NBER WORKING PAPER SERIES

PAYOUT POLICY IN THE 21ST CENTURY

Alon Brav
John R. Graham
Campbell R. Harvey
Roni Michaely

Working Paper 9657
http://www.nber.org/papers/w9657

NATIONAL BUREAU OF ECONOMIC RESEARCH
1050 Massachusetts Avenue
Cambridge, MA 02138
April 2003

We thank the following people for suggestions about survey and interview design: Chris Allen, Dan Bernhardt, Harry DeAngelo, Linda DeAngelo, Amy Dittmar, Gene Fama, Ron Gallant, Dave Ikenberry, Brad Jordan, Jennifer Koski, Owen Lamont, Erik Lie, Beta Mannix, John McConnell, Kathleen O'Connor, Pamela Peterson, Jim Poterba, Hersh Shefrin, David Robinson, Frank Ryan, Theo Vermaelen, Ivo Welch, and Luigi Zingales. Also thanks to CFO focus group participants who helped us refine and clarify the survey instrument: Victor Cohen, Tim Creech, Michelle Spencer, Tom Wayne, Phil Livingston, and an anonymous executive at Thomson Financial. A special thanks to Sanjai Bhagat, Dave Ikenberry, Bob Markley, and Bill McGrath, who helped us administer the survey and interviews. Amy Couch, Anne Higgs, Mark Leary and especially Si Li provided excellent research support. We thank seminar participants at Columbia, Emory, and SMU , and the University of Florida for helpful comments. Finally, we thank the financial executives who generously allowed us to interview them or who took the time to fill out the survey. This research is partially sponsored by Financial Executives International (FEI), although the views expressed herein do not necessarily represent those of FEI. We acknowledge financial support from the Capital Markets Center at Duk e and Graham acknowledges financial support from an Alfred P. Sloan Research Fellowship. The views expressed herein are those of the authors and not necessarily those of the National Bureau of Economic Research.

Payout Policy in the 21st Century
Alon Brav, John R. Graham, Campbell R. Harvey, and Roni Michaely
NBER Working Paper No. 9657
April 2003
JEL No. G35, G32, G34

ABSTRACT

We survey 384 CFOs and Treasurers, and conduct in-depth interviews with an additional two dozen, to determine the key factors that drive dividend and share repurchase policies. We find that managers are very reluctant to cut dividends, that dividends are smoothed through time, and that dividend increases are tied to long-run sustainable earnings but much less so than in the past. Rather than increasing dividends, many firms now use repurchases as an alternative. Paying out with repurchases is viewed by managers as being more flexible than using dividends, permitting a better opportunity to optimize investment. Managers like to repurchase shares when they feel their stock is undervalued and in an effort to affect EPS. Dividend increases and the level of share repurchases are generally paid out of residual cash flow, after investment and liquidity needs are met.

Financial executives believe that retail investors have a strong preference for dividends, in spite of the tax disadvantage relative to repurchases. In contrast, executives believe that institutional investors as a class have no strong preference between dividends and repurchases. In general, management views provide at most moderate support for agency, signaling, and clientele hypotheses of payout policy. Tax considerations play only a secondary role. By highlighting where the theory and practice of corporate payout policy are consistent and where they are not, we attempt to shed new light on important unresolved issues related to payout policy in the 21st century.

Alon Brav
Fuqua School of Business
Duke University
Durham, NC 27708
brav@mail.duke.edu

John R. Graham
Fuqua School of Business
Duke University
Durham, NC 27708
john.graham@duke.edu

Campbell R. Harvey
Fuqua School of Business
Duke University
Durham, NC 27708
and NBER
cam.harvey@duke.edu

Roni Michaely
Johnson Graduate School of Management
Cornell University
Ithaca, NY 14853
and The Inter-Disciplanary Center, Herzelia, Israel
rm34@cornell.edu

Payout policy in the 21st century

1. Introduction

In 1956 John Lintner laid the foundation for the modern understanding of dividend policy. Lintner (1956) interviewed managers from 28 companies and concluded that dividends are sticky, tied to long-term sustainable earnings, paid by mature companies, smoothed from year to year, and that managers target a long-term payout ratio when determining dividend policy. The world has changed since the 1950s, and dividend policy is no exception. In this paper, we survey and interview financial executives to better understand how payout policies are determined almost 50 years after Lintner's study. Given the nature of the changes and the development in the field, we expand our analysis beyond dividends and investigate repurchases as well. Moreover, unlike Lintner, we have 40 years of theoretical work to guide our analysis, so our paper is able to shed some light on managers' motives to pay out as well as on payout theories.

Despite extensive empirical work on payout policy and dividend policy in particular, the motives behind what is reported in many studies are still not well understood. For example, despite the growing popularity of repurchases (Grullon and Michaely, 2002) and the fact that dividends are being paid by fewer firms, some companies still pay substantial dividends (Allen and Michaely, 2002; DeAngelo, DeAngelo, and Skinner (2002)). Why do some firms substitute repurchases for dividends and others do not? And at the same time, why have many public companies never paid dividends (Fama and French, 2001), and will they ever start? At the present time, academia does not fully understand total payout, let alone the recent shifts in the form of payout. In light of this, it is not surprising that Brealey and Myers (2002) list the "dividend controversy" as one of the ten most important unsolved problems in finance.

We investigate these questions using a combination of field interviews and traditional surveys. By using these methods, we are able to address issues that traditional empirical work based on large archival data sources cannot. Another unique aspect of our survey is that we ask many identical questions about both dividends and repurchases, which allows us to compare and contrast the important factors for each form of payout. Overall, our field interviews and surveys provide a benchmark describing where academic research and real-world dividend policy are consistent and where they differ.

Our analysis indicates that maintaining the dividend level is a priority on par with investment decisions. Thus, along this dimension, our results parallel Lintner's in that managers express a strong desire to avoid dividends cuts, except in extraordinary circumstances. For firms that currently pay dividends, hesitancy to cut leads to dividends that are sticky, smoothed from year to year, and linked to permanent changes in profitability. Beyond maintaining the level of dividend per share, payout policy is a second-order concern for modern corporations, and is considered after investment and

liquidity needs are met. In contrast to Lintner's era, managers are more reluctant to increase dividends in tandem with earnings increases and they no longer view the target percentage of earnings paid out as dividends as the primary decision variable. Also in contrast to Lintner's time, repurchases are now used extensively.

Managers view repurchase policy to be more flexible than dividend policy and make repurchase decision after investment decisions have been made. In addition to the desire for flexibility, there are several other factors that stand out as influencing repurchase policy. Some executives believe that they can time the market with their repurchase decisions, so they accelerate repurchases when they believe their stock price is low. CFOs also are very conscious of how repurchases affect earnings per share (consistent with the findings of Bens, Nagar, and Skinner (2002)). Finally, companies are likely to repurchase out of temporary earnings increases or when good investments are hard to find.

We also learn about when, if ever, firms that do not currently pay dividends or repurchase shares might begin to do so. Surprisingly, among firms that do not currently pay out, 70 percent say they never plan to initiate dividends, and more than half say they do not plan to repurchase shares. Among those that say they will pay out eventually, the overwhelming majority say they will use repurchases. The most important factors influencing the decision to eventually pay out are equity undervaluation and extra cash (repurchases) and sustainable increases in earnings (dividends).

Executives also tell us that they believe that dividends and repurchases convey information to investors. However, as we document below, this information conveyance does not appear to be consciously related to signaling in the academic sense. Managers strongly reject the notion that they pay dividends as a costly signal to convey their firm's true worth. They also do not believe that their dividend policy can be used to separate their firm from the competition. Overall, we find little support for both the assumptions and resulting predictions of signaling theories that are designed to explain payout policy, at least not in terms of the conscious decisions executives make about payout.

While there is some evidence that repurchases are being used to reduce excess cash holdings (consistent with Jensen's (1986) free cash flow hypothesis), there is no evidence that managers use payout policy to attract a particular investor clientele that may monitor their actions (as in Allen, Bernardo and Welch, 2000). Executives believe that dividends are attractive to individual investors but that dividends and repurchases are equally attractive to institutions. In general, executives make no effort to use payout policy as a tool to alter the proportion of institutional investors among their investors. Thus, it is unlikely that dividend policy can be explained as a means of attracting institutional investors.

We find that the role played by taxes in determining payout policy is only of second-order importance. Managers are aware of the tax advantage of repurchases relative to dividends, especially for individual investors. Yet, they maintain that this is not an important factor in their decision about whether to pay dividends, to increase dividends, or even in the decision between payout in the form of repurchases or in dividends. A follow-up survey conducted in February 2003, after the Bush

administration proposed to eliminate dividend taxation, reinforces the second order importance of differential taxation on payout policy. More than two-thirds of the executives on that survey say that elimination of dividend taxation would definitely not or probably not affect their dividend decisions.

The rest of the paper proceeds as follows. Section 2 describes the survey and interview method and presents summary statistics about our sample firms. Section 3 describes how dividend and share repurchase decisions are made and their interaction with investment decisions. Section 4 compares the current practice of payout policy to dividend decisions 50 years ago, when John Lintner (1956) performed his analysis. Section 5 analyzes how modern executives' views about payout policy match up with the various theories that have been proposed to explain dividends and share repurchases. Section 6 discusses the factors that CFOs and Treasurers of non-payout firms say might eventually encourage their firms to initiate dividends or repurchases. Section 7 concludes and highlights directions for future research, including our summary of the "rules of the game" that affect the corporate and behavioral decision-making process.

2. Method

Our main survey contains responses from 384 financial executives. The survey analysis is based on a moderately large sample and a broad cross-section of firms, which allows us to perform standard statistical tests. At the same time, the survey accommodates very specific and qualitative questions. One advantage of the survey is that we can ask a large number of questions. In total, we gather information on approximately 125 questions.

In addition to the survey, we separately conduct 23 one-on-one interviews. The interviews complement the survey information along several dimensions. Interviews allow us to ask open-ended questions, so the respondent's answers can dictate the direction of the interview (versus pre-chosen questions in the survey). Interviews also allow for give-and-take and clarifications, which are not possible with a traditional survey. Using the combination of the surveys and interviews, we are able to ask many questions, while at the same time gain a deep understanding of the factors that are most important to payout policy from the perspective of corporate financial managers.

The field study approach is not without potential problems. Surveys and interviews measure beliefs and not necessarily actions. In addition, field studies may face the objection that market participants do not have to understand the reason they do things for economic models to be valid (Friedman's (1953) "as if" thesis). This may be particularly acute in our study because we ask corporate managers about both the assumptions and predictions of specific theories.

Friedman's "as if" thesis basically says that it is unimportant whether the assumptions of a particular economic model are valid, or whether economic agents understand why they take certain actions, as long as the theory can predict the agents' actions. The "as if" approach has been criticized

by philosophers (Hausman (1992) and Rosenberg (1976)) because Friedman's focus on prediction makes it impossible to provide *explanations* for the economic phenomena under study. That is, the "as if" approach cannot address issues of cause and effect. One goal of our paper is to better understand *why* certain actions are taken, and therefore part of our analysis scrutinizes the "realism of the assumptions" that underpins many academic models.

Furthermore, the existing empirical evidence does not offer strong support for the current dividend theories (see Allen and Michaely (2002) for a survey of this literature). Hence, scrutiny of stated assumptions *is* important to theorists for two reasons. First, following Friedman, our results can potentially provide for an even wider range of assumptions than have been used so far, some of which might lead to improved predictability. Second, for those who favor more realistic assumptions, our ability to distill which assumptions are deemed important by managers, and thus relevant to their decisions, has the potential to lead to better explanatory models.

2.1 Survey design and delivery

Based on existing theoretical and empirical work about dividend and share repurchase decisions, we developed an initial set of questions. These questions covered a range of topics, from Lintner-type questions (e.g., are dividends smoothed from year to year?) to questions tied to specific theories (e.g., do firms pay dividends to separate themselves from competitors?). Given the nature of the questions, we solicited feedback from academics on the initial version of the survey, incorporated many of their suggestions, and revised the survey. We then sought the advice of marketing research experts on the survey design and execution. We made changes to the format of the questions and overall survey design with the goal of maximizing the response rate and minimizing biases induced by the questionnaire.

The survey project is a joint effort with the Financial Executives International (FEI). FEI has approximately 8,000 members throughout the U.S. and Canada that hold senior executive positions such as CFO, treasurer, and controller. Every quarter, Duke University and FEI poll these financial officers with a one-page survey on important topical issues (Graham, 2002). The usual response rate for the quarterly survey is 7 percent or 8 percent.

Using the penultimate version of the survey, we conducted beta tests at both FEI and Duke University. This involved having executive MBA students and financial executives fill out the survey, note the required time, and provide feedback. Our beta testers took 15-20 minutes to complete the survey. Based on this and other feedback, we made final changes to the wording on some questions and deleted about one-fourth of the content. The final version of the survey contained 11 questions, most with subsections, and the paper version was four pages long. One section collected demographic

information about the sample firms. The survey is posted on the Internet at http://faculty.fuqua.duke.edu/~jgraham/FEI/payout/survey1.htm

We used two different versions of the survey, with the ordering reversed on the non-demographic questions. We were concerned that the respondents might "burn out" as they filled out the questions that had many subparts. If this were the case, we would expect to see a higher proportion of respondents answering the subparts that appear at the beginning of any given question, or the answers differing depending on the version of the survey. We find no evidence that the response rate or quality of responses differs depending on ordering of the questions.

We used three mechanisms to deliver the survey. First, we administered a paper version at the Financial Executives Summit that was held on April 23, 2002 in Colorado Springs, CO. This conference was attended by CFOs and Treasurers from a wide variety of companies (both public and private). At the start of a general interest session, we asked the executives to take 15 minutes to fill out the paper version of the survey that we had placed on their chairs.[1] We used this approach to ensure a large response rate, and in fact approximately two-thirds of the conference attendees filled out the survey –these respondents make up approximately one-half of our final sample.

The second mechanism for administering the survey occurred in conjunction with the National Forum on Corporate Finance (NFCF), held in Austin, Texas on May 3, 2002.[2] Twelve NFCF firms filled out the paper version of the survey, and an additional 15 later responded to the Internet version of the survey (described next), for a response rate of more than 50 percent.

The third method of administering the survey consisted of a mass emailing on April 24, 2002 to the 2,200 members of FEI that work for public companies and have a job title of CFO, Treasurer, assistant treasurer, or vice president (VP), senior VP, or executive VP of Finance. To encourage the executives to respond, we offered an advanced copy of the results to interested parties. We also offered a $500 cash reward to two randomly chosen respondents. A reminder email was sent out on May 1, 2002, which was planned in advance to improve the response rate. 169 of this group responded to the Internet survey, for a response rate of approximately 8 percent.

Averaged across all three mechanisms of administering the survey, the response rate was 16 percent, which compares favorably with recent surveys of financial executives. For example, Trahan and Gitman (1995) obtain a 12 percent response rate in a survey mailed to 700 CFOs, and Graham and Harvey (2001) obtain a nine percent response rate for 4400 faxed surveys. Aggregating the three forms of the survey, our final sample includes 256 public companies and 128 private firms. Most of our analysis is based on the public firms, though we separately analyze the responses of the private firms in Section 5.5.5.

---

[1] We are indebted to Sanjai Bhagat and Bill McGrath, who attended the Summit and volunteered their help in passing out and collecting the surveys.

[2] We thank Dave Ikenberry for suggesting this audience and for helping administer the survey.

The Internet version of the survey was handled by a third-party data vendor, StatPak, Inc. The output from the Internet survey was an electronic spreadsheet. The paper version of the survey was hand-entered by two separate data-entry specialists and cross-checked for accuracy. Because we used different mechanisms for administering the survey, we compared the responses based on the paper survey to matched Internet respondents (matching based on firm size, industry, and whether they pay dividends and/or repurchase shares). Unreported analysis indicates that the responses from the different forms of the survey are not statistically different. Therefore, we present the combined results.

2.2 Interview design and delivery

The interview part of our paper was designed to add another dimension to our understanding of payout policy. In the spirit of Lintner (1956), we chose firms in different industries and with different payout policies for our potential sample of interviewees. These firms were not randomly chosen because we purposely attempted to obtain some cross-sectional differences in firm characteristics and payout practices. For example, we sought out two firms that had recently decreased their dividends, and we interviewed other executives who had considered cutting but had not done so. Because dividend cuts are rare, given our sample size we, in a sense, over-sampled these firms. In general, our method of selecting firms is similar to that used by Lintner.

Three of the interviews were conducted in person, with the remainder via telephone. The interviews were arranged with the understanding that the identity of the firms and executives will remain anonymous, and with their permission, we were able to tape record all but one of the interviews. At the beginning of each interview, we asked the executive (typically the CFO or Treasurer) to describe the dividend and repurchase policy of his or her firm. We attempted to conduct the interviews so as not to influence the answers or the initial direction of the interviews with a pre-set agenda. Rather, we allowed the executive to tell us what is important at his or her firm about payout policy and then we followed up with clarifying questions. Many of the clarifying questions were similar to those that appear in the survey, to link the two sources of information.

The interviews varied in length from 40 minutes to over two hours. The executives were remarkably frank and straightforward. We integrate their insights with the survey evidence, usually to reinforce and clarify the survey responses but occasionally to provide a counterpoint.

2.3 Summary statistics and data issues

Figure 1 presents summary information about the firms in our sample.[3] For example, the companies range from very small (10 percent of the sample firms have sales of less than $100 million)

[3] The histograms are based on non-missing values for any particular characteristic.

to very large (60 percent have sales of at least $1 billion) (see Fig. 1A). We also gather information about chief executive officers (thereby implicitly assuming that the CFOs we survey act as agents for the CEOs).

[Insert Figure 1]

Table 1 compares summary information about the 23 firms that we interviewed and surveyed to Compustat information for the following variables: sales, debt-to-assets, dividend yield, earnings per share, credit rating, book to market, P/E ratio. For each variable, in each panel, we report the sample average and median, and compare these values to those for the universe of Compustat firms broken down by quintile as of April 2002 (the month we conducted the survey and interviewed many of the 23 firms). In panel A (panel B) the percentage of the interviewed (surveyed) firms that are allocated into the five sorts determined by the quintile breakpoints. The reported percentages can then be compared to the benchmark 20 percent, which allows us to infer whether our samples are representative of Compusat firms and in which dimensions.

[Insert Table 1]

Table 1, panel A, indicates that the interviewed firms are large with an average of $36 billion in sales, all falling in the top quintile of sales among Compustat firms. Interviewed firms have disproportionally high credit ratings (average of 'A' rating) even though their leverage ratios are also high (average ratio of 21 percent). As we pointed out earlier, this sample of firms was not randomly selected and these features are therefore not surprising. Furthermore, by construction, interviewed firms overly represent dividend-paying firms as seen from the "Div yield" row in Table 1 and the relatively high average quarterly dividend yield of 1.7 percent.

Panel B provides similar statistics for the sample of surveyed firms. In general, we employ data gathered from the demographic information reported by the firms on the survey. For each firm characteristic, we report the percentage of the surveyed firms that are allocated into the five Compustat quintiles. The main message is that our survey sample is representative for most of the dimensions we explore. The two characteristics that are not representative are firm size, as measured by sales, and credit rating. Surveyed firms represent, disproportionally, large firms (60 percent in the top quintile rather than 20 percent under the null), while credit rating is higher than anticipated under random sampling. [4]

[4] Although not in the table, the fact that we have large firms affects some of the other firm characteristics. For example, large firms have better credit ratings on average, so given that our firms are large, it is not surprising that they also have good credit ratings. In unreported analysis, we recalculate Table 1 basing the quintile cutoffs using the largest 40 percent of Compustat firms (rather than using the whole distribution as we do in Table 1). In this analysis, credit ratings, EPS and debt ratios are much closer to the center of the distribution for the largest 40% of Compustat firms. The implication is that conditional on firm size, our firms are representative of Compustat firms for other characteristics.

Table 2 presents correlations for the demographic variables. Not surprisingly, small companies have lower credit ratings, a higher proportion of management ownership, and a lower incidence of paying dividends and repurchasing shares. Notice also that the caption to Table 2 describes the "breakpoints" we use to categorize firms, based on various firm characteristics (small vs. large, high vs. low growth, etc.). For example, in subsequent analysis, we refer to firms with revenues greater than $1 billion as "large" and firms with a P/E ratio greater than 16 (the median for our sample) as "growth firms." Overall, the substantial variation in firm and CEO characteristics permits a rich description of the practice of corporate finance and allows us to infer which corporate actions are consistent with academic theories.

[Insert Table 2]

3. General information about the practice of payout policy

3.1 Logistics

Payout decisions are part of the finance function of corporations. Typically, the CFO or Treasurer forms a dividend recommendation that is passed along to the CEO for approval. The recommendation that emerges from the CEO's office is presented to the Board of Directors, usually for quick approval. To some extent this indicates minimal board involvement in dividend decisions. This is reasonable because, as we describe below, corporations rarely make the type of aggressive or surprising changes in payout policy that would require board scrutiny.

Repurchases follow a similar approval process. One difference is that the board typically gives annual or semi-annual approval for the maximum amount of repurchases that can be made in the coming quarters or years. (Occasionally, under unusual market conditions, the board will give quick approval to raise this ceiling.) The actual implementation of the repurchases on a daily basis usually occurs through the treasury department. Sometimes the implementation is delegated to a third party company.

During the interviews, most managers indicate that their firms employ a mechanical open market repurchase strategy combined with a certain amount of judgment. At the start of a quarter, a company will typically divide their target amount of repurchases for a coming quarter by the number of "non blacked out business days" and repurchase rather evenly on these days.[5] (They might also repurchase on "blacked out days" but in this case they use a pre-arranged strategy implemented by a third-party in order to comply with legal requirements.) There are exceptions to this mechanical process

[5] A "blackout period" is the time during which a public company's directors, officers, and specified employees are prevented from trading the company's stock either on their behalf or on behalf of the company itself. It occurs prior to the release of material information such as annual or quarterly financial earnings information and may extend to a certain period beyond the release of the earnings information. The company, not the SEC, sets the blackout period.

(described below), like when the executive thinks the company's stock price is particularly low or liquidity dries up, in which case repurchases might be accelerated or delayed.

About one-half of the CFOs we interviewed say that they think they can time the market with their repurchases. Moreover, most firms keep track of whether their firm "beats the market" over the long-term (e.g., annual) and short-term (i.e., daily). Many firms claim that their repurchase timing beats the market by $1 or $2 per share over the course of the year, and also that their decisions within a given day beat the market on average. While repurchases are not thought of as a "profit center," in some firms, the persons implementing the repurchase policy are rewarded financially for beating the market.

3.2 How important are payout decisions relative to investment and financing decisions?

It is clear from the interviews that most aspects of payout decisions are of second-order importance relative to the operating decisions of the firm. Though they would not phrase it this way, the executives feel that Modigliani and Miller (1958) and Miller and Modigliani (1961) were not far off in emphasizing that firm value is largely driven by operating decisions. Moreover, this viewpoint is apparently long-standing. On the survey, we asked the executives whether payout was as important today to the valuation of their companies, relative to 15 or 20 years ago. On a scale from –2 to +2, their answers averaged almost exactly zero, indicating no change in importance (see Table 3, row 4 for the dividend response and Table 4, row 3 for the repurchase response).

[Insert Tables 3 and 4]

We also explicitly ask where payout decisions fit into the hierarchy of the investment and capital structure planning process. Financial executives view their chief objective as providing adequate capital and liquidity to allow their companies to make opportune and strategic investments. To fund these investments, they use a combination of profits and external capital. After these investments and external financing decisions are made, and adequate cash is preserved to handle future contingencies, the companies then return capital to investors via dividends or repurchases. This depiction implies that payout decisions are of second or third order importance. However, there is one important exception. The executives consider the continuation of the existing level of dividends as (nearly) untouchable, considering the preservation of dividends equal to, and in some cases more important than, investment decisions.[6] Finally, for some firms, particularly those with financial operations, there is an important feedback from payout policy to investment decisions. Executives feel that if they pay out too much they can jeopardize their credit rating, which in turn can reduce investment opportunities by restricting access to external capital.

[6] In this section, our goal is to establish where payout fits into the corporate decision process. In later sections we explore more fully the reluctance of firms to cut dividends and other issues identified in this section.

The survey evidence confirms these implications. First, the average rating is –0.25 that investment decisions are made before dividend decisions (Table 3, row 6) but the rating is 1.02 that investment decisions are made before repurchases (Table 4, row 2). This indicates that at least some aspects of the dividend decision are made at the same time as investment decisions but repurchase decisions are made later. Repurchase decisions are particularly secondary to investment decisions for high-debt firms (84.7 percent of high debt firms give a rating of 1 or 2 vs. 72.9 percent of low-debt firms).

Second, we ask whether companies would raise external funds, rather than reduce payout, to finance investment. Sixty-five percent of dividend-payers strongly (rating of +1) or very strongly (rating of +2) agree that external funds would be raised before cutting dividends (Table 3, row 3). In contrast, only 19 percent of repurchasers strongly or very strongly agree (Table 4, row 7) that external funds would be raised before reducing repurchases. We also ask whether the cost of raising external funds is lower than the cost of cutting dividends. The response indicates that the cost of cutting dividends is somewhat higher than the cost of external funds (mean rating of 0.21 in Table 5, row 6), though the costs of dividends are deemed significantly higher for firms for which we would expect the costs of raising external funds to be low: NYSE firms with better prospects for the future.

[Insert Table 5]

We also ask the CFOs whether investment opportunities affect payout decisions. Nearly half of the executives tell us that the availability of good investment opportunities is an important or very important factor affecting dividend decisions (Table 6, row 6). In contrast, four-fifths of the CFOs report that the availability of good investment projects for their firm to pursue is an important or very important (Table 7, row 2) factor affecting repurchases decisions. The difference of the influence of this factor on dividend versus repurchases is statistically significant and indicates that dividend decisions, unlike repurchases, are as important as investment decisions in many cases.

[Insert Tables 6 and 7]

Finally, two out of five CFOs report that their merger and acquisition strategy is an important or very important factor affecting their dividend payout decisions (Table 6, row 8). This is consistent with dividends being fixed even when a firm is contemplating acquisitions. In contrast, nearly twice as many executives (72.7 percent) say that mergers and acquisition strategy is an important or very important factor affecting repurchase decisions (Table 7, row 3), presumably because repurchase decisions are made after acquisition decisions, or because shares are sometimes accumulated prior to acquisitions. M&A is particularly important to repurchase decisions among large, high growth firms with good credit ratings.

The relation between payout (dividends and/or repurchases) and investment and financing strategies is summarized in Fig. 2. There is a difference in the pecking order depending whether the payout is in the form of dividends or repurchase of shares. Repurchase decisions are done after

investment decisions have been made (see Fig 2B, row 4). The order is more ambiguous with dividends. When facing profitable projects, firms are more hesitant to cut dividends than to reduce share repurchase. In the same vein, repurchases are more sensitive to the firm's M&A strategy. (Fig. 2B, row 5). Relative to dividends, repurchases give more flexibility to pursue investment strategies.

[Insert Figs. 2A, 2B]

3.3 Are dividends and repurchases substitutes, complements, or neither?

In the interviews, executives indicate that they do not think—in a direct and conscious way—about whether repurchases substitute for dividends. For one thing, the possibility of cutting the level of dividends to increase repurchases is not even contemplated. For another, as we indicate below, dividends are thought of as primarily being paid from permanent cash flows, while repurchases might also emanate from temporary excess cash flows. It is also true, however, that many companies do not attempt to increase dividends at the same rate earnings growth, and the money that could have been dedicated to dividend increases is often instead used to repurchase shares. Therefore, repurchases are substituted for forgone increases in dividends, and in this sense the two forms of payout are substitutes.

This "repurchases in place of forgone dividends" substitution is to some extent confirmed by survey evidence. On the survey we ask what firms would do with the extra funds they would have if they cut dividends. The most popular answer, chosen by approximately one-third of the respondents, is that they would pay down debt (see Fig. 3A). The second most popular answer was to repurchase shares (followed by invest more and perform mergers and acquisitions), which is consistent with the substitution of repurchases for dividends. However, this is a "one-way substitution." When we ask what they would do with the extra funds from reducing repurchases, very few firms would choose to pay dividends (see Fig. 3B), so there is almost no evidence of substitution away from repurchases towards dividends.

[insert Fig. 3]

Finally, we ask firms what form of payout they would choose if they were hypothetically paying out for the first time. In the interviews, it was clear: once free of the tradition of paying dividends, most firms would emphasize repurchasing shares. That is, once all constraints are removed, they would substitute repurchases for dividends (i.e., many firms would replace existing dividends with repurchases if they felt they could). To preview the important factors behind dividends and repurchases (discussed more fully in Sections 4 and 5), the primary reason that repurchases would be preferred is that they are much more flexible than dividends.

The survey evidence also reveals that repurchases would be the most popular choice among firms initiating payout for the first time. Among firms that do not currently pay out, two-thirds say that if they were beginning to pay out they would use repurchases only, and another seven percent said they

would repurchase and pay dividends (see Fig. 3C). Another 27 percent of nonpayers say that they would pay dividends and not repurchase if they were just now paying out for the first time. The answers are a bit different among firms that currently pay dividends or that currently repurchase. While repurchases would be relatively important if firms were hypothetically starting over, a fair number of dividend-paying firms state that they would start over with dividends. We interpret this to mean that many firms that currently pay dividends believe that it is the appropriate form of payout for their firm.

We analyze the responses of "cash cows" for these three questions. We define a cash cow as a firm that is profitable, has a credit rating of A or better, and a P/E lower than the median P/E among profitable firms with credit rating of A or higher. The results for cash cows are similar to other firms except that cash cows are not as concerned as the typical firm about paying down debt.

4. Benchmarking to Lintner (1956)

There are two key results from Lintner's (1956) interviews with 28 industrial firms. First, in the middle of the 20th century, the starting point for most payout decisions was the payout ratio (i.e., dividends as a proportion of earnings). Corporations would first decide what portion of earnings they wanted to pay out in the long-run. As earnings increased (and to a lesser extent, as earnings decreased), the target dividend payment would move in tandem. Lintner's second key finding was that corporate dividend decisions were made very conservatively. This boils down to reluctance on the part of management to reduce dividends. Combining these two key features, Lintner's empirical model of dividend policy was simple: Dividends per share equal a coefficient times the difference between the target dividend payout and lagged dividends per share. The coefficient should be less than one because it is a "partial adjustment factor" – dividend conservatism implies that dividends per share do not move completely to the target in a single year.[7]

We benchmark our findings to Lintner's in several steps. First, we present our findings about whether companies are still conservative in their dividend decisions. Second, we examine whether the primary target of dividend decisions is still the dividend payout ratio. Third, we compare and contrast the dividend results in these two subsections to corporate share repurchase decisions. Overall, we find that in one of these three dimensions payout decisions are similar to those depicted by Lintner

[7] There is one element in Lintner's (1956) paper that we do not address. He concludes that target dividends per share and partial adjustment factors are functions of firm characteristics. This implies that dividends per share vary with firm characteristics, which results in cross-sectionally differing dividend targets and partial adjustment factors. A list of factors that Lintner (1956, p. 104) says affect dividends via their effect on the target and partial adjustment factor include growth opportunities in a firm's industry, growth and earnings prospects for the firm, cyclicality of earnings, working capital requirements, degree of stockholders' preference for stable dividend rates (and any premia the market might put on such), payouts and adjustment factors of peers, financial strength of the company, and management confidence in the soundness of earnings numbers produced by the accounting department.

(dividends are still conservatively chosen). In the other two (targeting dividend payout, and using repurchases), the payout process has changed dramatically. [8]

4.1 Are dividend decisions still made conservatively?

At the heart of the conservative nature of dividend policy is the extreme reluctance on the part of management to cut dividends. This was true in the 1950s when Lintner conducted his study and it is true today. Executives tell us that cutting dividends is a "last resort." This phenomenon might be stronger today than it was during Lintner's time. [9] In the 1950s, Lintner (1956) says that dividends would be reduced to reflect any "substantial or continued decline in earnings" (p. 101). Today, some executives tell stories of selling assets, laying off a large portion of employees, borrowing heavily, all before slaying the sacred cow by cutting dividends.

On the survey, 94 percent of dividend-payers strongly (rating of 1.0) or very strongly (rating of 2.0) agree that they try to avoid reducing dividends. This is the highest score of any question on the entire survey, with an average rating of 1.58 in Table 5 (row 1). This is especially true when the CEO is mature (97.3 percent) and/or the firm's prospects are poor (100 percent). Eighty-seven percent of executives strongly or very strongly agree that there are negative consequences to reducing dividends (Table 3, row 1). Eighty-five percent list maintaining consistency with historic dividend policy as an important or very important factor determining dividend policy (Table 6, row 1). Eighty-seven percent strongly or very strongly agree that they consider the level of dividends per share paid in recent quarters when choosing today's dividend policy (Table 5, row 3), especially when the CEO is mature and/or prospects are poor.

The reluctance to cut dividends also shows up in different ways. As indicated in Table 5, row 2, 90 percent of firms strongly or very strongly agree that they smooth dividends from year to year. Lintner (1956, p. 99) notes that there is "an inertia and conservatism … shareholders prefer stable (payout rates) and markets put a premium" on dividend decisions that do not have to be reversed. We similarly find that 79 percent of dividend-payers say that they are reluctant to make a dividend decision that might need to be reversed (Table 5, row 4).

Most firms essentially take lagged dividends per share as given (like a fixed cost of doing business). Therefore, among payers, the most common dividend decision is really about whether a firm should increase dividends (not whether or not they should pay dividends). Two-thirds of survey respondents strongly or very strongly agree that the *change* in dividends is the decision variable (Table 5, row 5).

[8] Our paper differs from Lintner (1956) is that we also investigate issues related to firms that do not currently pay out (Section 6), which Lintner ignores, and consider numerous market imperfections that might make dividend decisions relevant (Section 5).

[9] For additional historical perspective on dividend policy, see Brittain (1966) and Dhrymes and Kurz (1964).

There are several interesting issues about the conservative nature of dividends that emerge from the interviews. First, financial executives perceive a large asymmetry between dividend increases and decreases: there is not much reward in increasing dividends but there is perceived to be large penalty for reductions. Second, dividends per share can be thought of as "path dependent" with the level of dividends for a given firm in a given year being greatly affected by how the firm got there (i.e., by the past level of dividends and to some extent by past dividend growth); otherwise similar firms might have current dividend policies that differ solely because of past dividend decisions, not the firm's current situation. Third, many firms would like to cut dividends but feel constrained by their historic policy. Some of these firms look for opportunities for a "stealth cut" in dividends, which they might "sneak by" the market. One executive told us that his firm waited to reduce dividends until "air cover" was provided by competitors reducing dividends. Others said that when they split their stock they would increase dividends somewhat less than the split ratio, to reduce total dividend payout. Finally, the only acceptable reasons to cut dividends are that "you are in deep trouble and have no other choice" or that "you have a tremendous investment opportunity and need the funds." In other words, only cut in extreme situations.

Even though dividend policy is rigid downward, it is interesting to note that (most) executives do not feel that their firm's stock will be penalized if they hold dividends constant. If stock prices gradually increase, a flat dividend reduces yield over time. This is not perceived to be a problem at most firms. The one exception is firms that earn large, stable profits every year. For such cash cows, the executives focus on the growth in dividends. These executives believe that their firms are not punished as long as the *growth* in dividends does not shrink.

This all leads to an interesting question: what makes dividend cuts so bad? Though not always particularly lucid on this point, the executives were almost universal in saying that "because firms that cut dividends are usually in trouble, the market assumes that firms that cut dividends are in trouble." When probed, the executives agree that in principal they could communicate directly to the market to explain the dividend cut. But they also said "why take the chance that the market will misunderstand?" or "the market sells first and asks questions later," indicating that executives believe that it is very likely that their firms will get punished even if they have meritorious reasons for cutting the dividend.

4.2 Is the payout ratio still the target for dividend decisions?

The results in the previous section suggest that current payout decisions involve more than gradually working towards a target dividend payout ratio. In the interviews, executives mention a number of potential targets that affect dividend decisions. For many firms, their "target" is to maintain a constant level of dividends per share. For most firms, any target they may set is considered flexible (except of course they are inflexible about reducing dividends per share).

On the survey, we asked dividend-payers about dividend targets. Nearly 40 percent of the respondents said that they target dividends per share (see Fig. 4A). Only 28 percent target dividend payout, and another 27 percent target growth in dividends per share. Thirteen percent tell us they target dividend yield, although we know from the interviews that many companies keep an eye on dividend yield, to make sure it does not get too far out of line with their competitors' yields. Finally, six percent of dividend-payers claim not to target at all. Contrary to the typical firm's targeting of the current level of dividends per share, cash cows primarily target the growth in dividends per share or dividend payout. Apparently cash cows feel that they are under pressure to return capital to investors when earnings growth is robust, a view consistent with Jensen's Free Cash Flow hypothesis.

[insert Fig. 4]

While only a minority of firms see payout ratio as the target, most firms state that they have some dividend target in mind. Fig. 4B reports whether managers consider the targets to be strict or flexible. Forty one percent say that they are flexible in pursuing their target, and another 12 percent say the target is not really a goal at all. In contrast, 29 percent say that their target is somewhat strict, and another 10 percent say it is very strict.

The above results can be directly compared to Lintner's findings. First, Lintner finds that dividend policy is not determined "de novo" each period, but rather that the previous period's level of dividends is the benchmark. The fact that the majority of the respondents take current dividend policy as the starting point implies that this notion still holds. On the other hand, Lintner (1956) states that in the mid-20th century one of the most important aspects of dividend policy (after the firm had determined its earnings) was choosing the "dividend rate," that is, the payout ratio. It seems that the number of potential targets and the degree to which firms adhere to these targets has changed in the last 50 years. This might help explain the lack of support for a target dividend payout ratio in Fama and French (2002). In fact, the lack of a clear target has important implications for statistical modeling of dividend policy. It is not immediately clear what the dependent variable should be in such models.

4.3 What about repurchases?

In Lintner's time, management thought "fiduciary responsibilities and standard of fairness required them to distribute part of any substantial increase in earnings to stockholders in dividends" (p. 101). The increased amount that firms spend on repurchases (Grullon and Michaely, 2002) and the decline in the number of firms that pay dividends (Fama and French, 2001) indicates that corporate payout policies have changed over the past 50 years. Repurchases are now an important part of the payout landscape. Repurchases were scarce in the first half of the 20th century and it is not surprising that Lintner (1956) ignored them altogether. In contrast, the managers we interviewed pay considerable attention to repurchases. It is a decision variable that they re-evaluate frequently.

We asked firms that repurchased at some point during the last three years how they determine their repurchase policies. Specifically, do they have a targeted repurchase policy or are repurchases not guided by a target and are simply the residual? The response to the question "what do you target when you make your repurchase decision?" are presented in Fig. 4C. More than 40 percent of these firms target the dollar value of repurchases. Twenty-two percent do not target repurchases at all. Only four percent target the "repurchases payout ratio," that is, repurchases as a proportion of earnings. Finally, 20 percent use repurchases to target some other variable or policy (the three most popular choices are the number of shares needed for employee stock option exercises, the debt ratio, and the amount of excess cash).

As shown in Fig. 4D, even among firms that target repurchases, 51 percent say the target is a flexible goal (compared to around 40 percent for dividends) and another 18 percent say it is not really a goal (compared to 13 percent for dividends). Only 26 percent say that their repurchase target is either strict or somewhat strict target. Overall, repurchases are more flexible than dividends – but managers do not think of them strictly as a residual. The interviews produce the same implication: repurchase policy is less rigid than dividend policy.

The interviews also indicate that managers believe that the market more willingly accepts a reduction in repurchases than in dividends, which allows them to be less conservative in their repurchase policy (because potential future reductions in repurchases are less costly). Indeed, from the survey, we learn that only 22.5 percent of executives believe that there are negative consequences to reducing repurchases (Table 4, row 6), and only 24 percent say that maintaining consistency with historic repurchase policy is important or very important (Table 7, row 13). Recall that the response for dividends was vastly different: almost 90 percent think that reducing dividends has negative consequences. The different response is reflected graphically in Fig. 2A (row 1). Only 21.3 percent of survey respondents strongly or very strongly agree that they are reluctant to make repurchase changes that might have to be reversed in the future (Table 8, row 7). From the interviews, as mentioned earlier, the flexibility of repurchase policy (relative to dividend policy) is the most important factor contributing to the rapid growth of repurchases in the past decade. Overall, repurchases are not managed as conservatively as are dividends.

[insert Table 8]

4.4 How do earnings affect payout (among firms that currently pay out)?

Similar to Lintner's argument, Jagannathan, Stephens and Weisbach (2000) find that at the margin, dividends tend to be paid from permanent increases in cash flow, while share repurchases can also be made from temporary increases in cash flow or temporary surpluses of cash on the balance sheet. Our survey evidence is generally consistent with these arguments. More than two-thirds of dividend-payers state that the stability of future earnings is an important or very important factor affecting

dividend decisions (Table 6, row 2). This is particularly important to highly rated firms with mature CEOs. Similarly, 65.9 percent of executives report that stability of future cash flows is an important factor affecting repurchase decisions (Table 7, row 4). Likewise, two-thirds of CFOs say that a sustainable change in earnings is important or very important (Table 6, row 3) for dividends, and 65.5 percent say the same for repurchases (Table 7, row 5 and Figure 2A, row 4).

There are greater differences between the forms of payout when we ask whether a temporary increase in earnings affects payout (Figure 2B, row 7). About one-third of repurchasers say that a temporary increase in earnings is an important or very important factor (Table 7, row 9). In contrast, only 8.1 percent say that a temporary increase in earnings is important to dividend decisions (Table 6, row 17).[10]

Likewise, excess cash on the balance sheet (Fig. 2B, row 6) is more important to repurchase decisions than it is to dividend decisions. Only 30.2 percent of CFOs state that having extra cash or liquid assets is an important or very important factor affecting dividend decisions (Table 6, row 12). This lack of importance is especially the case for large, high-debt firms. In contrast, twice as many CFOs (60.6 percent) say that temporary excess cash or liquid assets are an important or very important factor affecting repurchase decisions. See Lie (2000) for large-scale evidence that repurchases vary with cash on the balance sheet.

The interviews confirm these survey findings and also reveal some subtle points. Profitable firms with stable earnings feel compelled to link their growth in dividend payout to earnings growth. These firms strive to develop a reputation of increasing payout lock-step with earnings and maintain a relatively inflexible dividend payout goal. In this sense, cash cows still live close to the "Lintner world." Interestingly, in conglomerates, executives often view one division (with stable profits) as producing the stream of cash flows that leads to dividends, while another (growth) division is viewed as not generating any current payout. This type of behavior does not seem to be motivated by signaling, but rather by the desire not to leave too much cash at management's disposal when investment opportunities are limited.

4.5 Summary comparing modern payout policy to Lintner (1956)

One thing that has not changed in the past 50 years is the conservative nature of dividend policy. This leads to stickiness in dividends and a strong reluctance to ever cut dividend payments. This is a very strong force that affects the payout landscape in many ways. First, because they are flexible, repurchases have increased dramatically in response to the inflexibility of dividend policy. Second,

[10] These results are consistent with those in Dittmar and Dittmar (2002), who break aggregate earnings into temporary and permanent components and show that aggregate dividends move with permanent (but not temporary) earnings but aggregate repurchases move with both.

the inflexibility of dividends, once a company starts paying them, acts as a strong deterrent to dividend initiation. In interviews and unreported survey analysis, we find that non-dividend paying firms agree that dividends are inflexible, and that this makes them very hesitant to begin paying dividends in the first place. In this sense, dividend conservatism is a force that affects the actions of all firms, payers and nonpayers alike.

5. Factors affecting payout policy

Our study has one significant (and unfair) advantage over Lintner's. Namely, we can use the insights the profession has gained from 40 years of related theory and empirical work. Since Miller and Modigliani (1961) showed that corporate value is invariant to payout policy in perfect and frictionless capital markets, numerous theories have been put forth that demonstrate how payout policy can affect firm value if one or more of the Miller and Modigliani assumptions is violated. In this section, we present our findings within the context of these theories, to determine which are most consistent with management views in the 21st century. Within each theory, we discuss how various factors affect payout practice in general, and highlight when the implications differ between dividends and repurchases.

5.1 Taxes

The relative tax disadvantage of dividends relative to repurchases is often cited as an explanation for the recent growth in the share of payout dedicated to repurchases (e.g., Grullon and Michaely, 2002). The executives we interviewed frequently cite tax inefficiency as a factor that causes them to favor repurchases over dividends. However, when we ask dividend-payers why they do not reduce dividends (or increase them less) because of tax inefficiency, it becomes clear that investor-level taxes are not a dominant factor. Several executives mention that despite the tax-disadvantage of dividends, for whatever reason, individual investors nonetheless prefer dividends. In addition, certain situations can exist for which dividends are not tax disadvantaged. In one case, the firm we interviewed was more than 80 percent owned by another public corporation, in which case dividends are not tax disadvantaged thanks to the dividends received deduction. In other cases, the primary investors in a company's stock are taxed equally between dividends and capital gains.

The survey evidence is consistent with the executives' views expressed in the interviews. When we mention personal taxes paid by investors (without highlighting that dividends are tax disadvantaged relative to capital gains), only 21.4 percent of dividend-payers cite this as an important or very important factor (Table 6, row 13). Likewise, only 28.6 percent of repurchasing firms cite personal taxes as an important factor affecting the number of shares repurchased (Table 7, row 12). When we are more explicit and ask repurchasers whether the tax advantage that repurchases have over

dividends affects their decision to repurchase, 42.4 percent agree that it does (Table 8, row 5). Overall, executives indicate that differential taxes are a consideration, but not a first-order concern in payout policy decisions.

5.1.1 The 2003 dividend tax cut proposal

The second-order importance of taxes in payout decisions is confirmed in a February 2003 quarterly survey of FEI executives that examines the effects of President Bush's proposal to reduce or eliminate investor taxation of dividends. Among 105 CFOs whose firms currently pay dividends, one-fourth say that the elimination of dividend taxation would probably lead to their firm increasing dividends and six percent say it definitely would. The other 69 percent say that elimination of dividend taxation would definitely not or probably not affect their dividend decisions. Among 99 firms that do not currently pay dividends, 16 say that their firm probably would, and only one CFO says that his firm definitely would, initiate dividends if dividend taxation were eliminated. The other 82 CFOs say that the elimination of dividend taxation probably or definitely would not lead to dividend initiation for their firm. Overall, the results are consistent with dividend taxation affecting payout policy – but not in a first-order manner. The results also imply that the overall payout landscape would not change if dividend taxation were eliminated, so the primary factors that we identify as affecting payout policy would most likely still dominate a tax-free dividend environment, should the President's proposal be approved.

5.2 Clienteles

As just mentioned, executives acknowledge that dividends are tax disadvantaged relative to capital gains for retail investors. At the same time, executives believe that if there is any class of investors that prefer dividends as the form of payout, it is retail investors. Some CFOs state that dividend-loving retail investors are the "gray-haired set," or "mom and pop" investors who presumably have low dividend tax rates. More common, however, is the belief that retail investors prefer dividends in spite of the tax disadvantage. Retail investors prefer dividends over retained earnings, and they prefer dividends over repurchases. When we further ask the executives we interviewed what, in their opinion, is the reason that individual investors prefer dividends, some of them reply that retail investors (at least the elderly) consume directly from their dividend receipts.[11]

[11] We asked several follow-up questions, such as "do elderly retail investors represent a significant portion of your shareholders?" While admitting that they do not make up a big constituency, and that consumption plans of investors is not a first-order factor driving their firm's overall payout policy, we were not able to obtain a more concrete explanation. At this point we can only speculate about what causes individual investors to prefer dividends. First, maybe they are of the opinion that until they have the cash in hand, it does not really exist. This is consistent with many agency and asymmetric information stories (discussed below). Especially for small investors who cannot monitor firms too closely, this may be a reason why they "want to see the cash." Second, it

The CFOs also indicated during the interviews that, by and large, institutions prefer repurchases, though many also said that some small dividend payout is needed to attract certain types of institutions. One CFO said that his firm maintains a dividend level of two cents per share so that institutions subject to a constraint of investing only in dividend-paying stocks will be able to invest in his company.[12] This particular executive added that all other payout is done in the "more efficient" form of share repurchases. Many firms rule out cutting dividends to zero because it would eliminate some investment funds and other institutions that cannot hold zero dividend stocks. In the survey we also ask whether companies pay dividends to attract investors subject to "prudent man" investment restrictions. When we use this exact wording on the survey, we find modest support (41.7 percent strongly or very strongly agree with this motive in Table 5, row 7).

At the same time, many executives emphasize that payout policy is not a first-order factor in attracting institutions, and that there are many other considerations that will cause institutions to invest or not invest in a company.

Most executives are well aware of the specific retail/institutional shareholder breakdown in the stock ownership of their firm. Most also believe that their stock price will suffer if they do not maintain some balance between the two groups. Institutions are needed because "they have the money." Retail investors are desired because they help increase the number of shareholders (with the implication that executives believe that the demand curve for their stock is downward sloping) and because they are "more loyal" and add stability to the investor base.

The survey evidence confirms that CFOs think retail investors prefer dividends and institutions prefer repurchases. Approximately half of executives believe that paying dividends is an important or very important factor that attracts retail investors to their stock (Table 6, row 7), while only one-fifth believe that repurchasing shares attracts retail investors (Table 7, row 14). A direct comparison is presented in Fig. 2A, row 8. The difference is greatest in low growth firms with better prospects for the future. In contrast, the survey evidence indicates that approximately half of CFOs believe that paying dividends attracts institutions (Table 6, row 4), which is statistically indistinguishable from the percentage who feel repurchases attract institutions (Table 7, row 8 and Fig. 2A, row 6). Thus the relative importance of dividends is stronger for retail investors.

Contrary to the assumptions of several dividend payout theories (e.g., Allen, Bernardo and Welch, 2000) our evidence does not indicate that institutions prefer dividends, or more precisely, that executives believe that institutions have a stronger preference for dividends than do individual investors. Given management beliefs, it seems unlikely that firms pay dividends to attract institutional

---

is possible that because of behavioral reasons (Shefrin and Statman, 1984) or for transaction cost considerations, individual investors find dividends more efficient then capital gains, despite the tax disadvantage.

[12] This anecdotal evidence is consistent with Grinstein and Michaely (2002) who find that institutions avoid firms that do not pay any dividends, but have no preference about the size of the dividend (as long as it is nonzero).

investors. This result is consistent with the empirical results of Grinstein and Michaely (2002) who find no relation between the level of dividends firms pay and the extent of the institutional holdings. Moreover, in the interviews, most managers disagree with the statement that firms pay dividends to attract institutions and not a single manager agrees with the assertion that firms pay dividends so that institutions will come and monitor them. They argue that many institutions prefer repurchases over dividends, and (most) managers are not even convinced that institutions rigorously monitor corporate actions in the first place.[13] We find evidence consistent with this on the survey. Only 32.9 percent of dividend-payers do so to attract institutions *because* institutions monitor their stock (Table 6, row 11). A statistically similar percentage (34.5 percent) says that the monitoring service provided by institutions is an important or very important factor affecting repurchasing decisions (Fig. 2B, row 8 and Table 7, row 10).

From management's perspective, institutions attempt to influence dividend decisions as much as they try to influence repurchase decisions (Fig. 2A, row 7). 53.2 percent of respondents report that the influence of institutional shareholders affects dividend decisions (Table 6, row 5).[14] This is indistinguishable from the 51.5 percent who report that institutions influence repurchase decisions (Table 7, row 7).

The empirical evidence, the survey evidence, and the feedback from the interviews are consistent on this point: Management does not believe that dividend payments are a significant factor affecting institutions' decisions about which firms to hold. Institutions are interested in repurchases at least as much as they are interested in dividends, and management does not consciously use payout policy to attract institutional monitoring.

5.3 Agency conflicts and self-imposed discipline via payout policy

Payout can be used to self-impose discipline. Easterbrook (1984), Jensen (1986) and others suggest that equityholders can minimize the cash that management controls, and thereby reduce the opportunity for management to go on (unmonitored) spending sprees. The less discretionary cash that management has, the harder it is for them to invest in negative NPV projects. One way to take unnecessary cash from the firm is to increase the level of payout. Thus the level of payout, and dividends in particular, may be related to the need to control and monitor management.

Most companies' executives are adamant that discipline is not imposed via payout policy. They argue that management integrity or discipline imposed by the "bottom line" ensures that free cash

[13] In the interviews, some managers acknowledge that institutions dump a stock more quickly than do retail investors if there is evidence of trouble at the firm, so nontrivial institutional holdings of a stock might perform a certification role (that there is no evidence of forthcoming trouble).

[14] From the interviews we know that retail investors sometimes communicate with companies in hopes of obtaining a higher dividend payout – but that the companies' decisions are not influenced unless the retail investor is very large or perhaps part of the founding family.

flow is not wasted on negative NPV projects.[15] This view is supported by survey evidence. Almost 88 percent of executives think that the disciplinary role of dividends is not an important factor affecting dividends (Table 6, row 15). About 79 percent believe that discipline imposed by repurchases is not important (Table 7, row 16 and Fig. 2B, row 12).

Interestingly, a notable minority of the interview firms admit that "money can burn a hole in their pocket." Past history is clear for some firms that when cash is flush, management makes ill-advised or expensive acquisitions. These companies agree that committing to pay out can reduce this excess free cash flow problem. Surprisingly, though, many of these companies believe that dividends are no better at imposing discipline than are repurchases (even though, as mentioned earlier, they all agree that dividends are much less flexible). This is consistent with the survey evidence of the relative lack of importance of the disciplinary role of dividends and repurchases.

Cash cows might be more likely to experience agency costs, and their CFO's views are consistent with agency considerations affecting their dividend policies in terms of these firms being more committed to paying out to shareholders in the form of dividends. In particular, cash cows are statistically more likely than other firms to agree or strongly agree that (i) there are negative consequences to cutting dividends (Table 3, row 1), (ii) rather than reducing dividends, they would consider raising external capital to undertake a profitable investment (Table 3, row 3), (iii) they try to maintain a smooth dividend stream (Table 5, row 2), (iv) they are reluctant to make changes that they might have to reverse in the future (Table 5, row 4), (v) they focus on growth or change in dividend per share (Table 5, row 5), (vi) they consider the change or growth in dividends per share, and (vii) they try to maintain consistency with historic dividend policy (Table 6, row 1). Recall also that cash cows target the growth in dividends per share, rather than targeting the level of dividends like other firms. In general, our cash cow results are consistent with DeAngelo et al. (2002) who find that a small subset of firms (which we call cash cows) pay the bulk of aggregate dividends and in fact are responsible for aggregate payout increasing steadily in recent decades.

5.4 Information, signaling, and stock prices

Miller and Modigliani (1961) assume complete and perfect capital markets and that all investors have the same knowledge. If insiders have better information about the firm's future cash flows, many researchers suggest that dividends might convey information about the firm's prospects. The first possibility is that dividends may simply convey information not previously known to the market; for example through the sources and uses of funds identity (e.g., Miller and Rock (1985)). Managers do not necessarily have an intention to signal – their action simply conveys information. Alternatively, according to several models, dividends can also be used explicitly and deliberately as a costly signal

[15] We recognize that managers might not admit, even to themselves, that at times they may need someone to monitor, or impose discipline on, their actions, so these results should be interpreted accordingly.

to change market perceptions concerning future earnings prospects (e.g., Bhattacharya (1979), Miller and Rock (1985), John and Williams (1985), Allen et. al. (2000)).

The questions we ask the survey participants address both types of issues. We ask CFOs whether they think there is some association between dividend changes (or repurchases) and information. We then further investigate whether they use dividends (or repurchases) as a signaling device.

5.4.1 Does payout policy convey information?

Almost every executive we interviewed volunteered that dividend payout and share repurchases convey management's confidence about the future.[16] Somewhat surprisingly, repurchases are thought to convey at least as much information as dividends. Survey evidence confirms this strong view about payout conveying information. First, four-fifths of financial executives believe that dividend decisions convey information about their company to investors (Table 3, row 2). Though not statistically so, this is higher for firms that believe they have positive prospects relative to those that do not. An even higher 84.5 percent feel that repurchase decisions convey information to the marketplace (Table 4, row 1 and Fig. 2B, row 2). Though not reported in the table, this rating is statistically higher for companies that feel their stock is valued correctly or overvalued, relative to those who feel their stock is undervalued.

One interesting issue is that some mangers view their information conveyance as being about the mean of the distribution of future earnings, while others believe that information conveyance primarily helps resolve uncertainty and so is about the second moment of the distribution. This is consistent with the evidence presented in Grullon et al. (2002). The survey evidence (Fig. 2A, row 9) indicates that around 35% believe that dividends make the stock less risky and only 23% believe that repurchases make the stock of the firm less risky.

The interviews make it clear, however, that any conveyance of information is viewed as one part of an overall communication with the investor community. Earnings announcements and direct communication with the investor community (such as conversations with analysts and investors) are thought to convey the majority of information to outsiders. It is helpful for payout policy to be consistent with these other forms of communication. As one executive put it, payout policy is a "punctuation mark" at the end of the sentence communicating with outsiders, not the meat of the sentence.

A priori it can also be argued that paying dividends and repurchases could convey negative information. For example, the investment community may infer that a firm does not have ample investment opportunities if it pays more dividends or repurchases more of its shares. This negative

[16] The executives generally use the word "signal" instead of "convey." In the text, we use "convey" to indicate any form of sharing information with outsiders and reserve "signal" for the academic sense of the word (i.e., costly self-imposed action).

form of information conveyance received meager support on the survey. Less than one-fifth of respondents think that an important or very important factor affecting payout policy is the possibility that paying dividends might indicate to investors that their company is running low on profitable investments (Table 6, row 14). Though still only modest support, a statistically larger 30.3 percent believe that repurchasing might indicate a lack of investment opportunities (Table 7, row 11 and Fig. 2B, row 3).

5.4.2 Payout policy and signaling

We ask a series of questions to determine whether this general support for payout conveying information is consistent with some of the most cited signaling models. First, we inquire whether payout is used to separate a given firm from its competitors (saving for later more specific questions about whether payout separates because it is a self-imposed cost). Inconsistent with the notion that payout can be used to separate a firm from its peer group, only one-fourth of executives strongly or very strongly agree that they use dividend policy to make their firm look better than their competitors (Table 3, row 7). Similarly, only 17.6 percent view repurchase policy as a means to look better than competitors (Table 4, row 8 and Fig. 2A, row 10).

Second, we ask whether companies use payout policy to show that their firm can bear costs, in the self-imposed academic sense, to make their company look better than competitors.[17] The vast majority of executives did not agree with this premise. Only 4.2 percent of companies agree or strongly agree with this premise with respect to dividend policy, which is the least support for any dividend question on the entire survey (average rating of –1.16 in Table 3, row 9). Even lower, only 2.5 percent agree or strongly agree that they use repurchases to signal that their firm can bear self-imposed costs, the lowest score on the entire survey (rating of –1.23 in Table 4, row 9. See also Fig. 2A, row 11.). The replies to this question clearly indicate that managers do not consciously use, and do not believe that others use, payout as a costly signal. Thus, if we take the models literally, and managers are conscious of their actions, and are aware of the meaning and reasoning of their actions, then this notion is flatly rejected by managers. As we discuss in the Section 2, it is possible to invoke the "as if" assumption in which managers do not know what they do, they do not know it is a costly signal, but they still act as if they intentionally self-impose a cost to signal.

To further explore the dividend signaling theories, we also asked specific questions about some of the particular signaling costs underlying those theories. Bhattacharya (1979) asserts that the signaling cost is the cost of external financing. If a firm pays dividends to signal but things do not go well (which is more likely for low quality firms) then they will have to resort to external capital, which is costly. Among dividend-payers, only 19.1 percent of companies agree or strongly agree that they use

[17] The exact statement on the survey was: "We use dividends/repurchases to show we can bear costs such as borrowing costly external funds or passing up investment, to make us look better than our competitors."

dividends to show that they are strong enough to bear the cost of external capital if needed (Table 5, row 8). Sixty percent of companies disagreed with this assertion. The John and Williams (1985) model centers on the higher taxation of dividends relative to capital gains as the cost. Only 17.1 percent agree that they use dividends to show that their stock is valuable enough that investors buy it even though they have to pay relatively costly dividend taxes (Table 5, row 9). Finally, Miller and Rock (1985) argue that the cost of dividend is that "good" firms shave investments to pay the dividend (and only good firms will find it valuable enough to do so). Only 8.6 percent agree that they pay dividends to show that their firm is strong enough to pass up profitable investments (Table 5, row 10). As low as these three signaling scores are, it is interesting that the scores are even lower among growth firms, which is opposite what one would think if growth firms are subject to informational asymmetry and signaling is a dominant force affecting payout policies. Though the absolute scores are low for cash cows and non cash cow firms, the former provide relatively more support for the signaling hypotheses in rows 8 and 9 of Table 5.

With the exception of the John and Williams' model, the signaling theories hold for repurchases as well as dividends. As indicated in Fig. 2A, row 11, the endorsement of the repurchase signaling theories is rather meager. Less than 5% of companies say that they repurchase to show they can bear the cost of external financing or pass up investment opportunities to show that they are better than their competitors.

5.4.3 Repurchases and adverse selection models

When informed investors have better knowledge of the firm than uninformed investors, the use of repurchases may lead to an advantage for informed investors. Barclay and Smith (1988) and Brennan and Thakor (1990) argue that when a firm announces a repurchase program, the cost to the uninformed investors of adverse selection increases. Informed investors will bid for stock when it is undervalued, but will not bid when it is overvalued. The uninformed do not have the information to act strategically, which puts them at a disadvantage in a share repurchase. When money is paid out in the form of dividends, the informed and the uninformed receive a pro rata amount, so there is no adverse selection. As a result, uninformed shareholders prefer dividends to repurchases and the informed prefer repurchases because this allows them to profit at the expense of the uninformed.

The adverse selection story is not supported in the interviews. Instead, the executives were likely to respond that "stock price goes up on average following repurchases, so the remaining shareholders, uninformed or not, benefit from the program." Moreover, executives argue that at least some informed agents (directors and management) rarely sell during a repurchase program. We acknowledge that the adverse selection story described above may apply best to tender offers, rather than to open market repurchases. But, at least over the last two decades, the vast majority of repurchases have been open market repurchases and not tender offers (Grullon and Ikenberry (2000)).

On the survey we ask whether the executives hesitate to use open market repurchases because the selling shareholders cash out and take the benefits of the repurchase program with them. The surveys do not support this notion. Only 12.7 percent of the survey respondents think that this is an important or very important factor affecting repurchase decisions (Table 8, row 9).

5.4.4 Stock price

The executives tell us that they accelerate (or initiate) share repurchases when their stock price is "low" by recent historical patterns. The most popular response for all the repurchase questions on the entire survey is that firms repurchase when their stock is a good value, relative to its true value: 86.6 percent of all firms agree or strongly agree with this supposition (Table 7, row 1).[18] This viewpoint is especially true for small firms (90.4 percent vs. 84.5 percent for large firms). In contrast, dividend policy is not greatly affected by stock price (35.1 percent in Table 6, row 10 and Fig. 2B, row 1). The fact that managers believe that they repurchase more when their stock is underpriced, combined with the evidence in Ikenberry, Lakonishok and Vermaelen (1995), is consistent with the notion that share repurchases contain information about future prices. Moreover, it is consistent with managers feeling that their view of their stock's underlying value is at times more informed than is the market price.

Repurchasing when the share price is low is a conditional objective. The Treasurer's first priority is to provide the liquidity needed for the firm to meet its operational needs. Repurchases are made with remaining funds. Some executives lament that "just when it is the best time to repurchase, you cannot. And when you have funds to amply repurchase, your share price is often high." We know from Section 3, however, that companies argue that they successfully time the market to some extent with their repurchases, so the correlation between liquidity and stock price tempers but does not eliminate repurchasing when the price is low.

Interestingly, the link between funds committed towards buybacks and the extent of undervaluation is similar to the "limits of arbitrage" arguments made by Shleifer and Vishny (1997). These authors argue that arbitrageurs may be unable to keep funds fully committed during times in which assets are mispriced. In their framework arbitrageurs can identify irrationally-induced mispricing. However, the nonstationarity and high dimensionality of the data prevents them from fully convincing their investors that prices reflect mispricing. Thus, they may be unable to obtain and retain funds during times of mispricing. The role of arbitrageurs in our setup can be viewed as being played by managers and their attempt to purchase their undervalued shares. The limit on their "arbitrage" activity arises from the fact that managers often do not have the necessary funds to execute these transactions precisely when their shares are undervalued. For example, as we discuss below, several managers said that they are reluctant to repurchase shares because the use of cash for repurchases

might lead to lower debt ratings. Thus, outside rating agencies play the role of rational investors in Shleifer and Vishny's approach: Due to complexity and information asymmetry, rating agencies are unable to deduce that the firm could use the cash to conduct positive net present value share repurchases.

5.4.5 Information summary

The survey indicates strong support for the notion that dividends and share repurchases convey information about a company's future prospects to the market. It is notable, however, that most managers do not believe that changes in dividend policy convey information over and above what they explicitly tell analysts and investors.

The survey evidence about managers' views on academic signaling is quite different. We spent hours in the interviews discussing the ideas behind signaling models with financial executives and a clear pattern emerges: Payout policy conveys information; however, it rarely is thought of as a tool to separate a company from competitors, and there is no evidence that payout is viewed consciously as a self-imposed cost to reveal a strong firm's private information about its ability.

In fact, the interviews reveal a different pattern. One important managerial objective is to stay within their peer group's dividend policy, which they generally perceive to be the appropriate payout policy for firms in their situation/industry.[19] This benchmark group usually consists of a few firms in the same industry with similar characteristics (e.g., same size, same product, etc.) or even dissimilar firms that are trying to attract the same group of investors. Indeed, managers align (or if necessary adjust) their payout policy to fall within the range of this group. When we talked with managers of firms that cut their dividends, or with managers of firms in industries in which firms have cut their dividends, they indicate that a reduction in dividends by peers makes the possibility of their cutting dividends more feasible. Even with respect to cuts, however, the executives view proper management of liquidity and investment as their first-order priorities and any information conveyance to be second-order if at all. For example, when market uncertainty is at its highest, and costly signaling might have its greatest value, most firms hoard cash and get even more conservative rather than purposefully taking costly actions such as, for example, increasing dividends. All of this indicates that management views, in which firms consciously choose to separate themselves, are not consistent with

---

[18]Closely linking repurchase decisions to stock price valuation is consistent with the evidence in Graham and Harvey (2001) that equity valuation is one of the most important factors affecting management decisions about issuing equity.

[19] Even though the interviews indicate that benchmarking own-firm payout practices, especially dividend policy, to the policies of competitors' payout is common practice, the survey reveals only moderate support for this position: 38.5 percent of companies say that the dividend policies of competitors are an important or very important factor affecting own-firm dividend policy (Table 6, row 9) and a smaller 15.5 percent feel this is the case with repurchases (Table 7, row 17).

the traditional signaling equilibrium. Managers do not try to signal their "true worth" and separate themselves from their peers through (painful) dividend payments or repurchases.

There are three caveats to the conclusion that payout policy decisions are not made in a manner consistent with academic signaling models. First, there is some indication from the interviews that one reason that firms are hesitant to cut dividends is related to signaling. Consider a firm that is experiencing a liquidity crisis that also affects other firms in its industry. If a competitor reduces its dividend, the firm might be tempted to follow suit. However, in the interviews, several executives told us that they would try to avoid reducing their dividend if possible, especially if they thought that their own firm would only be affected temporarily by the liquidity crisis. The reasoning is that the market thinks that only firms experiencing long-lasting and severe liquidity crises cut dividends, and the firm would not want to give the market the misimpression that they expect their own liquidity crisis to be long-lasting. It would not be possible, or at least it would be extremely costly, for "bad" competitors to mimic the "good firm" policy of not cutting dividends. Therefore, by not cutting their dividend a good firm might be able to separate itself from bad competitors. Even if there is some truth to this scenario, it can not explain dividend policy in general because dividend cuts (by competitors) are very rare, so there are infrequent opportunities to separate oneself by not cutting. Moreover, this argument is insufficient to explain why dividends exist in the first place: No interview or direct survey response argues that firms initiate dividends so that at some point in the future there is a chance they might get an opportunity to separate themselves by not cutting.

Second, we know that there is a severe penalty for reducing dividends (even if the reasons for the severity of this penalty are not universally understood). One could argue that only executives who are very confident about their firm's future earnings will initiate (or increase) dividends. The expected cost of future cuts is very small for these firms but it would be costly for a bad competitor to mimic this strategy. However, when we explicitly ask executives about this possible explanation for dividends, it receives very little support. Our conclusion is that executives do not implement dividend policy according to this signaling argument in a conscious way, if at all.

Third, continuing the "as if" discussion from Section 2, our failure to find that the assumptions that underlie many signaling models are "realistic" (in the sense that they reflect managers' intentions and realistic market structure) does not automatically refute these models if the ultimate test is whether these models predict actual dividend behavior. Allen and Michaely (2002) summarize the empirical evidence as indicating that signaling models fail in the predictive dimension. Combined with our finding that the assumptions and causal factors within these models are not supported, we conclude that the evidence does not support the signaling models.

5.5 Other factors affecting payout decisions

5.5.1 Earnings per share

Concerns about earnings per share (EPS) are very important to repurchase decisions.[20] Three-fourths of survey respondents indicate that increasing EPS is an important or very important factor affecting share repurchase decisions (Table 8, row 2).[21] This is particularly important for low growth firms (92.7 percent), and when the CEO has an MBA (83 percent, not in table). Like the survey respondents, the interviewees express great concern about the effects of repurchases on EPS – quite a few could cite precise numerical estimates of EPS given their repurchase program and what EPS would be without such a program. However, the CFOs were split on the reasoning behind repurchasing to increase EPS. A notable portion of executives express the view that repurchasing shares reduces the total number of shares and therefore automatically increases EPS. Another faction understands that only if repurchases are carried out using funds that would otherwise not earn the cost of capital, are they accretive to earnings. Conversely, this same faction notes that if the funds could alternatively be used to invest in positive NPV projects, then repurchasing would reduce EPS, at least in the long run.

Many companies implement a plan whereby the magnitude of their repurchases is (at least in part) determined by the amount necessary to eliminate earnings dilution by stock option compensation plans or employee stock plans: two-thirds feel that offsetting dilution is an important or very important factor affecting their repurchase decisions (Table 8, row 3). This is especially true for large firms with good credit ratings. In contrast, there is virtually no support for the idea that companies repurchase rather than use dividends because employee stock options are not dividend-protected (only 9.9 percent in Table 8, row 10). Our results are thus inconsistent with those in Fenn and Liang (2000) and Weisbenner (2000). These authors report a negative relation between stock option plans and dividends and argue that this is consistent with the notion that managerial incentive plans reduce managers' incentive to pay dividends because executive options are not dividend protected.

5.5.2 Float, liquidity and issuance costs

In Section 3 we note that many firms feel that their stock price would fall if they had a less diverse investor base. A related view is that the stock price will decrease if the float or overall liquidity of the stock were to fall. The executives feel that this will occur because demand for a stock falls if investors think that their trades will move the stock price. A company will restrict repurchases if it feels that doing so will reduce float below some critical level: One half of firms feel that the float or overall

[20]The importance of EPS to share repurchase decisions is consistent with the evidence in Graham and Harvey (2001) that concerns about EPS are the most important factor affecting management decisions to issue equity.

[21] This is consistent with findings in Bens, Nagar, and Skinner (2002) that firms use repurchases to manage diluted EPS, when earnings are otherwise below the level required to achieve desired EPS growth and when the dilutative effect of stock options increases.

liquidity of their stock is an important or very important factor affecting their repurchase decisions (Table 8, row 4). Though not statistically significant, concern about float is particularly important for small companies and when insider ownership is high, two situations where float might be an acute issue.

There is less support for the idea that payout decisions are linked to issuance costs. Only one-fifth of executives list flotation costs to issuing additional equity as an important or very important factor affecting repurchase decisions (Table 7, row 15). Only one-tenth say that dividend decisions are affected by issuance costs (Table 6, row 16).

5.5.3 Credit ratings and capital structure

An emerging trend identified from the interviews, but not documented by Lintner (1956), is that many firms pay close attention to the rating agencies and to their debt rating when they make payout decisions. Firms are reluctant to increase dividends or repurchase shares if that would reduce their debt ratings. In fact, some firms even consider cutting their dividend to prevent a rating downgrade. This is especially true for companies with a financial division because a reduced rating might eliminate them from certain kinds of business or the CP market, as well as substantially increase their cost of capital. This also factors into why companies might not repurchase shares when the price is low: At that very moment they hoard cash in part to convince rating agencies that they can weather a negative spell.

One piece of survey evidence strongly supports the importance of managing debt (which in turn affects credit ratings) with payout policy. Figures 3A and 3B show that "pay down debt" is the most popular use of funds that would otherwise be used to repurchase or pay dividends. However managers do not claim to actively use repurchases or dividends to manage debt ratios. Approximately 25 percent of respondents say that they use dividends (Table 3, row 8) or repurchases (Table 4, row 4) as a tool to manage credit ratings. Notably, however, high debt firms are significantly more likely to use payout to manage credit ratings. Similarly, only 30.3 percent of firms say that they use repurchases to move their debt-to-equity ratio close to their desired ratio (Table 8, row 6). This response is relatively more popular among large, highly-levered firms.

5.5.4 Resisting a takeover

Only 13.8 percent of CFOs feel that accumulating shares to resist a potential takeover bid is an important or very important factor affecting repurchase decisions (Table 8, row 8). However, it is interesting to note that firms might be more likely subject to a takeover threat (e.g., small firms, worse future prospects) are more likely to list resisting takeover threats as an important factor.

5.5.5 Public versus private

Most payout theories are motivated by the notion that asymmetric information and agency considerations are very important rationales behind payout policies.[22] Asymmetric information explanations and agency considerations are likely to be more severe in public than in private firms. Public firms have more disperse ownership, more of an arms-length relationship between principals (outside public shareholders) and agents (managers) and hence are more likely to suffer from agency problems (e.g., Jensen and Meckling, 1976), or from asymmetric information problems where insiders know more than outside shareholders. The same logic, though likely to a lesser extent, applies to publicly traded firms with differential insiders holdings.

While conditioning the analysis on whether the firm is publicly traded or on the percent held by insiders cannot distinguish between asymmetric information and signaling theories, it can shed some light on the importance of these theories combined. For example, we would expect that public firms would be more reluctant to reduce dividends. As a privately held firm it would be easier to transmit information through other vehicles, and it would be easier to monitor managers and prevent them from excess spending. Hence the consequences of reducing dividends may be more severe for public firms. Similarly, private firms should be less reluctant to cut dividends when they face profitable investment opportunities.

In general the different responses between public and private firms support the notion that information and agency problems are two determinants of payout policy. We find that private firms view the negative consequences of cutting dividends as less severe (Table 3, row 1; and Table 5, row 1). Private firms also view dividend policy to contain less information (Table 3, row 2), though the difference is not significant. They also view repurchases to convey less information (Table 4, row 1 and Table 10, row 3). Private firms are also less likely to pay dividends in lieu of investing (Table 3, row 3), and they are more likely to pay dividends in response to temporary changes in earnings (Table 6, row 17). As can be seen in those tables, however, it is important to note that the responses to most of the survey's questions were not different between the private and public firms, and there are many points of agreement between private and public managers about the motives behind payout policies.

Similarly, we find that firms with larger insider holdings are less reluctant to reduce dividends if they have to raise additional funds for the dividend payments (Table 3, row 3); and they are less concerned about dividend smoothing (Table 5, rows 2 and 4 and Table 6, row 1).

6. When and why will nonpayers initiate payout?

Fama and French (2001) note that the proportion of firms paying dividends has fallen dramatically in recent years. Therefore it is important to understand what might eventually lead to payout initiation.

[22] See Allen and Michaely (2002) for a review of asymmetric information models (signaling and adverse selection) and agency models and how they are related to payout theories.

In this section, we investigate when and why firms that do not currently pay dividends or repurchase shares might begin doing so. One important thing to note is that the results discussed in the section represent the views of the firms that do not currently pay out (and are related to what causes them to eventually begin paying out). The results discussed thus far in the paper represent the views of firms that already pay out (and are related to the factors that affect their existing payout policies). The fact that the important factors in this section are largely consistent with those in earlier sections indicates the pervasiveness of management views about the important factors that drive payout policy.

Table 9 summarizes the dividends/repurchases initiation plans of firms that do not pay dividends and/or repurchase. In the first row, we summarize the plans of firms that neither pay dividends nor repurchase shares. Most non-dividend companies are in no hurry to begin paying out. More than 70 percent of firms that do not currently pay dividends say that they may never initiate. Seven percent say that they will not pay dividends for 20 years. About one-tenth of non-dividend-paying firms plan on starting to pay dividends in the next five years and another three percent say that they will begin within two years.

[Insert Table 9]

Non-repurchasers are not in a hurry to initiate either, though the stance is not so pronounced. Fifty-five percent of companies that do not currently repurchase say that they may never begin to do so (Second row). Another seven percent say that it will be another 20 years before they will start. A full one-fifth of CFOs say that their firms will begin to repurchase shares within 5 years and another 12 percent say that they will begin within two years.

In the third row of Table 9 we summarize the plans of firms that neither pay dividends nor repurchase shares. More than half of these CFOs say that they may never pay dividends or repurchase shares; another 10 percent of these firms say that it will be at least 20 years before they begin to pay out in any form.[23] These views hold even among nonpayers that we classify as cash cows (profitable, credit rating of A or higher, prospects at median or better).

[Insert Table 10]

6.1 Factors that affect the decisions to initiate

We asked about the impact of several factors on the decision to start to pay out or to repurchase. The most important factor affecting repurchase initiation is stock price. Three-fourths of CFOs report that market undervaluation of their stock might get them to initiate repurchasing shares (Table 10, row 1). This is particularly true for low-P/E stocks (88.0 percent). In sharp contrast, only 38.7 percent of executives report that market undervaluation of their stock will lead to dividend initiation (Table 11, row 6). Market undervaluation is more likely to affect dividend initiation for small, highly rated firms.

[Insert Table 11]

In order to convey information to investors, 59.7 percent of executives say that they might begin to repurchase if the market is not fairly valuing their stock (Table 10, row 3). In contrast, only 39.2 percent say that they would initiate dividends to convey information (Table 11, row 5). This is consistent with what we found about conveying information discussed in Section 5.4.1, and surprising because the flexibility of repurchases would seem to make them a less viable means to convey information to outsiders.

One half of CFOs told us that they might initiate repurchases in an attempt to increase EPS (Table 10, row 8), and an even larger proportion of firms that feel their prospects are good say so. Similarly, half of the firms say that they might initiate repurchases to offset earnings dilution (Table 10, row 7).

Having extra cash or marketable securities is the second-most important factor affecting payout initiation. Three-in-five firms tell us that excess liquidity is an important or very important factor that might lead to repurchase initiation (Table 10, row 2). A statistically smaller 45 percent say that extra cash might lead to dividend initiation (Table 11, row 4). The effect of cash on repurchases is more important for low growth firms. One-half of executives report that having fewer profitable investments is an important or very important factor that might lead their firm to begin to repurchase (Table 10, row 6). Similarly, half of CFOs report that having fewer profitable investments might lead to dividend initiations (Table 11, row 3).

These results are consistent with firms planning to initiate payout to avoid possible agency problems that could occur in the future when free cash flows will accumulate. However, when we directly ask about this possibility, very few companies (9.3 percent) report that they might initiate dividends to reduce cash and instill discipline into their firm's decision-making (Table 11, row 11). Likewise, only 14.5 percent state that they might initiate a repurchase program as a form of self-imposed discipline (Table 10, row 14).

Nearly 60 percent of CFOs report that a sustainable increase in earnings might lead to dividend initiation, the most popular dividend initiation factor (Table 11, row 1). This view is particularly prominent among new CEOs at low-growth firms. In contrast, though not statistically different, a smaller 46.8 percent report that a sustainable increase in earnings might lead to a firm starting repurchases (Table 10, row 9). Conversely, a temporary increase in earnings is not likely to lead to dividend (17.1 percent in Table 11, row 12) or repurchase (9.3 percent in Table 10, row 13) initiations. These initiation results are consistent with our Lintner discussion in Section 4 (that section analyzes payout policy among firms that already pay out).

---

[23] When one of the CFOs we interviewed saw these results, he suggested that CFOs generally have a five-year horizon, and that answers longer than five years should not be interpreted literally but rather to indicate that initiating payout is not in the CFO's five-year plan.

Institutional shareholders are viewed as having an important influence on payout initiation. 56.6 percent of executives say that institutions are important or very important in terms of possibly leading to the establishment of a repurchase program (Table 10, row 4). A similar 56 percent say the same about dividend initiations (Table 11, row 2), particularly at firms with mature CEOs. Only 29.3 percent of CFOs report that retail investors might influence their firm to initiate dividends (Table 11, row 10). These findings about initiation are consistent with the clientele discussion in Section 5.2, namely that institutional investors affect repurchase and dividend decisions – but institutions are not believed to prefer one form of payout over the other.

The influence of competitor payout ratios is larger than the influence of retail investors but smaller than that of institutional investors. Thirty percent of executives tell us that the policies of peer firms might influence their repurchase decisions (Table 10, row 11), while one-third say that competitors might influence dividend decisions (Table 11, row 8).

There are additional initiation results that parallel the clientele discussion in Section 5.2. Among questions we ask of firms that do not pay dividends, one-third report that attracting investors subject to "prudent man" investor restrictions is an important or very important factor that might lead to dividend initiations (Table 11, row 7). This is quite a bit more important for highly rated firms (60 percent) in comparison to low-rated firms (18.8 percent). Perhaps paying a dividend is the final piece of the puzzle for highly rated firms to attract investors concerned about prudent man restrictions, while low-rated stocks either cannot afford to pay a dividend or would not be considered a prudent investment even if they did. Only 32 percent of CFOs tells us that they might initiate dividends to attract investors who will monitor or verify their decisions (Table 11, row 9).

Finally, among questions we ask about factors potentially leading to a firm beginning to repurchase shares, 52 percent of executives say that a change in the float or overall liquidity of their stock might open the door to repurchases (Table 10, row 5). Recall that a lack of float inhibits repurchases in general, as discussed in Section 5.5.2.

7. Summary and discussion

By asking managers about their opinions and motives underlying their firms' payout policies, this paper is able to provide a different perspective on corporate dividend and repurchase policies. We believe the evidence gathered through surveying a wide number of CFOs and interviewing two dozen contributes to our understanding of these policies along three dimensions: First, in line with Lintner (1956), we document stylized facts concerning dividend policy. In addition, we gather parallel information on repurchase policies, as well as the views of firms that do not pay dividends and do not repurchase shares. This information enables us to identify the context within which management makes corporate decisions. Second, given the wealth of payout theories, we are also able to explore

the underpinnings of academic payout theories. Our hope is that this exploration will enable researchers to come up with theories that encompass a wider array of the motives for dividend and repurchase policies. Finally, we identify the "rules of the game" that determine the context within which management makes corporate decisions. Table 12 summarizes our key findings regarding dividends, repurchases and total payout.

With respect to dividend policy, one of Lintner's key findings still holds: dividend policy is very conservative. Dividend conservatism emanates primarily from the severe asymmetric penalty the market assigns for cutting dividends. Firms therefore are very reluctant to cut dividends, and the current level of dividend payments is taken as given (except in extreme cases). Some managers report that, if needed, external funds will be raised before dividends are cut.

The focus of the market and management is on changes in dividends per share. Dividends are sticky, smoothed from year to year, and companies are reluctant to increase dividends if this increase might have to be rescinded in the future. Moreover, managers indicate that they do not see much upside to raising dividends. Dividend conservatism affects nonpayers and they are reluctant to initiate dividends because once they do, they must operate in the dividend-payers' world just described. But we also find that many of those firms that do pay dividends wish they did not, saying that if they had to start all over again, they would not pay as much in dividends as they currently do. Firms with stable and sustainable increases in earnings are for the most part the only firms that consider increasing or initiating dividends. But even such firms would generally prefer to pay out in the form of repurchases. This can partially explain the findings of Fama and French (2001) and Grullon and Michaely (2002) that the number of firms paying dividends has been decreasing.

Two other stylized facts from Lintner's time no longer hold. First, unlike Lintner (1956), our evidence indicates that few firms target the dividend payout ratio, but rather they now target the current level of dividends or dividend growth. These targets are reported to be somewhat flexible. Second, unlike the 1950s, share repurchases are now a very important form of payout. Perhaps the most important reason that repurchases are now important is that they are viewed by managers, and apparently also by the market, as being much more flexible than are dividends. Undoubtedly, managers speak about flexibility in the positive sense of the word. It gives them an ability to scale back investment when needed (e.g., not enough positive NPV projects) and instead pay out more. But when good investment opportunities abound, they can scale back on payout and invest.

With dividends, managers would consider raising external capital or delaying investment so that they can maintain their (inflexible) level of dividends per share. In contrast, repurchase programs would be cut before external funds would be raised. The baseline dollar amount for repurchase programs is effectively zero, rather than historical levels of share repurchases (though most firms do try to eventually complete their announced repurchase programs). Indeed, managers report that cutting repurchases over previous year levels is not viewed negatively by the market and that even when a

target repurchase level exists it is very flexible. Executives also say that the extent to which their stock is undervalued affects the repurchase decision, as does the desire to increase EPS, the extent to which the firm uses stock options, and the level of cash on the balance sheet. Executives indicate that they do not often use, or think that other firms use, open market repurchases to prevent potential takeovers. Generally speaking, management considers substituting share repurchases in place of increasing dividends per share – but not the other way around. Interestingly, firms that do not pay out express similar views to those who do pay out, which indicates the pervasiveness of management views about payout policy.

Beyond documenting stylized facts, the second dimension of this paper is that it allows us to shed light on dividend and repurchase theories that were developed over the last 40 years. Overall, we find that repurchase policy is better explained by the Miller and Modigliani (1961) framework than is dividend policy. That is, managers clearly indicate that operational and investment decisions are more important than share repurchases. In contrast, for dividends, the level of payout is viewed as being on par with incremental investment. Even with dividends, however, increasing the level of dividends per share is secondary to investment decisions. Consistent with Miller and Modigliani, payout decisions may also convey information. Managers believe that both dividend and repurchase decisions, in conjunction with other information the firm provides, help disseminate information to the market. Managers also generally accept that share repurchases are a more tax efficient means of returning capital to investors than are dividends – but taxes are not a dominant factor affecting payout choices.

Payout clientele stories do not receive a strong endorsement from managers. While executives acknowledge that dividends are tax disadvantaged relative to repurchases for most individual investors, they do not view this issue as an important factor in their payout decision. Most executive even indicate that the Bush administration's proposed reduction in dividend taxation will not substantially affect their payout policy if it passes. Moreover, unlike assumptions and implications from several theories, executives believe that repurchases are as equally attractive as dividends to most institutions, and much more attractive to institutions than to individual investors. Overall, even firms that want to attract institutional investors do not view their payout policy as an important tool to persuade institutions to hold their stock.

Our evidence has implications concerning the free cash flow explanation to payout policy. Many managers "regret" their firm's dividend level – they view the current dividend level as an undesired anchor that prevents their firm from having the desired level of intertemporal flexibility in cash payout. Agency advocates might interpret this evidence as support for the disciplinary role of dividends. When asked directly, managers do not agree that they purposely set dividends to disgorge cash flow and instill discipline. To the extent that they agree that having less cash would force them to run a tight ship, executives feel that repurchases would work equally as well as dividends to disgorge

cash, which, given the flexibility of repurchase programs, is not consistent with firms committing to self-imposed discipline for the long-run.

Finally, managers reject the notion that dividends are used as a costly signaling device. There are elements of payout policy that could be construed to be consistent with signaling. However, not a single interviewed executive told us that their firm had ever thought of payout policy as a costly means of separating themselves from competitors. The survey evidence in support of signaling is also sparse.

When it is all said and done, we have learned a lot about payout policy but we still do not have answers for some of the most fundamental issues: Why do both dividends and repurchases exist? Why is there such a large penalty for dividend cuts but not an analogous penalty for not completing a repurchase program? While we can not provide definitive answers to these questions, surveying and interviewing hundreds of financial executives suggests that executives tend to employ decision rules that are fairly straightforward (rules of thumb), in response to a handful of widely held beliefs about how outsiders and stakeholders will react. We call these beliefs the "rules of the game" and believe that they determine the playing field for many corporate decisions.

With respect to payout policy, the rules of the game include the following: there is a severe penalty for cutting dividends, do not deviate far from competitors, maintain a good credit rating, it is good to have a broad and diverse investor base, maintain flexibility, and an important portion of investors price stocks using earnings multiples, so do not take actions that reduce earnings. These rules of the game are consistent with the informal rules that Graham and Harvey (2001) find most affect debt policy, such as the desire for flexibility and a good credit rating, and equity policy, such as earnings per share and stock price appreciation. We believe that future research that models the manner in which such rules are selected, and the resulting policies that they lead to, can contribute to our understanding of the interaction between corporations and investors, and also shed light on many corporate decisions, including payout policy.

References

Aharony, Joseph and Itzhak Swary, 1980, "Quarterly Dividend And Earnings Announcements and Stockholders' Returns: An Empirical Analysis," *Journal of Finance, 35* (1), 1-12.

Allen, Franklin, and Roni Michaely, 2002, "Payout Policy" North-Holland Handbook of Economics edited by George Constantinides, Milton Harris, and Rene Stulz; North-Holland.

Allen, Franklin, Antonio Bernardo and Ivo Welch, 2000, "A theory of dividends based on tax clientele," *Journal of Finance*, 55(6), 2499-2536.

Amihud, Yakov and Maurizio Murgia, 1997, "Dividends, taxes, and signaling: Evidence from Germany," *Journal of Finance* 52 (1), 397-408.

Asquith, Paul and David W. Mullins, Jr., 1983, "The Impact Of Initiating Dividend Payments On Shareholders' Wealth," *Journal of Business, 56* (1), 77-96.

Benartzi, Shlomo, Roni Michaely and Richard Thaler, 1997, "Do changes in dividends signal the future or the past?" *Journal of Finance* 52 (3), 1007-1043.

Bens, Daniel, Venky Nagar, and Douglas Skinner, 2002, Employee stock options, EPS dilution, and stock repurchases, Working paper, University of Michigan.

Bhattacharya, Sudipto, 1979, "Imperfect Information, Dividend Policy, and `The Bird in the Hand' Fallacy," *Bell Journal of Economics, 10* (1), 259-270.

Black, Fischer, 1976, "The Dividend Puzzle," *Journal of Portfolio Management, 2*, 5-8.

Brealey, Richard and Stuart Myers, 2002, Principles of Corporate Finance, McGraw-Hill Irwin

Brennan, Michael J. and Anjan V. Thakor, 1990, "Shareholder Preferences and Dividend Policy," *Journal of Finance, 45* (4), 993-1019.

Brittain, John, 1966, Corporate dividend policy, studies of government finance, (Washington, DC: The Brooking Institution).

Chowdhry, Bhagwan, and Vikram Nanda, 1994, "Repurchase premia as a reason for dividends: A dynamic model of corporate payout policies," *Review of Financial Studies* 7, 321-350.

DeAngelo, Harry, Linda DeAngelo, and Douglas Skinner, 1996, "Reversal of fortune, dividend signaling and the disappearance of sustained earnings growth," *Journal of Financial Economics, 40*, 341-371.

DeAngelo, Harry, Linda DeAngelo, and Douglas Skinner, 2000, "Special dividends and the evolution of dividend signaling," *Journal of Financial Economics, 57*, 309-354.

DeAngelo, Harry, Linda DeAngelo, and Douglas Skinner, 2002, Are dividends disappearing? Dividend concentration and the consolidation of earnings, Working Paper, University of Southern California.

Dhrymes, Phoebus J. and Mordecai Kurz, 1964, On the dividend policy of electrical utilities, *Review of Economics and Statistics*, 46, 76-81

Dittmar, Amy, and Robert Dittmar, 2002, Stock repurchase waves: An explanation of the trends in aggregate corporate payout policy, Working Paper, Indiana University.

Easterbrook, Frank H., 1984, "Two Agency-Cost Explanations of Dividends," *American Economic Review, 74* (4), 650-659.

Fama, Eugene F. and Harvey Babiak, 1968, Dividend Policy: An Empirical Analysis, *Journal of the American Statistical Association, 63(324)*, 1132-1161.

Fama, Eugene, and Kenneth French, 2001, Disappearing dividends: Changing firm characteristics or lower propensity to pay?, *Journal of Financial Economics* 60, 3-43.

Fama, Eugene, and Kenneth French, 2002, Testing Trade-off and Pecking Order Predictions about Dividends and Debt, *The Review of Financial Studies* 15, 1-35.

Friedman, Milton, 1953, The Methodology of Positive Economics, in Essays in Positive Economics, The University of Chicago Press.

Graham, John R., and Campbell Harvey, 2001, The Theory and Practice of Corporate Finance: Evidence from the Field, *Journal of Financial Economics* 60, 187-243.

Grinstein, Yaniv and Roni Michaely, 2002, Institutional Holdings and Payout Policy, Working Paper, Cornell University, Ithaca, NY.

Grossman, Sanford J. and Oliver D. Hart, 1980, "Takeover bids, the free-rider problem, and the theory of the corporation", *Bell Journal of Economics* 11, 42-54.

Grullon, Gustavo and Roni Michaely, 2002, "Dividends, share repurchases and the substitution hypothesis," *Journal of Finance* 62 (4).

Grullon, Gustavo and David Ikenberry, 2000, "What do know about stock repurchase?" *Journal of Applied Corporate Finance*, 13, 31-51.

Grullon, Gustavo, Roni Michaely and Bhaskaran Swaminathan, 2002, "Are dividend changes a sign of firm maturity?," *The Journal of Business*, forthcoming.

Hausman, Daniel, M., 1992, The inexact and separate science of economics, Cambridge University Press.

Ikenberry, David, Josef Lakonishok and Theo Vermaelen, 1995, "Market Underreaction to Open Market Share Repurchases," *Journal of Financial Economics 39, 181-208.*

Jagannathan, M., and C. P. Stephens, 2001, "Motives for Open Market Share Repurchases: Under-valuation, Earnings Signaling or Free Cash Flow," Working paper, University of Missouri-Columbia.

Jagannathan, Murray, Clifford P. Stephens, and Michael S. Weisbach, 2000, "Financial flexibility and the choice between dividends and stock repurchases", *Journal of Financial Economics* 57, 355-384.

Jensen, Michael C., 1986, "Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers," *American Economic Review, 76* (2), 323-329.

Jensen, Michael C. and William H. Meckling, 1976, "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure," *Journal of Financial Economics, 3* (4), 305-360.

John, Kose and Joseph Williams, 1985, "Dividends, Dilution, and Taxes: A Signaling Equilibrium," *Journal of Finance, 40* (4), 1053-1070.

Lie, Eric, 2000, "Excess funds and the agency problems: An empirical study of incremental disbursements," *Review of Financial Studies* 13 (1), 219-248.

Lie, Eric, 2001, "Financial flexibility and the corporate payout policy," Working paper, College of William and Mary, VA.

Lintner, John, 1956, "Distribution of Incomes of Corporations Among Dividends, Retained Earnings, and Taxes," *American Economic Review, 46(2)*, 97-113.

Lucas, Deborah J. and Robert L. McDonald, 1998, " Shareholder Heterogeneity, Adverse Selection, and Payout Policy, " *Journal of Financial and Quantitative Analysis*, 33(2).

Masulis, Ronald W. and Ashok N. Korwar, 1986, "Seasoned Equity Offerings: An Empirical Investigation," *Journal of Financial Economics, 15* (1/2), 91-118.

Michaely, Roni, Richard H. Thaler and Kent Womack, 1995, "Price Reactions to Dividend Initiations and Omissions: Overreaction or Drift?," *Journal of Finance* 50 (2), 573-608.

Miller, Merton., 1987, "The information content of dividends," J. Bossons, R. Dornbush and S. Fischer, (eds.) Macroeconomics: Essays in Honor of Franco Modigliani (MIT press: Cambridge MA) 37-61.

Miller, Merton and Franco Modigliani, 1961, "Dividend Policy, Growth and the Valuation of Shares," *Journal of Business, 34,* 411-433.

Miller, Merton and Kevin Rock, 1985, "Dividend Policy Under Asymmetric Information," *Journal of Finance, 40* (4), 1031-1051.

Modigliani Franco, and Merton Miller, 1958, The cost of capital, corporate finance and the theory of investment, *American Economic Review* 48, No. 3, pp. 261-297.

Myers, Stewart C. and Nicholas S. Majluf, 1984, "Corporate Financing and Investment Decisions when Firms Have Information that Investors Do Not Have," *Journal of Financial Economics, 13* (2), 187-221.

Nohel, T. and V. Tarhan, 1998, Share Repurchases and Firm Performance: New Evidence on the Agency Costs of Free Cash Flow," *Journal of Financial Economics*, 49, 187-222.

Rosenberg, Alexander, 1992, Economics – mathematical politics or science of diminishing returns?, The University of Chicago Press.

Shefrin, Hersh M. and Meir Statman, 1984, "Explaining Investor Preference for Cash Dividends," *Journal of Financial Economics, 13* (2), 253-282.

Shleifer Andrei and Robert Vishny, 1986, "Large shareholders and corporate control," *Journal of Political Economy*94 (3), 461-488.

Stephens, Clifford, and Michael Weisbach, 1988, "Actual share reacquisitions in open market repurchases programs," *Journal of Finance*, 53 (1), 313-333.

Trahan, Emery A. and Lawerence J. Gitman, 1995, "Bridging the theory-practice gap in corporate finance: A survey of Chief Financial Officers", *Quarterly Review of Economics and Finance* 35, 73-87.

Vermaelen, Theo, 1981, "Common Stock Repurchases and Market Signaling: An Empirical Study," *Journal of Financial Economics, 9* (2), 138-183.

Vermaelen, T., 1984, "Repurchase Tender Offers, Signalling and Managerial Incentives," *Journal of Financial and Quantitative Analysis*, 19, 163-181.

Watts, Ross, 1973, "The Information Content of Dividends," *Journal of Business, 46* (2), 191-211.

Weisbenner, Scott, 2000, "Corporate share repurchase in the mid-1990s: What role do stock options play," Working paper, University of Illinois, Champaign-Urbana.

Fig. 1A: Revenues($ millions)

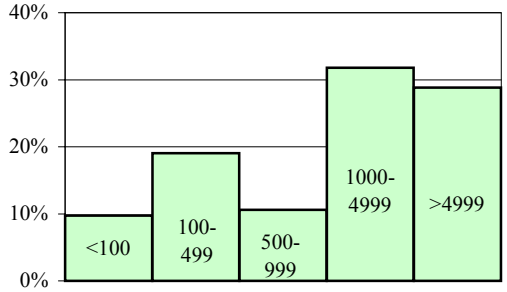


Fig. 1B: Industry

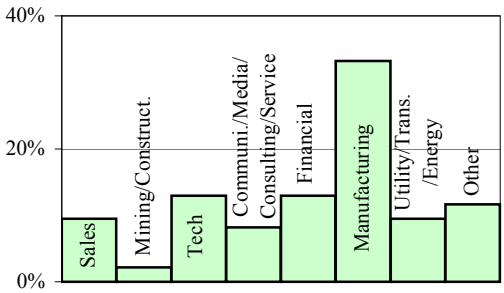


Fig. 1C: Credit Rating

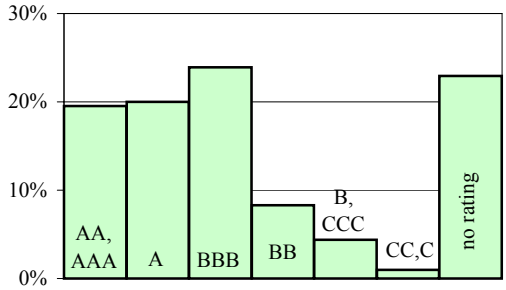


Fig. 1D: Debt/Assets Ratio (%)

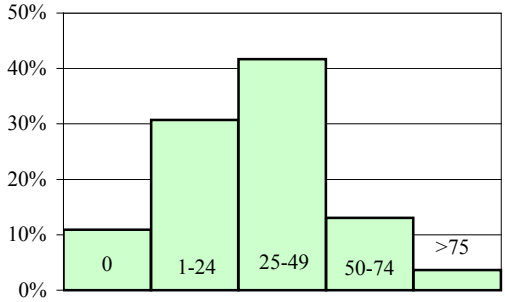


Fig. 1E: Dividends per Share

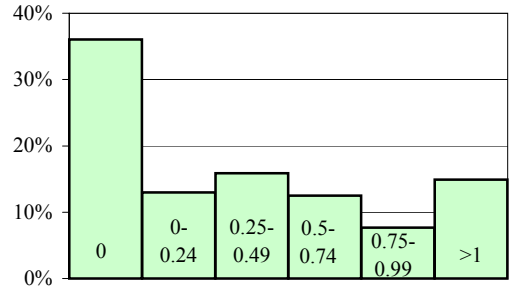


Fig. 1F: EPS

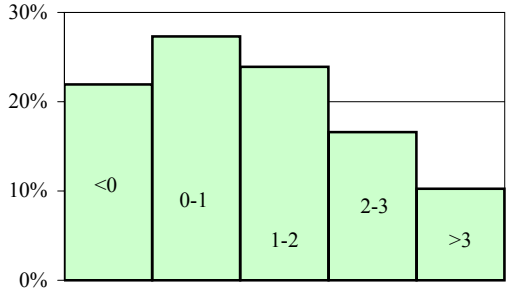


Fig. 1G: Price/Earnings Ratio (%)

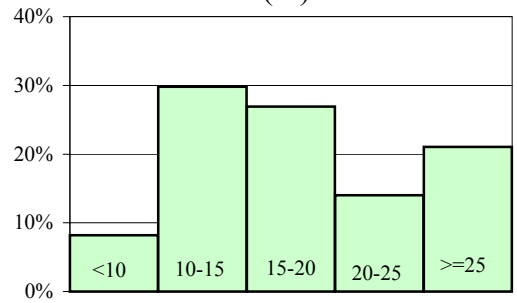


Fig. 1H: Common Stock Price

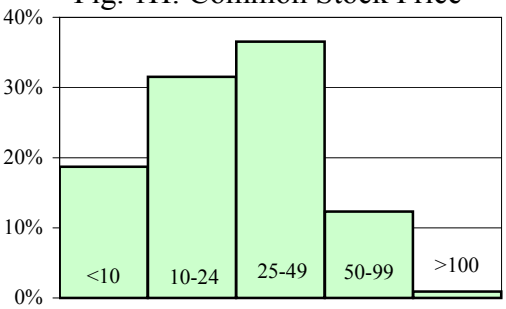


Fig. 1I: Company Future Prospects(0=worst, 100=best)

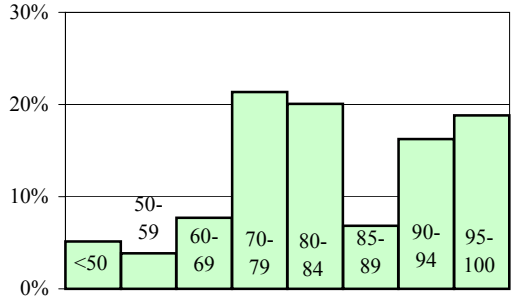


Fig. 1J: Company Ownership

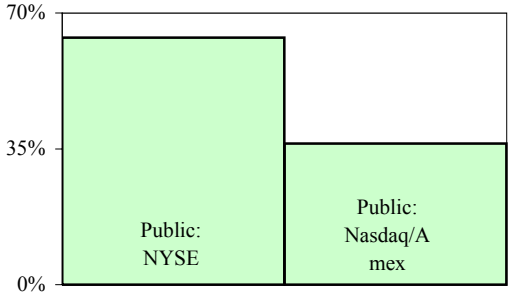


Fig. 1K: CEO Age

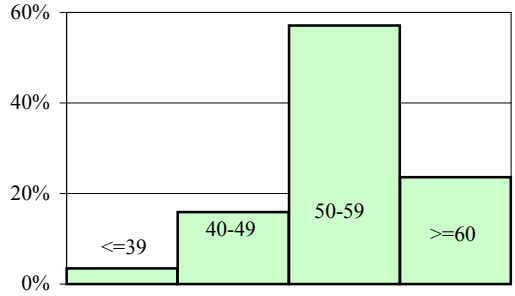


Fig. 1L: CEO time in job (years)

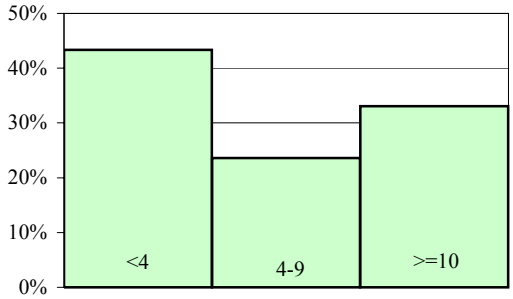


Fig. 1M: CEO Education

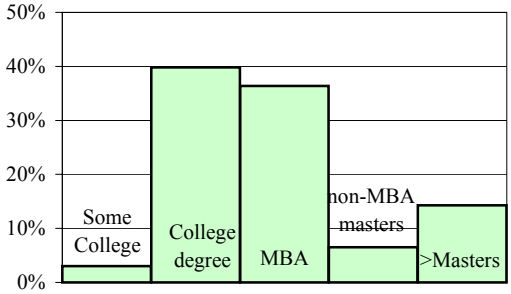


Fig. 1N: Insider holdings

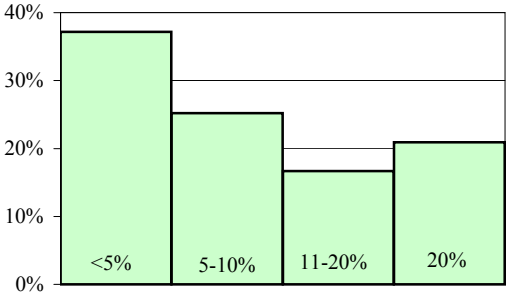


Fig. 1O: Number of Employees

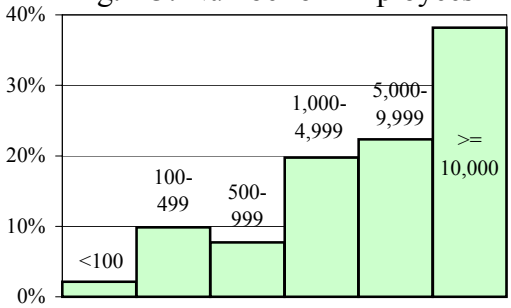


Fig. 1P: Pay Divs / Repur. shares

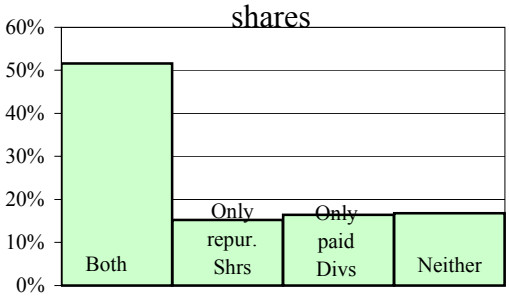


Fig 2A: Some of the most important factors for dividend policy

(*, **, *: The difference is significantly different from zero at the 1%, 5% and 10% level, respectively)**

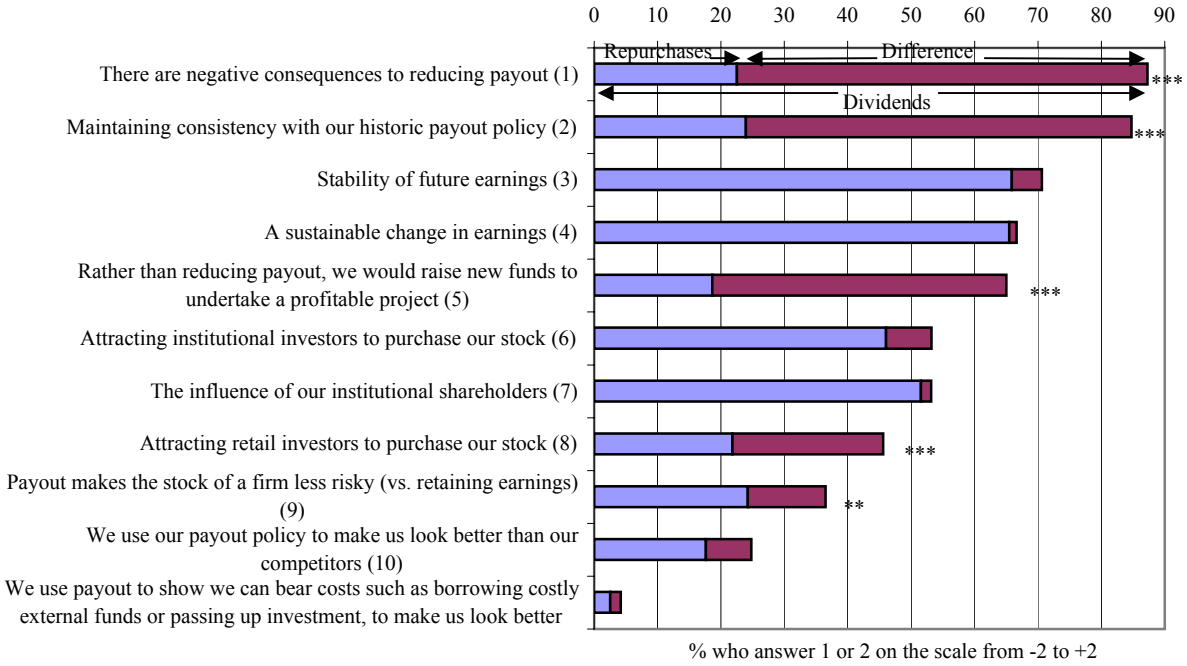
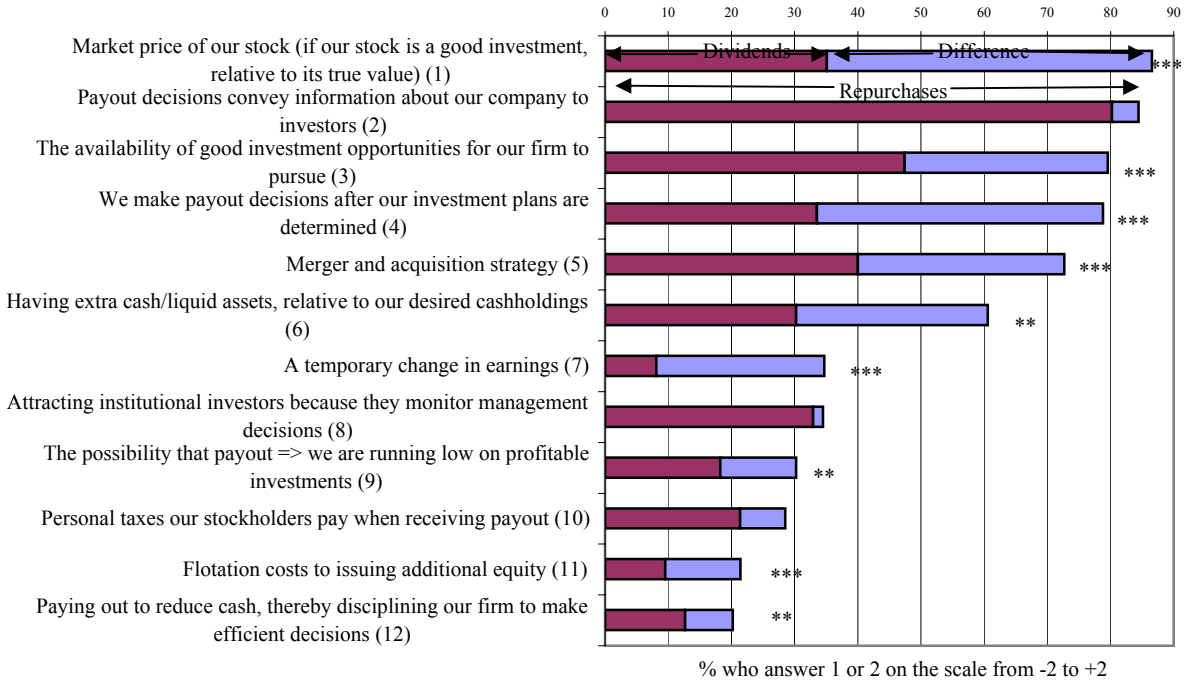


Fig 2B: Some of the most important factors for repurchase policy

(*, **, *: The difference is significantly different from zero at the 1%, 5% and 10% level, respectively)**



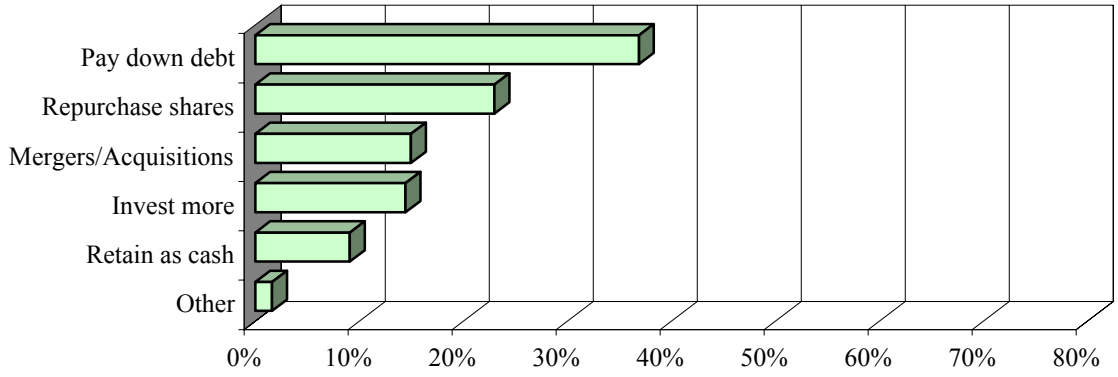


Fig. 3A: The most likely alternative use of funds that could be used to pay dividends. (Current dividend payers only.)

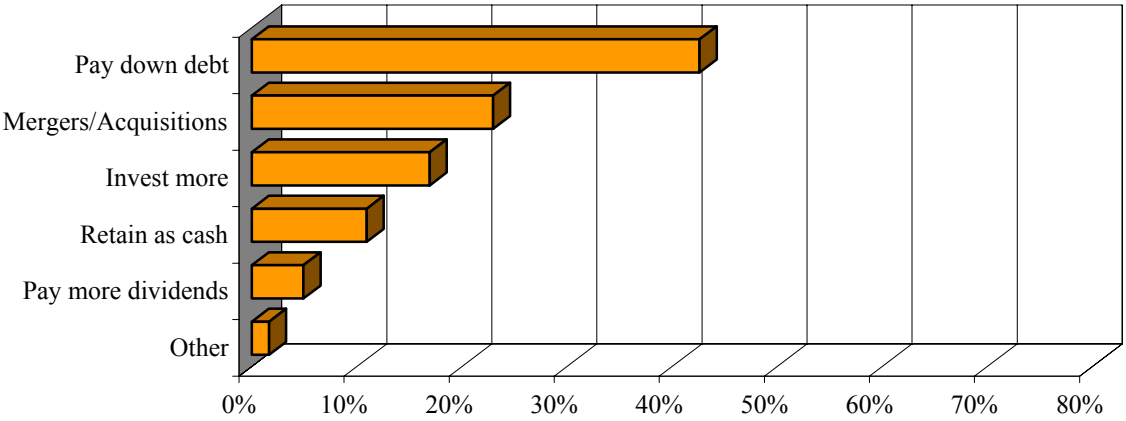


Fig. 3B: The most likely alternative use of funds that could be used to repurchase shares. (Current share repurchasers only.)

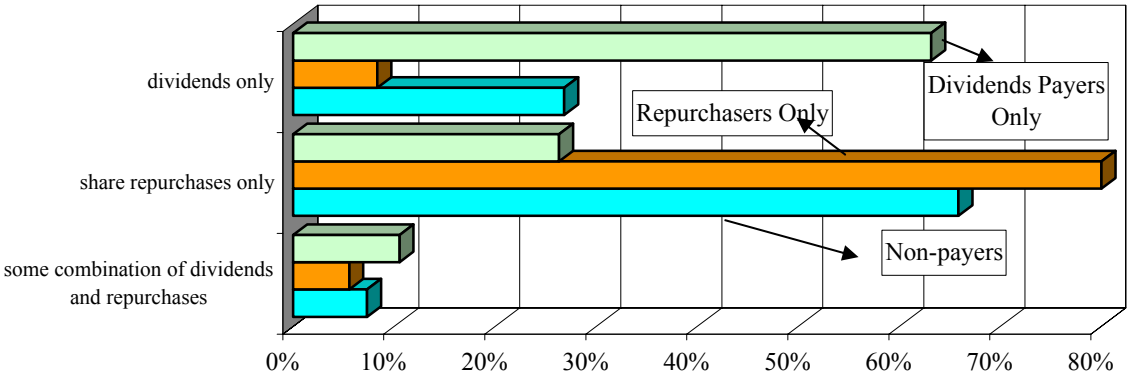


Fig. 3C: What would your first payout be if you were hypothetically deciding to pay out capital for the first time?

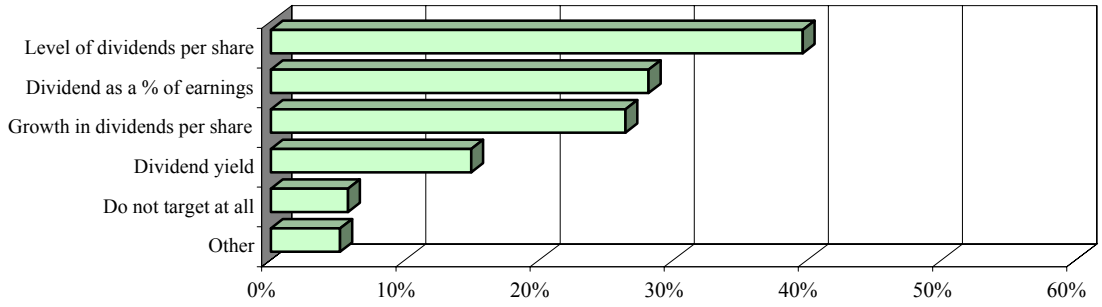


Fig. 4A: For those that paid dividends within the past 3 years, what do you target when you make your dividend decisions?

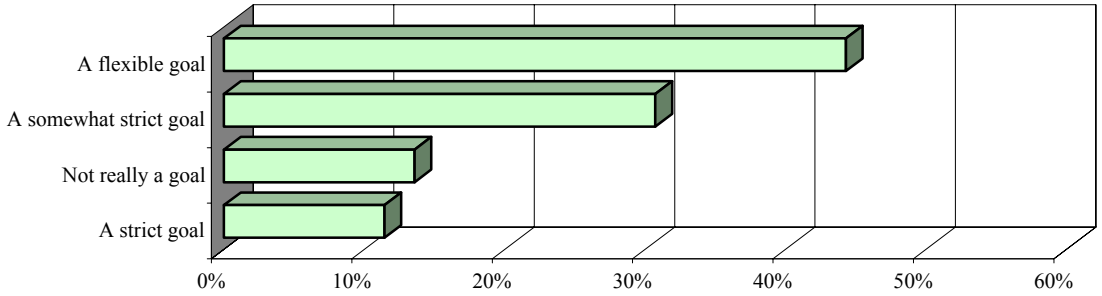


Fig. 4B: For those that paid dividends within the past 3 years, is the target part of a strict goal or a flexible goal?

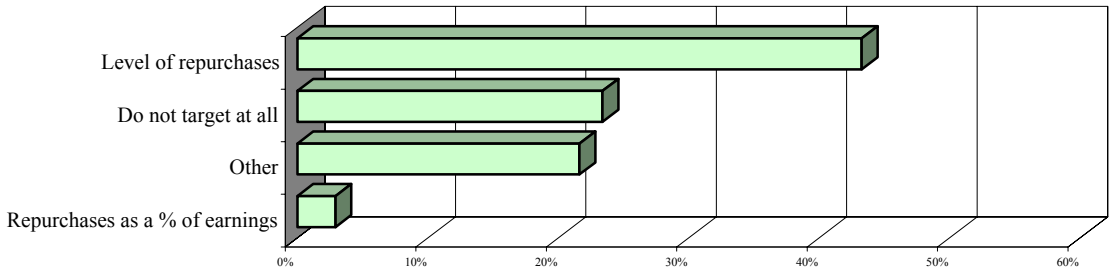


Fig. 4C: For those that repurchased shares within the past 3 years, when choosing the number of shares to repurchase in a given year, what do you target?

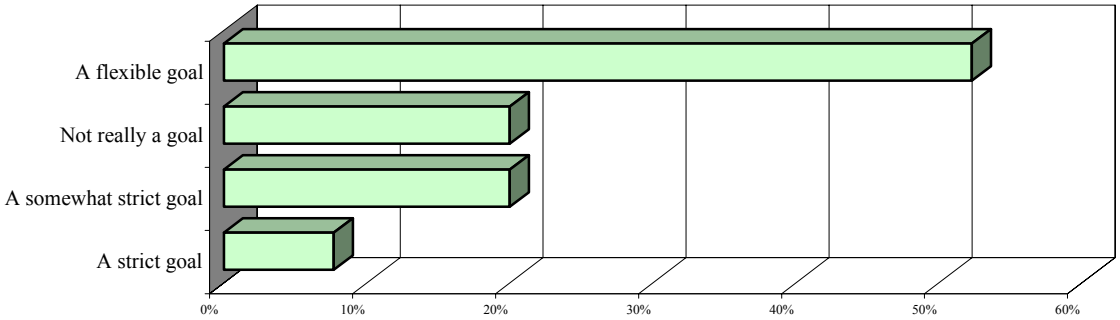


Fig. 4D: For those that repurchased shares within the past 3 years, is the target part of a strict goal or a flexible goal?

Table 1

Representativeness of Surveyed and Interviewd Firms

The table reports summary statistics on the representativeness of both the interviewed (panel A) and surveyed firms (panel B) relative to the universe of firms listed on the NYSE, AMEX, and NASDAQ. Comparison is based on the following variables: 1) Sales, Compustat Data12-Sales(net)); 2) Debt-to-asset, denoted D/A, based on Compustat Data9-long term debt divided by Compustat Data6-total assets); 3) Dividend yield, denoted div yield, and calculated as the ratio of Compustat Data26 divided by firm's price, Compustat Data24; 4) Earnings per share, denoted, EPS, is Compustat Data58-EPS (basic) excluding extraordinary items; 5) Credit rating, denoted credit, is the Compustat variable SPDRC: S&P long term domestic issuer credit rating; 6) Book to market, denoted BM, is total stockholders' equity, Compustat Data216, divided by size, where size is computed as the product of price, Compustat Data24 and common shares outstanding, Compustat Data25; 7) P/E, The ratio of Compustat Data24 to Data58. P/E>0 (based on positive P/Es for both the universe and the sample). For each such variable we identify all candidate firms listed on the major three exchanges with valid data on Compustat and share codes 10 and 11 on CRSP as of April 2002, the time at which we conducted the FEI survey and interviewed most of the 23 firms. We then sort all firms with valid data into quintiles and record the corresponding breakpoints. For each quintile we then report in panel A (panel B) the percentage of the interviewed (surveyed) firms that are allocated into these five sorts. Since surveyed firms were not asked to report BM information it is possible to calculate this characteristic only for those firms which we were able to identify and link with Compustat information. The reported percentages can then be compared to the benchmark 20% and thus allow us to infer whether our samples are representative or not and on which dimensions. In addition, because a bit more than 60% of firms in the universe have zero dividend yield, the first three quintiles of the universe all have zero dividend yield and therefore what is listed as Quintiles 1, 2, and 3 for dividend yield is actually only one group representing the 60% of the Compustat universe with dividend yield of zero. Thus we calculate the percentage of zero dividend yield firms in the sample and put it into the second quintile column, which actually represents the aggregated bottom three quintiles in the div yield case.

Panel A: Representativeness of 23 interviewed firms

Variable		Sample Average	Sample Median	Quintiles 1	2	3	4	5
Sales	Universe Avg			4	30	113	468	8262
	Sample Avg	36077	19423	N.A.	N.A.	N.A.	N.A.	36077
	Sample %			0.0%	0.0%	0.0%	0.0%	100.0%
D/A	Universe Avg			0.0	0.0	0.1	0.3	2.1
	Sample Avg	0.21	0.23	N.A.	0.0	0.1	0.3	0.5
	Sample %			0.0%	4.3%	34.8%	56.5%	4.3%
Div yield	Universe Avg			0.000	0.000	0.000	0.007	0.121
	Sample Avg	0.017	0.01		0.000		0.010	0.033
	Sample %				17.4%		43.5%	39.1%
EPS	Universe Avg			-3.9	-0.4	0.1	0.8	19.9
	Sample Avg	1.09	1.42	-6.4	-0.3	0.2	1.0	2.6
	Sample %			8.7%	8.7%	4.3%	21.7%	56.5%
Credit	Universe Avg			18.7(CCC+)	14.4(BB)	11.7(BBB-)	9.8 (BBB+)	6.7(A+)
	Sample Avg	8.43 (A)	8 (A)	N.A.	13.7 (BB)	11.7 (BBB-)	9.8 (BBB+)	5.8 (AA-)
	Sample %			0.0%	13.0%	13.0%	21.7%	52.2%
BM	Universe Avg			-15.1	0.3	0.6	0.9	4.8
	Sample Avg	0.44	0.39	0.1	0.3	0.6	0.8	1.6
	Sample %			21.7%	39.1%	21.7%	13.0%	4.3%
PE	Universe Avg			-52.4	-2.1	4.2	15.4	81.0
	Sample Avg	19.89	18.49	-100.5	-2.0	9.7	16.6	57.7
	Sample %			13.0%	4.3%	4.3%	30.4%	47.8%
PE (>0)	Universe Avg			7.0	12.6	17.2	26.4	131.9
	Sample Avg	40.05	27.30	9.7	N.A.	16.6	28.4	82.2
	Sample %			5.3%	0.0%	36.8%	26.3%	31.6%

Panel B: Representativeness of surveyed public firms

Variable		Sample Average	Sample Median	Quintiles 1	2	3	4	5
Sales	Universe Avg			4	30	113	468	8262
	Sample Avg	2525	3000	N.A.	50	N.A.	461	3951
	Sample %			0.0%	10%	0%	30%	60%
D/A	Universe Avg			0.0	0.0	0.1	0.3	2.1
	Sample Avg	0.31	0.28	0.0	0.0	0.1	0.3	0.6
	Sample %			11.4%	6.7%	14.0%	31.6%	36.3%
Div yield	Universe Avg			0.000	0.000	0.000	0.007	0.121
	Sample Avg	0.018	0.009		0.000		0.011	0.054
	Sample %				36.4%		37.9%	25.7%
EPS	Universe Avg			-3.9	-0.4	0.1	0.8	19.9
	Sample Avg	1.00	1.00	-3.3	-0.5	0.1	0.8	2.7
	Sample %			9.3%	9.8%	11.2%	28.3%	41.5%
Credit	Universe Avg			18.7(CCC+)	14.4(BB)	11.7(BBB-)	9.8 (BBB+)	6.7(A+)
	Sample Avg	9.48 (A-)	9(A-)	19.5 (CCC)	14.7 (BB-)	12.4(BBB-)	10.6 (BBB)	6.5 (A+)
	Sample %			5.1%	8.2%	9.5%	25.9%	51.3%
BM	Universe Avg			-15.1	0.3	0.6	0.9	4.8
	Sample Avg	0.73	0.47	0.1	0.3	0.5	0.8	2.8
	Sample %			17.3%	25.0%	29.8%	16.1%	11.9%
PE	Universe Avg			-52.4	-2.1	4.2	15.4	81.0
	Sample Avg	19.10	16.00	N.A.	N.A.	8.2	16.1	35.4
	Sample %			0.0%	0.0%	16.4%	61.4%	22.2%
PE (>0)	Universe Avg			7.0	12.6	17.2	26.4	131.9
	Sample Avg	19.10	16.00	8.2	13.1	17.5	26.8	51.5
	Sample %			16.4%	21.6%	36.8%	18.1%	7.0%

Table 2

Correlation of control variables (Survey)

This table provides estimates of correlation coefficients for ordered groups of attributes. Cross tabulations are conducted by surveyed firms' reported characteristics. These are Size, where large firms are defined as those companies with reported revenues exceeding $1 billion; Number of employees, where a large firm employs at least 5000; P/E, where P/E greater than 16, the median P/E in the sample, marks a growth firm; Debt/total assets ratio, where a high ratio is defined as exceeding 0.25; Profitability, where a profitable firm is defined having EPS>0; Credit rating, where Investment grade is one when the firm has debt rated BBB or above; Tech, reflecting technology-related industries versus all other industries; Insider holdings, where high holdings are defined as exceeding 5 percent; Stock valuation, where possible ranks are either correctly valued, somewhat overvalued and greatly overvalued, versus somewhat and greatly undervalued; Cash cow, where a cash cow firm has a debt rating of A or higher, profits greater than zero, and P/E less than the median P/E of profitable firms with debt ratings of A or higher and a non-cash cow firm is the complement; CEO tenure, where, a long tenure is defined as ten or more years on the job; CEO education, defined as whether the CEO has an MBA; The variable Survey reflecting the possibility that the survey is either Internet based versus survey gathered in person; The variable Ownership denoting whether the firm is private or public; Dividends, denoting whether the firm has been paying a dividend in the past three years; Finally, Share repurchases, denotes whether the firm has repurchased shares in the past three years. ***, **, * denote a significant difference at the 1%, 5% and 10% level, respectively.

	Size	# of Employees	P/E	D/A	Profit-ability	Rating	Tech	Insider	Stock valuation	Cash cow	CEO tenure	CEO edu'	Survey	Ownership	Dividends
Ordering of variable:	small to large	small to large	low to high	low to high	no to yes	low to high	others to tech Industry	low to high	others to underval'	no to yes	short to long	others to MBA	Internet to paper	private to public	no to yes
# of Employees	0.73 ***														
P/E	0.19 **	0.21 ***													
D/A	0.24 ***	0.27 ***	0.01												
Profitability	0.18 **	0.12 *	0.16 **	-0.09											
Rating	0.21 ***	0.27 ***	0.20 **	-0.10	0.31 ***										
Tech	0.01	0.04	0.19 **	0.05	0.01	0.01									
Insider	-0.20 ***	-0.08	0.02	-0.11	0.01	0.05	0.02								
Stock Valuation	0.02	-0.08	-0.10	0.10	0.06	-0.11	0.03	-0.12 *							
Stability	-0.01	-0.02	0.12	-0.25 ***	0.35 ***	0.27 ***	-0.10	0.00	0.00						
CEO tenure	-0.08	-0.06	0.05	-0.13 *	0.16 **	0.05	-0.04	0.19 ***	0.02	0.01					
CEO edu'	0.12 *	0.02	0.01	0.08	-0.04	0.11	-0.05	-0.22 ***	0.02	0.04	-0.15 **				
Survey	0.00	-0.02	0.00	0.05	0.12	0.06	0.01	-0.16 *	-0.11	0.16 *	0.04	-0.03			
Ownership	0.00	0.00	0.14	-0.11	-0.21 **	-0.11	0.22 **	-0.10	-0.04	0.05	-0.02	-0.05			
Dividends	0.29 ***	0.28 ***	0.04	0.15 **	0.33 ***	0.41 ***	-0.48 ***	-0.03	-0.03	0.02	0.03	0.01	0.00	0.00	
Share Rep	0.17 ***	0.14 **	0.06	-0.08	0.28 ***	0.07	-0.16 **	0.02	0.05	0.03	0.09	-0.01	0.00	0.00	0.28 ***

Table 3

Survey responses to the question: Do these statements agree with your company's views? (Dividend payers only)

Respondents were asked to rate on a scale of -2 (strongly disagree) to 2 (strongly agree). In panel A we report summary statistics for the responses. The percentage of respondents that answered 1 (agree) and 2 (strongly agree) is given in column (1). The average for each question is given in column (2). P-values for the statistical tests in which the null hypothesis is that the average response equals zero is given in column (3). Column (4) provides p-values for the comparison of the responses of dividend payers to those of repurchasers that are analyzed in Table 4. Column (5) provides the median response for each question while in column (6) we provide p-values for the test that the median response is different from zero. Panel B provides average response sorted firm characteristics. These are Size, where large firms are defined as those companies with reported revenues exceeding $1 billion; P/E, where P/E greater than 16, the median P/E in the sample, is a taken as a high ratio; Debt/total assets ratio, where a high ratio is defined as exceeding 0.25; Cash cow, where a cash cow firm has a debt rating of A or higher, profits greater than zero, and P/E less than the median P/E of profitable firms with debt ratings of A or higher and a non-cash cow firm is the complement; Credit rating, where Investment grade is one when the firm has debt rated BBB or above; Tech industry, reflecting firms in a technology related industry versus all other industries; Insider holdings, where high holdings are defined as exceeding 5 percent; Exchange, in which NYSE listed firms are compared to AMEX and NASDAQ listed firms; Prospects, a variable ranging from zero to 100 where "better" is defined as exceeding 70; CEO age is assumed "young" if age is lower than 59 and "Mature" otherwise. The variable Ownership denotes whether the firm is private or public. ***, **, * denotes a significant difference at the 1%, 5% and 10% level, respectively.

Panel A: Unconditional averages

	% agree or strongly agree	Average rating	H0: Average rating=0	H0: Dividend rating=Repurchases rating	Median rating	H0: Median rating=0
Question	(1)	(2)	(3)	(4)	(5)	(6)
(1) There are negative consequences to reducing dividends (d)	**87.3**	1.3	***	***	2.0	***
(2) Dividend decisions convey information about our company to investors (b)	**80.2**	1.0	***		1.0	***
(3) Rather than reducing dividends, we would raise new funds to undertake a profitable project (e)	**65.1**	0.7	***	***	1.0	***
(4) Dividends are as important now to the valuation of common stocks in our industry as they were 15 or 20 years ago (f)	**41.0**	0.0			0.0	
(5) Paying dividends makes the stock of a firm less risky (vs. retaining earnings) (c)	**36.5**	0.0		**	0.0	
(6) We make dividend decisions after our investment plans are determined (a)	**33.5**	-0.2	**	***	0.0	*
(7) We use our dividend policy to make us look better than our competitors (h)	**24.8**	-0.4	***		0.0	***
(8) We use our dividend policy as one tool to attain a desired credit rating (g)	**24.7**	-0.4	***		0.0	***
(9) We use dividends, to show we can bear costs such as borrowing costly external funds or passing up investment, to make us look better than our competitors (i)	**4.2**	-1.2	***		-1.0	***

Panel B: Conditional averages

Question:	**% agree or strongly agree**	% disagree or strongly disagree	obs	Size			P/E			D/A			Cash Cow			Credit Rating			Tech Industry			Insider			Exchange			Prospects			CEO age			Ownership		
				Small	Large		Low	High		Low	High		No	Yes		Low	High		Other	Tech		Low	High		Other	NYSE		Worse	Better		Young	Mature		Private	Public	
(1)	**87.3**	3.6	166.0	89.1	89.2		89.2	87.1		87.2	89.0		87.8	85.7	***	63.6	90.9	**	88.3	100.0		92.9	82.5		84.8	89.1		85.7	87.7		88.0	92.3	*	73.1	96.3	***
(2)	**80.2**	6.6	167.0	82.6	82.0		81.5	82.3		78.7	82.9		79.5	82.9		90.9	81.8		81.2	100.0		82.8	78.9		72.7	82.7		72.4	81.9		81.2	82.1		69.2	77.8	
(3)	**65.1**	23.5	166.0	67.4	65.8		64.6	67.7		70.2	63.4		62.6	74.3	**	45.5	66.4		64.9	66.7		71.7	54.4	***	57.6	68.2		53.6	67.4		63.2	71.8		52.0	77.8	*
(4)	**41.0**	36.7	166.0	43.5	38.7		50.8	33.9	*	38.3	37.8		39.7	45.7		45.5	40.9		40.3	0.0		44.4	33.3		33.3	38.2		42.9	40.6		37.6	43.6		24.0	44.4	
(5)	**36.5**	31.7	167.0	37.0	36.0		40.0	35.5		40.4	34.1		34.1	45.7		18.2	38.2		35.7	33.3		43.4	24.6	**	21.2	40.0		34.5	37.0		35.0	38.5		15.4	33.3	
(6)	**33.5**	46.7	167.0	34.8	34.2		36.9	33.9		40.4	28.0		34.8	28.6		45.5	33.6		35.1	0.0		28.3	47.4	**	45.5	31.8		27.6	34.8		35.9	33.3		46.2	29.6	*
(7)	**24.8**	41.8	165.0	24.4	27.0		29.7	22.6		23.4	28.0	**	22.1	35.3		18.2	22.9		26.1	33.3		28.6	22.8	*	21.9	27.3		21.4	25.5		24.8	26.3		8.0	22.2	
(8)	**24.7**	46.4	166.0	13.0	28.8	***	21.5	25.8		8.5	34.1	***	24.4	25.7		9.1	29.1		26.0	0.0	*	25.3	26.3		15.2	27.3	**	25.0	24.6		29.1	15.4	**	26.9	18.5	
(9)	**4.2**	75.3	166.0	2.2	5.4		7.7	1.6		8.5	2.4		2.3	11.4		0.0	4.5		4.5	0.0		5.1	3.5		6.1	3.6		7.1	3.6		6.0	0.0		15.4	3.7	*

Table 4

Survey responses to the question: Do these statements agree with your company's views? (Repurchasers only)

Respondents were asked to rate on a scale of -2 (strongly disagree) to 2 (strongly agree). In panel A we report summary statistics for the responses. The percentage of respondents that answered 1 (agree) and 2 (strongly agree) is given in column (1). The average for each question is given in column (2). P-values for the statistical tests in which the null hypothesis is that the average response equals zero is given in column (3). Column (4) provides p-values for the comparison of the responses of repurchasers to those of dividend payers that are analyzed in Table 3. Column (5) provides the median response for each question while in column (6) we provide p-values for the test that the median response is different from zero. Panel B provides average response sorted firm characteristics. These are Size, where large firms are defined as those companies with reported revenues exceeding $1 billion; P/E, where P/E greater than 16, the median P/E in the sample, is a taken as a high ratio; Debt/total assets ratio, where a high ratio is defined as exceeding 0.25; Cash cow, where a cash cow firm has a debt rating of A or higher, profits greater than zero, and P/E less than the median P/E of profitable firms with debt ratings of A or higher and a non-cash cow firm is the complement; Credit rating, where Investment grade is one when the firm has debt rated BBB or above; Tech industry, reflecting firms in a technology related industry versus all other industries; Insider holdings, where high holdings are defined as exceeding 5 percent; Exchange, in which NYSE listed firms are compared to AMEX and NASDAQ listed firms; Prospects, a variable ranging from zero to 100 where "better" is defined as exceeding 70; CEO age is assumed "young" if age is lower than 59 and "Mature" otherwise. The variable Ownership denotes whether the firm is private or public. ***, **, * denotes a significant difference at the 1%, 5% and 10% level, respectively.

Panel A: Unconditional averages

	% agree or strongly agree	Average rating	H0: Average rating=0	H0: Dividend rating=Repurchases rating	Median rating	H0: Median rating=0
Question:	(1)	(2)	(3)	(4)	(5)	(6)
(1) Repurchase decisions convey information about our company to investors (b)	**84.5**	1.1	***		1.0	***
(2) We make repurchase decisions after our investment plans are determined (a)	**78.9**	1.0	***	***	1.0	***
(3) Repurchases are as important now to the valuation of common stocks in our industry as they were 15 or 20 years ago (f)	**36.3**	0.0			0.0	
(4) We use our repurchase policy as one tool to attain a desired credit rating (g)	**24.4**	-0.5	***		-1.0	***
(5) Repurchasing makes the stock of a firm less risky (vs. retaining earnings) (c)	**24.2**	-0.3	***	**	0.0	**
(6) There are negative consequences to reducing repurchases (d)	**22.5**	-0.4	***	***	0.0	***
(7) Rather than reducing repurchases, we would raise new funds to undertake a profitable project (e)	**18.6**	-0.8	***	***	-1.0	***
(8) We use our repurchase policy to make us look better than our competitors (h)	**17.6**	-0.5	***		0.0	***
(9) We use repurchases, to show we can bear costs such as borrowing costly external funds or passing up investment, to make us look better than our competitors (i)	**2.5**	-1.2	***		-1.0	***

Panel B: Conditional averages

Question:	**% agree or strongly agree**	% disagree or strongly disagree	obs	Size			P/E			D/A			Cash Cow			Credit Rating			Tech Industry			Insider			Exchange			Prospects			CEO age			Ownership		
				Small	Large		Low	High		Low	High		No	Yes		Low	High		Other	Tech		Low	High		Other	NYSE		Worse	Better		Young	Mature		Private	Public	
(1)	**84.5**	2.5	161.0	90.4	82.5		82.1	86.2		83.1	88.9		84.4	84.8		84.2	82.3		85.6	71.4	*	87.4	82.8		86.0	83.5		86.2	84.1		85.3	88.9		54.5	85.7	*
(2)	**78.9**	8.7	161.0	75.0	82.5		80.4	81.5		72.9	84.7	**	82.0	66.7		73.7	79.2		81.3	57.1	**	80.0	79.3		76.7	81.4		79.3	78.8		79.3	83.3		72.7	76.2	
(3)	**36.3**	33.8	160.0	36.5	35.3		35.7	39.1		37.9	36.1		37.0	33.3		42.1	35.8		38.4	14.3	***	35.1	37.9		25.6	38.5		48.3	33.6		37.9	31.4		18.2	47.6	**
(4)	**24.4**	51.3	160.0	5.8	32.4	***	21.4	25.0		13.6	31.0	***	26.8	15.2	**	21.1	27.4		26.1	0.0		27.7	17.2		7.0	29.2	***	31.0	22.9		21.7	30.6		13.6	0.0	
(5)	**24.2**	38.5	161.0	25.0	23.3		26.8	23.1		23.7	27.8		24.2	24.2		15.8	27.1		25.9	7.1	**	28.4	17.2		20.9	23.7		37.9	21.2		25.0	19.4		13.6	28.6	
(6)	**22.5**	48.1	160.0	19.2	25.5		14.3	30.8		20.3	25.0		22.8	21.2		5.3	31.3		21.7	35.7		24.5	19.0		20.9	24.7		37.9	19.1		24.1	22.9		40.9	19.0	**
(7)	**18.6**	64.6	161.0	21.2	16.5		21.4	10.8		15.3	19.4		15.6	30.3		15.8	14.6		19.4	7.1		21.1	13.8		9.3	19.6	*	17.2	18.9		16.4	25.0		19.0	19.0	
(8)	**17.6**	46.5	159.0	9.8	22.5	**	20.0	20.3		11.9	25.4	**	18.9	12.5		21.1	19.1		19.0	14.3		21.5	13.8	*	7.1	24.0	**	20.7	16.9		18.3	17.1		9.1	9.5	
(9)	**2.5**	78.6	159.0	1.9	3.0		3.6	3.2		3.4	2.9		2.4	3.0		0.0	4.3		2.2	7.1		1.1	5.2		4.7	2.1		6.9	1.5		3.5	0.0		0.0	0.0	

Table 5

Survey responses to the question: Do these statements describe factors that affect your company's dividend decisions? (Dividend payers only)

Respondents were asked to rate on a scale of -2 (strongly disagree) to 2 (strongly agree). In panel A we report summary statistics for the responses. The percentage of respondents that answered 1 (agree) and 2 (strongly agree) is given in column (1). The average for each question is given in column (2). P-values for the statistical tests in which the null hypothesis is that the average response equals zero is given in column (3). Column (4) provides the median response for each question while in column (5) we provide p-values for the test that the median response is different from zero. Panel B provides average response sorted firm characteristics. These are Size, where large firms are defined as those companies with reported revenues exceeding $1 billion; P/E, where P/E greater than 16, the median P/E in the sample, is a taken as a high ratio; Debt/total assets ratio, where a high ratio is defined as exceeding 0.25; Cash cow, where a cash cow firm has a debt rating of A or higher, profits greater than zero, and P/E less than the median P/E of profitable firms with debt ratings of A or higher and a non-cash cow firm is the complement; Credit rating, where Investment grade is one when the firm has debt rated BBB or above; Tech industry, reflecting firms in a technology related industry versus all other industries; Insider holdings, where high holdings are defined as exceeding 5 percent; Exchange, in which NYSE listed firms are compared to AMEX and NASDAQ listed firms; Prospects, a variable ranging from zero to 100 where "better" is defined as exceeding 70; CEO age is assumed "young" if age is lower than 59 and "Mature" otherwise. The variable Ownership denotes whether the firm is private or public. ***, **, * denotes a significant difference at the 1%, 5% and 10% level, respectively.

Panel A: Unconditional averages

	% agree or strongly agree	Average rating	H0: Average rating=0	Median rating	H0: Median rating=0
Question:	(1)	(2)	(3)	(4)	(5)
(1) We try avoid reducing dividends per share (d)	**94.0**	1.6	***	2.0	***
(2) We try to maintain a smooth dividend stream from year-to-year (c)	**90.1**	1.3	***	1.0	***
(3) We consider the level of dividends per share that we have paid in recent quarters (a)	**87.4**	1.2	***	1.0	***
(4) We are reluctant to make dividend changes that might have to be reversed in the future (j)	**78.9**	1.0	***	1.0	***
(5) We consider the change or growth in dividends per share (b)	**66.9**	0.8	***	1.0	***
(6) The cost of raising external capital is smaller than the cost of cutting dividends (f)	**44.1**	0.2	**	0.0	*
(7) We pay dividends to attract investors subject to "prudent man" investment restrictions (e)	**41.7**	0.2	**	0.0	***
(8) We pay dividends to show that our firm is strong enough to raise costly external capital if needed (g)	**19.1**	-0.6	***	-1.0	***
(9) We pay dividends to show that our stock is valuable enough that investors buy it even though they have to pay relatively costly dividend taxes	**17.1**	-0.6	***	-1.0	***
(10) We pay dividends to show that our firm is strong enough to pass up some profitable investments (i)	**8.6**	-1.0	***	-1.0	***

Panel B: Conditional averages

Question:	**% agree or strongly agree**	% disagree or strongly disagree	obs	Size			P/E			D/A			Cash Cow			Credit Rating			Tech Industry			Insider			Exchange			Prospects			CEO age			Ownership		
				Small	Large		Low	High		Low	High		No	Yes		Low	High		Other	Tech		Low	High		Other	NYSE		Worse	Better		Young	Mature		Private	Public	
(1)	**94.0**	2.6	151.0	93.3	94.2		96.7	93.4		93.3	93.7		93.3	96.9	*	90.9	93.4		93.9	100.0		95.7	90.7		86.7	95.4	*	100.0	93.1	***	92.8	97.3	*	77.3	96.3	***
(2)	**90.1**	2.6	151.0	82.2	93.3		90.0	93.4		88.9	89.9		88.2	96.9	***	90.9	89.6		89.9	100.0		92.6	85.2	*	86.7	90.8	*	90.5	90.0		89.2	91.9		68.2	85.2	
(3)	**87.4**	4.0	151.0	86.7	87.5		90.0	88.5		88.9	87.3		88.2	84.4		90.9	87.7		87.8	50.0	*	88.3	85.2		83.3	90.8	*	90.5	86.9	*	86.5	91.9	**	68.2	85.2	
(4)	**78.9**	7.2	152.0	82.2	79.0		82.0	80.3		84.4	79.7		75.8	90.6	*	63.6	77.6		79.1	100.0		85.1	69.1	***	60.0	84.4	*	81.0	78.6		77.7	83.8		57.1	85.2	
(5)	**66.9**	15.9	151.0	62.2	68.3		61.7	72.1		71.1	60.8		63.9	78.1	***	36.4	69.8	*	66.9	50.0		68.1	63.0		70.0	66.1		52.4	69.2	**	63.1	78.4	***	63.6	66.7	
(6)	**44.1**	30.9	152.0	40.0	46.7		44.3	44.3		37.8	49.4		43.3	46.9		45.5	41.1		44.6	50.0		46.8	38.2		26.7	49.5	**	33.3	45.8	*	42.9	48.6		35.0	44.4	
(7)	**41.7**	21.2	151.0	33.3	46.2		43.3	41.0		42.2	39.2		40.3	46.9		27.3	46.2		42.6	0.0		46.8	33.3		26.7	45.9		38.1	42.3		36.9	51.4		18.2	33.3	*
(8)	**19.1**	59.9	152.0	20.0	19.0		19.7	14.8		20.0	16.5		16.7	28.1	*	0.0	16.8		18.9	50.0		20.2	16.4		16.7	17.4		19.0	19.1		18.8	21.6	*	4.8	22.2	
(9)	**17.1**	57.2	152.0	17.8	17.1		19.7	9.8		17.8	16.5		14.2	28.1	**	9.1	16.8		16.9	50.0		21.3	10.9		13.3	16.5		14.3	17.6		17.0	18.9		9.5	18.5	
(10)	**8.6**	73.0	152.0	8.9	8.6		6.6	9.8		4.4	7.6		10.8	0.0		9.1	8.4		8.8	0.0		8.5	9.1		0.0	10.1		9.5	8.4		7.1	13.5		0.0	7.4	

Table 6

Survey responses to the question: How important are the following factors to your company's dividend decision? (Dividend payers only)

Respondents were asked to rate on a scale of -2 (strongly disagree) to 2 (strongly agree). In panel A we report summary statistics for the responses. The percentage of respondents that answered 1 (agree) and 2 (strongly agree) is given in column (1). The average for each question is given in column (2). P-values for the statistical tests in which the null hypothesis is that the average response equals zero is given in column (3). Column (4) provides p-values for the comparison of the responses of dividend payers to those of repurchasers that are analyzed in Table 7. Column (5) provides the median response for each question while in column (6) we provide p-values for the test that the median response is different from zero. Panel B provides average response sorted firm characteristics. These are Size, P/E, Debt/total assets ratio, Cash cow, Credit rating, Tech industry, Insider holdings, Exchange, Prospects, CEO age, and Ownership. These variables are described in detail in Table 3. ***, **, * denotes a significant difference at the 1%, 5% and 10% level, respectively.

Panel A: Unconditional averages

Question	**% important or very important**	Average rating	H0: Average rating=0	H0: Dividend rating=Repurchases rating	Median rating	H0: Median rating=0
	(1)	(2)	(3)	(4)	(5)	(6)
(1) Maintaining consistency with our historic dividend policy (l)	**84.8**	1.2	***	***	1.0	***
(2) Stability of future earnings (c)	**70.7**	0.9	***		1.0	***
(3) A sustainable change in earnings (b)	**66.7**	0.8	***		1.0	***
(4) Attracting institutional investors to purchase our stock (o)	**53.3**	0.3	***		1.0	***
(5) The influence of our institutional shareholders (i)	**53.2**	0.4	***		1.0	***
(6) The availability of good investment opportunities for our firm to pursue (h)	**47.4**	0.2	**	***	0.0	**
(7) Attracting retail investors to purchase our stock (n)	**45.6**	0.2	*	***	0.0	**
(8) Merger and acquisition strategy (j)	**40.0**	0.1		***	0.0	
(9) The dividend policies of competitors or other companies in our industry (e)	**38.5**	-0.2		***	0.0	
(10) Market price of our stock (if our stock is a good investment, relative to its true value) (q)	**35.1**	0.0		***	0.0	
(11) Attracting institutional investors because they monitor management decisions (p)	**32.9**	-0.1			0.0	
(12) Having extra cash/liquid assets, relative to our desired cashholdings (d)	**30.2**	-0.2	**	***	0.0	
(13) Personal taxes our stockholders pay when receiving dividends (g)	**21.4**	-0.5	***		0.0	***
(14) The possibility that paying dividends indicates we are running low on profitable investments (m)	**18.2**	-0.5	***	***	-1.0	***
(15) Paying out to reduce cash, thereby disciplining our firm to make efficient decisions (f)	**12.6**	-0.9	***	**	-1.0	***
(16) Flotation costs to issuing additional equity (k)	**9.5**	-0.8	***	***	-1.0	***
(17) A temporary change in earnings (a)	**8.1**	-1.1	***	***	-1.0	***

Panel B: Conditional averages

Question:	**% important or very important**	% not important or not at all important	obs	Size		P/E		D/A		Cash Cow		Credit Rating		Tech Industry		Insider		Exchange		Prospects		CEO age		Ownership	
				Small	Large	Low	High	Low	High	No	Yes	Low	High	Other	Tech	Low	High	Other	NYSE	Worse	Better	Young	Mature	Private	Public
(1)	**84.8**	7.6	171.0	80.4	88.3	86.2	85.5	91.5	85.4	82.4	94.3 **	81.8	87.3	86.4	100.0	89.9	78.9 ***	72.7	89.1	78.8	86.2	86.3	87.2	74.1	77.8
(2)	**70.7**	9.8	174.0	65.2	73.9	66.2	69.4	63.8	69.5	74.1	57.1	54.5	68.2 *	72.7	33.3	73.7	68.4	84.8	65.5 *	69.4	71.0	65.8	87.2 *	88.5	77.8
(3)	**66.7**	12.6	174.0	65.2	69.4	64.6	66.1	55.3	69.5	69.1	57.1	63.6	62.7	68.8	66.7	72.7	59.6 **	75.8	63.6	63.9	67.4	69.2	64.1	85.2	77.8
(4)	**53.3**	20.1	169.0	55.6	55.5	55.4	52.5	38.3	66.7 ***	53.3	52.9	54.5	55.0	55.9	33.3	55.1	53.6	37.5	60.6	48.5	54.4	54.8	51.3	34.6	46.2
(5)	**53.2**	18.1	171.0	47.8	58.6	53.8	50.0	42.6	57.3	54.4	48.6	54.5	53.6	55.8	66.7	59.6	47.4	42.4	59.1 *	42.4	55.8	53.0	61.5	32.0	48.1 *
(6)	**47.4**	30.1	173.0	46.7	46.8	43.1	48.4	52.2	45.1	48.9	41.2	54.5	45.0	49.0	0.0 *	48.0	49.1	54.5	44.0	44.4	48.2	44.0	59.0	70.4	65.4
(7)	**45.6**	29.2	171.0	52.2	46.8	56.9	46.8 *	44.7	48.8	41.2	62.9 ***	27.3	47.3	48.1	33.3	54.5	36.8 **	63.6	44.5 *	33.3	48.6 *	41.9	61.5 **	34.6	51.9 *
(8)	**40.0**	30.0	170.0	47.8	37.3	41.5	32.8 *	34.0	40.7	38.5	45.7	30.0	38.2	41.8	0.0	40.8	40.4	48.5	37.3 *	27.3	43.1	42.2	33.3	55.6	55.6
(9)	**38.5**	39.1	174.0	26.1	44.1 **	33.8	45.2	27.7	42.7 *	36.7	45.7	27.3	40.0	40.3	0.0	47.5	22.8 ***	21.2	44.5	25.0	42.0 **	40.2	35.9	29.6	29.6
(10)	**35.1**	36.3	171.0	34.8	35.1	43.1	27.4	27.7	37.8 *	34.6	37.1	45.5	32.7	35.7	0.0 **	38.4	29.8	33.3	35.5	42.4	33.3	35.0	35.9	38.5	40.7
(11)	**32.9**	30.6	170.0	37.0	34.5	37.5	30.6	21.7	41.5 **	32.4	35.3	36.4	34.9	35.3	0.0	37.8	29.8	27.3	36.7	18.2	36.5 *	32.8	41.0	34.6	25.9
(12)	**30.2**	40.1	172.0	34.8	28.4 *	27.7	25.0	34.0	18.8 **	31.4	25.7	45.5	24.1	30.1	50.0	28.6	33.3	39.4	25.0 *	36.1	28.7	33.0	20.5	40.7	33.3
(13)	**21.4**	46.8	173.0	13.0	24.3 **	21.5	21.0 *	17.0	24.4	24.6	8.6	36.4	24.5	22.1	0.0	22.2	21.1	12.1	23.6	25.7	20.3	20.5	25.6	55.6	14.8 **
(14)	**18.2**	52.4	170.0	17.4	19.1	15.4	18.0	17.0	18.5	20.0	11.4	9.1	20.2	18.8	0.0	18.2	19.3	9.1	18.3	18.2	18.2	18.1	17.9	7.7	22.2
(15)	**12.6**	66.1	174.0	13.0	13.5	12.3	17.7	14.9	12.2	13.7	8.6	9.1	15.5	13.0	0.0	12.1	15.8	15.2	12.7 *	8.3	13.8	12.8	15.4	18.5	18.5
(16)	**9.5**	54.8	168.0	8.7	10.1	12.5	8.1 **	10.9	9.8	9.7	8.8 *	0.0	13.0	10.5	0.0	8.2	14.0	15.2	9.3	6.3	10.3	10.4	7.7	25.9	11.1
(17)	**8.1**	75.1	173.0	11.1	5.4	7.8	3.2	8.5	6.2	8.0	8.6	9.1	4.6	7.2	0.0	6.1	7.1	15.6	4.5 **	11.1	7.3	5.2	7.7	48.1	7.7 ***

Table 7

Survey responses to the question: How important are the following factors to your company's repurchase decision? (Repurchasers only)

Respondents were asked to rate on a scale of -2 (strongly disagree) to 2 (strongly agree). In panel A we report summary statistics for the responses. The percentage of respondents that answered 1 (agree) and 2 (strongly agree) is given in column (1). The average for each question is given in column (2). P-values for the statistical tests in which the null hypothesis is that the average response equals zero is given in column (3). Column (4) provides p-values for the comparison of the responses of dividend payers to those of repurchasers that are analyzed in Table 6. Column (5) provides the median response for each question while in column (6) we provide p-values for the test that the median response is different from zero. Panel B provides average response sorted firm characteristics. These are Size, P/E, Debt/total assets ratio, Cash cow, Credit rating, Tech industry, Insider holdings, Exchange, Prospects**,** CEO age, and Ownership. These variables are described in detail in Table 3. ***, **, * denotes a significant difference at the 1%, 5% and 10% level, respectively.

Panel A: Unconditional averages

	% important or very important	Average rating	H0: Average rating=0	H0: Dividend rating=Repurchases rating	Median rating	H0: Median rating=0
Question	(1)	(2)	(3)	(4)	(5)	(6)
(1) Market price of our stock (if our stock is a good investment, relative to its true value) (q)	**86.6**	1.3	***	***	1.0	***
(2) The availability of good investment opportunities for our firm to pursue (h)	**79.6**	1.1	***	***	1.0	***
(3) Merger and acquisition strategy (j)	**72.7**	0.9	***	***	1.0	***
(4) Stability of future earnings (c)	**65.9**	0.7	***		1.0	***
(5) A sustainable change in earnings (b)	**65.5**	0.7	***		1.0	***
(6) Having extra cash/liquid assets, relative to our desired cashholdings (d)	**60.6**	0.6	***	***	1.0	***
(7) The influence of our institutional shareholders (i)	**51.5**	0.4	***		1.0	***
(8) Attracting institutional investors to purchase our stock (o)	**46.0**	0.2	**		0.0	***
(9) A temporary change in earnings (a)	**34.7**	-0.1		***	0.0	
(10) Attracting institutional investors because they monitor management decisions (p)	**34.5**	0.0			0.0	
(11) The possibility that repurchasing indicates we are running low on profitable investments (m)	**30.3**	-0.2	**	***	0.0	
(12) Personal taxes our stockholders pay when receiving repurchases (g)	**28.6**	-0.3	***		0.0	**
(13) Maintaining consistency with our historic repurchase policy (l)	**23.9**	-0.3	***	***	0.0	***
(14) Attracting retail investors to purchase our stock (n)	**21.8**	-0.5	***	***	0.0	***
(15) Flotation costs to issuing additional equity (k)	**21.5**	-0.4	***	***	0.0	***
(16) Paying out to reduce cash, thereby disciplining our firm to make efficient decisions (f)	**20.2**	-0.6	***	**	-1.0	***
(17) The repurchase policies of competitors or other companies in our industry (e)	**15.5**	-0.7	***	***	-1.0	***

Panel B: Conditional averages

Question:	**% important or very important**	% not important or not at all important	obs	Size		P/E		D/A		Cash Cow		Credit Rating		Tech Industry		Insider		Exchange		Prospects		CEO age		Ownership	
				Small	Large	Low	High	Low	High	No	Yes	Low	High	Other	Tech	Low	High	Other	NYSE	Worse	Better	Young	Mature	Private	Public
(1)	**86.6**	3.7	164.0	90.4	84.5 **	86.0	84.4	86.4	87.3	87.8	81.8	84.2	85.4	86.2	92.9	87.2	86.4	88.4	86.5	90.6	85.6	87.2	82.9	59.1	85.7 **
(2)	**79.6**	7.8	167.0	80.8	77.7	75.4	78.1	75.9	81.9 *	81.3	72.7	73.7	78.1	80.4	64.3 **	80.9	76.3	76.7	79.2	88.2	77.4	78.4	77.8	63.6	85.7 **
(3)	**72.7**	7.9	165.0	50.0	81.7 **	64.9	72.3 *	67.8	72.2	73.5	69.7	47.4	74.2 *	70.5	85.7	70.5	72.9	74.4	68.0	78.1	71.4	68.4	77.8	54.5	71.4
(4)	**65.9**	13.2	167.0	56.9	71.2	60.7	73.8	60.3	69.4	70.1	48.5 *	63.2	65.6	65.2	85.7	67.0	64.4	60.5	67.7	65.7	65.9	69.0	55.6	76.2	60.0
(5)	**65.5**	14.9	168.0	63.5	69.2	70.2	72.3	59.3	73.6	67.4	57.6	68.4	67.0	64.7	92.9	68.4	62.7	67.4	67.0	62.9	66.2	66.7	63.9	68.2	66.7
(6)	**60.6**	13.9	165.0	62.7	61.8	56.1	63.5	72.4	57.1	64.7	43.8 *	68.4	55.8	62.0	76.9	63.4	59.3	67.4	57.4	57.1	61.5	64.0	50.0	59.1	75.0
(7)	**51.5**	15.3	163.0	51.9	52.9	56.1	47.6	52.5	55.7	52.3	48.5	61.1	51.0	54.7	42.9	60.6	41.4 **	46.5	55.2	50.0	51.9	50.4	58.3 *	36.4	61.9
(8)	**46.0**	23.9	163.0	47.1	44.7	42.1	50.0	44.8	47.9	47.3	40.6	44.4	44.8	46.4	30.8 *	49.5	40.7	45.2	49.0	50.0	45.0	44.3	52.8	31.8	45.0
(9)	**34.7**	39.5	167.0	39.2	32.7	42.9	24.6	33.9	38.0	32.1	45.5	31.6	31.3	34.1	42.9	42.1	24.1 **	41.9	31.3	40.0	33.3	36.2	27.8	27.3	40.0
(10)	**34.5**	29.1	165.0	30.8	36.5	31.6	40.0	25.4	38.9	36.4	27.3	21.1	35.1	36.0	21.4 **	37.9	30.5	25.6	39.2	31.3	35.3	31.6	44.4	27.3	28.6
(11)	**30.3**	38.8	165.0	26.9	30.8	35.1	27.7	28.8	33.3	31.8	24.2	26.3	33.0	28.1	42.9	34.7	22.0	30.2	32.0	40.6	27.8	29.9	27.8	9.1	33.3
(12)	**28.6**	42.3	168.0	19.2	33.7 **	29.8	26.2	25.4	33.3	31.9	15.2 *	31.6	29.9	30.2	14.3 **	30.5	27.1	23.3	30.9 *	34.3	27.1 *	29.1	30.6	36.4	28.6
(13)	**23.9**	41.1	163.0	15.7	26.2 **	19.6	27.7	25.9	22.5	23.5	25.8	10.5	26.0 **	22.6	28.6	24.7	18.6	25.6	24.2	15.6	26.0	19.8	34.3 *	27.3	19.0
(14)	**21.8**	48.5	165.0	25.0	20.2	22.8	23.1	16.9	23.6	22.0	21.2	21.1	20.6	23.7	7.1	26.3	15.3	23.3	21.6	21.9	21.8	17.9	30.6	22.7	14.3
(15)	**21.5**	41.1	163.0	22.0	23.1	26.8	18.5 **	22.4	23.9	20.6	25.0	10.5	24.0	24.1	14.3	20.2	27.6	32.6	16.8 **	21.9	21.4	26.1	13.9	33.3	21.1
(16)	**20.2**	56.5	168.0	21.2	19.2	21.1	23.1	25.4	18.1	20.7	18.2	10.5	21.6	20.9	7.1	15.8	27.1	25.6	17.5	25.7	18.8	19.7	22.2	13.6	23.8
(17)	**15.5**	56.0	168.0	11.5	19.2 **	12.3	16.9	16.9	13.9	15.6	15.2	15.8	12.4	16.5	21.4	18.9	11.9 **	9.3	17.5	8.6	17.3	17.9	13.9	13.6	23.8

Table 8

Survey responses to the question: How important are the following factors to your company's share repurchase decisions? (Repurchasers only)

Respondents were asked to rate on a scale of -2 (strongly disagree) to 2 (strongly agree). In panel A we report summary statistics for the responses. The percentage of respondents that answered 1 (agree) and 2 (strongly agree) is given in column (1). The average for each question is given in column (2). P-values for the statistical tests in which the null hypothesis is that the average response equals zero is given in column (3). Column (4) provides the median response for each question while in column (5) we provide p-values for the test that the median response is different from zero. Panel B provides average response sorted firm characteristics. These are Size, P/E, Debt/total assets ratio, Cash cow, Credit rating, Tech industry, Insider holdings, Exchange, Prospects, CEO age, and Ownership. These variables are described in detail in Table 3. ***, **, * denotes a significant difference at the 1%, 5% and 10% level, respectively.

Panel A: Unconditional averages

Question	**% important or very important** (1)	Average rating (2)	H0: Average rating=0 (3)	Median rating (4)	H0: Median rating=0 (5)
(1) Whether our stock is a good investment relative to other available investments (e)	**77.0**	1.0	***	1.0	***
(2) Increasing earnings per share (b)	**75.0**	0.9	***	1.0	***
(3) Offsetting the dilutionary effect of stock option plans or other stock programs (f)	**67.1**	0.8	***	1.0	***
(4) The float or overall liquidity of our stock (i)	**50.7**	0.2	**	1.0	***
(5) Investors paying lower taxes on repurchases relative to dividends (a)	**42.4**	0.1		0.0	
(6) Changing our debt-to-equity ratio so it is closer to our desired debt ratio (d)	**30.3**	-0.3	**	0.0	**
(7) The belief that well-informed investors benefit more from a repurchase program than do less-informed investors (j)	**21.3**	-0.2	***	0.0	**
(8) Accumulating shares to increase the chance of resisting a takeover bid (c)	**13.8**	-0.8	***	-1.0	***
(9) Selling stockholders cashing out and taking some benefits of the repurchase program with them (h)	**12.7**	-0.7	***	-1.0	***
(10) Using repurchases rather than dividends because stock options are not dividend protected (g)	**9.9**	-0.6	***	-0.5	***

Panel B: Conditional averages

Question:	**% important or very important**	% not important or not at all important	obs	Size			P/E			D/A			Cash Cow			Credit Rating			Tech Industry			Insider			Exchange			Prospects			CEO age			Ownership		
				Small	Large		Low	High		Low	High		No	Yes		Low	High		Other	Tech		Low	High		Other	NYSE		Worse	Better		Young	Mature		Private	Public	
(1)	**77.0**	9.2	152.0	83.0	73.7	**	83.6	68.8		69.5	84.5	**	74.6	85.3		77.8	75.5		78.5	71.4		75.0	81.0	*	82.9	74.0		83.3	75.8		80.5	65.7		47.4	81.8	***
(2)	**75.0**	9.2	152.0	69.8	77.8		87.3	71.9	***	67.8	81.7		74.6	76.5		61.1	77.7		77.0	50.0		77.2	70.7		65.9	79.2		83.3	73.4		77.9	68.6		31.6	72.7	***
(3)	**67.1**	14.5	152.0	52.8	74.7	***	63.6	76.6	*	61.0	69.0		69.5	58.8		44.4	76.6	**	65.2	92.9	***	67.4	65.5		63.4	66.7		66.7	67.2		64.6	74.3		5.3	63.6	***
(4)	**50.7**	24.3	152.0	56.6	47.5		58.2	43.8		61.0	47.9		45.8	67.6	**	27.8	54.3		50.4	42.9		46.7	56.9		58.5	49.0		41.7	52.3		49.6	51.4		31.6	40.9	
(5)	**42.4**	31.8	151.0	34.0	46.9		38.2	46.0		39.7	46.5		47.9	23.5		38.9	47.3		40.3	57.1		40.7	44.8		43.9	42.1		54.2	40.2	*	40.7	50.0		36.8	31.8	
(6)	**30.3**	46.7	152.0	22.6	34.3	**	36.4	32.8		18.6	42.3	***	32.2	23.5		22.2	36.2		33.3	7.1	***	33.7	24.1		22.0	34.4	**	20.8	32.0		29.2	37.1		21.1	18.2	
(7)	**21.3**	34.7	150.0	20.8	21.6		29.6	17.5		20.7	24.3		19.8	26.5		11.1	22.8		21.1	14.3		17.8	27.6		24.4	22.3		20.8	21.4		21.4	20.6		26.3	13.6	
(8)	**13.8**	63.2	152.0	18.9	11.1	*	10.9	10.9		11.9	14.1		12.7	17.6		0.0	8.5		14.8	7.1		13.0	15.5		14.6	12.5		16.7	13.3	*	13.3	14.3		52.6	13.6	**
(9)	**12.7**	53.3	150.0	17.0	10.3		16.4	6.3		12.1	11.3	**	12.1	14.7		5.6	10.8		13.5	7.1		12.1	14.0		17.1	10.5		12.5	12.7	*	14.3	8.8		47.4	13.6	**
(10)	**9.9**	50.0	152.0	17.0	6.1		14.5	7.8		6.8	11.3		9.3	11.8		5.6	10.6		10.4	7.1		7.6	13.8		17.1	7.3		4.2	10.9		12.4	2.9		21.1	9.1	

Table 9
Dividends / Repurchases Initiation Horizon

Frequency	Possibly never	50 years	20 years	5 years	2 years
For those that have not paid dividends within the last 3 years, within how many years will you anticipate initiating dividends?	77.03%	1.35%	6.76%	12.16%	2.70%
For those that have not repurchased shares within the last 3 years, within how many years will you anticipate repurchasing shares?	55.71%	1.43%	7.14%	21.43%	14.29%
For those that have neither paid dividends nor repurchased shares within the last 3 years, within how many years will you anticipate initiating some form of payout?	58.44%	2.60%	9.09%	19.48%	10.39%

Table 10

Survey responses to the question: What factors might get your company to seriously consider repurchasing shares in the future? (Only firms that have not repurchased shares within the past three years)

Respondents were asked to rate on a scale of -2 (strongly disagree) to 2 (strongly agree). In panel A we report summary statistics for the responses. The percentage of respondents that answered 1 (agree) and 2 (strongly agree) is given in column (1). The average for each question is given in column (2). P-values for the statistical tests in which the null hypothesis is that the average response equals zero is given in column (3). Column (4) provides p-values for the comparison of the responses to those analyzed in Table 10. Column (5) provides the median response for each question while in column (6) we provide p-values for the test that the median response is different from zero. Panel B provides average response sorted firm characteristics. These are Size, P/E, Debt/total assets ratio, Cash cow, Credit rating, Tech industry, Insider holdings, Exchange, Prospects**,** CEO age, and Ownership. These variables are described in detail in Table 3. ***, **, * denotes a significant difference at the 1%, 5% and 10% level, respectively. n.a. in Panel A means that there is no corresponding dividend question in Table 10.

Panel A: Unconditional averages

	% important or very important	Average rating	H0: Average rating=0	H0: Dividend rating=Repurchases rating	Median rating	H0: Median rating=0
Question	(1)	(2)	(3)	(4)	(5)	(6)
(1) Market undervaluation of our stock (i)	**75.0**	1.1	***	***	1.0	***
(2) Our company having extra cash/marketable securities (c)	**61.0**	0.5	***	**	1.0	***
(3) To convey info about our stock to investors (if the market is not fairly valuing our firm) (m)	**59.7**	0.5	***	**	1.0	***
(4) The influence of our institutional shareholders (g)	**56.6**	0.4	***		1.0	***
(5) A change in the float or overall liquidity of our stock (n)	**52.0**	0.3	**	n.a.	1.0	***
(6) Having fewer profitable investments available (e.g., as our industry matures) (h)	**50.6**	0.3	***		1.0	***
(7) Offsetting the dilutionary effect of stock option plans or other stock programs (l)	**50.6**	0.3	**	n.a.	1.0	***
(8) Increasing earnings per share (j)	**50.6**	0.4	***	n.a.	1.0	***
(9) A sustainable increase in earnings (b)	**46.8**	0.2			0.0	
(10) Accumulating shares to increase the chance of resisting a takeover bid (k)	**35.1**	-0.1		n.a.	0.0	
(11) The share repurchase policies of competitors or other companies in our industry (d)	**30.3**	-0.1			0.0	
(12) The relatively low taxes investors pay when selling shares (relative to receiving dividends) (f)	**21.1**	-0.4	**	n.a.	0.0	*
(13) A temporary increase in earnings (a)	**17.1**	-1.0	***		-2.0	***
(14) Repurchasing shares to reduce cash, thereby disciplining our firm to make efficient decisions (e)	**14.5**	-0.9	***		-1.0	***

Panel B: Conditional averages

Question:	**% important or very important**	% not important or not at all important	obs	Size		P/E		D/A		Cash Cow		Credit Rating		Tech Industry		Insider		Exchange		Prospects		CEO age		Ownership	
				Small	Large	Low	High	Low	High	No	Yes	Low	High	Other	Tech	Low	High	Other	NYSE	Worse	Better	Young	Mature	Private	Public
(1)	**75.0**	6.6	76.0	76.3	75.7	88.0	61.1 **	77.8	81.6	71.4	92.3	77.8	76.7	72.9	80.0	76.6	71.4	68.8	80.0	66.7	77.6	73.2	78.9	51.5	72.7 **
(2)	**61.0**	20.8	77.0	65.8	57.9	69.2	38.9 **	72.2	68.4	59.4	69.2 **	66.7	71.0	58.3	73.3	50.0	78.6 **	62.5	66.7	72.2	57.6	66.7	42.1	60.6	68.2
(3)	**59.7**	16.9	77.0	65.8	55.3	69.2	50.0	72.2	60.5	57.8	69.2	66.7	64.5	58.3	60.0	62.5	53.6	65.6	55.6	66.7	57.6	57.9	63.2	33.3	61.4 ***
(4)	**56.6**	18.4	76.0	60.5	54.1	56.0	55.6	55.6	50.0	54.0	69.2	33.3	53.3	57.6	46.7 *	57.4	53.6	56.3	54.3	55.6	56.9	57.1	52.6	33.3	54.5 *
(5)	**52.0**	20.0	75.0	59.5	45.9	56.0	44.4	70.6	44.7	47.6	75.0 **	44.4	48.3	46.6	66.7	56.5	46.4	56.3	44.1	44.4	54.4	52.7	47.4	24.2	55.8 ***
(6)	**50.6**	23.4	77.0	47.4	55.3	57.7	55.6	55.6	47.4	46.9	69.2 *	55.6	61.3	50.0	53.3	52.1	50.0	37.5	58.3	38.9	54.2	56.1	31.6 **	51.5	45.5
(7)	**50.6**	22.1	77.0	47.4	55.3	56.0	38.9	50.0	52.6	51.6	46.2	77.8	53.3	45.0	66.7 *	52.1	46.4	53.1	51.4	55.6	49.2	52.6	47.4	33.3	52.3 *
(8)	**50.6**	15.6	77.0	50.0	52.6	56.0	44.4	55.6	52.6	46.9	69.2	44.4	53.3	48.3	53.3	54.2	46.4	43.8	57.1	61.1	47.5	49.1	52.6	36.4	47.7
(9)	**46.8**	32.5	77.0	50.0	44.7	50.0	27.8	38.9	50.0	46.9	46.2	66.7	29.0	41.7	66.7 **	41.7	57.1	46.9	47.2	55.6	44.1	50.9	36.8	63.6	50.0
(10)	**35.1**	37.7	77.0	39.5	31.6	52.0	27.8	33.3	42.1	31.3	53.8	55.6	30.0	35.0	33.3	37.5	32.1	31.3	31.4	38.9	33.9	35.1	31.6	21.9	36.4
(11)	**30.3**	34.2	76.0	26.3	35.1	36.0	27.8	38.9	28.9	27.0	46.2	33.3	40.0	32.2	26.7	38.3	17.9	18.8	40.0 **	27.8	31.0	30.4	26.3	21.2	25.0
(12)	**21.1**	38.2	76.0	18.4	24.3	20.0	16.7	22.2	23.7	22.2	15.4	22.2	30.0	20.3	26.7	23.4	17.9	15.6	25.7	16.7	22.4	21.4	21.1	25.0	20.5
(13)	**17.1**	67.1	76.0	16.2	18.4	28.0	11.1	11.1	18.9	15.9	23.1	12.5	16.1	15.3	20.0	18.8	14.8	12.5	17.1 **	27.8	13.8 **	17.5	16.7	30.3	18.2 **
(14)	**14.5**	60.5	76.0	10.5	18.9	20.0	11.1	16.7	18.4	11.1	30.8	0.0	33.3 *	15.3	13.3	19.1	7.1	6.3	20.0 ***	5.6	17.2	17.9	5.3	6.3	11.4

Table 11

Survey responses to the question: What factors might get your company to seriously consider paying dividends in the future? (Only firms that have not paid dividends within the past three years)

Respondents were asked to rate on a scale of -2 (strongly disagree) to 2 (strongly agree). In panel A we report summary statistics for the responses. The percentage of respondents that answered 1 (agree) and 2 (strongly agree) is given in column (1). The average for each question is given in column (2). P-values for the statistical tests in which the null hypothesis is that the average response equals zero is given in column (3). Column (4) provides p-values for the comparison of the responses to those analyzed in Table 9. Column (5) provides the median response for each question while in column (6) we provide p-values for the test that the median response is different from zero. Panel B provides average response sorted firm characteristics. These are Size, P/E, Debt/total assets ratio, Cash cow, Credit rating, Tech industry, Insider holdings, Exchange, Prospects**,** CEO age, and Ownership. These variables are described in detail in Table 3. ***, **, * denotes a significant difference at the 1%, 5% and 10% level, respectively. n.a. in Panel A means that there is no corresponding repurchase question in Table 9.

Panel A: Unconditional averages

	% important or very important	Average rating	H0: Average rating=0	H0: Dividend rating=Repurchases rating	Median rating	H0: Median rating=0
Question	(1)	(2)	(3)	(4)	(5)	(6)
(1) A sustainable increase in earnings (b)	**58.7**	0.3	*		1.0	***
(2) The influence of our institutional shareholders (f)	**56.0**	0.4	***		1.0	***
(3) Having fewer profitable investments available (e.g., as our industry matures) (i)	**49.3**	0.1			0.0	
(4) Our company having extra cash/marketable securities (c)	**45.3**	0.0		**	0.0	
(5) To convey information about our stock to investors (if the market is not fairly valuing our firm) (l)	**39.2**	0.0		**	0.0	
(6) Market undervaluation of our stock (j)	**38.7**	-0.2		***	0.0	
(7) To attract investors subject to "prudent man" investment restrictions to purchase our stock (k)	**33.3**	-0.1		n.a.	0.0	
(8) The dividend policies of competitors or other companies in our industry (d)	**33.3**	-0.2			0.0	
(9) To attract investors who will monitor or certify our decisions (h)	**32.0**	-0.3	*	n.a.	0.0	
(10) The influence of our retail shareholders (g)	**29.3**	-0.3	**	n.a.	0.0	
(11) Paying dividends to reduce cash, thereby disciplining our firm to make efficient decisions (e)	**9.3**	-1.1	***		-2.0	***
(12) A temporary increase in earnings (a)	**9.3**	-1.3	***		-1.0	***

Panel B: Conditional averages

Question:	**% important or very important**	% not important or not at all important	obs	Size		P/E		D/A		Cash Cow		Credit Rating		Tech Industry		Insider		Exchange		Prospects		CEO age		Ownership	
				Small	Large	Low	High	Low	High	No	Yes	Low	High	Other	Tech	Low	High	Other	NYSE	Worse	Better	Young	Mature	Private	Public
(1)	**58.7**	25.3	75.0	70.2	39.3 **	72.7	38.1 ***	51.5	65.5	55.0	73.3	43.8	55.0	62.2	50.0	61.4	54.8	50.0	70.8 **	75.0	52.7 *	57.6	60.0	55.2	60.0
(2)	**56.0**	18.7	75.0	55.3	57.1	68.2	61.9	63.6	51.7	56.7	53.3	43.8	65.0	62.2	53.8	52.3	61.3	52.3	58.3	50.0	58.2	52.5	66.7 *	44.8	47.5
(3)	**49.3**	32.0	75.0	48.9	50.0	54.5	61.9	36.4	62.1 **	50.0	46.7	43.8	65.0 *	53.3	46.2	50.0	48.4	43.2	58.3	50.0	49.1	57.6	20.0 **	48.3	45.0
(4)	**45.3**	36.0	75.0	48.9	39.3	59.1	42.9	45.5	51.7	41.7	60.0	31.3	60.0	53.3	30.8	40.9	51.6	38.6	58.3 *	65.0	38.2 **	45.8	46.7	41.4	45.0
(5)	**39.2**	29.7	74.0	48.9	22.2	45.5	42.9	42.4	48.3	40.7	33.3	31.3	63.2 **	45.5	30.8 *	34.1	46.7	39.5	41.7	50.0	35.2 *	36.2	53.3	34.5	43.6
(6)	**38.7**	41.3	75.0	44.7	28.6 **	54.5	38.1 *	36.4	48.3	35.0	53.3 *	12.5	55.0 **	42.2	30.8 *	38.6	38.7	34.1	45.8	45.0	36.4	42.4	26.7	20.7	42.5
(7)	**33.3**	33.3	75.0	34.0	32.1	40.9	28.6	27.3	41.4	33.3	33.3	18.8	60.0 **	46.7	15.4 **	34.1	32.3	31.8	41.7	40.0	30.9	32.2	40.0	10.7	30.0
(8)	**33.3**	36.0	75.0	31.9	35.7	36.4	33.3	27.3	44.8	31.7	40.0	31.3	35.0	28.9	46.2	38.6	25.8	27.3	41.7 *	25.0	36.4	35.6	20.0	37.9	32.5
(9)	**32.0**	44.0	75.0	40.4	17.9 **	45.5	38.1	36.4	31.0	30.0	40.0	12.5	45.0 **	44.4	15.4 **	29.5	35.5	31.8	37.5	40.0	29.1	28.8	46.7	31.0	30.0
(10)	**29.3**	42.7	75.0	31.9	25.0	45.5	19.0 **	21.2	44.8	31.7	20.0	25.0	40.0	35.6	23.1	31.8	25.8	27.3	33.3	35.0	27.3 **	28.8	33.3	41.4	35.0
(11)	**9.3**	76.0	75.0	12.8	3.6	9.1	9.5	9.1	10.3	11.7	0.0	12.5	15.0	8.9	7.7	9.1	9.7 *	6.8	12.5	15.0	7.3 *	5.1	26.7	13.8	10.0
(12)	**9.3**	80.0	75.0	12.8	3.6 *	13.6	4.8 *	12.1	6.9	10.0	6.7	6.3	10.0	8.9	7.7	13.6	3.2	11.4	4.2	20.0	5.5 **	6.8	20.0	3.6	10.0

Table 12
Summary Views of Financial Executives about Payout Policy

DIVIDENDS		REPURCHASES
Very important. Do not cut dividends except in extreme circumstances.	**Historical Level**	Historical level is not important.
Sticky. Inflexible. Smooth through time.	**Flexibility**	Very Flexible. No need to smooth.
Little reward for increasing.	**Consequence if Increased**	Stock price increase when repurchase plan announced.
Big market penalty for reducing or omitting.	**Consequence if Reduced**	Little consequence to reducing from one year to the next, though they try to complete plans.
Most common target is the level of dividend, followed by payout ratio and growth in dividends. Target is viewed as rather flexible.	**Target**	Most common target is dollar amount of repurchases, a very flexible target.
External funds would be raised before cutting dividends.	**Relation to External Funds**	Repurchases would be reduced before raising external funds.
First maintain historic dividend level, then make incremental investment decisions.	**Relation to Investment**	First investment decisions, then make repurchase decisions.
Dividend increases tied to permanent, stable earnings.	**Earnings Quality**	Repurchases increase with permanent earnings but also with temporary earnings.
At the margin, do not reduce repurchases in order to increase dividends.	**Substitutes?**	At the margin, reduce dividend increases (not level) in order to increase repurchases.
Tax disadvantage of dividends of second-order importance.	**Taxes**	Tax-advantage of repurchases of second-order importance.
Dividends convey information.	**Convey Information?**	Repurchases convey information.
Dividends are not a self-imposed cost to signal firm quality or separate from competitors.	**Signal?**	Repurchases are not used as a self-imposed cost to signal firm quality or separate from competitors.
Retail investors like dividends despite tax disadvantage. Retail investors like dividends about the same as institutions like dividends.	**Retail Investors**	Retail investors like repurchases less than they like dividends.
Institutions generally like dividends but are not sought out to monitor firm.	**Institutional Investors**	Institutions generally like repurchases about the same as they like dividends.
Not important.	**Stock Price**	Repurchase shares when stock undervalued by market.
Not important.	**EPS**	Repurchasing in an attempt to increase EPS is very important.
Not important.	**Stock Options**	Repurchasing to offset stock option dilution is important.
Not important.	**Cash on Balance Sheet**	Use to reduce cash holdings when cash is sufficiently high.
Not important.	**Float or Liquidity**	Do not repurcase if float is not sufficient.
Not important.	**Mergers and Acquisitions**	Important.
Not important.	**Takeovers**	Not important.
Expected to pay dividends. Dividend growth is very important and dividend policy very conservative.	**Cash Cows**	Expected to return capital, including repurchasing shares.
… we would keep dividend commitment minimized.	**If we were starting over …**	… we would rely heavily on repurchases to return capital to investors.
… earnings become positive and stable.	**Nonpayers will initiate when …**	… the market is undervaluing their stock.
… institutions demand dividends.		… they have extra cash on the balance sheet.
… they have fewer profitable investments available.		… institutions demand repurchases.
		… they have fewer profitable investments available.
		… they think that repurchases can increase EPS or offset stock option dilution.