. This observation is not surprising since the time frame covered by the study includes one of the longest stock market booms in Irish history (see Chapter 2).

Second, these average share returns mask a considerable amount of volatility in the price changes; the standard deviation figures vary from a low of 1.04% per day (for Ulster TV) to a high of 12.03% (Bula). Surprisingly, there appears to be no strong relationship between risk (as measured by standard deviation) and returns for the sample firms. Indeed, the riskiest share performance of Bula was associated with a mean return of -0.03% per day. This picture of volatile share performance is confirmed by an analysis of the daily maxima and minima values. For several companies, the gap between these values is sizeable, indicating that a number of large one-day price changes exist. This is especially true for exploration companies' shares which have been prone to a great deal of turbulence with rumours of several oil discoveries subsequently turning out to be unfounded.

[127] These descriptive statistics are based on daily share return data from the period January 1987 to December 2001. For some 28 of the companies, a shorter time span was employed because data were not available.

Table 6.2 Raw Returns for the Sample Companies over the Period 1987- 2001

COMPANY	MEAN	SD	MAX	MIN	SKEW	KURT
Abbey	0.0002	0.0232	0.2429	-0.2336	-0.298*	24.521*
AIB	0.0006	0.0174	0.0922	-0.1562	-0.385*	6.484*
Aminex	-0.0006	0.0455	0.9904	-0.6931	2.838*	107.58*
Anglo Irish Bank	0.0006	0.0234	0.3279	-0.2066	1.011*	24.213*
Arcon	-0.0008	0.0478	0.5108	-0.4447	0.054	22.991*
Ardagh	0.0005	0.0254	0.2763	-0.3747	0.482*	29.170*
Arnotts	0.0004	0.0164	0.3356	-0.3338	0.123*	100.61*
Bank of Ireland	0.0007	0.0178	0.0931	-0.1335	-0.185*	4.409*
Barlo Group	-0.0004	0.0300	0.2744	-0.5411	-2.581*	49.224*
Bula	-0.0003	0.1203	0.6931	-0.6931	0.060	20.463*
CRH	0.0006	0.0172	0.1019	-0.1998	-0.726*	11.795*
Diageo	0.0004	0.0173	0.1540	-0.2065	0.024	11.339*
Dragon Oil	-0.0010	0.0477	0.5416	-0.6491	-0.071	43.167*
Dunloe Ewart	-0.0001	0.0445	0.9491	-1.2528	-2.424*	244.93*
Dwyer	-0.0001	0.0589	0.4137	-0.5596	-0.072	8.384*
Elan	0.0008	0.0273	0.3079	-0.2348	0.543*	18.641*
FBD	0.0004	0.0116	0.1137	-0.0916	0.591*	21.162*
Fyffes	0.0003	0.0226	0.1454	-0.2938	-0.242*	14.312*
Glanbia	-0.0001	0.0234	0.2697	-0.3725	-2.079*	45.651*
Golden Vale	0.0001	0.0172	0.2877	-0.2877	0.861*	125.27*
Grafton	0.0010	0.0233	0.3365	-0.2877	0.607*	50.89*
Greencore Group	0.0002	0.0125	0.0935	-0.1163	0.142*	183.92*
Green Property	0.0004	0.0233	0.4637	-0.2924	0.637*	678.74*
Heiton Holdings	0.0005	0.0251	0.2231	-0.2948	-1.058*	21.811*
I.A.W.S.	0.0007	0.0190	0.2183	-0.1861	0.115*	21.775*
IFG	0.0004	0.0356	0.6022	-0.6391	-1.371*	90.942*
Independent News and Media	0.0005	0.0201	0.1388	-0.3102	-2.059*	33.719*
Irish Continental Group	0.0007	0.0169	0.2636	-0.1427	1.280*	35.973*
Irish Life & Permanent	0.0009	0.0152	0.1903	-0.0782	1.622*	20.659*
IWP	0.0001	0.0236	0.2719	-0.2426	-0.177*	25.395*
James Crean	-0.0006	0.0283	0.2412	-0.2949	-1.038*	20.483*
Jurys Doyle Hotel Group	0.0005	0.0181	0.1401	-0.2196	-0.398*	14.952*
Kenmare Resources	-0.0004	0.0475	0.4818	-0.6931	0.246*	33.625*
Kerry Group	0.0008	0.0148	0.1088	-0.1216	0.141*	10.141*
Kingspan Group	0.0008	0.0201	0.2231	-0.2231	-0.193*	29.197*
Mc Inerney Holdings	-0.0006	0.0465	0.4700	-0.6931	-1.181*	39.592*
Norish	-0.0005	0.0272	0.4329	-0.4412	-2.528*	81.296*
Oglesby & Butler Group	-0.0003	0.0417	0.5878	-0.7129	-3.836*	126.13*
Premier Oil	0.0000	0.0279	0.2268	-0.1718	0.591*	7.479*
Readymix	0.0005	0.0271	0.2151	-0.3023	-0.968*	25.473*
Ryan Hotels	0.0002	0.0267	0.3716	-0.2647	0.588*	20.514*
Seafield	-0.0006	0.0279	0.4055	-0.2744	1.536*	32.266*
Smurfit	0.0004	0.0218	0.2394	-0.2858	-0.173*	18.688*
Tesco	0.0004	0.0175	0.1024	-0.1336	0.001	3.239*
Tullow Oil	0.0005	0.0305	0.1911	-0.3117	0.463*	10.102*
Ulster Television	0.0005	0.0104	0.0854	-0.1277	-0.929*	14.247*
Unidare	-0.0002	0.0227	0.1818	-0.3592	-2.832*	47.433*
United Drug	0.0007	0.0123	0.1145	-0.0899	0.931*	16.502*
Vislink	-0.0003	0.0335	0.4383	-0.3567	0.306*	37.397*
Waterford Wedgwood	-0.0001	0.0249	0.1927	-0.2955	-0.855*	16.159*

Note: This table summarises the daily raw share returns earned by the sample firms over the sample period. Mean refers to the average return; SD relates to the standard deviation of returns; Max and Min are the maximum and minimum returns respectively, while Skew and Kurt are skewness and kurtosis statistics. An * indicates significance at the 5% level.

Finally, Table 6.2 also reports the levels of skewness and kurtosis existing in the daily returns. The evidence shows that for a significant proportion of the sample, the daily returns are not normal. Instead, they are characterised by a non-symmetric distribution.[128] Some 25 of the sample firms' returns exhibited positive skewness while the other 25 firms' returns showed negative skewness. Of these, 23 were significant suggesting that for a substantial number of companies' shares, a tail of negative returns was achieved. The results for the kurtosis statistic are even more emphatic. The values are all significant and range from a low of 3.329 (Tesco) to a high of 244.93 (Dunloe Ewart) indicating that the distribution of returns is fat tailed.

The simple dividend forecast model (the naïve dividend expectations model) used by Aharony and Swary (1980) was applied in this study to classify companies according to the type of dividend change. The model predicts that there is no change in dividend from one period to the next. This prediction is consistent with the hypothesis developed by Lintner (1956) in the 1950s. As was discussed in Chapter 3, Lintner (1956) observed that managers are reluctant to change dividends in either direction unless they believe that the prospects of the firm have significantly improved or deteriorated. Laub (1972) found that firms change regular dividends in only 25% of sampled quarters. This relative infrequency of dividend change suggests that the simple model may capture expectations as an approximation to company behaviour.

[128] Given the evidence about non-normality in the returns data, both parametric and non-parametric statistical analysis was undertaken. The tables in Appendix 5 show median abnormal and excess returns. In all cases, the non-parametric statistical results were very similar to those reported in this chapter. In addition the Analysis of Variance tests reported in Table 5.9, were performed after careful inspection of the data and the removal of 3 outlier observations that caused non-normality.

The naïve dividend expectations model is expressed as follows:

$$E(D_{it}) = D_{it-1} \qquad [6.1]$$

where, $E(D_{it})$ is the expected dividend per share (DPS) for the i^{th} firm in the t^{th} period and D_{it-1} is the actual DPS announced by i^{th} firm in the previous period. In accordance with this model the unexpected dividends (UD_{it}) were computed as percentage changes in DPS from one period to the next. Therefore,

$$UD_{it} = [(D_{it})/ D_{it-1}]-1 \qquad [6.2]$$

where, UD_{it} is the unexpected dividend for the i^{th} firm in the t^{th} period, D_{it} is the actual dividend for the i^{th} firm in the t^{th} period, and the D_{it-1} is the actual dividend for the i^{th} firm in the previous period.

To test the "information content" hypothesis, the total sample of 674 observations was grouped into three main categories, separated according to the character of the change in DPS. Table 6.3 summarises the number of sample companies that announced positive, negative and no change to their dividend. An inspection of this table reveals that almost 64% of the dividend changes were positive with just over 8% of the changes negative. Again such findings should not be surprising as Chapter 2 highlighted the prolonged boom period experienced by the Irish economy. Clearly, Irish firms raised their dividends during this time of unprecedented economic growth. The findings are also consistent with the literature reviewed in Chapter 3 where the reluctance of managers to cut dividend payments was highlighted.

As Section 6.1 highlighted, the impact of any earnings announcement is also

investigated in the current chapter. For this purpose, earnings per share data, (EPS), were obtained from EXTEL cards, Datastream or Bloomberg for all 16 years of the study. The samples of dividend-increase, dividend-decrease and dividend-no change companies were then divided into two sub-groups: (a) those companies which reported higher earnings; and (b) those that reported lower earnings.[129] The unexpected earnings were calculated assuming that annual earnings follow a random walk.[130] The random walk model postulates that any change in earnings from one period to the next is unpredictable; therefore:

$$E(E_{it}) = E_{it-1} \qquad [6.3]$$

where $E(E_{it})$ is the expected earnings for the i^{th} firm in the t^{th} period and E_{it-1} is the actual earnings for the i^{th} firm in the previous period. Unexpected earnings were computed as the percentage changes in EPS from year to year in conformity with the assumptions of the random walk model. Therefore:

$$UE_{it} = [(E_{it})/ E_{t-1}]-1 \qquad [6.4]$$

Where UE_{it} is the unexpected earnings for the i^{th} firm in the t^{th} period, E_{it} is the actual earnings for the i^{th} firm in the t^{th} period and E_{it-1} is the actual earnings for the i^{th} firm in the previous period. The results of this process are shown in Table 6.3.

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[129]None of the firms in the sample reported identical earnings in any two consecutive years.

[130]This assumption was supported by early empirical investigations of annual earnings for UK and US companies (Little, 1962; Ball and Watts, 1972). More recent investigations have suggested that extreme earnings changes may exhibit mean reverting tendencies (e.g. Clayman, 1987). This thesis adopts the approach employed in most previous studies in this area and assumes that annual earnings follow a random walk process.

Table 6.3 Classification of the Sample based on Changes in Dividends and Earnings

Dividend change \ Earnings change	Positive	Negative	Total
Positive	325	103	428
Negative	23	33	56
Zero	95	95	190
Total	443	231	674

Note: This table analyses the final sample with respect to the sign of the dividend and the earnings surprises of the companies in the study and shows the number of sample companies which displayed either positive or negative earnings changes and positive, negative and no change to their dividend.

As expected, the majority of firms that increased their dividends reported higher EPS; only 103 announcements of an increase in DPS were made at the same time as a fall in EPS. Similarly, in the majority of instances (33 out of 56), firms that cut their dividend did so while announcing a fall in EPS. The 190 instances where firms did not change their DPS were split evenly between those reporting higher and lower EPS.

6.4 Empirical Findings

Table 6.4 details the abnormal and excess returns calculated for the sample firms over the 41-day event window. The analysis is for the whole sample of dividend changes and highlights the mean values, the standard deviation around the mean, and the p-value for the test of the null hypothesis that the average is equal to zero.

Table 6.4 Share Performance Around the Dividend Announcement Date

DAY	Abnormal Returns			Excess Returns		
	MEAN	SD	p-value	MEAN	SD	p-value
t-20	0.0011	0.0240	0.2220	0.0013	0.0243	0.1567
t-19	-0.0002	0.0241	0.8281	-0.0002	0.0244	0.7910
t-18	0.0001	0.0274	0.9494	0.0000	0.0276	0.9677
t-17	0.0002	0.0263	0.8097	0.0007	0.0267	0.4805
t-16	0.0008	0.0290	0.4978	0.0010	0.0284	0.3586
t-15	-0.0011	0.0250	0.2384	-0.0010	0.0253	0.3157
t-14	-0.0004	0.0340	0.7820	-0.0001	0.0341	0.9120
t-13	0.0021	0.0243	0.0280*	0.0020	0.0242	0.0291*
t-12	-0.0023	0.0281	0.0341*	-0.0022	0.0278	0.0397*
t-11	0.0006	0.0290	0.5855	0.0008	0.0289	0.4861
t-10	0.0011	0.0259	0.2782	0.0012	0.0264	0.2519
t-9	0.0012	0.0297	0.2962	0.0016	0.0297	0.1588
t-8	-0.0019	0.0234	0.0390*	-0.0018	0.0235	0.0448*
t-7	0.0005	0.0231	0.5976	0.0004	0.0227	0.6314
t-6	0.0003	0.0216	0.7575	0.0002	0.0222	0.8448
t-5	-0.0009	0.0331	0.4770	-0.0009	0.0336	0.4669
t-4	0.0013	0.0244	0.1707	0.0019	0.0243	0.0481*
t-3	0.0012	0.0266	0.2386	0.0014	0.0269	0.1728
t-2	0.0025	0.0276	0.0168*	0.0029	0.0275	0.0068*
t-1	0.0000	0.0421	0.9818	0.0004	0.0420	0.8245
t 0	0.0082	0.0622	0.0007*	0.0085	0.0624	0.0005*
t+1	0.0022	0.0499	0.2453	0.0025	0.0502	0.1920
t+2	0.0015	0.0417	0.3532	0.0017	0.0422	0.2900
t+3	0.0000	0.0460	0.9991	0.0002	0.0464	0.9105
t+4	-0.0004	0.0349	0.7898	-0.0001	0.0351	0.9322
t+5	0.0000	0.0378	0.9742	0.0002	0.0378	0.8958
t+6	-0.0018	0.0305	0.1232	-0.0017	0.0307	0.1498
t+7	-0.0002	0.0395	0.8773	0.0001	0.0398	0.9709
t+8	0.0005	0.0259	0.6325	0.0004	0.0262	0.7231
t+9	-0.0005	0.0229	0.5637	-0.0007	0.0233	0.4130
t+10	-0.0001	0.0273	0.9416	-0.0001	0.0275	0.9497
t+11	0.0018	0.0245	0.0518	0.0017	0.0251	0.0830
t+12	0.0000	0.0251	0.9703	0.0003	0.0252	0.7507
t+13	-0.0008	0.0216	0.3378	-0.0007	0.0221	0.3887
t+14	-0.0003	0.0286	0.7555	-0.0002	0.0292	0.8596
t+15	0.0002	0.0417	0.8954	0.0005	0.0415	0.7757
t+16	-0.0011	0.0240	0.2211	-0.0006	0.0244	0.5275
t+17	0.0021	0.0532	0.3120	0.0023	0.0536	0.2569
t+18	-0.0003	0.0234	0.7156	-0.0002	0.0236	0.8167
t+19	-0.0007	0.0346	0.5914	-0.0010	0.0349	0.4462
t+20	0.0005	0.0271	0.6493	0.0002	0.0273	0.8203

Note: This table highlights the abnormal and excess returns for the sample firms for 41 days around the dividend announcement date (Day t). SD refers to the standard deviation while p-value relates to a t-test of the null hypothesis that the mean is equal to zero. An* indicates significance at the 5% level.

The main finding that emerges from this table is that the dividend announcement date is associated with a positive share price reaction; the mean abnormal return on day t of 0.82% is highly significant, having by far the lowest p-value of any day over the 41 day period. The average announcement day excess return of 0.85% is also highly significant.[131] This result is in line with the findings of earlier empirical studies (e.g. Aharony and Swary, 1980; Woolridge and Ghosh, 1985; Asquith and Mullins, 1983; Benartzi et al., 1997) and suggests that although the Irish market is much smaller than its counterparts in the US and the UK, investors' response to the announcement of a dividend is similar in nature.

As regards the 20-day period prior to the dividend announcement there appears to be some evidence of news leaking to the market before the dividend announcement date. The market reaction as measured by the abnormal returns is positive on 14 of the 20 pre-announcement days, but is only significant for 2 of the 14 days (day t-13 and day t-2). The market reaction is negative on 6 of the 20 pre-announcement days, but is only significant on 2 of these (day t-12 and day t-8). A similar pattern emerges when pre-announcement excess returns are analysed. Again these excess returns are positive on 14 of the 20 pre-announcement days. In this instance however three values are significant (day t-13, day t-4 and day t-2). Of the 6 days when excess returns are negative significant values are recorded for day t-12 and day t-8.

A different picture emerges when post-announcement returns are analysed. For the 20-day period after the dividend announcement, the mean abnormal return is positive on 10 occasions and negative on 10 occasions, but never to a significant degree. This suggests that the Irish market responded quickly to the news contained in the dividend announcements, impounding that information into share prices rapidly and leaving no opportunity to earn above-average returns using the dividend information. This finding is consistent with earlier

[131] The excess return findings provide useful confirmation of the abnormal return evidence (see Chapter 4).

evidence that stock markets appear to be efficient in a semi-strong sense in terms of the reaction to dividend news (Pettit, 1972; Divecha and Morse, 1983; Lonie et al., 1996).[132]

6.4.1 Announcement Effects for Different Changes in Dividend Levels

The analysis in Table 6.4 is for the whole sample of dividend changes. Yet the information content (or signalling) hypothesis predicts that the market will respond differently depending upon the news contained in the dividend announcement. This section investigates the information content hypothesis for the dividend-increasing group of companies in the sample (DI), the dividend-decreasing group of companies in the sample (DD) and the dividend-no change group of companies in the sample (DNC).

The information content hypothesis predicts that the UR for shares in those sample companies that increase dividends will be positive, the UR for shares in those sample companies that decrease dividends will be negative and the UR for shares in those sample companies that do not change dividends will, on average, be zero.

Table 6.5 reports the stock market response for the dividend-increasing group of companies in the sample. If good news is being signalled to the stock market by a decision to increase the dividend then logically one might assume that in response to such a signal the market should react favourably resulting in an increase in the company's share price and higher returns to shareholders of these firms. The findings reported in Table 6.5 appear to support that position in an Irish context.

The table shows that the average abnormal return, in sample companies that increased

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[132] Medians, p-values and standardised Wilcoxon statistics are reported in Table 6.4 A in Appendix 6. An analysis of Table 6.4A suggests that the mean results shown in the chapter are not due to extreme observations. Specifically, the median abnormal and excess returns are positive and significant on day t-0. In addition, the median abnormal and excess returns are significant for a small number of days before the announcement.

their dividend, was positive (mean 0.87%) and highly significant (with a p-value of 0.000) on day t. This finding is supported by the results for excess returns in that the average excess return on day t was 0.92% (with a p-value of 0.000). On average, the shareholders of sample companies earned a positive excess return of almost 1% on the announcement day.

In the pre-announcement period the mean abnormal return was positive on 9 occasions, but never to a significant degree, and was negative on 11 occasions but significantly only on day t-8. Significant positive excess returns are reported on pre-announcement days t-2 (mean 0.29%) and t-1 (mean 0.28%). The corresponding p-values were 0.021 and 0.015 respectively indicating that the excess returns around the announcement date were highly significant. In the two days prior to the announcement shareholders in sample companies earned, on average, a positive excess return of 0.57%.

Turning to the post announcement period, shareholders in the sample companies earned a statistically significant positive abnormal return of 0.34% (p-value 0.021) on day t+1 (the day after the announcement). For the remaining 19 days following the dividend announcement, the mean abnormal return was positive on 8 occasions, and negative on 11 occasions, but never to a significant degree. This finding indicates that by day t+1 the Irish market had responded quickly to the news contained in the dividend increase announcements. These post announcement period findings are supported by the results for excess returns.

Table 6.5: Share Performance for Dividend Increasing Companies

Day	Abnormal Returns			Excess Returns		
	MEAN	SD	p-value	MEAN	SD	p-value
t-20	0.0005	0.0210	0.607	0.0011	0.0218	0.306
t-19	-0.0003	0.0222	0.807	0.0000	0.0229	0.994
t-18	-0.0001	0.0219	0.959	0.0002	0.0222	0.825
t-17	-0.0002	0.0269	0.901	0.0005	0.0275	0.730
t-16	0.0011	0.0183	0.221	0.0013	0.0186	0.157
t-15	-0.0004	0.0203	0.674	0.0002	0.0208	0.870
t-14	-0.0011	0.0193	0.240	-0.0006	0.0197	0.563
t-13	0.0015	0.0202	0.115	0.0018	0.0205	0.071
t-12	-0.0004	0.0193	0.673	0.0000	0.0196	0.990
t-11	0.0014	0.0241	0.223	0.0019	0.0242	0.099
t-10	-0.0004	0.0207	0.680	0.0003	0.0210	0.790
t-9	-0.0002	0.0247	0.897	0.0008	0.0253	0.528
t-8	-0.0023	0.0199	0.019*	-0.0019	0.0201	0.045*
t-7	-0.0006	0.0204	0.529	-0.0004	0.0200	0.655
t-6	-0.0003	0.0149	0.637	-0.0002	0.0160	0.771
t-5	0.0001	0.0222	0.937	0.0002	0.0234	0.853
t-4	0.0007	0.0178	0.444	0.0016	0.0182	0.066
t-3	0.0003	0.0265	0.843	0.0011	0.0272	0.424
t-2	0.0021	0.0251	0.085	0.0029	0.0255	0.021*
t-1	0.0021	0.0240	0.067	0.0028	0.0241	0.015*
t 0	0.0087	0.0350	0.000*	0.0092	0.0354	0.000*
t+1	0.0034	0.0301	0.021*	0.0039	0.0304	0.008*
t+2	-0.0002	0.0246	0.835	0.0002	0.0252	0.855
t+3	0.0005	0.0203	0.595	0.0009	0.0209	0.358
t+4	-0.0010	0.0292	0.498	-0.0005	0.0298	0.723
t+5	0.0004	0.0209	0.696	0.0006	0.0216	0.545
t+6	-0.0015	0.0199	0.117	-0.0011	0.0206	0.249
t+7	-0.0005	0.0231	0.683	0.0002	0.0240	0.893
t+8	-0.0008	0.0250	0.499	-0.0006	0.0257	0.604
t+9	-0.0004	0.0169	0.610	-0.0004	0.0175	0.624
t+10	0.0002	0.0194	0.868	0.0003	0.0200	0.743
t+11	0.0015	0.0228	0.181	0.0013	0.0239	0.270
t+12	-0.0001	0.0184	0.941	0.0002	0.0191	0.844
t+13	-0.0009	0.0193	0.327	-0.0006	0.0203	0.568
t+14	0.0009	0.0195	0.334	0.0015	0.0205	0.144
t+15	0.0021	0.0302	0.145	0.0028	0.0303	0.056
t+16	-0.0003	0.0207	0.750	0.0005	0.0212	0.631
t+17	0.0001	0.0226	0.953	0.0005	0.0230	0.645
t+18	-0.0004	0.0193	0.701	-0.0001	0.0199	0.944
t+19	0.0015	0.0178	0.092	0.0017	0.0179	0.047*
t+20	-0.0007	0.0225	0.512	-0.0006	0.0230	0.606

This table shows the abnormal and excess returns for the 41day period day t-20 to day t+20 for the 428 sample firms which increased their dividend. An * indicates significance at the 5% level.

These findings appear to be consistent with the evidence from larger stock markets (e.g. Pettit, 1972; Divecha and Morse, 1983; Lonie et al., 1996), and suggest that the Irish market is efficient in a semi-strong sense in its reaction to dividend news. However, the magnitude of the announcement-day abnormal return of the sample companies is significantly higher than the findings for previous studies of both US and UK data (Charest, 1978; Aharony et al., 1988; Marsh, 1993; Lonie et al., 1996). This observation may provide some supportive evidence for the suggestion that managers of Irish companies have greater opportunities to surprise the market as compared to their UK and US counterparts; it is possible that the flow of information in the Irish Stock Exchange is not as strong as that in larger markets, despite the fact that the Dublin Exchange is highly regulated and the rules for investor protection are similar to those that apply in the UK. One explanation for the greater level of surprise in the Irish reaction to dividend increases could be the relatively small number of analysts following Irish firms compared wit the US or the UK. However the lack of statistically significant post announcement returns suggests that the market interprets the news quickly and impounds the information into share prices rapidly, leaving little or no opportunities to earn above average returns after the dividend figure has been disclosed.[133]

The results for the dividend-decreasing companies are reported in Table 6.6. If bad news is being signalled to the stock market by a decision to cut the annual dividend, then logically one might assume that the stock market would react adversely, resulting in a fall in the company's share price and reducing the returns to the shareholders of those firms. The findings reported in Table 6.6 appear to partially support that assertion in the Irish context.

[133] Medians, p-values and standardised Wilcoxon statistics are reported in Table 6.5 A in Appendix 6.The results for these non-parametric statistics are similar to the mean findings and suggests that the market responds favourably when the dividend was increased on day t-0.

Table 6.6: Share Performances for Dividend Decreasing Companies

Day	Abnormal Returns			Excess Returns		
	MEAN	SD	p-value	MEAN	SD	p-value
t-20	0.0003	0.0246	0.925	-0.0007	0.0247	0.835
t-19	0.0064	0.0271	0.083	0.0039	0.0274	0.291
t-18	0.0008	0.0227	0.803	0.0001	0.0221	0.983
t-17	0.0025	0.0331	0.578	0.0011	0.0327	0.800
t-16	-0.0069	0.0312	0.104	-0.0077	0.0308	0.069
t-15	0.0008	0.0334	0.861	-0.0008	0.0344	0.866
t-14	0.0031	0.0310	0.460	0.0017	0.0298	0.679
t-13	0.0071	0.0338	0.125	0.0062	0.0330	0.164
t-12	-0.0051	0.0476	0.425	-0.0058	0.0471	0.357
t-11	-0.0029	0.0380	0.576	-0.0032	0.0381	0.532
t-10	-0.0002	0.0301	0.968	-0.0012	0.0325	0.791
t-9	-0.0003	0.0481	0.965	-0.0011	0.0481	0.866
t-8	0.0050	0.0265	0.167	0.0049	0.0266	0.175
t-7	0.0000	0.0141	0.988	-0.0011	0.0137	0.568
t-6	0.0024	0.0186	0.346	0.0023	0.0190	0.369
t-5	0.0019	0.0295	0.626	0.0023	0.0314	0.591
t-4	-0.0011	0.0238	0.731	-0.0013	0.0228	0.669
t-3	0.0039	0.0273	0.296	0.0023	0.0294	0.559
t-2	0.0071	0.0221	0.019*	0.0055	0.0214	0.061
t-1	-0.0036	0.0248	0.284	-0.0052	0.0265	0.152
t 0	-0.0064	0.0496	0.341	-0.0060	0.0506	0.381
t+1	-0.0001	0.0291	0.975	-0.0015	0.0300	0.712
t+2	0.0089	0.0454	0.148	0.0080	0.0462	0.201
t+3	0.0023	0.0465	0.710	0.0009	0.0473	0.890
t+4	-0.0038	0.0405	0.483	-0.0037	0.0391	0.487
t+5	-0.0066	0.0383	0.204	-0.0072	0.0388	0.172
t+6	0.0012	0.0312	0.769	-0.0002	0.0307	0.964
t+7	-0.0006	0.0255	0.852	-0.0019	0.0248	0.575
t+8	-0.0022	0.0235	0.483	-0.0034	0.0251	0.310
t+9	-0.0025	0.0415	0.658	-0.0034	0.0422	0.553
t+10	0.0019	0.0240	0.563	0.0010	0.0249	0.771
t+11	0.0002	0.0229	0.944	0.0002	0.0217	0.949
t+12	0.0062	0.0256	0.077	0.0068	0.0237	0.035*
t+13	-0.0022	0.0249	0.506	-0.0021	0.0247	0.524
t+14	-0.0038	0.0340	0.407	-0.0059	0.0329	0.189
t+15	-0.0028	0.0236	0.385	-0.0034	0.0240	0.286
t+16	-0.0025	0.0309	0.547	-0.0021	0.0320	0.631
t+17	0.0114	0.0414	0.044*	0.0101	0.0413	0.071
t+18	0.0004	0.0265	0.903	-0.0005	0.0279	0.903
t+19	-0.0107	0.0453	0.084	-0.0117	0.0452	0.057
t+20	0.0089	0.0327	0.047*	0.0078	0.0331	0.083

This table shows the abnormal and excess returns for the 41day period day t-20 to day t+20 for the 56 sample firms which decreased their dividend. An * indicate significance at the 5% level.

The results set out in Table 6.6 show that the abnormal return earned on day t by dividend-decreasing companies was a negative 0.64%. However, the corresponding p-value of 0.341 indicates that the abnormal return on the announcement date was not significant. In the 20-day period prior to the announcement event, the mean abnormal return was positive on 12 occasions and negative on 8 occasions, but only significantly so on day t-2. For the 20-days after the announcement event, the mean abnormal return was positive 9 times and negative 11 times, but was only statistically significant on day t+17 and day t+20. [134]

The results in Table 6.6 do not support the information hypothesis since no statistically significant stock market reaction is observed on the day when the dividend reduction is announced to the market. This finding may explain the overall results in Table 6.4 where the share price response to the total sample of dividend announcements was positive and statistically significant. Obviously, the positive abnormal and unexpected returns for the good news of the dividend increase are not dissipated by any adverse stock market reaction to dividend cuts since no such adverse stock market reaction is detected. A number of reasons might explain the absence of any response to dividend declines. For example, perhaps the market was conditioned into expecting the dividend cut by warnings from the firm or by news releases from competitors about difficult conditions within the industry. Alternatively the dividend cut is being used to conserve cash for major investment plans (Woolridge and Ghosh, 1985). The latter explanation is examined towards the end of the current chapter by studying the joint dividend-earnings signals emitted by firms in the sample.

Finally, the results of the dividend no-change category companies are reported in Table 6.7.

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[134] Medians, p-values and standardised Wilcoxon statistics are reported in Table 6.6 A in appendix 6.

Table 6.7: Share Performance for Dividend No Change Companies

Day	Abnormal Returns			Excess Returns		
	MEAN	SD	p-value	MEAN	SD	p-value
t-20	0.0027	0.0297	0.204	0.0025	0.0291	0.243
t-19	-0.0020	0.0270	0.307	-0.0020	0.0265	0.297
t-18	0.0001	0.0380	0.961	-0.0004	0.0381	0.885
t-17	0.0005	0.0226	0.761	0.0012	0.0227	0.464
t-16	0.0023	0.0439	0.476	0.0030	0.0423	0.337
t-15	-0.0033	0.0309	0.140	-0.0036	0.0307	0.106
t-14	0.0003	0.0547	0.944	0.0002	0.0547	0.951
t-13	0.0017	0.0289	0.406	0.0014	0.0286	0.512
t-12	-0.0057	0.0358	0.028*	-0.0061	0.0348	0.016*
t-11	-0.0002	0.0355	0.939	-0.0007	0.0350	0.793
t-10	0.0048	0.0337	0.050*	0.0039	0.0340	0.119
t-9	0.0047	0.0329	0.051	0.0043	0.0318	0.063
t-8	-0.0030	0.0289	0.156	-0.0035	0.0289	0.096
t-7	0.0031	0.0299	0.160	0.0028	0.0294	0.196
t-6	0.0010	0.0325	0.679	0.0004	0.0326	0.860
t-5	-0.0040	0.0503	0.277	-0.0045	0.0498	0.216
t-4	0.0034	0.0350	0.182	0.0033	0.0347	0.189
t-3	0.0026	0.0267	0.184	0.0020	0.0256	0.291
t-2	0.0022	0.0337	0.367	0.0022	0.0329	0.368
t-1	-0.0039	0.0693	0.444	-0.0036	0.0688	0.470
t 0	0.0026	0.0557	0.520	0.0024	0.0554	0.556
T+1	0.0004	0.0810	0.951	0.0006	0.0813	0.917
T+2	0.0032	0.0648	0.493	0.0033	0.0654	0.494
T+3	-0.0019	0.0772	0.741	-0.0016	0.0777	0.771
T+4	0.0020	0.0439	0.529	0.0018	0.0437	0.566
T+5	0.0012	0.0604	0.782	0.0014	0.0599	0.753
T+6	-0.0034	0.0461	0.313	-0.0034	0.0460	0.310
T+7	0.0004	0.0645	0.935	0.0004	0.0646	0.932
T+8	0.0042	0.0281	0.041*	0.0037	0.0274	0.062
T+9	-0.0001	0.0270	0.941	-0.0007	0.0267	0.726
T+10	-0.0012	0.0403	0.689	-0.0012	0.0402	0.672
T+11	0.0031	0.0284	0.130	0.0030	0.0284	0.145
T+12	-0.0015	0.0358	0.552	-0.0013	0.0355	0.605
T+13	-0.0001	0.0254	0.948	-0.0007	0.0251	0.693
T+14	-0.0021	0.0412	0.474	-0.0022	0.0419	0.460
T+15	-0.0032	0.0628	0.479	-0.0037	0.0622	0.416
T+16	-0.0026	0.0284	0.215	-0.0026	0.0281	0.203
T+17	0.0038	0.0916	0.564	0.0042	0.0922	0.534
T+18	-0.0005	0.0299	0.824	-0.0005	0.0293	0.828
T+19	-0.0027	0.0539	0.494	-0.0041	0.0545	0.305
T+20	0.0007	0.0338	0.783	-0.0002	0.0335	0.947

Note: This table shows the abnormal and excess returns for the 41 days period day t-20 to day t+20 for the 190 sample firms which did not change their dividend from one period to the next. An * indicates significance at the 5% level.

If no news is being signalled to the stock market by a decision not to change the annual dividend, then, logically one might conclude that no abnormal share price movements are expected. Again, the results reported in Table 6.7 appear to support that assertion in the Irish context. Table 6.7 shows that over the 20-day period prior to the dividend announcement event, the mean abnormal return was positive on 12 occasions, but only to a significant degree on day t-10 (p-value = 0.050). The mean returns were negative on 8 occasions, but only to a significant extent on day t-12 (p-value = 0.016). For the 20-day period after the announcement, the mean abnormal return was positive on 8 occasions, but only to a significant degree on day t+8 (p-value = 0.041). The mean abnormal returns were negative on 12 occasions, but none of these abnormal returns were significant at the 5% level. The abnormal return on the dividend announcement day was positive but not significantly different from zero. The positive but statistically insignificant abnormal return on day t supports the hypothesis that unchanged dividends are only associated with normal share returns.[135]

In summary, for firms that increased their dividends (the DI) group, the average market response is positive and significant in each of the two days around the announcement date: day t and day t+1. The Irish market does appear to react negatively to the news of dividend decreases (the DD) group but not to any statistically significant extent. When the results for the dividend no-change (the DNC) group are analysed, companies were found to have earned positive abnormal returns of 0.26% on the announcement day, but this average performance was not statistically significant at the 5% level. Finally, each of the Tables 6.5, 6.6 and 6.7 show a remarkable consistency between the abnormal and excess return results; both the coefficient estimates and p-values are quantitatively similar. Such consistency is useful in the context of attempts to characterise the market reaction to corporate

[135] Medians, p-values and standardised Wilcoxon statistics are reported in Table 6.7 A in appendix 6.

announcements in markets where thin trading is likely to be prevalent, as abnormal returns are prone to systematic bias in such situations (Faff et al., 2000).

The information content (or signalling) hypothesis also predicts that the market will respond differently depending upon the news contained in the earnings announcement. Specifically, the hypothesis predicts that the unexpected returns for shares in sample companies that increase both dividends and earnings will be positive and the unexpected returns for shares in sample companies that cut both dividends and earnings will be negative. The unexpected returns for shares in sample companies where dividend and earnings move in opposite directions or which do not change their dividend will be uncertain. As earnings are announced at the same time as dividends in Ireland the next section of the Chapter examines the market response to joint dividend and earnings news. Section 6.4.2 therefore investigates whether the stock market reaction to the dividend announcement for the three dividend groups differed according to the character of the concurrent earnings news (Hypothesis 2 on p.158).

6.4.2 The Announcement of Changes in Dividend and Earnings

This section of the chapter attempts to identify whether share returns are impacted by the confounding event of earnings announcements over and above that associated with the dividend news. The null hypothesis (from page 158) is that there is no interaction effect between dividend and earnings news; i.e. the extent of any corroboration or conflict in the signals does not convey any information to the stock market. As was explained in Chapter 4, because all of the companies in the sample announced both items of news on the same day, it was impossible to isolate the dividend announcement from the earnings publication. Therefore, the impact of earnings announcements is examined by sub-dividing the samples of

dividend-increase, dividend-decrease and dividend-no-change companies into two further categories - (a) companies which announced an earnings increase; and (b) companies which disclosed an earnings decrease; a similar approach was adopted in Lonie et al. (1996). This provided the following six groupings:

1. The companies in the sample which increased dividend and earnings (DIEI),

2. The companies in the sample which increased dividends when earnings fell (DIED),

3. The companies in the sample which cut their dividends when earnings increased (DDEI),

4. The companies in the sample where dividends and earnings both fell (DDED),

5. The companies in the sample which did not change their dividends despite reporting an earnings increase (DNCEI), and

6. The companies in the sample, which maintained their dividend, despite a drop in reported earnings (DNCED).

The two categories which are worth focusing on are Group 2 and Group 3 – the DIED and the DDEI firms- where the dividend and earnings signals conflict. An analysis of the share price response to disclosures by these groups may indicate whether the dividend or the earnings figure appears to be more important to investors. The other two categories that

might supply useful insights are those where the dividend and earnings signals reinforce one another – Group 1 and Group 4. Specifically, the analysis of the abnormal and excess returns for these groups will address the second hypothesis on page 158 by seeing if stronger market reactions are present when the two signals corroborate one another.

The grouping procedure employed in this thesis facilitates a testing with Irish data of Woolridge and Ghosh's (1985) hypothesis that a dividend decrease (increase), when combined with an earnings increase (decrease), can convey good news to the market, in contrast to the prediction of the information content hypothesis. It should also enable the results of this thesis to be compared with the findings of Lonie et al. (1996) for the UK, Kane et al. (1984) for the US and Easton (1991) for Australia. All three previous studies adopted a similar approach when testing Woolridge and Ghosh's (1985) hypothesis.

The results for each of the six groups of sample companies: - DIEl, DIED, DDEI, DDED, DNCEI and DNCED for the five day period day t-2 to day t+2 are shown in Table 6.8 and are identified in the table as follows: Panel A, DIEI sample companies; Panel B, DIED sample companies; Panel C, DDEI sample companies; Panel D, DDED sample companies; Panel E, DNCEI sample companies, and, Panel F, DNCED sample companies.[136]

[136] Details of the results for each of the 41 days of the event window are shown in Appendix 6 (e.g. Table 6.8.1A for Panel A; Table 6.8.1B for Panel B, etc.). Appendix 5 also reports medians, standardised Wilcoxon and p-values for each Panel (e.g. Table 6.8.2A for Panel A; Table 6.8.2B for Panel B, etc.)

Table 6.8 Share performance for different dividend earnings sub-groups

Panel	Group	Abnormal Returns			Excess Returns		
		Mean	SD	p-value	Mean	SD	p-value
A	**DIEI (N=325)**						
	Day t-2	0.0019	0.0239	0.1513	0.0028	0.0244	0.0411*
	Day t-1	0.0033	0.0245	0.0171*	0.0042	0.0247	0.0026*
	Day t	0.0099	0.0378	0.0000*	0.0107	0.0382	0.0000*
	Day t+1	0.0042	0.0256	0.0031*	0.0049	0.0263	0.0008*
	Day t+2	-0.0007	0.0245	0.5841	-0.0001	0.0250	0.9699
	Days t-2 to t+2	0.0186	0.0573	0.0000*	0.0225	0.0579	0.0000*
B	**DIED (N=103)**						
	Day t-2	0.0027	0.0287	0.3443	0.0031	0.0290	0.2773
	Day t-1	-0.0015	0.0218	0.4956	-0.0013	0.0214	0.5325
	Day t	0.0048	0.0240	0.0438*	0.0047	0.0242	0.0514
	Day t+1	0.0007	0.0412	0.8634	0.0006	0.0407	0.8791
	Day t+2	0.0013	0.0253	0.5988	0.0011	0.0257	0.6678
	Days t-2 to t+2	0.0080	0.0606	0.1810	0.0082	0.0599	0.1673
C	**DDEI (N=23)**						
	Day t-2	0.0080	0.0283	0.1873	0.0080	0.0270	0.1703
	Day t-1	0.0004	0.0221	0.9319	0.0015	0.0212	0.7341
	Day t	0.0070	0.0410	0.4205	0.0091	0.0437	0.3270
	Day t+1	-0.0021	0.0248	0.6921	-0.0020	0.0254	0.7135
	Day t+2	0.0143	0.0432	0.1266	0.0130	0.0420	0.1527
	Days t-2 to t+2	0.0277	0.0745	0.0888	0.0296	0.0708	0.0570
D	**DDED (N=33)**						
	Day t-2	0.0065	0.0170	0.0348*	0.0037	0.0166	0.2089
	Day t-1	-0.0064	0.0265	0.1775	-0.0098	0.0291	0.0615
	Day t	-0.0157	0.0535	0.1012	-0.0165	0.0530	0.0833
	Day t+1	0.0012	0.0321	0.8264	-0.0012	0.0332	0.8429
	Day t+2	0.0052	0.0473	0.5344	0.0045	0.0493	0.6007
	Days t-2 to t+2	-0.0092	0.0716	0.4675	-0.0192	0.0717	0.1337
E	**DNCEI (N=95)**						
	Day t-2	0.0076	0.0379	0.0528	0.0078	0.0374	0.0451*
	Day t-1	-0.0028	0.0576	0.6377	-0.0024	0.0574	0.6796
	Day t	0.0145	0.0486	0.0047*	0.0147	0.0478	0.0036*
	Day t+1	-0.0017	0.0822	0.8445	-0.0014	0.0826	0.8654
	Day t+2	-0.0025	0.0426	0.5682	-0.0023	0.0430	0.6073
	Days t-2 to t+2	0.0090	0.0882	0.3240	0.0102	0.0829	0.2338
F	**DNCED (N=95)**						
	Day t-2	-0.0032	0.0282	0.2701	-0.0035	0.0268	0.2087
	Day t-1	-0.0049	0.0795	0.5477	-0.0048	0.0789	0.5550
	Day t	-0.0093	0.0599	0.1360	-0.0100	0.0598	0.1087
	Day t+1	0.0024	0.0802	0.7732	0.0027	0.0804	0.7463
	Day t+2	0.0090	0.0809	0.2831	0.0088	0.0819	0.2986
	Days t-2 to t+2	0.0015	0.0870	0.8644	0.0006	0.0870	0.9467

Note: This table shows the abnormal and excess returns for the five-day period day t-2 to day t+2 for the sample firms split into six sub-groups depending on the change in dividend and the change in earnings: Panel A = those firms which increased dividend and earnings (DIEI), Panel B = those which increased dividends when earnings fell (DIED), Panel C = those which cut their dividends when earnings increased (DD-EI), Panel D = those where dividends and earnings fell (DDED), Panel E = those which did not change their dividends despite reporting increased earnings (DNCEI), and Panel F = those which maintained their dividend despite a drop in reported earnings (DNCED). An * indicates significance at 5%.

A number of findings emerge from the table. First, there is marked variability in the stock market reaction across the various dividend-earnings groups. This is especially true when both dividend per share and earnings per share move in the same direction. For example, the mean abnormal return on day t for companies which published increases in both dividend per share and earnings per share (Panel A, the DIEI group in Table 6.8) is positive (0.99%) and highly significant (p-value = 0.0000) while for companies which announced cuts in both variables (Panel D, the DDED group), the market response, although not significant, is negative at -1.57%. When the abnormal return of the dividend-increase sample was examined in Section 6.4.1, it was found that the abnormal return earned by those companies was highly significant and equal to 0.87% on day t. The results for the "good news" category of companies in Panel A (the DI-EI sample) show that that sample group earned a positive 1.86% abnormal return during the five days surrounding the dividend announcement period for their shareholders. These results show that, in the Irish context, when both signals are in agreement with one another and when the dividend evidence is corroborated by earnings news, the stock market reacts more positively than for the dividend-increase sample as a whole. The results for the "bad news" category of companies in Panel D (the DDED sample) show that that sample group earned a negative 0.92% abnormal return during the five days surrounding the dividend announcement period for their shareholders. However, this abnormal return was not statistically different from zero (p-value = 0.4675). The stock market therefore seemed to mark down the prices of the shares of these companies but not to any statistically significant extent. This finding is weaker than the results detected by Ghosh and Woolridge (1988) in their analysis of dividend cutting and dividend omitting firms. The DDED results reported in this chapter for Irish companies are also slightly different from the findings of Lonie et al. (1996). Specifically, Lonie et al. (1996) reported that their sample of UK companies which disclosed reductions in both dividends and earnings earned a negative

abnormal return of –2.92% for the two days at the time of the announcement (Day t-1 and Day t) which was significant at the 5% level (t = 2.42).

Therefore, as hypothesised, the DIEI sample realised a statistically significant positive abnormal return during the pre-announcement period while the DDED sample generated a large negative (but not significant) abnormal return during the same time frame. For the dividend-earnings increase group, the abnormal returns over the pre-announcement period are fully consistent with the subsequently announced dividend change and the resultant stock market reaction. For the dividend-earnings decrease category, the evidence is not as strong.

Second, for those firms which emitted mixed signals (Panel B, the DIED group and Panel C, the DDEI group), the average market response is positive on the announcement day; for DIED firms, the mean abnormal return is a statistically significant 0.48% (p-value = 0.0438) while for DDEI companies the mean abnormal return is larger but statistically insignificant 0.70% (p-value = 0.4205). Surprisingly, the market does not appear to have reacted negatively to the fact that the dividend and earnings changes are moving in the opposite direction. When the two signals conflict, there is some evidence from the announcement day results that the market appears to have difficulty in making up its mind. For example, the mean abnormal return on day t for DIED firms is significant at the 5% level, but this is not the case for DDEI companies. These results may indicate that, when companies communicate seemingly divergent signals, the stock market tends to be sceptical about the news that it has received because of the difficulty of interpreting such mixed signals. However, the fact that the standard deviation on the announcement day for the DIED group is lower than the standard deviation of the DIEI group may indicate that the share-return volatility of these securities is lower at the announcement date when mixed signals are emitted.

When the findings for the whole five-day period in Table 6.8 are studied the earnings-

increase category of the dividend-decrease sample companies (Panel C, DDEI) has recorded a statistically insignificant positive 2.77% abnormal return Day t-2 to Day t+2 compared with a negative return of 0.92% for the DD-ED in the same five day period.[137] These findings may indicate that the market is focused on the earnings number when a dividend cut occurs. However, this result may be attributable to the small size of the sample.

In summary, for those firms which emitted mixed signals (the DIED and DDEI groups), there is some evidence that the market appears to focus on the dividend change in that the mean abnormal return on day t for DIED firms was significant at the 5% level, whereas this was not the case for DDEI companies. The evidence about which signal dominates is not conclusive however, and so the issue is re-examined in Section 6.4.3 using analysis of variance tests.

Finally, the results for the two earnings categories in the dividend no-change sample are also analysed. According to Table 6.8 the earnings-increase group of the dividend no-change companies (Panel E, DNCEI) earned, on average, a significant positive abnormal return of 1.45% on the day the dividend was announced, the highest abnormal return within the 41 day event window and the highest return achieved among all the categories of company examined. One rationale for the DNC findings is that investors may believe that managers were behaving according to Lintner's predictions; that is, the companies with growth in earnings that do not raise dividend levels are waiting to see whether the trend in earnings will persist before increasing the dividend in the future.[138]

The final category of sample companies (Panel F, DNCED), which announced an unchanged dividend while recording a fall in their earnings, earned a statistically insignificant

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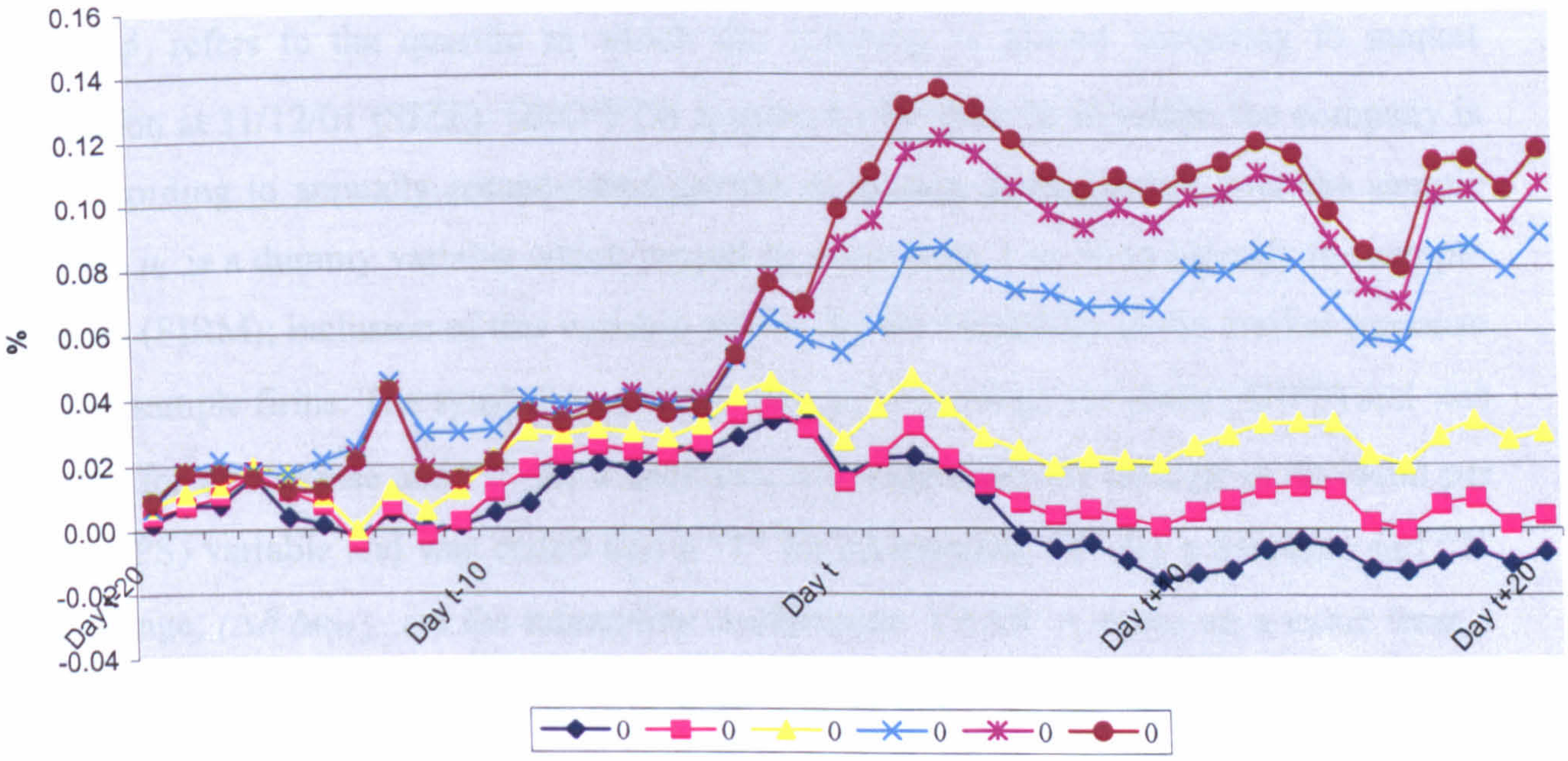
[137] From Table 6.6 the dividend-decrease sample as a whole was positive 0.59% for in the same five-day period (i.e. t-2; 0.0071 + t-1; -0.0036 + t-0; -0.0064 + t+1; -0.0001 + t+2; 0.0089).

[138] The study by Green and McIlkenny (1991) supports this contention in that the model where dividends adjusted to changes in long-run expected earnings had a higher explanatory power. See also Divecha and Morse (1983).

negative abnormal return during the five-day dividend announcement period. The abnormal return for day t was -0.93% (p-value 0.500). The finding of an insignificant abnormal return may be explained by the fact that, in spite of a fall in earnings, management's belief that profits have not yet diverged significantly from their long-term growth path persuades them to maintain the dividend payout level. On the other hand, the market may have anticipated this reduction in profits and have already impounded this adverse expectation into share prices. However, given the general findings reported in this chapter, and the survey evidence reported in Chapter 5, of current earnings appearing to be the dominant market signal, this result is rather surprising.

In summary, for those sample companies that did not disclose any change in their annual dividend (Panel E, the DNCEI group, and Panel F, the DNCED group), the market seems to base its response on the earnings news. These findings are consistent with those reported for UK data by Lonie et al. (1996) who reported that the most favourable reaction of all was for the DNCEI group, whereas minimal price movements occurred for the DNCED group. Finally, Table 6.8 highlights a remarkable consistency between the abnormal and excess return results; both the coefficient estimates and p-values are quantitatively similar.

The cumulative abnormal returns for each of the dividend–earnings categories of companies (DIEl, DDEI, DNCEI, DIED, DDED, DNCED) are shown in Figure 6.1. Two points emerge from a visual inspection of this graph. First, over the period from t-20 to t+20 the three earnings-increase groups (DIEl, DDEI, DNCEI) have outperformed the three earnings-decrease groups (DIED, DDED, DNCED) when performance is measured by positive abnormal returns. By contrast, the DDED group yields a negative CAR in the post-announcement test period. Second, abnormal returns for all the categories were associated with the actual dividend and earnings announcements and in each case the results are consistent with the messages conveyed by the companies if the signalling hypothesis is valid.



Note: This figure provides graphical evidence of Cumulative Abnormal Returns for the 41-day period around the dividend announcements for each of the dividend–earnings categories of companies (DIEl, DDEI, DNCEI, DIED, DDED, DNCED)

6.4.3 Analysis of Variance

The overall impression created by the results shown in Table 6.8 is that dividends do act as a signal, but the effect is linked to the market's interpretation of concurrent earnings information. However, the findings do not permit a robust conclusion to be drawn about which of the two components of the joint signal dominates. In order to investigate this question, an Analysis of Variance (ANOVA) was performed where the abnormal return on day t was explained in terms of company and signal characteristics. Specifically, the following model was investigated:

$$AR_{i,t} = \alpha + \sigma_i + \phi_i + \lambda_i + \mu_t + \Delta\delta_{i,t} + \Delta\varepsilon_{i,t} + (\Delta\delta\Delta\varepsilon)_{i,t} + \gamma_t + \xi_{i,t} \quad [6.5]$$

Where α is a constant term, σ_i is a dummy variable identifying the sector for company i (SECTOR), and takes on one of 11 values depending upon the industry in which the firm operates, ϕ_i refers to the quartile in which the company is placed according to market capitalisation at 31/12/01 (SIZE). GROWTH λ_i refers to the quartile in which the company is placed according to annually compounded growth in market capitalisation over the sample period and μ_i is a dummy variable which ranged in value from 1 to 50 to identify the sample companies (FIRM); inclusion of this variable allows for the variability in the market response across the sample firms. The symbol $\Delta\varepsilon_{i,t}$ is the change in earnings per share (ΔEPS) and was coded "1" for an increase and "2" for a decrease, $\Delta\delta_{i,t}$ represents the change in dividend per share (ΔDPS) variable and was coded into a "1" for an increase, "2" for a decrease and "3" for no change, $(\Delta\delta\,\Delta\varepsilon)_{i,,t}$ are the interaction coefficients. YEAR γ_t takes on a value from 1 for 1987 to 15 for 2001and $\xi_{i,t}$ is the error term. The results from this ANOVA are shown in Table 6. 9.

Table 6.9: ANOVA for Abnormal Returns on the Dividend Announcement Day

Source	DF	Sum of Squares	F-ratio	p-value
SECTOR	10	0.0278	1.481	0.191
SIZE	3	0.0073	1.289	0.294
GROWTH	3	0.0056	0.998	0.406
BETWEEN COMPANY ERROR	33	0.0620		
FIRM	49	0.1028		
ΔEPS	1	0.0299	16.509	0.000
ΔDPS	2	0.0081	2.245	0.107
ΔEPS*ΔDPS INTERACTION	2	0.0171	4.725	0.009
YEAR	14	0.0110	0.434	0.964
ERROR	602	1.0890		
TOTAL	671	1.275		
R-squared		0.1309		

Note: This table shows the results for an ANOVA performed on the abnormal returns of the sample on the dividend announcement day (Day t). SEC relates to the industry in which the company operates, SIZE refers to the size quartile in which the company is placed based on market capitalisation at 31 December 2001, GROWTH is the quartile in which the company was placed according to annually compounded growth in market capitalisation and FIRM refers to the company making the dividend announcement. Changes in dividends were coded according to whether the variation was an increase, a decrease or no change while changes in earnings were coded according to whether the variation was an increase or decrease. Finally, YEAR relates to the year in which the dividend announcement took place. DF is the degrees of freedom.

The findings from the table indicate that these different variables can explain 13.1% of the variation from the mean abnormal returns on day t. A more detailed examination of the explanatory variables reveals that within company factors such as; sector (F-ratio = 1.481, p-value = 0.191), size (F-ratio = 1.289, p-value 0.294), and, growth (F-ratio = 1.289, p-value 0.294), have very little explanatory power. The only significant variables in the ANOVA model, with p-values well below the critical value for significance at the 5% level are earnings (F-ratio = 16.509, p-value = 0.000) and the interaction between dividend/earnings (F-ratio = 4.725, p-value = 0.009). When these results are considered in conjunction with the finding evidenced in the other tables it appears that in the Irish stock market the earnings signal dominates, but that the dividend signal has some incremental explanatory power via its interaction with the earnings signal. The findings of this investigation for Irish companies therefore has more in common with the UK results of Lonie et al. (1996) than the US and Australian evidence of Kane et al. (1984) and Easton (1991). The former study highlighted that the earnings signal dominated its dividend counterpart, while the latter two investigations reached the opposite conclusion. Given the greater similarity in business environment and the overlap in the sample time period, the closeness of these Irish results with the UK findings is perhaps not surprising, although the Irish market is very different to the markets studied previously, in terms of its small size and in the context of the exceptional GDP growth experienced in Ireland over the period studied.

6.5 Conclusions

This chapter examined the stock market reaction to dividend signals for a sample of 50 Irish companies over a 15-year time span. Despite the fact that the hypothesis has been tested by extensive empirical work in the USA, UK and Australia very few similar studies

have been conducted on Irish firms.

The chapter set out to test three hypotheses. The results of tests of the first hypothesis, that the announcements of changes in dividend levels are associated with abnormal share returns, confirm that in general, abnormal returns on the announcement date for the dividend change sample were of the order of magnitude predicted by the dividend-signalling literature and the results indicate that there is a statistically significant market reaction on the dividend announcement day.

The results of tests of the second hypothesis, that the earnings announcement supplies corroborative evidence for the dividend announcement, show that the abnormal returns on the announcement date for different dividend-earnings combinations of companies (DIEl, DIED, DDEI, DDED, DNCEI and DNCED) were of the order of magnitude predicted by the dividend-signalling literature; the good-news companies in the DIEl group earned large positive abnormal returns, while the bad-news companies in the DDED group had the largest negative abnormal returns of all the groups considered; the abnormal returns of the other main categories were ranked in the expected order.

The results of tests of the third hypothesis, that simultaneous dividend and earnings announcements interact with one another to produce a joint effect which can be measured by abnormal share returns ("an interaction effect"), show that when account is taken of the fact the both dividends and earnings are disclosed to the public at the same time it appears that the earnings component tends to dominate, with the role of dividends limited to its interaction with the earnings news.

These findings were found to be robust to the choice of metric used to establish benchmark returns; in particular, employment of excess returns (generated on the assumption that the expected return for all firms is equal to the market return, and hence often used in studies of smaller markets, where thin trading can lead to biased results), yielded evidence

that was entirely consistent with that obtained using abnormal returns. The results indicated that, characteristically, dividend and earnings signals jointly influenced the level of abnormal return earned by the companies in the sample and that the dominant number is earnings. These results confirm the findings of the US study of the interaction effect by Kane et al. (1984), the UK study by Lonie et al. (1996) and the Australian study by Easton (1991) respectively.

Finally, the results of this study are consistent with the semi-strong form of the efficient markets hypothesis; on average all the major share price movements occurred on the announcement day of changes in dividends and earnings. On the other hand, the standard deviation is greater, relatively speaking, around the event period day t-1, t and t+1, revealing greater volatility in share returns and supplying further support for the EMH.

The results are also consistent with the survey questionnaire evidence on signalling reported in Chapter 5 that the market did not consider the dividend announcement separately from earnings news. These similarities occur despite a number of obvious idiosyncrasies in the research setting, most notably the extraordinary performance of the Irish economy and the small size of the Dublin Stock Exchange, relative to other markets in which the role of dividend announcements has been examined. The evidence suggests, therefore, that the joint signalling effect of dividends and earnings in developed stock markets is not restricted to the largest, most liquid exchanges nor is dependent on the existence of 'typical' macro-economic conditions.

It appears that the market interpretation of the dividend signal, especially when investors are simultaneously confronted by an unexpected and possibly conflicting earnings announcement, is a rather more complex process than that implied by many studies in the dividend-signalling literature. Chapter 7 explores this complexity further by conducting interviews with financial directors of firms and financial analysts. The interviews seek to

examine financial directors' perceptions about the relationship between dividend policy and firm value. In particular Chapter 7 considers whether the conclusions reported in Chapter 5 and in this chapter, that dividends in isolation may not provide a robust signalling mechanism to Irish investors, are confirmed.

CHAPTER 7: THE VIEWS OF IRISH FINANCIAL DIRECTORS AND FINANCIAL ANALYSTS ON DIVIDENDS

7.1 Introduction

This chapter reports the results of the third research method used in this study. The chapter records the findings of interviews conducted with financial directors involved in dividend decisions for their firms and the findings of interviews with financial analysts from leading Dublin stockbroker firms on whether dividends influence share prices. The research approach in this chapter complements the questionnaire and event study results presented in Chapters 5 and 6.

The findings of the survey questionnaire highlighted a number of instances of apparent contradictions in the responses to the questions posed. For example, despite agreeing that dividends should be maintained, respondents supported the contradictory view that the dividend should be allowed to fluctuate in accordance with current investment and financing needs.[139] In addition, although the findings of the survey provide support for the theoretical signalling models, when specific statements are studied the views of respondents appeared less supportive of the dividend signalling literature than might have been expected.[140] In particular, respondents disagreed with the view that the market considered dividend announcements separately from earnings news and the conclusions of Chapter 6 appear to confirm, that in the Irish stock market, dividends in isolation might not provide a robust signalling mechanism to Irish investors, but that instead the earnings signal dominates.

The remainder of this chapter is organised as follows. Section 7.2 provides details of the sample companies selected for interview while Section 7.3 analyses the results from the interviews using quotes to illustrate the points being made. Section 7.4 concludes the chapter.

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[139] Particularly surprising was the fact that no significant differences were noted on this issue between quoted and unquoted companies and companies that pay dividends and those that do not.

[140] For example respondents appeared to have very diverse views about the suggestion that a rise (fall) in dividend was typically associated with a share price increase (decrease).

7.2 Sample Companies Selected for Interviews

The process of selecting the interviewees, the decisions taken about the conduct of the interviews and the analysis of the data emanating from the interviews is detailed in the Chapter 4. This section provides a description of the companies selected for interview.

The study conducted interviews with 20 financial directors to explore the question of how firms determine the amount of dividends to pay to shareholders and to examine financial directors' perceptions about the relationship between dividend policy and firm value. Because of changes to the corporate taxation framework in Ireland, (see Chapter 2), the interviews also enquired about the influences which taxation has in determining payout ratios. In keeping with the research approach taken in Chapter 5, the interviews consider whether responses to these topics differ among industry groups, between quoted and unquoted companies and across dividend paying and non-dividend paying firms. Finally, to obtain an alternative point of view, and to compliment the research, the chapter also reports the results of interviews with 4 financial analysts from leading Dublin stockbroker firms on whether dividends influence share prices.

Table 7.1 provides a description of the companies selected for interview, indicating their industry grouping, whether they were quoted or unquoted firms, whether they paid a dividend or not and whether any dividend paid had changed recently.

A review of the table shows that 10 of the firms had listings on three markets (the Dublin Stock Exchange, the London Stock Exchange and an American Stock Exchange), three had dual listings (the Dublin Stock Exchange and the London Stock Exchange), two were quoted on the Alternative Investment Market (AIM) in London, while the shares of one firm were traded over the counter by a leading Dublin brokerage house. The remaining eight firms were unquoted at the time of the study; one of these firms had a turnover of more than €1 billion, two firms had a turnover of between €10 and €50 million, one firm had a turnover

of between €2.5 and €5 million, and four small enterprises had a turnover of less than €2.5 million. Fifteen of the firms had paid dividends in the past and eight of these reported paying dividends every year of their existence. Five firms had never paid a dividend. The majority of dividend paying firms reported changing their dividend payment recently.

Table 7.1: Details of Interviewees

FIRM	SECTOR	LISTINGS	DIVIDEND	CHANGE
A	Building & Construction	Ire/UK/US	Yes	Yes
B	Building & Construction	Ire/UK	Yes	Yes
C	Building & Construction	None	Occasional	Yes
D	Banking & Financial services	Ire/UK/US	Yes	Yes
E	Banking & Financial services	Ire/UK/US	Yes	Yes
F	Agribusiness, Food & Drink	Ire/UK	Yes	Yes
G	Agribusiness, Food & Drink	Market maker	Never	No
H	Computers & Technology	Ire/UK/US	Never	No
I	Computers & Media	None	Occasional	No
J	Transport	Ire/UK/US	Never	No
K	Exploration & mining	AIM: UK	Never	No
L	Exploration & production	AIM: UK	Never	No
M	Manufacturing	IRE/UK	Yes	No
N	Manufacturing	None	Occasional	No
O	Manufacturing	None	Occasional	No
P	Distribution	None	Occasional	No
Q	Distribution	None	Occasional	No
R	Professional services	None	Yes	Yes
S	Property management	None	Yes	Yes
T	Health-care	Ire/US	Occasional	No

Note: This table provides details about the 20 interviewees. The *listings* characteristic was determined by responses to the question " On which stock exchanges is your company quoted?" the *dividend* characteristic was based on responses to the question "Does your company pay an annual dividend?" The *change* characteristic was determined by responses to the question "Has the level of the dividend changed recently?"

7.3 Description of Results

The interviews focused on the following issues: (i) how firms determine the amount of dividends to pay to shareholders; (ii) whether interviewees believed in the 'signalling' concept; and (iii) the influences of taxation on dividend payout ratios. The analysis considers whether responses to these topics differed among industry groups, between quoted and

unquoted companies and across dividend paying and non-dividend paying companies. The interviews with analysts complimented the discussions with finance directors by focussing on whether dividends were relevant to share values and provided signals of future prospects.

7.3.1 Determinants of Dividend Payments

The extensive nature of the discussions with the interviewees suggested that Irish firms devote considerable attention to dividend policy. However, significant differences emerged in the attitudes of quoted and unquoted firms to this issue. In keeping with Lintner's (1956) study, quoted companies' directors reported spending significant amounts of time deliberating before deciding on the level of dividend payments that their firms should make.

Interviewee responses as a whole were generally consistent with Lintner's (1956) model. In particular there was strong support from quoted firms for the views that firms should: (i) maintain an uninterrupted dividend; (ii) avoid making changes in dividend rates that might have to be reversed in a year or so; and (iii) have a target payout ratio. Quoted companies' directors provided stronger support for the view that firms should maintain an uninterrupted dividend than did those working for unquoted companies. This finding is consistent with the results reported in Chapter 5 when a similar question was posed in the postal survey. Predictably, support for a stable dividend policy was weaker among unquoted firms. The primary concern among finance directors of dividend-paying quoted firms appeared to be the attainment of smooth growth in payout ratios, with current earnings and prior dividend payments influencing the target level. Interviewee M summed up the position of the quoted company interviewees from regular dividend-paying companies:

> *"In present market conditions I don't think it's an option to change our dividend policy. Investors value stability more than variability; if we were going to do something different from our recent pattern there would have to be a big reason to do so.*[141]*"*

There was significant support for the notion that a firm should be responsive to shareholders' preferences regarding dividends. This evidence regarding the influence of shareholder views' on Irish companies' dividend decision-making is similar to that reported for the US by Baker et al. (1985), for Australia by Partington (1985) and for Ireland in the survey findings documented in Chapter 5. Interviewee A, the financial director of a quoted construction company outlined that his company's board would "try to keep to the tacit bargain with their shareholders and honour their established policy".

In reply to the specific question "would your board allow the dividend to fluctuate in accordance with the firm's current investment and financing needs" all of the interviewees from quoted companies in the sample who regularly pay dividends made clear that they would not allow the dividend to fluctuate. Interviewee F, the financial director of a long established quoted food and drinks firm, confirmed that:

> *"We would never allow the dividend to fluctuate, we always had a steady growth in the dividend even when we were involved in major acquisitions or had significant cap-ex requirements. We would use debt rather than pass on the dividend."*

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[141] Interviewee G, the director of a food and drinks firm, (the shares of which are traded over the counter), stated that when his firm became cash positive the board decided to use surplus cash to fund investments and reduce debt rather than initiate dividends payments. This suggests that dividends are not based on the distribution of 'excess cash' but supports the view that dividend stability (even where no dividends are paid) is a major consideration in the dividend setting process.

Interviewees D and E, the financial directors of financial services firms, in confirming their views that they would never allow the dividend to fluctuate, made the point that the policy which many financial services firms adopted in the late 1980s and early 1990s of paying substantial dividends and having frequent rights issues to fund expansion or acquisitions would not now be tolerated by the market.[142] This view was confirmed by all of the financial analysts, who indicated that the market would take a dim view of any company raising funds to pay a dividend.

A significant difference emerged between interviewees from quoted and unquoted firms on the question of dividends as a residual. Unquoted firms appeared to accept that firms should allow the dividend to fluctuate, in accordance with current investment and financing needs, confirming one of the conclusions drawn from the questionnaire study reported in Chapter 5.[143]

The perceptions of interviewees from quoted companies that do not pay regular dividends were very different. Specifically, the financial directors in such firms believed that their shareholders tended to view any dividend initiations with suspicion. For example, Interviewee K, the financial director of an exploration company stated that "our shareholders would be in a state of shock if [the company] were to start paying dividends; they are punters and have bought [the shares] for capital growth." Interviewee J, the financial director of a quoted transportation company that has never paid a dividend in its history, confirmed this

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[142] This comment appears to refute Jensen's (1986) hypothesis on agency theory. However the comments of the interviewees may have been a reflection of the adverse experience that a number of financial services firms have had with overseas acquisitions.

[143] For example, Interviewee N, the financial director of the largest unquoted firm taking part in the study, confirmed: "We would always allow the dividend to fluctuate, we would be 100% flexible. The fundamental principal that we applied was that the dividend was in effect surplus to operating requirements. We would never do anything that might adversely affect the financial stability of the group, if we borrowed money for an acquisition our objective was to pay it down as soon as possible so that we had a balance sheet that could carry three or four bad years. If we did take a dividend for tax reasons or whatever in practically all cases we lent the funds back to the group."

sentiment. The director indicated that his board did consider paying a dividend about two years ago, but concluded that any payment, even a very small one, would send a very negative signal to the market. The board's view was that the payment of a dividend would give the impression to shareholders that the board believed that the period of exponential growth to be over. The financial analysts interviewed appeared to disagree with this view. One analyst asserted that:

> *"I do not agree that paying a dividend is a sign of weakness – the dividend would not be a negative, it is not necessarily the case that when a dividend is paid that growth has ceased. Microsoft have announced that the company is to introduce dividend payments. I don't know of any analyst who would suggest that the growth story at Microsoft is over."*

Another analyst remarked that:

> *"I see dividend policy as a discipline on the business - not a sign of weakness. Ultimately there is an expectation that companies will pay a dividend, I don't believe that the payment of a dividend disturbs the growth strategy. A dividend policy ensures that the company generates cash."*

The main point emphasised by all the financial analysts in this regard is that they would not expect to see any change in the dividend that had not been notified to them in meetings with the directors of quoted companies. For example, one of the analysts remarked that "[he] took the dividend policy as a given, it is not an agenda item and brokers notes never mention it". However, while the analysts acknowledged that most Irish companies maintained a stable payout they agreed that in the context of market conditions following the events of September 11th 2001 it might be appropriate for many firms to review their payout policy. In particular, they agreed that the dividend capacity of many Irish companies was

currently high with most quoted companies in Ireland having profits levels which cover the annual dividend of at least 3 times. One analyst commented that his firm had carried out a review of the dividend paying capacity of Irish companies and the report had noted that:

> *"Since 2000, dividends have provided the only return for investors from their shareholdings. We now view the dividend as very important in portfolio selection, particularly for private clients. Many Irish listed companies could afford to increase the dividend without putting any stress on their balance sheet. In general, Irish companies have a greater capacity to pay increased dividends than European companies since Irish dividend yields are, on average, 20-30% lower"*

The analysts believed that Irish Stock Exchange constituents will have to face the reality of larger cash disbursements over the coming decade as return on capital and the historical focus on capital growth no longer justify lower payouts. None of the analysts could confirm, however, whether an increased payout would lead to significantly higher ratings for those companies that changed their policies, although they believed that the increasing dividend would appeal to a wider circle of investors and thereby increase demand for the shares of high yielding companies.

Directors of unquoted firms appeared to rely extensively on their taxation advisors in determining dividend payments. Interviewee R, the financial director of a professional services firm, summed up the position of all the unquoted close companies interviewed for the study when he noted that:

> *"We would never consider paying a dividend to our shareholders if our auditors/tax advisors had not suggested that we do so to eliminate Corporation surcharge tax. Given that most of our income is considered professional income rather than trading income we are liable to a surcharge[144] if we don't distribute."*

[144] The professional service income of a closely held company is subject to a 15% additional Corporation Tax (surcharge) if such companies do not distribute profits within 18 months of the companies year-end.

The views of the financial directors of unquoted companies regarding payout determinants also reflected the impact of major lenders in the decision. For example, Interviewee P the financial director of an unquoted distribution company noted that:

> *"We would never pay a dividend if funds were required for expansion or diversification. Our bank would not support us if we made dividend payments unless it could be shown that the dividend had to be paid for tax reasons. Even in such circumstances, the bank would require us to reinvest the dividend in the company; dividends are a negative for bankers."*

Interviewee O, the financial director of an unquoted manufacturing firm, confirmed that their bankers and the Irish Industrial Development Authority (from which the company had received substantial development grants) insisted on an annual cap on dividend payments. He continued:

> *"We got around the problem by agreeing to designate distributable reserves as non-distributable reserves, and either agreeing to lend the dividends we received back to the company as subordinated shareholder loans, or give irrevocable undertakings to subscribe for convertible loan stock to ensure a comfortable gearing position"*

Most quoted company interviewees disagreed that their firms based current dividends on cash flow considerations. Interviewee A, the financial director of a quoted construction firm stated that:

> *"We have large credit lines available; liquidity is not an issue for us in setting the dividend"*

Interviewee E, the financial director of a financial services firm summed up the positions in respect of that sector:

> *"Given our strong balance sheet and substantial dividend cover we have relatively easy access to funds, so liquidity is not an issue for us in the determination of the dividend"*

This observation appears inconsistent with the findings of a 1989 survey of Irish quoted companies (Green et al., 1993) where respondents considered cash resources to be an important factor in the dividend setting decision. It also differs from the findings reported in Chapter 5 in that directors of quoted companies who replied to the questionnaire displayed the highest level of agreement with the statement that firms should base current dividends on cash flow considerations. The only exception was Interviewee M, the financial director of a quoted manufacturing firm, which had suffered substantial trading losses in recent years; he indicated that:

> *"We had an established policy of paying dividends to our shareholders, but when we got into financial difficulties we had to pass on the dividend simply because we had no cash. I suppose if we had had easier access to funds we might have considered it but legally I don't think we could have paid the dividend because at that time we had negative reserves".*

Paradoxically cash flow was not a consideration for unquoted companies in the determination of dividends as the finance directors of unquoted firms were less inclined to believe that firms

should base current dividends on their cash flow situation.[145] This observation appears to be inconsistent with the findings of the survey reported in Chapter 5 where unquoted company respondents considered cash resources to be the most important factor in the dividend setting decision.

There was a strong view amongst the interviewees that firms should base current dividends on future earnings expectations; this was particularly the case with quoted firms who regularly pay dividends. Interviewee D confirmed that the board would "seek to establish a policy of paying out say 35-40% of earnings over say a five or six year period so that over the long term such a trend would be accepted by the market". This result is again inconsistent with the survey findings reported in Chapter 5 where respondents indicated that expected future profitability was not as important as current earnings in the dividend decision.

All quoted company financial directors agreed with the view that a firm should base its current dividend decision on last year's dividend plus a percentage growth factor and that the amount of dividend paid should reflect the amount paid by its competitors. Interviewee A stated that "we would look at our sector, particularly the UK; we would not want to be out of line with our competitors either in Ireland or the UK". This response is surprising given the survey responses reported in Chapter 5 where the majority of those answering indicated that the dividend policy of competitors would not influence their decision.

To summarise, the primary concern among finance directors of dividend-paying quoted firms appeared to be the attainment of smooth growth in payout ratios, with current and future earnings, prior dividend payments and the dividend policy of firms in the sector influencing the target level. In contrast, the perceptions of finance directors from quoted

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[145] Interviewee P confirmed: "If we had to pay a dividend to our shareholders for whatever reason and we didn't have the cash, the shareholders would simply lend the funds back to the company or we would simply declare a scrip dividend. I can't see how cash flow or liquidity would ever be a problem in that regard."

companies that do not pay regular dividends indicated that their shareholders tended to view any dividend initiations/changes with suspicion. Financial analysts agreed that firms should strive to achieve a smooth growth in dividend payout ratios, but believed that the suspicions of non-dividend paying companies were unfounded. Finally, unquoted firms appeared to rely extensively on their taxation advisors in determining dividend payments.

7.3.2 Market Signals

The finance directors of dividend-paying companies appeared more supportive of the dividend-signalling literature than the survey respondents in Chapter 5 and all interviewees from dividend-paying quoted companies agreed with the view that the market interprets a dividend change as a signal. The directors of non dividend-paying companies also appeared to accept that the market interprets any change in policy (i.e. the initiation of a dividend) as a signal. However, all quoted company interviewees suggested that the signal was not based on dividends alone; they disagreed with the view that the market considered dividend announcements separately from earnings news confirming the findings of the survey responses in Chapter 5. In response to a direct question on the topic, Interviewee F's viewpoint was typical of all six quoted dividend-payers when he stated that: "investors look at both earnings and dividends, but the prime number is earnings, no question". He continued "investors use the dividend as an indication of how confident and comfortable you are with the earnings number for the coming year, but the real story is earnings; the dividend is a peripheral signal."[146]

All analysts agreed with this view and pointed out that "[the market's] expectations are such that the dividend is seen as routine based on last year's dividend plus a percentage."

[146] This view supports the findings reported in Chapter 6 where earnings was noted to be the dominant variable.

The view of one analyst was typical who indicated that the issue of signalling was very important:

> *"... if your company sends out a signal that your dividend policy is to pay out a certain percentage of earnings it becomes very difficult to change that policy"*

Another analyst suggested that where a company is taken over and the new owners have a reputation for paying substantial dividends it is very difficult to "avoid the pressure caused by reputation, even if the previous owners had passed on the dividend or had perhaps never paid a dividend."[147] Predictably, support for a stable dividend policy was weaker among firms that reported having changed their payout levels in the past, particularly when views about reversing changes were sought.

These responses appear to confirm the findings of Green et al. (1993) who documented strong support for the view that dividends represent a very important mechanism for signalling managements' expectations about future profitability. Although interviewees generally agreed with the conclusions of previous empirical studies, that dividend changes convey some unanticipated information to the market, the level of consensus on this issue was considerably lower than was expected. In particular, interviewees did not agree with the view that a rise (fall) in dividend is typically associated with a share price increase (decrease). Interviewee D's viewpoint is typical of respondents at all six quoted companies that pay annual dividends in arguing that:

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[147] The analyst highlighted the example of a prominent Irish businessman who became a major shareholder and director in Waterford Wedgewood. Despite a history of trading losses and dividend passes in that company dividend payments were immediately resumed following the takeover. The businessman was now in the process of taking over Eircom and the analyst observed that prospectus for the Eircom takeover showed that significant dividend payouts were planned following a successful takeover.

"An increase in the dividend will not necessarily lead to an increase in the share price because that is what the market is expecting based on the historical pattern. A cut in the dividend would lead to a drop in the share price if the market wasn't prepared for it, but we would never use the dividend to convey bad news; the information would have been put out in advance by trading statements, comments by the chairman at the AGM, etc. The market moves in curious ways"

Interviewees agreed with questions concerning the importance of investors' expectations in determining how the market interpreted a dividend change as a signal. In the opinions of those questioned, the expectations of shareholders were based on several variables, most notably last year's dividend and current earnings. The financial analysts also highlighted the influence of payment trends within sectors, current economic conditions and last year's earnings on investors' expectations about what the future dividend might be.

Unquoted firms did not appear to share these perceptions and believed that the signalling issue was not particularly relevant to their circumstances. This finding is perhaps not surprising, given that all of the unquoted companies in the sample, except the largest one, were 100% owned by shareholders who were also directors. As the directors are actively engaged with their firms on a day-to-day basis, they could be expected to be fully aware of the financial position of their firms. In these circumstances they were more likely to face the pressure of providing signals of their financial strength to bankers rather than to themselves as shareholders. However the financial directors of unquoted firms accepted that the signalling issue was " probably important for listed companies that regularly pay dividends." All of those interviewed confirmed that they would not buy shares in listed companies for the

dividend[148] but if they did "[they] would not regard the dividend change as a signal; the earnings change was more relevant." In summary, financial directors of quoted companies appeared to accept that the market interpreted the dividend as a signal, but that the signal was not based on dividends alone; the earnings figure was seen as being more important and the prime number. Financial analysts agreed, but were unanimous in their views that once a quoted company established dividend policy it was very difficult to cut or pass on the dividend. Financial directors of unquoted firms on the other hand believed that the signalling issue was not particularly relevant to their circumstances. However all the financial directors of sample companies confirmed that they would not buy company shares solely for the dividend.

7.3.3 The Influence of Taxation on Dividend Policy

Significant differences emerged regarding the role of taxation in the dividend decisions of quoted and unquoted firms. Quoted companies' directors were significantly less inclined to believe that firms should determine dividends on the basis of the tax status of the company's shareholders. For example, in his answer to the question about whether boards should determine the annual dividend based on their perception of the tax status of the shareholder, Interviewee M stated that "it would be nearly impossible for boards of quoted companies to know the tax status of its shareholders". He continued:

> *"We have such a variety of shareholders that we couldn't possibly consider that issue."*

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[148] The financial director of the largest unquoted company stated that when interest rates fell he bought a number of high dividend yield shares as an arbitrage play. He stated that "[he] was seriously out of the money, the dividend yield had given a bum steer, earnings is the more important number -any firm can pay a dividend."

Interviewee A arrived at a similar view based upon a different justification; he pointed out that "as 85%-90% of [his firm's] shareholders are institutions or corporate investors, the tax status of individual shareholders would be of no interest to [the firm]".[149] However, Interviewee A did admit that while his firm might be unaware of the personal tax circumstances of its individual shareholders, it would always try and maximise any potential tax break for shareholders stating that '...we owe it to our shareholders to do whatever is possible on the tax side'. He continued:

> *"For example, when export sales relief was available we distributed the profits from exports in preference to profits from the domestic market. When the government introduced a tax relief for shareholders in receipt of dividends paid by firms which carried on manufacturing activities, we offered our shareholders the choice of receiving the dividend from either profits which qualified for the 10% manufacturing tax rate or profits which did not qualify. Only about 12% of our shareholders opted for a manufacturing dividend because the tax credit was lower which didn't surprise us as most of our shareholders are institutions, pension funds, etc. and they would want the larger tax credit"*

Respondents who worked in unquoted companies had very different perceptions about the relevance of taxation to the dividend decisions. Interviewee N summed up the position of all the interviewees from unquoted companies when he stated that "the tax status of individual shareholders is the key factor in determining our dividend policy and

[149] Very little empirical work has been published on the nature of share ownership of Irish quoted firms or on how institutional shareholders affect the propensity of Irish quoted firms to pay dividends. Murphy (2003) examined the share registers of four firms quoted on the Irish Stock Exchange in four different sectors (financials; industrials; foods; and tourism undertakings), and considered how their respective trades affected volatility in the market. The author noted that although private individuals are the majority of the holders in Irish quoted firms institutional investors hold on average 88% of the shares. Based on interview evidence with the two largest stockbroker firms in Dublin the author reported that institutional investors have longer-term investment time horizons; the investment philosophy of institutional holders focuses on achieving returns by efficiently managing and controlling portfolio risk; institutional holders trade in larger amounts of stock than private clients but trade less frequently; private clients have shorter-term investment time horizons than institutional investors; the investment philosophy of private clients depends on their tax status; private clients are price takers and create more noise in the market as their volume trades are smaller and more frequent.

would be the main focus of our meeting with our tax advisors." Among the remaining interviewees, there tended to be support for the clientele hypothesis. For example, those firms that did not have a policy of paying dividends believed that the tax status of their shareholders was unimportant. As Interviewee G indicated:

> *"People buy our shares for capital gains not for dividend income. Punters would be shocked if [our firm] paid a dividend; it would be totally unexpected as they're only interested in capital gain, they would not know what to do with the dividend voucher"*

However, Interviewee K reported that his firm's position on the issue was not fixed, but instead varied according to the circumstances of its shareholders; he stated that his board might consider the tax status of its shareholders because the company had started producing oil and would earn profits in the future. This interviewee expressed views consistent with "clientele" theories of dividends, guessing that the shareholders in his firm "would sell out" if they got a dividend as they would not be interested in paying tax on dividend income; he believed that "companies get the shareholders they deserve and that his firm's shareholders were gamblers; not guys looking for a stream of income."

All of the interviewees agreed that recent changes in the tax code in Ireland had influenced the dividend decisions of firms because of altered demands from shareholders. For example, Interviewee F noted that the abolition of tax credits on dividends had had a negative effect and believed that they should be re-introduced. Interviewee N concurred with this view, but explained why investors were not overly concerned about the change at the time:

> *"The abolition of the credits happened at a time of a boom, when stock prices were racing ahead, and, the whole world wanted capital gains. From the Government's point of view, it was beautifully timed in that nobody cared; but nowadays it is a concern in that shareholders are taxed twice on the same income."*

All the financial directors from regular dividend-paying firms agreed that the only major effect of the introduction of the dividend withholding tax (DWT) in 1999 was that firms paid dividends immediately prior to its introduction so shareholders could avail of imputed tax credits on those dividends. Interviewee D was typical in this regard stating that his company "brought forward the final dividend payment to ensure that their shareholders would be able to avail of the imputed tax credit before the introduction of the dividend withholding tax regime." The introduction of dividend withholding tax appears to have had little substantial effect on dividend policy, although interviewee M felt that:

> *"The paper work associated with it is a pain .... I think the Revenue could make it easier particularly as in our case we have a significant number of overseas shareholders who are exempt."*

In contrast, interviewees agreed that both the recent introduction of a low rate of Corporation Tax in the Republic of Ireland, and the treatment of scrip dividends as income, made dividend payments less attractive to shareholders and favoured retentions (capital gains).

Conventional finance literature pays little direct attention to the influence of advisers on major corporate decisions. In contrast, all the interviewees from unquoted firms referred to the important role played by tax advisers in the dividend decisions of their firms. Their views are summed up by Interviewee N the financial director of the largest of the unquoted firms. He confirmed "the dividend decision in our firm is highly dependent on the personal tax circumstances of our shareholders and the advice of our tax advisors." This interviewee went on to state that prior to 5th April 1990, his firm had followed a policy of paying substantial dividends; the dividends paid to shareholders at that time were tax-free because the company

was entitled to export sales relief. After 1990 however, the dividends were no longer tax-free, but the tax advisors were able to help with new tax shelters:

> *"For example when our shareholders bought a building in the Customs House Docks Development Area which had very attractive tax depreciation allowances our tax advisors suggested that we increase the dividend to enable the shareholders to pay for the building. The shareholders were able to claim a refund of the tax credits attaching to the dividend because they sheltered the dividend income with capital allowances".*

Interviewee O, the financial director of an unquoted manufacturing firm, indicated that his firm only paid a dividend when it was tax efficient to do so. For example, his firm had paid their first dividend in 1985, following a government decision to introduce tax relief for shareholders in receipt of dividends paid by firms that carried on manufacturing activities in the Republic of Ireland.[150] Interviewee O also pointed out that when the relief for dividends paid by manufacturing concerns was withdrawn, the firm discontinued dividend payments for a time. He pointed out that:

> *"We only re-introduced dividend payments after another company in the group (i.e. a royalty company) had developed a patented manufacturing process. Our tax advisors informed us that dividends paid out of such a patent royalty company were tax-free. As a result the group resumed dividend payments in 1991 and the firm continues to pay substantial tax-free royalty dividends"*

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[150] Certain manufacturing companies will continue to pay Corporation Tax at 10% until 2010. Under the arrangements introduced in 1985 only 50% of the dividend paid by manufacturing concerns was taxable in the hands of shareholders, but shareholders were entitled to a full tax credit on the dividend under the imputation system; in most cases the relief provided shareholders with a tax refund. The relief was withdrawn in 1989 (Finance Act 1989).

Interviewee I, the financial director/shareholder of an unquoted computer technology company which had patented computer software, stated that shareholder directors used to receive a substantial part of their remuneration in the form of dividends rather than salary because tax rules at that time allowed tax-free royalty dividends. After the rules on royalty dividends paid by software companies were changed, the company ceased paying dividends; he stated that "it was then more tax efficient for the company to pay remuneration as salaries rather than dividends as the company obtains a tax deduction for salary while there is no tax deduction for dividends." Interviewee N noted that the tax advice they had received suggests:

> *"It is more tax efficient to pay shareholders an attendance fee to attend an AGM rather than pay an annual dividend particularly since tax credits were abolished in 1999."*

The importance attached by the interviewees to the tax regime is summed up by Interviewee P, the financial director of a distribution company which earned substantial rental and investment income, who stated that his firm only pay dividends to avoid a possible irrecoverable Corporation Tax surcharge on undistributed rental and investment income.

> *"Our tax advisors have informed us that because we are a close company we must pay a dividend on any after tax rental and investment income within eighteen months of our year end otherwise we must pay a 20% surcharge which is irrecoverable. We would not otherwise consider paying a dividend as it is inefficient from a tax point of view to do so."*

Interview S, the financial director of a property and investment company agreed that his firm only pay dividends to avoid a possible Corporation Tax surcharge. He continued:

> *"We don't even pay the dividend to our ultimate shareholders. The dividend is paid to a holding company resident in the Isle of Man. The Manx company retains and accumulates the dividend funds. The ultimate shareholders don't want the dividend because their tax rate is effectively 47% on any dividend they receive. We may have to pay Dividend Withholding Tax (DWT) if the Isle of Man company pays a dividend, but our tax advisors have informed us that it is more efficient to pay the DWT than a 20% surcharge which is irrecoverable."*

Finally, the main concern of the financial analysts on the taxation issue was the loss of the tax credits following the abolition of the imputation system. One of the analysts made the point that "this move was a stealth tax on the [pension] funds which had not been properly debated at the time" He continued "I don't accept Gordon Brown's analysis that the imputation system encourages companies to pay out dividends rather than invest the profits". A further concern of the analysts was that "there was no longer a level playing field" in the market for private clients' funds as "the [marginal] tax rate on dividend income is now 47% as opposed to 25% on bank deposit interest income." However none of the analysts were in favour of abolishing income tax on dividends as had been suggested in the US. One analyst proposed that: "the most equitable solution would be that the Dividend Withholding Tax (DWT) should operate in the same manner as Deposit Interest Retention Tax (DIRT) for interest income."[151]

To summarise, most dividend paying quoted companies' directors were not inclined to accept that firms should determine dividends on the basis of the tax status of the

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[151] Under Irish tax rules a retention tax is applied to bank deposit interest at source. No further income tax is payable on deposit interest (TCA 1997). However social security levies of 5% are due (Finance Act 2002).

company's shareholders. However, they did admit that they would always try and maximise any potential tax break for shareholders in the dividend decision. There appeared to be an acceptance of the tax clientele argument amongst non-dividend paying quoted companies, in that these directors believed that their shareholders were not interested in dividend income, and would in all probability exit the firm if dividend payments were initiated. Interviewees in unquoted companies had very different perceptions; they believed that the tax status of individual shareholders-and particularly input from tax advisers-were the key factors in determining their dividend policy.

7.4 Conclusions

The evidence from the interviews suggests that several conclusions can be drawn about contemporary Irish attitudes towards dividend policy. First, in keeping with Lintner's (1956) original study, quoted companies' directors were found to spend significant amounts of time deliberating before deciding on the level of dividend payments that their firms make. The primary concern of financial directors in quoted firms that pay dividends appeared to be the attainment of smooth growth in payout ratios that reflect current earnings and prior dividend levels. All such directors agreed that firms should maintain an uninterrupted dividend, avoid making changes in dividend rates that might have to be reversed in a year or so and adopt a target payout ratio.

Second, most interviewees were supportive about the suggestion that dividend policy affects share values, but this was particularly the case in circumstances where the dividend is cut. However, all interviewees believe that the more important signal is provided by the earnings figure. The study therefore provides some support for theoretical models that predict the manner in which dividends can act as signalling mechanisms to outside investors, but only to compliment the message provided by the earnings figure. In that context, the findings

support the results of the questionnaire-based study reported in Chapter 5 and the event study in Chapter 6.

Finally, the interviewees appeared to hold relatively strong views about the impact of tax on dividend decisions. For example, all the financial directors of dividend-paying quoted firms agreed that recent changes in the taxation regime in the Irish Republic make dividend payments less attractive to shareholders. Moreover, quoted company directors appear to subscribe to the clientele argument (i.e. shareholders discriminate between those companies which pay dividends and those which do not). For unquoted firms, dividend policy appears to be strongly driven by taxation issues, and in all cases interviewees confirmed that shareholders re-invested the dividends they received back into the company; tax advisors appear to play a major role in determining dividend policy for such companies.

While the evidence in this chapter broadly supports the findings from Chapters 5 and 6 this support is not unanimous; subtle differences exist. Therefore, the final chapter of this thesis attempts to compare the three sets of empirical results and draw persuasive conclusions.

CHAPTER 8: CONCLUSIONS

8.1 Introduction

Financial theorists are puzzled by corporate dividend behaviour. Most individual investors should value a euro of pre-tax corporate dividends less than a pre-tax euro of corporate retentions, because in a majority of jurisdictions the former results in greater tax liabilities for investors. Companies, however, face equal taxation costs of paying out dividends and retaining earnings. Miller and Modigliani (1961) demonstrated that in the absence of taxes, dividend policy should have no effect on share valuation. Therefore, as dividends suffer taxation penalties, firms should pay no dividends. Widespread dividend payments to taxable investors are therefore surprising and have been interpreted as evidence of irrational behaviour (Poterba and Summers, 1984). A full understanding of why firms pay dividends still eludes researchers despite the fact that there has been almost fifty years of research on the dividend question, mainly undertaken in the US, the UK and Australia.

This study attempts to address the dividend question in an Irish context. Prior to this study very little was reported in the academic literature about the attitudes of company executives and investors to dividend policy in Ireland. The small number of Irish studies which have been undertaken have provided only a partial explanation of these decisions; in addition they are based on small samples from a fairly distant time period. Since the Irish economy has changed dramatically over recent years (Forfás, 2001), the findings of previous studies may not remain valid and so modern investigation of the topic is therefore timely and worthwhile.

8.2 Conclusions of the Study

The central objectives of the study were to: (i) ascertain how Irish firms determine the amount of dividends to pay to shareholders; (ii) examine the relationship between dividend policy and firm value in an Irish context; and (iii) investigate whether belief in the

'signalling' concept is widely held by Irish companies and stockbrokers. The study accomplishes these different aims using three empirical investigations: a questionnaire survey; interviews; and, a market-based event study.

The evidence from the empirical work suggests that several novel conclusions can be drawn about contemporary Irish attitudes towards dividend policy. First, the findings of the study suggest that Irish quoted firms are generally aware of the clientele effect. The directors of Irish quoted companies believe that they know the nature of their shareholder base and perceive that Irish investors discriminate between companies which pay dividends and those that do not in portfolio selection. Therefore, the suggestion that companies subscribe to the clientele argument is supported in an Irish context; the directors of Irish quoted companies believe that companies appeal to a clientele of shareholders whose consumption patterns accord with the dividend payment patterns of the companies they select for their portfolio.

Second, the evidence suggests that most Irish companies are aware that the recent changes in the taxation regime in the Republic of Ireland have made dividend payments less attractive to individual shareholders and that dividend payments impose a substantial tax penalty on individual shareholders. However, quoted companies do not appear to regard the tax status of investors as a key factor in the determination of the annual dividend. Although the directors of quoted companies indicated that they always attempt to maximise tax benefits on dividend payments for individual shareholders, the respondents in this thesis indicated that they are more concerned with dividend continuity and the dividend expectations of institutional investors. The directors of quoted companies accept that the abolition of the imputation system has reduced the dividend yield for all shareholders. However, dividend-paying companies believe that they must honour the tacit understanding with their institutional shareholders to ensure that dividend stability is combined with moderate growth. In addition, Irish quoted companies appear to be very concerned with ensuring that their

dividend policy is not out of line with the dividend policy of competitors in their industry sector, particularly in Ireland and the UK. The opinions expressed by the directors of unquoted companies differed markedly from those of quoted companies. For unquoted companies, dividend policy is strongly driven by the taxation status of their owner shareholders; tax advisors therefore play a key role in determining the dividend policy of such companies. The findings confirm that unquoted companies have a different view of the dividend question than companies operating in a competitive, market-based environment.

Third, the major determinants of modern Irish dividend policy appear strikingly similar to those mentioned in John Lintner's (1956) behavioural model developed from the 1950s. Irish quoted companies follow a policy in which dividend reductions are anathema and an increased dividend will only be declared if management are convinced that the new dividend level can be maintained. The latter observation is not consistent with the evidence reported in previous studies of Irish data, which did not support Lintner's (1956) partial adjustment model (see Barrett and Cotter, 1990). In the context of this study, quoted companies appear to believe that the level and rate of change of the dividend are key variables in financial planning. This may explain why, despite the known tax penalty associated with dividend payments, a significant number of quoted sample companies continue to make regular payments to investors.

Fourth, Irish companies were generally supportive of the suggestion that dividend policy affects share valuations. Although the study does not uncover the exact reasons for the belief in the relevance of dividends, there appears to be support for theoretical models that indicate how dividends can act as signalling mechanisms to outside investors. Specifically, the findings indicated that quoted companies which announced major reductions in dividends and earnings tended to educate the stock market through profit and dividend warnings before the occurrence of the actual dividend/earnings announcement in an effort to prevent

undesirably large swings in share prices. Therefore, the study provides strong support for the theoretical signalling models, particularly in the context where the dividend is cut or passed. The findings of this study are therefore as supportive of the effectiveness of the theoretical signalling models as the empirical findings reported in the academic literature for larger stock markets.

Fifth, belief in the dividend-signalling model seems stronger among investors. A clean, previously un-examined extensive database of Irish equity prices, announcement dates of dividends and earnings was constructed. The evidence from the market-based event study indicates that Irish investors react to dividend announcements in a manner consistent with the announcements conveying important information to the capital market. This reaction was very pronounced on the dividend announcement date. On average, the Irish stock market responded: (i) favourably to news of dividend increases; (ii) favourably to news of no change in dividends; and, (iii) unfavourably to news of a cut in dividends. The performance was statistically significant for sample companies that increased their dividends but not for the dividend no-change companies or those companies which cut their dividends. These findings provide additional evidence for the suggestion that Irish quoted companies tend to only increase their dividend if management are convinced that the new dividend level can be sustained. The evidence also indicates that quoted Irish companies which announce major reductions in dividends may attempt to inform the market before the announcement date of results to limit the element of surprise at the time the news is made public.

Sixth, there was considerable evidence that management decisions to change the dividend became known to the market before the final dividend announcement date, particularly in cases where the dividend was cut or passed.[152] However, a different picture

[152] One reason for this "discovery" may have been the interim results which had been disclosed by the firm. Additionally, competitors' results may have suggested that bad news was in the pipeline. Of course, the evidence is also consistent with information leakage.

emerged when the share returns around the dividend news were analysed. Specifically, test results confirmed that the Irish market responded quickly to the news contained in the dividend announcements, indicating that limited exploitable arbitrage opportunities existed in the post announcement period. The results for tests of different changes in dividend levels all produce evidence to this effect; this finding is consistent with evidence reported for larger stock markets and may indicate that the Irish stock market conforms with the semi-strong form of market efficiency in terms of its reaction to dividend news. This conclusion is not surprising because, as was pointed out in Chapter 2, while the Irish stock market is small by international standards, unlike smaller markets in developing countries it is highly regulated and the rules for investor protection are similar to those that apply in the larger developed Western stock markets. In addition, many stocks listed on the Irish exchange have dual listings having both a quotation in Dublin and on at least one larger market such as London or New York. In this context, the regulations regarding the disclosure of information to the market are as rigorous as those that apply in larger markets.

Seventh, when the three dividend groups were sub-divided into six dividend/earnings categories, according to whether the firms reported higher or lower profits than in the preceding year, test results confirm that the earnings announcement supplies corroborative evidence to the dividend announcement. Specifically, the evidence suggests that the abnormal returns on the announcement date for different dividend-earnings combinations of companies (DI-El, DI-ED, DD-EI, DD-ED, DNC-EI and DNC-ED) were of the order of magnitude predicted by the dividend-signalling literature; the good-news companies in the DI-El group earned large positive abnormal returns, while the bad-news companies in the DD-ED group had the largest negative abnormal returns of all the groups considered; the abnormal returns of the other main categories were ranked in the expected order.

Eighth, the results of tests of whether the simultaneous dividend and earnings

announcements interact with one another (the "interaction effect") show that when account is taken of the fact that dividends and earnings are disclosed simultaneously and the impact of the joint signal is analysed, the earnings component tends to dominate, with the role of dividends limited to its interaction with the earnings news. These findings are found to be robust to the choice of metric used to establish benchmark returns; in particular, employment of excess returns (generated on the assumption that the expected return for all firms is equal to the market return, and hence often used in studies of smaller markets, where thin trading can lead to biased results), yielded evidence that was entirely consistent with the results obtained using abnormal returns. The results indicate that dividend and earnings signals jointly influenced the level of abnormal return earned by the companies in the sample. These results confirm the findings of similar studies conducted on larger stock markets.

Ninth, a more detailed examination of the explanatory factors influencing returns on the dividend announcement date using analysis of variances revealed that between company factors, such as sector and size, have very little explanatory power. Earnings and dividend/earnings interaction are the only significant variables in the ANOVA model, with p-values well below the critical value for significance at the 5% level. When these results are considered in conjunction with the findings about the "interaction effect" that the dividend signal in isolation is insignificant, it appears that the earnings signal dominates in the Irish stock market, but the dividend signal has some incremental explanatory power via its interaction with the earnings news. In summary, the evidence in this study confirms the dominant impact of earnings news on share prices. The findings of this investigation for Irish companies therefore have more in common with UK findings (Lonie et al., 1996) than with the reported evidence for US and Australian data in Kane et al. (1984) and Easton (1991). Given the greater similarity in business environment, the similarity of these Irish results to the UK findings is perhaps not surprising, although the Irish market is very different in terms of

its small size and in the context of the exceptional GDP growth experienced in Ireland over the period of the study.

8.3 Limitations

The study has some obvious limitations. Firstly, for the survey questionnaire, while no non-response bias was detected for most of the categories of companies which took part in the survey, significant non-response bias was detected for dividend paying companies; it appears that the views of non-respondents might be different from those of respondents in the case of dividend paying companies. Given the nature of the survey it is probably not surprising that dividend-paying companies were more inclined to respond than non-dividend paying companies. Second, the number of prior Irish questionnaire-based surveys of dividend policies against which to compare the results is limited. The few studies that have been conducted focussed on different samples which may hinder any comparison being made. Third, there were a number of instances where the findings of the survey indicate inconsistencies in the responses to the questions posed. However, the findings from the interviews clarified most of the uncertainties thrown up by the survey responses. Of course, interviews are themselves subject to a number of well-known limitations; only a small number were conducted in this research, but nevertheless several senior executives and brokers gave generously of their time and were very supportive of the research.

Finally, this dissertation did not examine the nature of share ownership of Irish quoted firms and how these shareholdings might affect the propensity of firms to pay dividends. As regards the event study, the thesis did not consider the effect of taxation on the behaviour of different classes of high and low yield securities, whether price reaction to dividend news is smaller in firms with high institutional holdings or consider whether interim dividends had conveyed some of the information contained in the total dividend paid. These aspects of the

dividend debate are important items on the agenda for future research using Irish data, because most of the studies conducted on these topics use US data.

Despite its acknowledged limitations the present study is the most comprehensive investigation to date of Irish dividend policy. The findings represent an extension to prior investigations of why Irish companies select particular dividend policies in an environment where dividend payments to shareholders are tax penalised. To the extent that the study disaggregates the results according to the listed status of firms, industrial sectors and the historical pattern of respondents' dividend behaviour, the findings are novel. In addition, the relatively large sample sizes used in each element of the empirical work enhance confidence in the conclusions. Finally, the transformation of the Irish economy since the early analyses were conducted suggested that further research on this topic was necessary. The current findings therefore represent an enhancement of knowledge about the perception of dividends in a modern, high-growth, European context.

APPENDICES

APPENDIX 2

Appendix 2.1

Individual Company Data For Companies Listed On The Irish Stock Exchange 31 December 2003

Official List	Foreign Listing	Market Cap. (€m)	Market Turnover (€m)	Volume Traded (millions)	ISEQ Weighting %	Beta
Abbey	L	227	97.79	16.96	0.36	0.24
Allied Irish Banks	L / N	10,743	17,389.4	1,360.42	16.97	1.09
Aminex	L	27	0.23	0.80	0.04	-0.51
Anglo Irish Bank	L	4,101	7,080.48	848.87	6.46	0.88
Arcon Resources	L	87	10.5	254.70	0.14	-0.02
Aviva	L	13,339	0.01	0.00	-	-
Bank of Ireland	L / N	10,502	17,242.40	1,654.21	16.55	1.28
Barlo Group	L	67	40.16	147.71	0.10	-2.41
CRH	L / Q	8,582	9,192.79	643.99	13.52	1.15
DCC	L	880	1234.51	115.61	1.39	0.45
Diageo	L / N	44,228	0.00	0.00	-	-
Donegal Creameries	-	33	4.76	1.72	.05	0.08
Dragon Oil	L	159	24.03	62.82	.25	0.28
Elan Corporation	L / N	2,108	711.05	158.00	3.32	2.34
FBD Holdings	L	570	81.97	7.68	0.90	.05
First Active	L	884	1,062.80	190.20	1.39	0.23
Fyffes	L	571	698.32	483.04	0.90	0.30
Galen Holdings	L	1,497.2	317.50	71.00	16.60	0.40
Glanbia	L	497.3	173.47	1,060.40	11.70	2.80
Grafton Group	L	867.8	762.77	107.60	12.30	1.90
Greencore Group	L	558.7	517.63	146.40	8.10	4.20
Gresham Hotel Group	L	71.5	38.71	-	6.10	3.70
Heiton Holdings	L	160.3	83.90	3.90	12.10	4.50
IWP	L	17	44.46	308.00	1.80	3.20
IAWS Group	L	912.3	662.82	52.60	16.20	1.10
IFG Group	L	39	115.23	235.00	4.80	3.90
INM	L	1,232.6	721.06	5,775.10	11.00	-
Irish Continental Group	L	204.3	174.22	-	9.80	2.40
Irish Life & Permanent	L	2,596.8	6,090.09	807.30	9.00	5.00
Jurys Doyle Hotel	L	558	433.79	45.50	13.00	2.60
Kenmare Resources	L	58.2	5.17	-	-	-
Kerry Group	L	2,518.7	1,554.58	180.00	13.30	0.90
Kingspan Group	L	438.9	472.18	540.70	8.10	1.70
McInerney Holdings	L	96.7	40.73	468.80	6.40	1.80
Norish	L	6.8	3.32	-	3.00	6.60
Oakhill Group	L	5.6	1.28	9.90	-	-
Oglesby & Butler	-	2.8	0.12	-	4.50	8.70
Power Leisure	L	277	287.97	7.00	14.50	1.30
Qualceram Shires	L	26.6	6.34	-	6.10	4.30
Readymix	-	178.6	28.13	85.40	10.10	4.00
Ryanair Holdings	L / Q	4,322.2	5,121.15	5,738.30	16.20	-
Ulster Television	L	240.1	2.90	-	16.90	3.00
Unidare	L	23.7	4.88	24.00	7.30	-
United Drug	L	429.4	294.50	268.60	16.40	1.90

Viridian Group	L	1,077.8	18.04	-	44.40	3.60
W'ford Wedgwood	L / Q	217.2	409.32	9,747.70	9.00	4.60
ITEQ						
Datalex	Q	28.2	6.27	148.00	-	-
Horizon Technology	L	28.5	5.68	13.20	-	-
Icon	Q	303.1	4.59	-	22.50	-
Iona Technologies	Q	72.1	52.42	7.00	24.00	-
Trinity Biotech	Q	117.1	0.03	15.60	-	-
EXPLORATION						
Glencar Mining	-	2.4	0.42	-	-	-
Minmet	-	24.7	0.33	-	-	-
Ormonde Mining	-	3.1	2.15	-	-	-
Ovoca Resources	-	3	1.58	-	-	-
Providence Resources	-	5.3	1.18	3.20	-	-
DEVELOPING COMPANIES						
CPL Resources	L	9	0.81	-	-	-
Rapid Technology	L	-	0.56	-	-	-

Since the ISE has adopted the Listing Rules of the London as its own Listing Rules, most of the older Irish companies are listed in London. New companies have a listing on NASDAQ. In the Table, L= Company listed on the London Stock Exchange, N= Company listed on the New York Stock Exchange and Q= Company listed on the NASDAQ

(Source: Irish Stock Exchange, Annual Statistical Review, 2003).

Appendix 2.2

Details Of Taxation Rates 1986- 2003

TAX PERIOD	DIVIDEND TAX CREDIT RATE	DIVIDEND WITHHOLDING TAX RATE	CORPORATION TAX RATE	CAPITAL GAINS TAX RATE
1986/ 87	56%	0%	50%	40%
1987/88/89	47%	0%	47%	40%
1989/90/91	38%	0%	43%	40%
1991/92/93/94/95	33%	0%	40%	40%
1995/96/97	30%	0%	38%	40%
1997	26.5%	0%	36%	20%
1997/98	12%	0%	32%	20%
1998/99	12%	0%	28%	20%
1999/2000	0%	24%	24%	20%
2000/2001	0%	24%	24%	20%
2001	0%	22%	20%	20%
2002	0%	20%	16%	20%
2003	0%	20%	12.5%	20%

Note: This table provides details about tax rates that applied since 6th April 1986 to 31st December 2003. The tax year ran from 6th April each year to the following 5th April. Effective from 6th April 2001 the tax year was changed to a calendar year basis. The 'year' 2001 was a transitional tax period and was regarded as a nine months 'year'.

APPENDIX 5

Appendix 5.1

7th September 2001

Dear

RE: Dividend payment policy in Irish companies

Dublin City University, in conjunction with Davy Stockbrokers, is undertaking a research project on dividend payment policy in Irish companies. The Irish Stock Exchange has indicated its support for this research.

The project is an examination of the relevance of dividends in an Irish context. A vital aspect of the project requires us to obtain the views of your company and of other top Irish companies on the factors which you believe should influence the dividend payment decision.

Please help by completing the enclosed questionnaire. The questionnaire has been designed to require not more than ten minutes to complete. The information provided will be treated in confidence. Only the results of the survey will be published, no individual company details will be divulged. A freepost reply envelope is enclosed.

All completed questionnaires received will be entered in a draw for a case of Champagne. The draw will take place on 25th October 2001.

We will be happy to send you a summary report of the results of this study. To obtain the report please indicate to this effect by ticking the box at question 6 on page 4 of the questionnaire.

Many thanks for your time.

Yours sincerely,

Tom Mc Cluskey
Director of Taxation Studies DCU

Robbie Kellaher
Head of Research Davy Stockbrokers

Appendix 5.2

7th October 2001

Dear

RE: Dividend payment policy in Irish companies

We have not received your reply to our letter of 7th September 2001

Obtaining your views is extremely important to us.

Please help by completing and returning the enclosed questionnaire as soon as possible. The information provided will be treated in confidence. Only the results of the survey will be published, no individual company details will be divulged. A freepost reply envelope is enclosed.

Only completed questionnaires received will be entered in a draw for a case of Champagne. The draw will take place on 25th October 2001.

We will be happy to send you a summary report of the results of this study. To obtain the report please indicate to this effect by ticking the box at question 6 on page 4 of the questionnaire.

Many thanks for your time.

Yours sincerely,

Tom Mc Cluskey
Director of Taxation Studies DCU

Robbie Kellaher
Head of Research Davy Stockbrokers

Appendix 5.3

TO COMPLETE THIS QUESTIONNAIRE PLEASE TICK THE APPROPRIATE BOX TO INDICATE THE EXTENT TO WHICH YOU AGREE/DISAGREE WITH EACH OF THE STATEMENTS.

Section 1: <u>Determinants of dividend payment levels</u> ***This section seeks your views on the factors a firm should consider in setting its dividend payment policy***	**Strongly Agree**	**Agree**	**Uncertain**	**Disagree**	**Disagree Strongly**
A firm should					
1. Allow the dividend to fluctuate in accordance with its current investment and financing needs	☐	☐	☐	☐	☐
2. Be responsive to its shareholders' preferences regarding dividends	☐	☐	☐	☐	☐
3. Have a target dividend pay-out ratio	☐	☐	☐	☐	☐
4. Avoid making changes in its dividend rates that might have to be reversed in a year or so	☐	☐	☐	☐	☐
5. Strive to maintain an uninterrupted record of dividend payments	☐	☐	☐	☐	☐
6. Determine the current dividend based on last year's dividend	☐	☐	☐	☐	☐
7. Determine the current dividend based on cash flow/liquidity considerations	☐	☐	☐	☐	☐
8. Base the current dividend on the amount of dividend paid by its competitors	☐	☐	☐	☐	☐
9. Base the current dividend on the firm's current earnings	☐	☐	☐	☐	☐
10. Base the current dividend on the firm's expected earnings	☐	☐	☐	☐	☐

If you have any further comments on the factors which your firm would consider in setting its dividend payment policy please include them here.

Section 2: Market Signals This section seeks your views on how the market/investors react to dividends	**Strongly Agree**	**Agree**	**Uncertain**	**Disagree**	**Disagree Strongly**
1. The market views dividend announcements entirely independently of concurrent earnings announcements	☐	☐	☐	☐	☐
2. Dividend payments provide a signal of future earnings prospects	☐	☐	☐	☐	☐
3. An increase in dividends will usually lead to a rise in share price	☐	☐	☐	☐	☐
4. The market reaction to an increase in dividend will depend on how the new figure compares to investors' expectations	☐	☐	☐	☐	☐
5. A change in the existing dividend payout is more important than the actual amount of dividends paid	☐	☐	☐	☐	☐
6. Investors perceive dividends to be less risky than capital gains	☐	☐	☐	☐	☐
7. A decrease in dividends will usually lead to a fall in share price	☐	☐	☐	☐	☐
8. The market reaction to a decrease in dividend will depend on how the new figure compares to investors' expectations	☐	☐	☐	☐	☐
9. Investors base their expectations about this year's dividend on:	☐	☐	☐	☐	☐
(a) The previous year's dividend	☐	☐	☐	☐	☐
(b) Trends within the sector	☐	☐	☐	☐	☐
(c) Current economic conditions	☐	☐	☐	☐	☐
(d) Last year's earnings announcement	☐	☐	☐	☐	☐
(e) Forecast earnings	☐	☐	☐	☐	☐

If you have any further comments on how the market/investors react to dividends please include them here.

Section 3: Taxation ***This section seeks your views on the influence of taxation on dividend policy***	**Strongly Agree**	**Agree**	**Uncertain**	**Disagree**	**Disagree Strongly**
1. Management should determine the annual dividend based on their perception of the tax status of the shareholders	☐	☐	☐	☐	☐
2. Investors in high tax brackets are attracted to low dividend shares	☐	☐	☐	☐	☐
3. Investors in low tax brackets are attracted to high dividend shares	☐	☐	☐	☐	☐
4. The abolition of the tax credits on dividends has made dividend payments less attractive to investors	☐	☐	☐	☐	☐
5. Investors prefer returns from capital gains rather than dividends because of the reduction in the capital gains tax rate to 20%	☐	☐	☐	☐	☐
6. The taxation of scrip dividends as income rather than deferred capital gains has made cash dividends more attractive to shareholders	☐	☐	☐	☐	☐
7. The introduction of the dividend withholding tax has made dividend payments less attractive to shareholders	☐	☐	☐	☐	☐
8. The introduction of the new 12.5% rate of Corporation Tax will lead to higher dividend pay-outs	☐	☐	☐	☐	☐
9. The introduction of capital gains tax treatment for employee share options will lead to higher dividend pay-out ratios	☐	☐	☐	☐	☐

If you have any further comments on the influence of taxation on dividend policy please include them here.

SECTION 4: General Information Please tick the appropriate box

	Yes	No
1. Is your company or your parent company quoted on a Stock Exchange?	☐	☐
2. Does your company or parent company pay an ordinary dividend each year?	☐	☐
3. Has the level of the dividend changed since the previous year?	☐	☐
4. Should the reasons for dividend payments be fully explained to investors?	☐	☐

5. If "yes", please indicate the method you might use to explain to the market why a particular dividend has been set. (*Tick one or several)*

(a) Press releases	☐	☐
(b) Investor meetings	☐	☐
(c) Analyst/Stockbroker meetings/Fund managers road shows	☐	☐

(d) Other, please specify_____

6. Please indicate whether you would like us to send you a summary report of the results of this survey.

☐ ☐

7. Please indicate the main activity of your company:

Building	☐	Construction Materials	☐	Mining	☐	Energy	☐
Banking/ Financial Services	☐	Communications	☐	Property	☐	Biotech	☐
Manufacturing	☐	Storage/Transport	☐	Healthcare/Medical			☐
Wholesale/Retail	☐	Food/Drink	☐	Tourism/Leisure			☐
IT Software	☐	IT Hardware	☐	Business Services			☐
Other	☐	Please specify	_____				

8. Please indicate your position in your organisation

Chief Executive	☐	Chief Accountant	☐
Financial Director	☐	Company Secretary	☐
Other ☐		Please specify	_____

Thank you for completing this questionnaire

APPENDIX 6

Table 6.4A: Share Performance Around the Dividend Announcement Date

Abnormal Returns				Excess Returns			
Day	Median	Standardised Wilcoxon	p-value	Day	Median	Standardised Wilcoxon	p-value
t-20	0.0000	1.0424	0.297	t-20	0.0002	1.8085	0.071
t-19	0.0000	-0.3973	0.691	t-19	0.0000	-0.5498	0.583
t-18	0.0000	0.1824	0.855	t-18	0.0000	0.3121	0.755
t-17	-0.0003	-1.1224	0.262	t-17	0.0000	0.5860	0.558
t-16	0.0001	0.6075	0.544	t-16	0.0000	0.6988	0.485
t-15	0.0000	0.1679	0.867	t-15	0.0000	0.1523	0.879
t-14	0.0000	-0.4085	0.683	t-14	0.0000	0.2704	0.787
t-13	-0.0001	0.6472	0.518	t-13	0.0000	1.6749	0.094
t-12	0.0000	-0.4676	0.640	t-12	0.0000	-1.2038	0.229
t-11	0.0000	0.4992	0.618	t-11	0.0000	0.9514	0.342
t-10	0.0000	0.0517	0.959	t-10	0.0000	0.7351	0.462
t-9	-0.0001	0.0406	0.968	t-9	0.0000	1.5246	0.127
t-8	0.0000	-0.6237	0.533	t-8	0.0000	-0.8763	0.381
t-7	0.0004	1.2171	0.224	t-7	0.0000	0.9691	0.333
t-6	0.0001	0.3320	0.740	t-6	0.0000	0.0093	0.993
t-5	0.0000	0.4652	0.642	t-5	0.0000	0.2870	0.774
t-4	-0.0003	-0.2483	0.804	t-4	0.0000	2.0981	0.036*
t-3	0.0001	1.2857	0.199	t-3	0.0000	1.6424	0.101
t-2	0.0002	2.1445	0.032*	t-2	0.0000	2.7901	0.005*
t-1	0.0002	1.6395	0.101	t-1	0.0000	2.4126	0.016*
t-0	0.0013	4.9197	0.000*	t-0	0.0000	5.0466	0.000*
t+1	0.0002	1.4428	0.149	t+1	0.0000	2.1627	0.031*
t+2	0.0000	0.3180	0.751	t+2	0.0000	0.9845	0.325
t+3	0.0003	1.0598	0.289	t+3	0.0000	0.7121	0.477
t+4	-0.0001	-0.6067	0.544	t+4	0.0000	-0.6186	0.536
t+5	0.0000	0.0312	0.975	t+5	0.0000	0.0707	0.944
t+6	0.0000	-1.3852	0.166	t+6	0.0000	-1.6012	0.109
t+7	-0.0002	-1.0503	0.294	t+7	0.0000	-0.0297	0.977
t+8	0.0000	0.6330	0.527	t+8	0.0000	0.0454	0.964
t+9	-0.0001	-0.8285	0.407	t+9	0.0000	-0.7191	0.472
t+10	0.0001	-0.1263	0.900	t+10	0.0000	-0.5419	0.588
t+11	0.0004	2.6877	0.007*	t+11	0.0000	1.8433	0.065
t+12	-0.0001	-0.5103	0.610	t+12	0.0000	0.4361	0.663
t+13	-0.0002	-1.2582	0.208	t+13	0.0000	-1.1868	0.235
t+14	0.0000	-0.1461	0.884	t+14	0.0000	0.6590	0.510
t+15	0.0001	-0.0624	0.950	t+15	0.0000	0.6591	0.510
t+16	-0.0001	-1.6997	0.089	t+16	0.0000	-1.1676	0.243
t+17	0.0000	0.1997	0.842	t+17	0.0000	1.3195	0.187
t+18	-0.0001	-0.8669	0.386	t+18	0.0000	-0.6080	0.543
t+19	0.0000	1.0934	0.274	t+19	0.0000	0.4610	0.645
t+20	0.0002	0.7992	0.424	t+20	0.0000	0.1108	0.912

Note: This table highlights the median abnormal and excess returns for the sample firms for 41 days around the dividend announcement date (Day t). The standardised wilcoxon test examines the null hypothesis that the median is different from zero. An* indicates significance at the 5% level.

Table 6.5A: Share Performance for Dividend Increasing Companies

Abnormal Returns				Excess Returns			
Day	Median	Standardised Wilcoxon	p-value	Day	Median	Standardised Wilcoxon	p-value
t-20	0.0000	0.6771	0.498	t-20	0.0000	2.0493	0.040*
t-19	0.0000	-0.3775	0.706	t-19	0.0000	-0.0688	0.946
t-18	-0.0001	-0.5512	0.582	t-18	0.0000	0.4345	0.664
t-17	-0.0005	-1.9252	0.054	t-17	0.0000	-0.0221	0.983
t-16	0.0000	0.3558	0.722	t-16	0.0000	0.9735	0.331
t-15	-0.0002	-0.0168	0.987	t-15	0.0000	1.1143	0.265
t-14	-0.0003	-1.5225	0.128	t-14	0.0000	-0.5030	0.615
t-13	-0.0004	-0.2185	0.827	t-13	0.0000	1.6532	0.098
t-12	-0.0001	-0.7063	0.480	t-12	0.0000	0.1239	0.902
t-11	-0.0002	0.5257	0.599	t-11	0.0000	2.0142	0.044*
t-10	-0.0002	-0.9545	0.340	t-10	0.0000	0.5492	0.583
t-9	-0.0006	-1.1961	0.232	t-9	0.0000	0.5736	0.567
t-8	-0.0003	-1.3516	0.177	t-8	0.0000	-0.8431	0.400
t-7	0.0003	0.1386	0.890	t-7	0.0000	0.3062	0.76
t-6	-0.0001	-0.9992	0.318	t-6	0.0000	-0.2196	0.827
t-5	0.0001	0.8486	0.396	t-5	0.0000	0.8618	0.389
t-4	-0.0009	-2.2195	0.026*	t-4	0.0000	0.6988	0.485
t-3	-0.0001	-0.0653	0.948	t-3	0.0000	1.5587	0.119
t-2	0.0000	0.7611	0.447	t-2	0.0000	2.3232	0.020*
t-1	0.0004	2.1121	0.035*	t-1	0.0000	3.3371	0.001*
t-0	0.0016	5.2644	0.000*	t-0	0.0000	5.8154	0.000*
t+1	0.0002	1.4314	0.152	t+1	0.0000	2.4656	0.014*
t+2	-0.0004	-0.6944	0.488	t+2	0.0000	0.9128	0.362
t+3	0.0001	0.7887	0.430	t+3	0.0000	1.1285	0.259
t+4	-0.0005	-1.4818	0.138	t+4	0.0000	-0.5858	0.558
t+5	0.0000	0.2613	0.794	t+5	0.0000	1.0787	0.281
t+6	-0.0004	-1.8011	0.072	t+6	0.0000	-1.6567	0.098
t+7	-0.0007	-2.3816	0.017*	t+7	0.0000	-0.6461	0.519
t+8	-0.0004	-1.1696	0.242	t+8	0.0000	-0.6946	0.488
t+9	-0.0004	-1.3162	0.188	t+9	0.0000	-0.7046	0.481
t+10	-0.0003	-0.7043	0.481	t+10	0.0000	-0.0445	0.965
t+11	0.0005	2.4057	0.016*	t+11	0.0000	1.6388	0.101
t+12	-0.0003	-0.7907	0.429	t+12	0.0000	-0.0822	0.935
t+13	-0.0005	-1.5661	0.117	t+13	0.0000	-0.7418	0.459
t+14	-0.0001	-0.6652	0.506	t+14	0.0000	1.4696	0.142
t+15	0.0000	0.2609	0.794	t+15	0.0000	1.7747	0.076
t+16	-0.0005	-1.8832	0.060	t+16	0.0000	-0.1088	0.914
t+17	-0.0005	-1.7853	0.074	t+17	0.0000	0.1611	0.872
t+18	-0.0004	-1.8524	0.064	t+18	0.0000	-0.5171	0.606
t+19	0.0000	0.7252	0.468	t+19	0.0000	2.0921	0.036*
t+20	0.0000	-0.3613	0.718	t+20	0.0000	-0.3322	0.740

Note: This table highlights the median abnormal and excess returns for the sample firms for 41 days around the dividend announcement date (Day t). The standardised wilcoxon test examines the null hypothesis that the median is different from zero. An* indicates significance at the 5% level.

Table 6.6A: Share Performance for Dividend Decreasing Companies

Abnormal Returns				Excess Returns			
Day	Median	Standardised Wilcoxon	p-value	Day	Median	Standardised Wilcoxon	p-value
t-20	0.0000	0.1876	0.854	t-20	0.0000	-0.1429	0.898
t-19	0.0009	1.3622	0.174	t-19	0.0000	0.5227	0.614
t-18	0.0012	0.8483	0.399	t-18	0.0000	0.0000	1.000
t-17	0.0010	1.1257	0.262	t-17	0.0000	0.6571	0.520
t-16	-0.0006	-0.8810	0.381	t-16	0.0000	-1.7534	0.082
t-15	0.0003	0.0979	0.925	t-15	0.0000	-0.5032	0.626
t-14	0.0012	0.8116	0.419	t-14	0.0000	0.2435	0.820
t-13	0.0013	1.7375	0.083	t-13	0.0000	1.2071	0.237
t-12	0.0013	1.5172	0.13	t-12	0.0000	0.0286	0.989
t-11	0.0004	0.0816	0.938	t-11	0.0000	-0.5387	0.602
t-10	0.0001	-0.0897	0.932	t-10	0.0000	-1.1573	0.255
t-9	0.0004	0.7831	0.436	t-9	0.0000	0.2737	0.796
t-8	0.0004	0.9136	0.363	t-8	0.0000	1.1101	0.274
t-7	-0.0007	-0.4405	0.663	t-7	0.0000	-1.2877	0.205
t-6	0.0016	1.1909	0.235	t-6	0.0000	0.9253	0.363
t-5	0.0009	0.4486	0.657	t-5	0.0000	-0.0143	1.000
t-4	0.0003	0.5710	0.571	t-4	0.0000	-0.3733	0.723
t-3	0.0007	0.7015	0.486	t-3	0.0000	-0.1912	0.862
t-2	0.0012	2.2187	0.027*	t-2	0.0000	1.8225	0.072
t-1	-0.0003	-0.1876	0.854	t-1	0.0000	-1.2166	0.230
t-0	0.0004	-0.3997	0.692	t-0	0.0000	-0.9910	0.326
t+1	0.0007	1.0196	0.310	t+1	0.0000	-0.4058	0.697
t+2	0.0020	2.2595	0.024*	t+2	0.0000	1.6851	0.094
t+3	0.0013	1.0523	0.295	t+3	0.0000	-0.0404	0.979
t+4	0.0009	0.7423	0.460	t+4	0.0000	-0.2159	0.839
t+5	0.0005	0.1305	0.899	t+5	0.0000	-0.9524	0.347
t+6	0.0010	0.9870	0.326	t+6	0.0000	-0.3123	0.764
t+7	0.0006	0.6607	0.511	t+7	0.0000	-0.8587	0.401
t+8	0.0007	0.7260	0.470	t+8	0.0000	-1.0949	0.281
t+9	-0.0003	-0.3834	0.704	t+9	0.0000	-0.2433	0.820
t+10	0.0005	0.3508	0.729	t+10	0.0000	-0.0869	0.945
t+11	0.0003	0.3915	0.698	t+11	0.0000	-0.0747	0.955
t+12	0.0004	1.0930	0.276	t+12	0.0000	1.7202	0.089
t+13	-0.0006	-0.6199	0.538	t+13	0.0000	-0.6347	0.538
t+14	0.0009	1.3378	0.182	t+14	0.0000	-1.1359	0.268
t+15	-0.0006	-0.7749	0.441	t+15	0.0000	-1.2877	0.205
t+16	0.0009	1.0278	0.306	t+16	0.0000	-0.0933	0.940
t+17	0.0018	2.5940	0.010*	t+17	0.0000	1.8248	0.071
t+18	0.0012	1.1828	0.239	t+18	0.0000	0.2817	0.794
t+19	-0.0002	-0.6444	0.522	t+19	0.0000	-1.9466	0.053
t+20	0.0014	1.8843	0.060	t+20	0.0000	1.5741	0.119

Note: This table highlights the mean and median abnormal and excess returns for the dividend increasing sample firms for 41 days around the dividend announcement date (Day t). SD refers to the standard deviation. An* indicates significance at the 5% level.

Table 6.7A: Share Performance for Dividend No Change Companies

Abnormal Returns				Excess Returns			
Day	Median	Standardised Wilcoxon	p-value	Day	Median	Standardised Wilcoxon	p-value
t-20	0.0002	0.9620	0.336	t-20	0.0000	0.7582	0.451
t-19	-0.0002	-0.8763	0.381	t-19	0.0000	-1.1888	0.236
t-18	0.0003	0.7326	0.464	t-18	0.0000	-0.1470	0.886
t-17	0.0001	0.1687	0.867	t-17	0.0000	0.7486	0.458
t-16	0.0003	1.1792	0.239	t-16	0.0000	0.9915	0.324
t-15	0.0003	0.2887	0.773	t-15	0.0000	-1.1904	0.235
t-14	0.0004	1.0322	0.302	t-14	0.0000	1.2315	0.220
t-13	0.0001	0.8622	0.389	t-13	0.0000	0.3487	0.731
t-12	0.0003	-0.6409	0.522	t-12	0.0000	-2.5766	0.010*
t-11	0.0003	0.2348	0.815	t-11	0.0000	-0.8943	0.373
t-10	0.0003	1.6245	0.104	t-10	0.0000	1.3639	0.174
t-9	0.0004	1.4181	0.156	t-9	0.0000	2.0528	0.041*
t-8	0.0004	0.3926	0.695	t-8	0.0000	-1.3171	0.189
t-7	0.0007	2.3180	0.020*	t-7	0.0000	1.4480	0.149
t-6	0.0005	1.4127	0.158	t-6	0.0000	0.1232	0.905
t-5	-0.0001	-0.5701	0.569	t-5	0.0000	-0.6821	0.497
t-4	0.0007	2.7373	0.006*	t-4	0.0000	2.3593	0.019*
t-3	0.0008	2.1469	0.032*	t-3	0.0000	1.0955	0.275
t-2	0.0008	1.8147	0.07	t-2	0.0000	0.9042	0.367
t-1	0.0001	0.0998	0.921	t-1	0.0000	0.4066	0.687
t-0	0.0008	1.7552	0.079	t-0	0.0000	1.5001	0.134
t+1	0.0002	0.1889	0.851	t+1	0.0000	0.6152	0.540
t+2	0.0003	0.4034	0.687	t+2	0.0000	-0.2973	0.769
t+3	0.0002	0.3032	0.762	t+3	0.0000	0.0539	0.959
t+4	0.0003	0.8433	0.399	t+4	0.0000	-0.1840	0.857
t+5	0.0003	-0.2798	0.780	t+5	0.0000	-0.8169	0.416
t+6	0.0000	-0.4364	0.663	t+6	0.0000	-0.4813	0.632
t+7	0.0004	1.5233	0.128	t+7	0.0000	1.3468	0.179
t+8	0.0009	2.6195	0.009*	t+8	0.0000	1.6498	0.100
t+9	0.0004	0.6037	0.547	t+9	0.0000	-0.1113	0.914
t+10	0.0005	0.8095	0.419	t+10	0.0000	-1.1497	0.252
t+11	0.0004	1.2542	0.210	t+11	0.0000	1.3280	0.186
t+12	0.0000	-0.3414	0.733	t+12	0.0000	0.0980	0.925
t+13	0.0003	0.4845	0.628	t+13	0.0000	-0.5180	0.607
t+14	0.0001	0.2078	0.836	t+14	0.0000	-0.3467	0.732
t+15	0.0003	0.0321	0.975	t+15	0.0000	-0.7327	0.466
t+16	0.0002	-0.7081	0.479	t+16	0.0000	-2.0112	0.045*
t+17	0.0003	1.4737	0.141	t+17	0.0000	1.2110	0.227
t+18	0.0003	0.5448	0.586	t+18	0.0000	-0.5562	0.581
t+19	0.0006	1.2395	0.215	t+19	0.0000	-0.4476	0.657
t+20	0.0005	1.0409	0.298	t+20	0.0000	0.0172	0.990

Note: This table highlights the mean and median abnormal and excess returns for the dividend no change sample firms for 41 days around the dividend announcement date (Day t). SD refers to the standard deviation. An* indicates significance at the 5% level.

Table 6.8 A medians and Wilcoxon test of share performance for different dividend earnings sub-groups

	Group	Abnormal Returns		Excess Returns	
		Median	p-value	Median	p-value
A	DIEI N=325)				
	Day t-2	0.0004	0.4720	0.0000	0.0150*
	Day t-1	0.0011	0.0330*	0.0000	0.0000*
	Day t	0.0055	0.0000*	0.0067	0.0000*
	Day t+1	0.0015	0.0580	0.0013	0.0020*
	Day t-2	-0.0005	0.2700	0.0000	0.6210
	Days t-2 to t+2	0.0144	0.0000*	0.0195	0.0000*
B	DIEDN=103)				
	Day t-2	0.0002	0.7920	0.0000	0.5890
	Day t-1	0.0004	0.7040	0.0000	0.9620
	Day t	0.0036	0.0190*	0.0031	0.0740
	Day t+1	-0.0005	0.7010	0.0000	0.6710
	Day t-2	0.0006	0.5890	0.0000	0.3420
	Days t-2 to t+2	0.0067	0.1560	0.0068	0.1050
C	DDEI (N=23)				
	Day t-2	0.0015	0.2670	0.0000	0.1510
	Day t-1	-0.0003	0.9150	0.0000	0.7600
	Day t	0.0011	0.5740	0.0000	0.5630
	Day t+1	-0.0007	0.5740	0.0000	0.5540
	Day t-2	0.0017	0.2540	0.0000	0.3150
	Days t-2 to t+2	0.0164	0.1660	0.0233	0.0670
D	DDED (N=33)				
	Day t-2	0.0032	0.0510	0.0000	0.3590
	Day t-1	0.0000	0.9710	0.0000	0.0690
	Day t	-0.0061	0.3260	-0.0063	0.0890
	Day t+1	0.0029	0.1200	0.0000	1.0000
	Day t-2	0.0047	0.0400*	0.0000	0.2330
	Days t-2 to t+2	0.0006	0.9570	-0.0016	0.1750
E	DNCEI (N=95)				
	Day t-2	0.0012	0.1720	0.0000	0.0770
	Day t-1	-0.0004	0.6200	0.0000	0.8730
	Day t	0.0077	0.0020*	0.0089	0.0010*
	Day t+1	-0.0013	0.2510	0.0000	0.3000
	Day t-2	0.0000	0.9740	0.0000	0.6740
	Days t-2 to t+2	0.0111	0.0740	0.0070	0.0540
F	DNCED (N=95)				
	Day t-2	0.0009	0.2140	0.0000	0.4490
	Day t-1	0.0005	0.4770	0.0000	0.4220
	Day t	-0.0007	0.5000	0.0000	0.1900
	Day t+1	0.0014	0.1490	0.0000	0.0260*
	Day t-2	0.0005	0.5970	0.0000	0.9590
	Days t-2 to t+2	0.0038	0.4640	0.0000	0.9940

Note: This table shows the abnormal and excess returns for the five-day period day t-2 to day t+2 for the sample firms split into six sub-groups depending on the change in dividend and the change in earnings: Panel A = those firms which increased dividend and earnings (DIEI), Panel B = those which increased dividends when earnings fell (DIED), Panel C = those which cut their dividends when earnings increased (DD-EI), Panel D = those where dividends and earnings fell (DDED), Panel E = those which did not change their dividends despite reporting increased earnings (DNCEI), and Panel F = those which maintained their dividend despite a drop in reported earnings (DNCED). An * indicates significance at 5%.

Appendix 6.8.1 Panel A: Share performance around the dividend announcement date for dividend increasing and earnings increasing companies (DIEI)

	Abnormal Returns			Excess Returns		
Day	Mean	SD	p-value	Mean	SD	p-value
t-20	-0.0001	0.0186	0.909	0.0007	0.0193	0.106
t-19	-0.0006	0.0218	0.291	-0.0001	0.0225	0.993
t-18	0.0002	0.0197	0.622	0.0006	0.0202	0.457
t-17	0.0004	0.0248	0.034*	0.0011	0.0255	0.984
t-16	0.0001	0.0187	0.337	0.0003	0.0191	0.849
t-15	0.0004	0.0180	0.795	0.0013	0.0186	0.087
t-14	-0.0015	0.0172	0.049*	-0.0008	0.0178	0.619
t-13	0.0013	0.0190	0.607	0.0019	0.0190	0.055
t-12	-0.0011	0.0203	0.179	-0.0001	0.0209	0.781
t-11	0.0013	0.0227	0.740	0.0020	0.0229	0.033*
t-10	-0.0007	0.0218	0.238	0.0002	0.0222	0.492
t-9	-0.0004	0.0225	0.200	0.0006	0.0233	0.522
t-8	-0.0014	0.0179	0.135	-0.0008	0.0179	0.829
t-7	-0.0004	0.0218	0.784	0.0002	0.0214	0.277
t-6	-0.0008	0.0148	0.128	-0.0004	0.0161	0.806
t-5	0.0001	0.0235	0.659	0.0007	0.0248	0.231
t-4	0.0005	0.0167	0.005*	0.0019	0.0172	0.490
t-3	0.0004	0.0268	0.528	0.0016	0.0275	0.092
t-2	0.0019	0.0239	0.1513	0.0028	0.0244	0.041*
t-1	0.0033	0.0245	0.0171*	0.0042	0.0247	0.003*
t-0	0.0099	0.0378	0.000*	0.0107	0.0382	0.000*
t+1	0.0042	0.0256	0.0031*	0.0049	0.0263	0.001*
t+2	-0.0007	0.0245	0.5841	-0.0001	0.0250	0.970
t+3	0.0005	0.0204	0.672	0.0011	0.0210	0.269
t+4	-0.0006	0.0295	0.119	-0.0001	0.0301	0.651
t+5	0.0006	0.0193	0.885	0.0008	0.0199	0.385
t+6	-0.0016	0.0193	0.067	-0.0010	0.0200	0.187
t+7	-0.0010	0.0237	0.011*	-0.0004	0.0246	0.355
t+8	-0.0021	0.0261	0.052	-0.0014	0.0271	0.472
t+9	-0.0013	0.0173	0.033*	-0.0009	0.0179	0.266
t+10	-0.0001	0.0205	0.135	0.0003	0.0210	0.863
t+11	0.0023	0.0239	0.023*	0.0023	0.0245	0.054
t+12	-0.0005	0.0186	0.267	0.0002	0.0190	0.935
t+13	-0.0006	0.0165	0.218	-0.0005	0.0165	0.862
t+14	0.0008	0.0204	0.229	0.0014	0.0208	0.267
t+15	0.0026	0.0328	0.610	0.0035	0.0329	0.083
t+16	0.0000	0.0196	0.017*	0.0012	0.0202	0.954
t+17	-0.0003	0.0229	0.039*	0.0004	0.0236	0.652
t+18	-0.0014	0.0180	0.008*	-0.0005	0.0185	0.645
t+19	0.0009	0.0167	0.393	0.0017	0.0168	0.078
t+20	-0.0007	0.0235	0.491	-0.0003	0.0240	0.927

Note: This table shows the abnormal and excess returns for the forty-one days period day t-20 to day t+20 for the sample firms where dividends increased and earnings increased (DIE1) (N=325). An* indicates significance at the 5% level.

Appendix 6.8.1 Panel B: Share performance around the dividend announcement date for dividend increasing and earnings decreasing companies (DIED)

	Abnormal Returns			Excess Returns		
Day	Mean	SD	p-value	Mean	SD	p-value
t-20	0.0025	0.0272	0.281	0.0022	0.0285	0.212
t-19	0.0008	0.0237	0.240	0.0001	0.0244	0.928
t-18	-0.0008	0.0278	0.876	-0.0010	0.0276	0.562
t-17	-0.0019	0.0327	0.890	-0.0015	0.0329	0.890
t-16	0.0041	0.0167	0.010*	0.0042	0.0167	0.014*
t-15	-0.0028	0.0261	0.742	-0.0033	0.0265	0.481
t-14	0.0001	0.0249	0.794	0.0002	0.0249	0.954
t-13	0.0023	0.0238	0.682	0.0015	0.0247	0.923
t-12	0.0018	0.0154	0.311	0.0002	0.0147	0.843
t-11	0.0019	0.0282	0.585	0.0018	0.0283	0.713
t-10	0.0005	0.0170	0.732	0.0006	0.0170	0.895
t-9	0.0006	0.0308	0.855	0.0014	0.0310	1.000
t-8	-0.0051	0.0251	0.898	-0.0057	0.0254	0.055
t-7	-0.0012	0.0152	0.867	-0.0023	0.0145	0.185
t-6	0.0010	0.0150	0.423	0.0003	0.0157	0.957
t-5	0.0002	0.0173	0.373	-0.0013	0.0182	0.638
t-4	0.0012	0.0211	0.611	0.0009	0.0210	0.839
t-3	-0.0002	0.0257	0.289	-0.0006	0.0262	0.887
t-2	0.0027	0.0287	0.3443	0.0031	0.0290	0.589
t-1	-0.0015	0.0218	0.4956	-0.0013	0.0214	0.962
t-0	0.0048	0.0240	0.0438*	0.0047	0.0242	0.074*
T+1	0.0007	0.0412	0.8634	0.0006	0.0407	0.671
T+2	0.0013	0.0253	0.5988	0.0011	0.0257	0.342
T+3	0.0006	0.0199	0.359	0.0004	0.0205	0.842
t+4	-0.0021	0.0285	0.805	-0.0018	0.0291	0.690
t+5	-0.0004	0.0254	0.448	0.0000	0.0262	0.526
t+6	-0.0012	0.0218	0.633	-0.0017	0.0225	0.348
t+7	0.0013	0.0212	0.713	0.0018	0.0218	0.747
t+8	0.0031	0.0209	0.221	0.0017	0.0210	0.935
t+9	0.0023	0.0151	0.256	0.0012	0.0162	0.535
t+10	0.0011	0.0151	0.259	0.0005	0.0165	0.846
t+11	-0.0012	0.0188	0.373	-0.0021	0.0216	0.935
t+12	0.0012	0.0177	0.628	0.0002	0.0196	0.972
t+13	-0.0019	0.0263	0.295	-0.0009	0.0293	0.255
t+14	0.0014	0.0165	0.500	0.0017	0.0198	0.360
t+15	0.0005	0.0195	0.127	0.0005	0.0198	0.570
t+16	-0.0014	0.0239	0.697	-0.0017	0.0240	0.684
t+17	0.0012	0.0218	0.852	0.0007	0.0211	0.598
t+18	0.0028	0.0230	0.362	0.0014	0.0240	0.726
t+19	0.0033	0.0210	0.006*	0.0019	0.0209	0.221
t+20	-0.0009	0.0189	0.679	-0.0014	0.0196	0.609

Note: This table shows the abnormal and excess returns for the forty-one days period day t-20 to day t+20 for the sample firms where dividends increased and earnings fell (DIED) (N=103). An* indicates significance at the 5% level.

Appendix 6.8.1 Panel C: Share performance around the dividend announcement date for dividend decreasing and earnings increasing companies (DDEI)

Abnormal Returns				Excess Returns		
Day	MEAN	SD	p-value	MEAN	SD	p-value
t-20	-0.0006	0.0168	0.533	-0.0016	0.0179	0.813
t-19	0.0076	0.0208	0.438	0.0056	0.0210	0.286
t-18	0.0008	0.0231	0.157	0.0007	0.0232	0.529
t-17	-0.0090	0.0328	0.176	-0.0091	0.0342	0.236
t-16	0.0017	0.0184	0.915	0.0011	0.0211	0.919
t-15	0.0105	0.0296	0.140	0.0093	0.0309	0.262
t-14	0.0141	0.0337	0.149	0.0129	0.0328	0.100
t-13	0.0081	0.0480	0.727	0.0090	0.0471	0.441
t-12	-0.0092	0.0499	1.000	-0.0102	0.0505	0.563
t-11	-0.0063	0.0255	0.207	-0.0065	0.0276	0.415
t-10	-0.0085	0.0155	0.125	-0.0102	0.0175	0.013*
t-9	0.0008	0.0499	0.323	0.0008	0.0505	0.800
t-8	-0.0011	0.0305	0.595	-0.0003	0.0310	0.760
t-7	-0.0017	0.0092	0.513	-0.0022	0.0102	0.272
t-6	0.0032	0.0220	0.294	0.0041	0.0216	0.262
t-5	-0.0016	0.0198	0.386	-0.0001	0.0180	0.666
t-4	-0.0046	0.0217	0.475	-0.0048	0.0219	0.343
t-3	0.0070	0.0281	0.727	0.0067	0.0276	0.625
t-2	0.0080	0.0283	0.267	0.0080	0.0270	0.151
t-1	0.0004	0.0221	0.915	0.0015	0.0212	0.760
t-0	0.0070	0.0410	0.574	0.0091	0.0437	0.563
t+1	-0.0021	0.0248	0.574	-0.0020	0.0254	0.554
t+2	0.0143	0.0432	0.254	0.0130	0.0420	0.315
t+3	0.0098	0.0291	0.323	0.0079	0.0286	0.398
t+4	0.0007	0.0204	0.494	0.0016	0.0216	0.724
t+5	-0.0009	0.0196	0.843	-0.0008	0.0213	0.756
t+6	0.0045	0.0254	0.280	0.0057	0.0248	0.451
t+7	-0.0074	0.0154	0.053	-0.0060	0.0131	0.059
t+8	0.0013	0.0131	0.533	-0.0011	0.0133	0.722
t+9	0.0002	0.0298	0.149	0.0015	0.0307	0.919
t+10	0.0065	0.0227	0.704	0.0084	0.0246	0.307
t+11	-0.0041	0.0162	0.354	-0.0043	0.0149	0.234
t+12	0.0032	0.0104	0.323	0.0029	0.0122	0.441
t+13	-0.0039	0.0234	0.207	-0.0034	0.0228	0.554
t+14	-0.0118	0.0448	0.820	-0.0131	0.0440	0.183
t+15	-0.0018	0.0143	0.403	-0.0036	0.0159	0.343
t+16	0.0016	0.0155	0.659	0.0031	0.0162	0.529
t+17	0.0197	0.0531	0.061	0.0196	0.0511	0.024*
t+18	-0.0027	0.0080	0.456	-0.0027	0.0103	0.205
t+19	-0.0023	0.0237	0.574	-0.0032	0.0224	0.554
t+20	0.0094	0.0258	0.254	0.0083	0.0259	0.236

Note: This table shows the abnormal and excess returns for the forty-one days period day t-20 to day t+20 for the sample firms where dividends decreased and earnings increased (DDEI) (N=23). An* indicates significance at the 5% level.

Appendix 6.8.1 Panel D: Share performance around the dividend announcement date for dividend decreasing and earnings decreasing companies (DDED)

	Abnormal Returns			Excess Returns		
Day	Mean	Std Deviation	p-value	Mean	Std Deviation	p-value
t-20	0.0009	0.0291	0.475	-0.0001	0.0287	0.887
t-19	0.0055	0.0310	0.317	0.0027	0.0313	0.563
t-18	0.0007	0.0227	0.915	-0.0004	0.0217	0.724
t-17	0.0105	0.0314	0.015*	0.0082	0.0301	0.094
t-16	-0.0129	0.0368	0.158	-0.0137	0.0351	0.045*
t-15	-0.0060	0.0346	0.268	-0.0078	0.0354	0.126
t-14	-0.0046	0.0269	0.851	-0.0062	0.0251	0.197
t-13	0.0063	0.0195	0.014*	0.0043	0.0184	0.286
t-12	-0.0023	0.0465	0.056	-0.0028	0.0451	0.625
t-11	-0.0004	0.0450	0.224	-0.0009	0.0442	0.894
t-10	0.0056	0.0362	0.198	0.0051	0.0387	0.505
t-9	-0.0011	0.0475	0.816	-0.0024	0.0471	0.979
t-8	0.0092	0.0228	0.093	0.0085	0.0229	0.069
t-7	0.0012	0.0167	0.943	-0.0003	0.0158	0.327
t-6	0.0018	0.0161	0.655	0.0011	0.0172	0.969
t-5	0.0044	0.0348	0.129	0.0039	0.0383	0.583
t-4	0.0013	0.0252	0.198	0.0011	0.0234	0.894
t-3	0.0016	0.0270	0.555	-0.0007	0.0306	0.415
t-2	0.0065	0.0170	0.051	0.0037	0.0166	0.359
t-1	-0.0064	0.0265	0.971	-0.0098	0.0291	0.069
t-0	-0.0157	0.0535	0.326	-0.0165	0.0530	0.089
t+1	0.0012	0.0321	0.120	-0.0012	0.0332	1.000
t+2	0.0052	0.0473	0.040*	0.0045	0.0493	0.233
t+3	-0.0029	0.0554	0.555	-0.0040	0.0568	0.572
t+4	-0.0070	0.0500	0.642	-0.0073	0.0477	0.660
t+5	-0.0105	0.0471	0.789	-0.0116	0.0472	0.293
t+6	-0.0011	0.0349	0.509	-0.0043	0.0339	0.295
t+7	0.0041	0.0300	0.028*	0.0010	0.0302	0.724
t+8	-0.0047	0.0286	0.830	-0.0051	0.0309	0.367
t+9	-0.0043	0.0483	0.555	-0.0068	0.0488	0.780
t+10	-0.0013	0.0247	0.915	-0.0042	0.0241	0.308
t+11	0.0032	0.0264	0.253	0.0033	0.0252	0.410
t+12	0.0083	0.0323	0.453	0.0096	0.0290	0.126
t+13	-0.0010	0.0261	0.943	-0.0012	0.0262	0.824
t+14	0.0018	0.0231	0.112	-0.0008	0.0216	0.933
t+15	-0.0034	0.0285	0.734	-0.0033	0.0285	0.476
t+16	-0.0054	0.0381	0.411	-0.0056	0.0393	0.638
t+17	0.0056	0.0303	0.104	0.0035	0.0320	0.724
t+18	0.0026	0.0339	0.056	0.0011	0.0355	0.367
t+19	-0.0165	0.0553	0.681	-0.0176	0.0555	0.083
t+20	0.0085	0.0371	0.174	0.0075	0.0378	0.339

Note: This table shows the abnormal and excess returns for the forty-one days period day t-20 to day t+20 for the sample firms where dividends decreased and earnings fell (DDED) (N=33). An* indicates significance at the 5% level.

Appendix 6.8.1 Panel E: Share performance around the dividend announcement date for dividend no change and earnings increasing companies (DNCEI)

	Abnormal Returns			Excess Returns		
Day	Mean	Std Deviation	p-value	Mean	Std Deviation	p-value
t-20	0.0026	0.0305	0.579	0.0020	0.0305	0.869
t-19	-0.0020	0.0273	0.198	-0.0013	0.0263	0.600
t-18	-0.0036	0.0292	0.832	-0.0038	0.0294	0.325
t-17	0.0009	0.0267	0.736	0.0023	0.0271	0.322
t-16	-0.0016	0.0251	0.869	0.0001	0.0203	0.919
t-15	-0.0050	0.0293	0.331	-0.0043	0.0295	0.319
t-14	0.0077	0.0355	0.112	0.0085	0.0353	0.016*
t-13	0.0001	0.0197	0.918	0.0003	0.0192	0.952
t-12	-0.0080	0.0441	0.135	-0.0078	0.0426	0.026*
t-11	-0.0042	0.0333	0.245	-0.0039	0.0330	0.051
t-10	0.0051	0.0268	0.177	0.0044	0.0280	0.197
t-9	0.0049	0.0244	0.231	0.0051	0.0233	0.053
t-8	0.0005	0.0174	0.964	0.0003	0.0188	0.864
t-7	0.0037	0.0341	0.117	0.0032	0.0333	0.364
t-6	0.0019	0.0370	0.349	0.0018	0.0370	0.525
t-5	-0.0004	0.0491	0.912	-0.0008	0.0487	0.868
t-4	0.0016	0.0332	0.129	0.0023	0.0333	0.057
t-3	0.0005	0.0262	0.425	0.0009	0.0253	0.549
t-2	0.0076	0.0379	0.172	0.0078	0.0374	0.077
t-1	-0.0028	0.0576	0.620	-0.0024	0.0574	0.873
t-0	0.0145	0.0486	0.002*	0.0147	0.0478	0.001*
t+1	-0.0017	0.0822	0.251	-0.0014	0.0826	0.300
t+2	-0.0025	0.0426	0.974	-0.0023	0.0430	0.674
t+3	0.0030	0.0761	0.742	0.0029	0.0770	0.764
t+4	0.0029	0.0464	0.977	0.0033	0.0466	0.811
t+5	-0.0047	0.0416	0.219	-0.0032	0.0411	0.278
t+6	-0.0069	0.0501	0.185	-0.0061	0.0502	0.446
t+7	-0.0002	0.0261	0.766	0.0006	0.0248	0.581
t+8	0.0059	0.0310	0.050*	0.0060	0.0300	0.071
t+9	-0.0046	0.0294	0.745	-0.0050	0.0299	0.124
t+10	-0.0041	0.0383	0.745	-0.0030	0.0382	0.617
t+11	0.0031	0.0343	0.611	0.0035	0.0346	0.475
t+12	-0.0011	0.0359	0.673	-0.0009	0.0351	0.935
t+13	0.0013	0.0306	0.629	0.0004	0.0302	0.838
t+14	-0.0047	0.0542	0.542	-0.0040	0.0549	0.761
t+15	-0.0037	0.0357	0.768	-0.0040	0.0349	0.461
t+16	-0.0033	0.0357	0.250	-0.0031	0.0353	0.126
t+17	0.0035	0.0654	0.135	0.0042	0.0659	0.106
t+18	0.0000	0.0368	0.899	0.0004	0.0366	0.864
t+19	-0.0021	0.0570	0.673	-0.0035	0.0574	0.824
t+20	0.0017	0.0327	0.579	0.0011	0.0322	0.703

Note: This table shows the abnormal and excess returns for the forty-one days period day t-20 to day t+20 for the sample firms where dividends no change and earnings increase (DNCEI) (N=95). An* indicates significance at the 5% level.

Appendix 6.8.1 Panel F: Share performance around the dividend announcement date for dividend no change and earnings decreasing companies (DNCED)

Abnormal Returns				Excess Returns		
Day	Mean	Std Deviation	P-value	Mean	Std Deviation	P-value
t-20	0.0028	0.0290	0.392	0.0030	0.0279	0.415
t-19	-0.0020	0.0269	1.000	-0.0028	0.0269	0.243
t-18	0.0038	0.0449	0.213	0.0030	0.0451	0.466
t-17	0.0001	0.0177	0.954	0.0001	0.0174	1.000
t-16	0.0062	0.0567	0.077	0.0058	0.0564	0.182
t-15	-0.0017	0.0326	0.130	-0.0029	0.0320	0.564
t-14	-0.0071	0.0682	0.916	-0.0080	0.0681	0.407
t-13	0.0034	0.0358	0.183	0.0024	0.0357	0.540
t-12	-0.0034	0.0249	0.448	-0.0045	0.0247	0.183
t-11	0.0038	0.0374	0.133	0.0026	0.0367	0.551
t-10	0.0045	0.0396	0.323	0.0033	0.0393	0.469
t-9	0.0045	0.0397	0.411	0.0035	0.0386	0.409
t-8	-0.0064	0.0367	0.633	-0.0073	0.0361	0.071
t-7	0.0024	0.0253	0.076	0.0023	0.0250	0.280
t-6	0.0000	0.0274	0.284	-0.0009	0.0277	0.627
t-5	-0.0076	0.0515	0.330	-0.0081	0.0508	0.233
t-4	0.0052	0.0369	0.021*	0.0043	0.0362	0.154
t-3	0.0047	0.0272	0.022*	0.0030	0.0259	0.375
t-2	-0.0032	0.0282	0.214	-0.0035	0.0268	0.449
t-1	-0.0049	0.0795	0.477	-0.0048	0.0789	0.422
t-0	-0.0093	0.0599	0.500	-0.0100	0.0598	0.190
T+1	0.0024	0.0802	0.149	0.0027	0.0804	0.026*
T+2	0.0090	0.0809	0.597	0.0088	0.0819	0.959
T+3	-0.0067	0.0784	0.904	-0.0062	0.0785	0.695
T+4	0.0011	0.0415	0.239	0.0004	0.0409	0.978
T+5	0.0071	0.0744	0.407	0.0059	0.0741	1.000
T+6	0.0001	0.0417	0.422	-0.0007	0.0414	0.830
T+7	0.0010	0.0877	0.013*	0.0002	0.0881	0.194
T+8	0.0025	0.0248	0.078	0.0015	0.0245	0.517
T+9	0.0043	0.0235	0.251	0.0036	0.0225	0.130
t+10	0.0017	0.0423	0.409	0.0005	0.0422	0.230
t+11	0.0032	0.0210	0.210	0.0025	0.0206	0.191
t+12	-0.0020	0.0359	0.993	-0.0018	0.0361	0.773
t+13	-0.0016	0.0189	0.805	-0.0019	0.0188	0.198
t+14	0.0004	0.0217	0.345	-0.0005	0.0226	0.851
t+15	-0.0028	0.0816	0.745	-0.0033	0.0810	0.801
t+16	-0.0018	0.0186	0.819	-0.0022	0.0185	0.183
t+17	0.0042	0.1121	0.549	0.0042	0.1129	0.888
t+18	-0.0010	0.0209	0.301	-0.0013	0.0196	0.563
t+19	-0.0033	0.0510	0.166	-0.0046	0.0518	0.645
t+20	-0.0003	0.0349	0.352	-0.0015	0.0348	0.682

Note: This table shows the abnormal and excess returns for the forty-one days period day t-20 to day t+20 for the sample firms where dividends no change and earnings fell (DNCED) (N=95). An* indicates significance at the 5% level.

Appendix 6.8.2 Panel A: Share performance around the dividend announcement date for dividend increasing and earnings increasing companies (DIEI)

	Abnormal Returns			Excess Returns		
Day	Median	p-value	Standardised Wilcoxon	Median	p-value	Standardised Wilcoxon
t-20	-0.0003	0.909	0.1150	0.0000	0.106	1.6195
t-19	-0.0004	0.291	-1.0560	0.0000	0.993	-0.0095
t-18	-0.0002	0.622	-0.4931	0.0000	0.457	0.7447
t-17	-0.0007	0.034	-2.1180	0.0000	0.984	0.0209
t-16	-0.0005	0.337	-0.9594	0.0000	0.849	-0.1913
t-15	-0.0003	0.795	-0.2596	0.0000	0.087	1.7119
t-14	-0.0005	0.049*	-1.9669	0.0000	0.619	-0.4984
t-13	-0.0006	0.607	-0.5150	0.0000	0.055	1.9175
t-12	-0.0004	0.179	-1.3452	0.0000	0.781	0.2787
t-11	-0.0004	0.740	0.3328	0.0000	0.033*	2.1335
t-10	-0.0004	0.238	-1.1799	0.0000	0.492	0.6875
t-9	-0.0007	0.200	-1.2806	0.0000	0.522	0.6409
t-8	-0.0007	0.135	-1.4934	0.0000	0.829	0.2175
t-7	0.0003	0.784	0.2738	0.0000	0.277	1.0885
t-6	-0.0005	0.128	-1.5242	0.0000	0.806	-0.2462
t-5	0.0000	0.659	0.4421	0.0000	0.231	1.1987
t-4	-0.0012	0.005*	-2.7936	0.0000	0.490	0.6910
t-3	-0.0004	0.528	-0.6308	0.0000	0.092	1.6864
t-2	-0.0001	0.472	0.7200	0.0000	0.015	2.4248
t-1	0.0002	0.033*	2.1275	0.0000	0.000*	3.7955
t-0	0.0015	0.000*	4.7278	0.0000	0.000*	5.5888
t+1	0.0002	0.058	1.8934	0.0000	0.002*	3.0991
t+2	-0.0004	0.270	-1.1028	0.0000	0.621	0.4959
t+3	0.0001	0.672	0.4231	0.0000	0.269	1.1053
t+4	-0.0006	0.119	-1.5580	0.0000	0.651	-0.4526
t+5	-0.0002	0.885	-0.1455	0.0000	0.385	0.8703
t+6	-0.0005	0.067	-1.8341	0.0000	0.187	-1.3202
t+7	-0.0008	0.011*	-2.5376	0.0000	0.355	-0.9254
t+8	-0.0008	0.052	-1.9426	0.0000	0.472	-0.7207
t+9	-0.0007	0.033*	-2.1319	0.0000	0.266	-1.1126
t+10	-0.0007	0.135	-1.4946	0.0000	0.863	-0.1736
t+11	0.0004	0.023*	2.2665	0.0000	0.054	1.9251
t+12	-0.0005	0.267	-1.1106	0.0000	0.935	-0.0827
t+13	-0.0006	0.218	-1.2317	0.0000	0.862	-0.1748
t+14	-0.0004	0.229	-1.2036	0.0000	0.267	1.1117
t+15	-0.0005	0.610	-0.5099	0.0000	0.083	1.7340
t+16	-0.0010	0.017*	-2.3823	0.0000	0.954	0.0579
t+17	-0.0008	0.039*	-2.0593	0.0000	0.652	0.4514
t+18	-0.0008	0.008*	-2.6632	0.0000	0.645	-0.4619
t+19	-0.0003	0.393	-0.8540	0.0000	0.078	1.7627
t+20	-0.0002	0.491	-0.6892	0.0000	0.927	-0.0929

Note: This table shows the abnormal and excess returns for the forty-one days period day t_{20} to day t_{+20} for the sample firms where dividends and earnings increased (DIEI) . An* indicates significance at the 5% level.

Appendix 6.8.2 Panel B: Share performance around the dividend announcement date for dividend increasing and earnings decreasing companies (DIED)

Abnormal Returns				Excess Returns		
Day	Median	p-value	Standardised Wilcoxon	Median	p-value	Standardised Wilcoxon
t-20	0.0006	0.281	1.0790	0.0000	0.212	1.2526
t-19	0.0002	0.240	1.1772	0.0000	0.928	-0.0959
t-18	0.0002	0.876	-0.1575	0.0000	0.562	-0.5873
t-17	0.0009	0.890	-0.1406	0.0000	0.890	-0.1436
t-16	0.0004	0.010	2.5661	0.0000	0.014	2.4633
t-15	0.0005	0.742	0.3303	0.0000	0.481	-0.7095
t-14	0.0000	0.794	0.2625	0.0000	0.954	-0.0635
t-13	0.0004	0.682	0.4116	0.0000	0.923	0.1014
t-12	0.0001	0.311	1.0146	0.0000	0.843	-0.2042
t-11	0.0000	0.585	0.5471	0.0000	0.713	0.3734
t-10	-0.0005	0.732	0.3438	0.0000	0.895	-0.1395
t-9	0.0006	0.855	-0.1846	0.0000	1.000	-0.0051
t-8	0.0003	0.898	-0.1304	0.0000	0.055	-1.9245
t-7	0.0004	0.867	-0.1686	0.0000	0.185	-1.3327
t-6	0.0004	0.423	0.8028	0.0000	0.957	0.0604
t-5	0.0000	0.373	0.8926	0.0000	0.638	-0.4762
t-4	0.0005	0.611	0.5098	0.0000	0.839	0.2075
t-3	0.0002	0.289	1.0620	0.0000	0.887	0.1475
t-2	0.0009	0.792	0.2659	0.0000	0.589	0.5442
t-1	0.0018	0.704	0.3811	0.0000	0.962	-0.0529
t-0	-0.0002	0.019	2.3484	0.0000	0.074	1.7923
t+1	-0.0002	0.701	-0.3856	0.0000	0.671	-0.4280
t+2	0.0005	0.589	0.5425	0.0000	0.342	0.9533
t+3	0.0000	0.359	0.9197	0.0000	0.842	0.2039
t+4	0.0006	0.805	-0.2490	0.0000	0.690	-0.4031
t+5	0.0000	0.448	0.7605	0.0000	0.526	0.6387
t+6	-0.0001	0.633	-0.4790	0.0000	0.348	-0.9421
t+7	0.0004	0.713	-0.3689	0.0000	0.747	0.3263
t+8	0.0003	0.221	1.2246	0.0000	0.935	-0.0874
t+9	0.0006	0.256	1.1366	0.0000	0.535	0.6256
t+10	0.0006	0.259	1.1298	0.0000	0.846	0.1992
t+11	0.0001	0.373	0.8926	0.0000	0.935	-0.0872
t+12	-0.0002	0.628	0.4861	0.0000	0.972	-0.0398
t+13	0.0005	0.295	-1.0485	0.0000	0.255	-1.1436
t+14	0.0012	0.500	0.6758	0.0000	0.360	0.9206
t+15	0.0007	0.127	1.5295	0.0000	0.570	0.5736
t+16	0.0004	0.697	0.3913	0.0000	0.684	-0.4120
t+17	0.0003	0.852	-0.1880	0.0000	0.598	-0.5322
t+18	0.0009	0.362	0.9130	0.0000	0.726	-0.3556
t+19	0.0004	0.006	2.7389	0.0000	0.221	1.2291
t+20	0.0001	0.679	0.4150	0.0000	0.609	-0.5165

Note: This table shows the abnormal and excess returns for the forty-one days period day t-20 to day t+20 for the sample firms where dividends increased and earnings fell (DIED) An* indicates significance at the 5% level.

Appendix 6.8.2 Panel C: Share performance around the dividend announcement date for dividend decreasing and earnings increasing companies (DDEI)

	Abnormal Returns			Excess Returns		
Day	Median	p-value	Standardised Wilcoxon	Median	p-value	Standardised Wilcoxon
t-20	-0.0008	0.533	-0.6387	0.0000	0.813	-0.2962
t-19	0.0009	0.438	0.7908	0.0000	0.286	1.1255
t-18	0.0018	0.157	1.4295	0.0000	0.529	0.7001
t-17	-0.0014	0.176	-1.3687	0.0000	0.236	-1.2439
t-16	-0.0007	0.915	0.1217	0.0000	0.919	0.1529
t-15	0.0009	0.140	1.4903	0.0000	0.262	1.1722
t-14	0.0014	0.149	1.4599	0.0000	0.100	1.6893
t-13	-0.0007	0.727	-0.3650	0.0000	0.441	0.8402
t-12	0.0004	1.000	0.0000	0.0000	0.563	-0.6224
t-11	-0.0014	0.207	-1.2774	0.0000	0.415	-0.8664
t-10	-0.0004	0.125	-1.5512	0.0000	0.013	-2.5471
t-9	0.0005	0.323	1.0037	0.0000	0.800	0.3381
t-8	-0.0005	0.595	-0.5475	0.0000	0.760	-0.3568
t-7	-0.0010	0.513	-0.6691	0.0000	0.272	-1.1832
t-6	0.0009	0.294	1.0645	0.0000	0.262	1.1722
t-5	-0.0005	0.386	-0.8820	0.0000	0.666	-0.4707
t-4	-0.0008	0.475	-0.7300	0.0000	0.343	-1.0070
t-3	0.0001	0.727	0.3650	0.0000	0.625	0.5335
t-2	0.0007	0.267	1.1254	0.0000	0.151	1.5213
t-1	-0.0009	0.915	-0.1217	0.0000	0.760	0.3568
t-0	0.0011	0.574	0.5779	0.0000	0.563	0.6224
t+1	-0.0006	0.574	-0.5779	0.0000	0.554	-0.6761
t+2	0.0010	0.254	1.1558	0.0000	0.315	1.0358
t+3	0.0011	0.323	1.0037	0.0000	0.398	0.8891
t+4	0.0010	0.494	0.6995	0.0000	0.724	0.3922
t+5	-0.0001	0.843	-0.2129	0.0000	0.756	-0.3556
t+6	0.0012	0.280	1.0949	0.0000	0.451	0.7847
t+7	-0.0006	0.053	-1.9466	0.0000	0.059	-1.9604
t+8	0.0002	0.533	0.6387	0.0000	0.722	-0.4146
t+9	-0.0015	0.149	-1.4599	0.0000	0.919	0.1529
t+10	0.0004	0.704	0.3954	0.0000	0.307	1.0669
t+11	-0.0009	0.354	-0.9429	0.0000	0.234	-1.2603
t+12	0.0000	0.323	1.0037	0.0000	0.441	0.8402
t+13	-0.0011	0.207	-1.2774	0.0000	0.554	-0.6516
t+14	0.0006	0.820	0.2433	0.0000	0.183	-1.4003
t+15	-0.0009	0.403	-0.8516	0.0000	0.343	-1.0070
t+16	0.0003	0.659	0.4562	0.0000	0.529	0.7338
t+17	0.0013	0.061	1.8857	0.0000	0.024	2.3102
t+18	-0.0002	0.456	-0.7604	0.0000	0.205	-1.3522
t+19	-0.0010	0.574	-0.5779	0.0000	0.554	-0.6761
t+20	0.0008	0.254	1.1558	0.0000	0.236	1.2439

Note: This table shows the abnormal and excess returns for the forty-one days period day t_{20} to day t_{+20} for the sample firms where dividends and earnings increased (DDEI). An* indicates significance at the 5% level.

Appendix 6.8.2 Panel D: A Share performance around the dividend announcement date for dividend decreasing and earnings decreasing companies (DDED)

Abnormal Returns				Excess Returns		
Day	Median	p-value	Standardised Wilcoxon	Median	p-value	Standardised Wilcoxon
t-20	0.0017	0.475	0.7236	0.0000	0.887	0.1704
t-19	0.0018	0.317	1.0095	0.0000	0.563	-0.6224
t-18	0.0012	0.915	0.1161	0.0000	0.724	-0.3922
t-17	0.0034	0.015	2.4390	0.0000	0.094	1.7039
t-16	-0.0005	0.158	-1.4205	0.0000	0.045	-2.0251
t-15	-0.0015	0.268	-1.1167	0.0000	0.126	-1.5689
t-14	-0.0003	0.851	-0.1965	0.0000	0.197	-1.3337
t-13	0.0021	0.014	2.4568	0.0000	0.286	1.1255
t-12	0.0022	0.056	1.9208	0.0000	0.625	0.5241
t-11	0.0010	0.224	1.2239	0.0000	0.894	0.1778
t-10	0.0006	0.198	1.2954	0.0000	0.505	0.7113
t-9	0.0001	0.816	0.2412	0.0000	0.979	0.0517
t-8	0.0005	0.093	1.6885	0.0000	0.069	1.8520
t-7	-0.0003	0.943	-0.0804	0.0000	0.327	-1.0198
t-6	0.0016	0.655	0.4556	0.0000	0.969	-0.0784
t-5	0.0018	0.129	1.5277	0.0000	0.583	0.5883
t-4	0.0013	0.198	1.2954	0.0000	0.894	0.1778
t-3	0.0013	0.555	0.5986	0.0000	0.415	-0.8664
t-2	0.0019	0.051	1.9565	0.0000	0.359	0.9683
t-1	0.0000	0.971	-0.0447	0.0000	0.069	-1.8520
t-0	-0.0001	0.326	-0.9917	0.0000	0.089	-1.7205
t+1	0.0026	0.120	1.5634	0.0000	1.000	0.0000
t+2	0.0039	0.040	2.0637	0.0000	0.233	1.2241
t+3	0.0015	0.555	0.5986	0.0000	0.572	-0.5964
t+4	0.0007	0.642	0.4735	0.0000	0.660	-0.4708
t+5	0.0013	0.789	0.2770	0.0000	0.293	-1.0791
t+6	0.0004	0.509	0.6700	0.0000	0.295	-1.0832
t+7	0.0020	0.028	2.2067	0.0000	0.724	0.3922
t+8	0.0013	0.830	0.2233	0.0000	0.367	-0.9414
t+9	0.0009	0.555	0.5986	0.0000	0.780	-0.3145
T+10	0.0008	0.915	0.1161	0.0000	0.308	-1.0703
T+11	0.0015	0.253	1.1525	0.0000	0.410	0.8629
T+12	0.0006	0.453	0.7594	0.0000	0.126	1.5799
T+13	0.0000	0.943	0.0804	0.0000	0.824	-0.2667
T+14	0.0011	0.112	1.5992	0.0000	0.933	-0.1690
T+15	0.0003	0.734	-0.3484	0.0000	0.476	-0.7645
t+16	0.0009	0.411	0.8309	0.0000	0.638	-0.5022
t+17	0.0019	0.104	1.6349	0.0000	0.724	0.3922
t+18	0.0021	0.056	1.9208	0.0000	0.367	0.9414
t+19	0.0002	0.681	-0.4199	0.0000	0.083	-1.7581
t+20	0.0019	0.174	1.3669	0.0000	0.339	0.9825

Note: This table shows the abnormal and excess returns for the forty-one days period day t_{-20} to day t_{+20} for the sample firms where dividends and earnings fell (DDED). An* indicates significance at the 5% level.

Appendix 6.8.2 Panel E: Share performance around the dividend announcement date for dividend no change and earnings increasing companies (DNCEI)

Abnormal Returns				Excess Returns		
Day	Median	p-value	Standardised Wilcoxon	Median	p-value	Standardised Wilcoxon
t-20	0.0002	0.579	0.5568	0.0000	0.869	0.1728
t-19	-0.0006	0.198	-1.2889	0.0000	0.600	-0.5348
t-18	0.0000	0.832	-0.2142	0.0000	0.325	-0.9947
t-17	0.0000	0.736	0.3388	0.0000	0.322	1.0032
t-16	-0.0001	0.869	-0.1674	0.0000	0.919	0.1143
t-15	-0.0003	0.331	-0.9735	0.0000	0.319	-1.0032
t-14	0.0004	0.112	1.5926	0.0000	0.016	2.4168
t-13	0.0000	0.918	-0.1051	0.0000	0.952	-0.0721
t-12	-0.0005	0.135	-1.4953	0.0000	0.026	-2.2261
t-11	0.0000	0.245	-1.1643	0.0000	0.051	-1.9597
t-10	0.0001	0.177	1.3512	0.0000	0.197	1.2974
t-9	0.0001	0.231	1.1993	0.0000	0.053	1.9447
t-8	0.0000	0.964	-0.0467	0.0000	0.864	0.1822
t-7	0.0003	0.117	1.5692	0.0000	0.364	0.9190
t-6	0.0001	0.349	0.9384	0.0000	0.525	0.6441
t-5	0.0000	0.912	0.1129	0.0000	0.868	0.1740
t-4	0.0002	0.129	1.5192	0.0000	0.057	1.9128
t-3	0.0000	0.425	0.7995	0.0000	0.549	0.6075
t-2	0.0005	0.172	1.3668	0.0000	0.077	1.7765
t-1	0.0000	0.620	-0.4984	0.0000	0.873	-0.1668
t-0	0.0022	0.002	3.0918	0.0000	0.001	3.2911
t+1	-0.0007	0.251	-1.1487	0.0000	0.300	-1.0431
t+2	0.0002	0.974	0.0350	0.0000	0.674	-0.4311
t+3	0.0003	0.742	0.3314	0.0000	0.764	0.3063
t+4	0.0000	0.977	-0.0312	0.0000	0.811	-0.2505
t+5	0.0000	0.219	-1.2319	0.0000	0.278	-1.0939
t+6	-0.0003	0.185	-1.3276	0.0000	0.446	-0.7698
t+7	0.0000	0.766	-0.2998	0.0000	0.581	0.5610
t+8	0.0009	0.050	1.9599	0.0000	0.071	1.8128
t+9	0.0001	0.745	-0.3276	0.0000	0.124	-1.5472
t+10	0.0004	0.745	0.3271	0.0000	0.617	-0.5078
t+11	0.0001	0.611	0.5110	0.0000	0.475	0.7244
t+12	0.0000	0.673	-0.4244	0.0000	0.935	-0.0901
t+13	0.0003	0.629	0.4847	0.0000	0.838	0.2129
t+14	0.0000	0.542	-0.6113	0.0000	0.761	-0.3135
t+15	0.0001	0.768	-0.2969	0.0000	0.461	-0.7453
t+16	0.0000	0.250	-1.1514	0.0000	0.126	-1.5396
t+17	0.0004	0.135	1.4962	0.0000	0.106	1.6265
t+18	0.0000	0.899	-0.1284	0.0000	0.864	-0.1795
t+19	0.0002	0.673	0.4234	0.0000	0.824	-0.2308
t+20	0.0002	0.579	0.5568	0.0000	0.703	0.3937

Note: This table shows the abnormal and excess returns for the forty-one days period day t-20 to day t+20 for the sample firms where dividends no change and earnings increased (DNCEI). An* indicates significance at the 5% level.

Appendix 6.8.2 Panel F: Share performance around the dividend announcement date for dividend no change and earnings decreasing companies (DNCED)

Abnormal Returns				Excess Returns		
Day	Median	p-value	Standardised Wilcoxon	Median	p-value	Standardised Wilcoxon
t-20	0.0003	0.392	0.8574	0.0000	0.415	0.8286
t-19	0.0008	1.000	0.0019	0.0000	0.243	-1.1785
t-18	0.0002	0.213	1.2472	0.0000	0.466	0.7401
t-17	0.0007	0.954	-0.0594	0.0000	1.000	0.0237
t-16	0.0011	0.077	1.7706	0.0000	0.182	1.3454
t-15	0.0005	0.130	1.5144	0.0000	0.564	-0.5886
t-14	0.0005	0.916	-0.1076	0.0000	0.407	-0.8409
t-13	0.0009	0.183	1.3326	0.0000	0.540	0.6246
t-12	0.0008	0.448	0.7609	0.0000	0.183	-1.3473
t-11	0.0004	0.133	1.5033	0.0000	0.551	0.6068
t-10	0.0005	0.323	0.9911	0.0000	0.469	0.7352
t-9	0.0007	0.411	0.8240	0.0000	0.409	0.8451
t-8	0.0008	0.633	0.4788	0.0000	0.071	-1.8127
t-7	0.0008	0.076	1.7743	0.0000	0.280	1.0949
t-6	-0.0001	0.284	1.0727	0.0000	0.627	-0.5040
t-5	0.0010	0.330	-0.9762	0.0000	0.233	-1.2064
t-4	0.0010	0.021	2.3088	0.0000	0.154	1.4395
t-3	0.0008	0.022	2.2902	0.0000	0.375	0.9014
t-2	0.0002	0.214	1.2435	0.0000	0.449	-0.7667
t-1	-0.0001	0.477	0.7127	0.0000	0.422	0.8133
t-0	0.0009	0.500	-0.6769	0.0000	0.190	-1.3185
t+1	0.0004	0.149	1.4439	0.0000	0.026	2.2396
t+2	0.0001	0.597	0.5308	0.0000	0.959	0.0598
t+3	0.0009	0.904	0.1225	0.0000	0.695	-0.4020
t+4	0.0005	0.239	1.1804	0.0000	0.978	-0.0374
t+5	0.0003	0.407	0.8315	0.0000	1.000	-0.0089
t+6	0.0012	0.422	0.8055	0.0000	0.830	0.2233
t+7	0.0008	0.013	2.4758	0.0000	0.194	1.3082
8	0.0004	0.078	1.7668	0.0000	0.517	0.6582
t+9	0.0006	0.251	1.1507	0.0000	0.130	1.5256
t+10	0.0005	0.409	0.8277	0.0000	0.230	-1.2166
t+11	0.0004	0.210	1.2546	0.0000	0.191	1.3207
t+12	0.0004	0.993	-0.0111	0.0000	0.773	0.2982
t+13	0.0006	0.805	0.2487	0.0000	0.198	-1.3034
t+14	0.0005	0.345	0.9465	0.0000	0.851	-0.2018
t+15	0.0005	0.745	0.3266	0.0000	0.801	-0.2643
t+16	0.0003	0.819	0.2301	0.0000	0.183	-1.3453
t+17	0.0004	0.549	0.6013	0.0000	0.888	0.1514
t+18	0.0009	0.301	1.0356	0.0000	0.563	-0.5931
t+19	0.0008	0.166	1.3882	0.0000	0.645	-0.4703
t+20	0.0007	0.352	0.9317	0.0000	0.682	-0.4213

Note: This table shows the abnormal and excess returns for the forty-one days period day t_{-20} to day t_{+20} for the sample firms where dividends did not change and earnings fell (DNCED). An* indicates significance at the 5% level.

Table 6.9A: ANOVA for the Excess Returns on the Dividend Announcement Day

Source	DF	Sum of Squares	F-ratio	p-value
SECTOR	10	0.0308	1.598	0.1507
SIZE	3	0.0069	1.173	0.3348
GROWTH	3	0.0043	0.746	0.5325
BETWEEN COMPANY ERROR	33	0.0637		
FIRM	49	0.1056		
ΔEPS	1	0.0341	18.823	0.0000
ΔDPS	2	0.0073	2.005	0.1355
ΔEPS*ΔDPS INTERACTION	2	0.0177	4.886	0.0079
YEAR	14	0.0103	0.407	0.9729
ERROR	602	1.0914		
TOTAL	671	1.2638		
R-squared		0.1364		

Note: This table shows the results for an ANOVA performed on the abnormal returns of the sample on the dividend announcement day (Day t). SEC relates to the industry in which the company operates, SIZE refers to the size quartile in which the company is placed based on market capitalisation at 31 December 2001, GROWTH is the quartile in which the company was placed according to annually compounded growth in market capitalisation and FIRM refers to the company making the dividend announcement. Changes in dividends were coded according to whether the variation was an increase, a decrease or no change while changes in earnings were coded according to whether the variation was an increase or decrease. Finally, YEAR relates to the year in which the dividend announcement took place. DF is the degrees of freedom.

APPENDIX 7

APPENDIX 7. 1

E-Mail

Dear

RE: Dividend payment policy in Irish companies research.

I refer to our telephone conversation today concerning the above and appreciate your willingness to grant me an interview.

As agreed I will attend at your office at ... on 2002/3. As I mentioned I propose to bring a tape recorder along but if you are uncomfortable with it I will take manuscript notes.

Many thanks for your time.

Yours sincerely,

Tom Mc Cluskey

Letter

Dear

RE: Dividend payment policy in Irish companies research.

Many thanks for the interview.

Please accept the attached as a small token of my appreciation.

Yours sincerely,

Tom Mc Cluskey

APPENDIX 7.2.

INTERVIEW GUIDE

Section 1: <u>Determinants of dividend payment levels</u> Views on the factors a firm should consider in setting its dividend payment policy ***GENERAL NOTES:***	

Section 1: <u>Determinants of dividend payment levels</u>

SPECIFIC ISSUES:

Dividend to fluctuate in accordance with its current investment and financing needs

Be responsive to its shareholders' preferences regarding dividends

Have a target dividend pay-out ratio

Avoid making changes in its dividend rates that might have to be reversed in a year or so

Strive to maintain an uninterrupted record of dividend payments

Determine the current dividend based on last year's dividend

Determine the current dividend based on cash flow/liquidity considerations

Base the current dividend on the amount of dividend paid by its competitors

Base the current dividend on the firm's current earnings

Base the current dividend on the firm's expected earnings

Section 1: <u>Determinants of dividend payment levels</u>

OBSERVATIONS

Section 2: <u>Market Signals</u>

Views on how the market/investors react to dividends

<u>GENERAL NOTES:</u>

Section 2: <u>Market Signals</u>

Specific issues:

The market views dividend announcements entirely independently of concurrent earnings announcements

Dividend payments provide a signal of future earnings prospects

An increase in dividends will usually lead to a rise in share price

The market reaction to an increase in dividend will depend on how the new figure compares to investors' expectations

A change in the existing dividend payout is more important than the actual amount of dividends paid

Investors perceive dividends to be less risky than capital gains

A decrease in dividends will usually lead to a fall in share price

The market reaction to a decrease in dividend will depend on how the new figure compares to investors' expectations

Investors base their expectations about this year's dividend on:

- The previous year's dividend
- Trends within the sector
- Current economic conditions
- Last year's earnings
- Forecast earnings

Section 2: Market Signals

OBSERVATIONS

Section 3: <u>Taxation</u>

Views on the influence of taxation on dividend policy

GENERAL NOTES

Section 3: Taxation

SPECIFIC ISSUES:

Management should determine the annual dividend based on their perception of the tax status of the shareholders

Investors in high tax brackets are attracted to low dividend shares

Investors in low tax brackets are attracted to high dividend shares

The abolition of the tax credits on dividends has made dividend payments less attractive to investors

Investors prefer returns from capital gains rather than dividends because of the reduction in the capital gains tax rate to 20%

The taxation of scrip dividends as income rather than deferred capital gains has made cash dividends more attractive to shareholders

The introduction of the dividend withholding tax has made dividend payments less attractive to shareholders

The introduction of the new 12.5% rate of Corporation Tax will lead to higher dividend pay-outs

The introduction of capital gains tax treatment for employee share options will lead to higher dividend pay-out ratios

Section 3: Taxation

OBSERVATIONS

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