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Payout policy in the 21st century ☆

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Abstract

We survey 384 financial executives and conduct in-depth interviews with an additional 23 to determine the factors that drive dividend and share repurchase decisions. Our findings indicate that maintaining the dividend level is on par with investment decisions, while repurchases are made out of the residual cash flow after investment spending. Perceived stability of future earnings still affects dividend policy as in Lintner (1956. American Economic Review 46, 97–113). However, 50 years later, we find that the link between dividends and earnings has weakened. Many managers now favor repurchases because they are viewed as being more flexible than dividends and can be used in an attempt to time the equity market or to increase earnings per share. Executives believe that institutions are indifferent between dividends and repurchases and that payout policies have little impact on their investor clientele. In general, management views provide little support for agency, signaling, and clientele hypotheses of payout policy. Tax considerations play a secondary role.

JEL classification: G35; G32; G34

Keywords: Payout; Dividend policy; Share repurchases

1. Introduction

In 1956, John Lintner laid the foundation for the modern understanding of dividend policy. Lintner (1956) interviewed managers from 28 companies and argued that managers target a long-term payout ratio when determining dividend policy. He also concluded that dividends are sticky, tied to long-term sustainable earnings, paid by mature companies, and smoothed from year to year. In this paper, we survey and interview financial executives at the start of the 21st century to learn how dividend and repurchase policies are currently determined. We shed light on managers' motives as well as on payout theories.

Using survey and field interviews, we are able to augment existing evidence on payout policy. We address issues such as the role of taxes, agency considerations, and signaling in the decision to pay; why young firms prefer not to pay dividends (Fama and French, 2001); why many firms prefer to pay out marginal cash flow through repurchases and not through dividends (Jagannathan et al., 2000; Grullon and Michaely, 2002); and at the same time why some companies still pay substantial dividends (Allen and Michaely, 2003; DeAngelo et al., 2004). A 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 that drive the selection of each form of payout. Overall, the surveys and field interviews 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. Managers express a strong desire to avoid dividend cuts,

except in extraordinary circumstances. However, beyond maintaining the level of dividends per share, payout policy is a second-order concern; that is, increases in dividends are considered only after investment and liquidity needs are met. In contrast to Lintner's era, we find that the target payout ratio is no longer the preeminent decision variable affecting payout decisions. In terms of when nonpayers might initiate dividend payments, two reasons dominate: a sustainable increase in earnings, and demand by institutional investors.

Repurchases were virtually nonexistent when Lintner (1956) and Miller and Modigliani (1961) wrote their papers, so it is not surprising that these authors ignore repurchases. Because of their growing importance over the last two decades, we study repurchases in depth and identify key factors that influence repurchase policy. Consistent with a Miller and Modigliani irrelevance theorem, and in contrast to decisions about preserving the level of the dividend, managers make repurchase decisions after investment decisions. Many executives view share repurchases as being more flexible than dividends, and they use this flexibility in an attempt to time the market by accelerating repurchases when they believe their stock price is low. Chief Financial Officers (CFOs) are also very conscious of how repurchases affect earnings per share, consistent with Bens et al. (2003). Companies are likely to repurchase when good investments are hard to find, when their stock's float is adequate, and when they wish to offset option dilution.

Executives believe that dividend and repurchase decisions convey information to investors. However, this information conveyance does not appear to be consciously related to signaling in the academic sense. Managers reject the notion that they pay dividends as a costly signal to convey their firm's true worth or to purposefully separate their firm from competitors. Overall, we find little support for both the assumptions and resulting predictions of academic signaling theories that are designed to predict payout policy decisions, at least not in terms of conscious decisions that executives make about payout.

While some evidence exists that repurchases are used to reduce excess cash holdings (consistent with the Jensen (1986) free cash flow hypothesis), we do not find evidence that managers use payout policy to attract a particular investor clientele that could monitor their actions (as in Allen et al., 2000). Executives believe that dividends are attractive to individual investors but that dividends and repurchases are equally attractive to institutions. In general, most executives say that they do not use payout policy as a tool in an attempt to alter the proportion of institutions among their investors.

Executives indicate that taxes are a second-order payout policy concern. Most say that tax considerations are not a dominant factor in their decision about whether to pay dividends or to increase dividends, or in their choice between payout in the form of repurchases or dividends. A follow-up survey conducted in June 2003, after dividend taxes had been reduced via legislation, reinforces the second-order importance of taxation. While a minority of executives in that survey say that reduced dividend taxation would lead to dividend increases at their firms, more than two-thirds say that the dividend tax reduction would definitely not or probably not

affect their dividend decisions. For initiations, only 13% of nonpayers say that the tax cut will lead to their firm initiating dividends.

Our finding that taxes are "second-order" important is consistent with research investigating the recent dividend tax cut. We find that taxes are not first-order important for most firms but they are important at the margin for some firms (e.g., 13% of nonpayers). Chetty and Saez (2004) present numbers consistent with our survey evidence: As of early 2004 about six percent of nonpayers had initiated dividends since the 2003 dividend tax cut. Julio and Ikenberry (2004) argue that the recent increase in dividend payments can not be entirely explained by reduced taxation because (1) the recent increase in dividends by firms that already paid dividends began before the tax rate decrease, and (2) many recent dividend initiations have occurred in stocks held predominantly by institutions, where tax motivations are less obvious. All in all, taxes matter but in a second-order manner.

The rest of the paper proceeds as follows. Section 2 describes the sample and presents summary statistics. Section 3 investigates the interaction of dividend, share repurchase, and investment decisions. Section 4 compares the practice of payout policy at the beginning of the 21st century with one-half century earlier when Lintner (1956) conducted his classic analysis. In addition to survey evidence, Section 4 uses regressions to estimate speed of adjustment and target payout parameters and concludes that the importance of the payout ratio target has declined in recent decades. Section 5 analyzes how modern executives' views about payout policy match up with various theories that have been proposed to predict dividend and repurchase decisions. Section 6 discusses the factors that CFOs and treasurers of nonpayout firms say might eventually encourage their firms to initiate dividends or repurchases. Section 7 concludes and summarizes the rules of the game that affect the corporate decision-making process.

2. Sample and summary statistics

The survey sample contains responses from 384 financial executives. All total, the survey covers 256 public companies (of which 166 pay dividends, 167 repurchase their shares, and 77 do not currently pay out) and 128 private firms. Most of our analysis is based on the public firms, though we separately analyze private firms in Section 5.5. This moderately large sample and broad cross section of firms allows us to perform standard statistical tests. In addition to the survey, we separately conduct 23 one-on-one interviews with top executives (CFOs, treasurers, and chief executive officers). Interviews allow us to ask open-ended questions, so a respondent's answers can dictate further questions (versus pre-chosen questions in the survey). Interviews also allow for give-and-take and clarifications. One disadvantage of interviews relative to surveys is that the responses are more difficult to rigorously quantify; therefore, for the most part, we highlight the survey responses and use the interviews to aid in the interpretation of some survey responses. The Appendix contains a description of how the survey and interviews were administered.

The field study approach is not without potential problems. Surveys and interviews face the objection that market participants do not have to understand the reason they do what they do for economic models to be predictively successful (The Friedman, 1953, "as if" thesis).[1] This could be particularly acute in our study because we ask corporate financial managers about both the assumptions and predictions of certain theories. The "as if" thesis, however, has been criticized by philosophers (see Rosenberg, 1992; Hausman, 1992) on the grounds that 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 we therefore focus on the realism of the assumptions that underpin many academic models. Scrutiny of stated assumptions should be important to theorists for two reasons. First, following Friedman, our results can provide for an even wider range of assumptions than have been used previously, 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.

Table 1 compares summary information about the firms that we survey with Compustat information for sales, debt to assets, dividend yield, earnings per share, credit rating, and book to market.[2] For each variable, in each panel, we report the sample average and median, and we compare these values with those for the universe of Compustat firms as of April 2002 (the month we conducted the survey). The table reports the percentage of sample firms that fall into each quintile (based on separate Compustat quintile breakpoints for each variable). The reported percentages can be compared with the benchmark 20%, which allows us to infer whether our samples are representative of Compustat firms and, if so, in which dimensions. Panel A (B) contains the interview (survey) firms.

The survey companies are larger and have better credit ratings than the typical Compustat firm. This is not surprising given that the sample intentionally contains many firms that pay dividends. In unreported analysis, controlling for size, we find that the sample firms are representative in the other dimensions. The dividend-paying survey firms represent 5% of all dividend-payers on Compustat but constitute 17% of aggregate dividend payout, so the sample is over-representative of high dividend payers (not shown in table). The survey firms similarly over-represent share-repurchasing firms. Overall, the sample contains enough payers to allow us to draw conclusions about overall payout, while at the same time is heterogeneous enough to allow comparison of payers to nonpayers.

[1]The "as if" thesis 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 outcome of the agents' actions.

[2]The information about the sample firms is self-reported for all but sales and book to market. For these two variables, we use Compustat information for the firms that we can identify and match to Compustat.

Table 1
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 and with the Center for Research in Security Prices (CRSP) share codes of 10 or 11

Comparison is based on the following variables: sales, debt to assets, dividend yield, earnings per share, credit rating, and book to market. Given that companies report their own debt-to-asset ratio, dividend yield, credit rating, and earning per share on the survey, we employ these in the analysis below. We use Compustat sales and book-to-market ratio information for the surveyed firms that we are able to match to Compustat. The information for the universe of firms is obtained from Compustat: (1) sales is based on Data 12-Sales(net); (2) debt to asset is based on Data9-long term debt divided by Data6-total assets; (3) dividend yield is the ratio of Data26 divided by the firm's stock price, Data24; (4) earnings per share, denoted EPS, if Data58-EPS (basic) excluding extraordinary items; (5) credit rating is Compustat variable SPDRC, Standard & Poor's long term domestic issuer credit rating; (6) book to market, denoted BM, is total stockholders' equity, Data216, divided by size, in which size is computed as the product of price, Data24, and common shares outstanding, Data25. For each variable, we identify all candidate firms listed on the three major 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 Financial Executives International 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 report in Panel A (Panel B) the percentage of the interviewed (surveyed) firms that are in these five sorts. The reported percentages can then be compared with the benchmark 20%. 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 only one group representing the 60% of the Compustat universe with dividend yield of zero.

Variable	Sample average	Sample median	Compustat breakpoint quintiles				
			1	2	3	4	5
Panel A. Representativeness of 23 interviewed firms							
Sales (Compustat)							
Universe average			10.4	45.8	141.7	500	7,580
Sample average	36,076.7	19,423.0	n.a.	n.a.	n.a.	n.a.	36,077
Sample percent			0.0	0.0	0.0	0.0	100.0
Debt/assets							
Universe average			0.0	0.0	0.1	0.2	0.5
Sample average	0.21	0.23	n.a.	0.0	0.1	0.2	0.4
Sample percent			0.0	4.3	17.4	65.2	13.0
Dividend yield							
Universe average			0	0	0	0.005	0.084
Sample average	0.017	0.01		0		0.008	0.030
Sample percent				17.4		34.8	47.8
EPS							
Universe average			−3.7	−0.5	0.2	0.9	3.1

Sample average	1.09	1.42	−6.4	−0.3	0.2	1.0	2.7
Sample percent			8.7	8.7	4.3	26.1	52.2
Credit rating							
Universe average			17.9 (CC−)	14.7 (BB−)	12.2 (BBB−)	10.3 (BBB+)	7.2 (A+)
Sample average	8.43 (A)	8 (A)	n.a.	15 (BB−)	12.5 (BB+)	10.2 (BBB+)	6 (AA−)
Sample percent			0.0	4.4	17.4	21.7	56.5
BM (Compustat)							
Universe average			−18	0.4	0 6	0.9	2.3
Sample average	0.44	0.39	0.1	0.4	0.6	0.8	1.8
Sample percent			26.1	39.1	17.4	13.0	4.4
Panel B. Representativeness of surveyed public firms							
Sales (Compustat)							
Universe average			10.4	45.8	141.7	500	7,560
Sample average	11,059	2,050	n.a.	49.9	154.1	616	15,534
Sample percent			0.0	3.4	10.2	15.9	70.5
Debt/assets							
Universe average			0.0	0.0	0.1	0.2	0.5
Sample average	0.31	0.28	0.0	0.0	0.1	0.2	0.6
Sample percent			10.8	6.5	13.5	26.5	42.7
Dividend yield							
Universe average			0	0	0	0.005	0.084
Sample average	0.018	0.009		0		0.009	0.046
Sample percent				36.5		29.0	34.5
EPS							
Universe average			−3.7	−0.5	0.2	0.9	3.1
Sample average	1.05	1.00	−3.0	−0.5	0.2	1.0	2.8
Sample percent			8.1	11.1	17.2	25.8	37.9
Credit rating							
Universe average			17.9 (CC−)	14.7 (BB−)	12.2 (BBB−)	10.3 (BBB+)	7.2 (A+)
Sample average	9.5 (BBB+)	9 (A−)	19.5 (CCC)	15.5 (B+)	13 (BB+)	10.6 (BBB)	6.6 (A+)
Sample percent			5.3	4.0	13.2	27.2	50.3
BM (Compustat)							
Universe average			−1.8	0.4	0.6	0.9	2.3
Sample average	0.48	0.43	0.1	0.4	0.6	0.9	1.3
Sample percent			21.8	32.2	26.4	14.9	4.6

3. The hierarchy of dividends, repurchases, and investment decisions

Modigliani and Miller (1958) argue that firm value is driven by operating and investment decisions, not financing or payout decisions. We ask several questions to determine the relative importance assigned by executives to payout policy. The survey evidence indicates that dividend choices are made simultaneously with (or perhaps a bit sooner than) investment decisions but that repurchase decisions are made later. On a scale from –2 (strongly disagree) to +2 (strongly agree), the average rating is –0.3 that investment decisions are made before dividend decisions (Table 2, Row 6) but the rating is 1.0 that investment decisions are made before repurchases (Table 3, Row 2), a significant difference. This difference is summarized in Fig. 1, Row 15.[3] The interview evidence indicates that this difference is not just a question of timing, but of priorities. Interviewed managers state that they would pass up some positive net present value (NPV) investment projects before cutting dividends.[4] Respondents' replies to these questions, and the relative responses for dividend and repurchase questions, imply that dividends are not the residual cash flow (i.e., left over after investment choices), as the Miller and Modigliani (1961) theorem suggests they should be. Repurchases are treated as the residual cash flow as implied by Modigliani and Miller.

We also ask whether companies would raise external funds before considering a reduction in payout. 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 2, Row 3). In contrast, only 16% of repurchasers strongly or very strongly agree that external funds would be raised before reducing repurchases (Table 3, Row 8) (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: average rating of 0.2 in Table 4, Row 6.)

We ask the CFOs whether investment opportunities affect payout decisions.[5] Less than half of the executives tell us that the availability of good investment opportunities is an important or very important factor affecting dividend decisions (Table 5, Row 6). In contrast, 80% of the CFOs report that the availability of good investment projects is an important or very important factor affecting repurchase decisions (Table 6, Row 2). The differing importance of investment opportunities for repurchases versus dividends is statistically significant. The interviews provide clarification of this point and indicate that, while repurchases are made after

[3]A version of Fig. 1 sorted by repurchase responses is available at http://faculty.fuqua.duke.edu/~jgraham/payout/PayoutAltFig1SortByReprchase.pdf.

[4]Graham et al. (2005) also find that managers trade off value to meet nonoperational objectives. They find that 55% of firms would turn down a positive NPV project with adverse short-term earnings consequences to deliver consensus expected earnings in a given quarter. Similarly, they find that 78% would sacrifice value to smooth earnings.

[5]Throughout, the term "CFOs" is used interchangeably with "executives" to refer to the survey participants, not to imply a subset of respondents holding this title.

Table 2
Survey responses for 166 dividend-payers to the question: do these statements agree with your company's views

Ratings are based on a scale of −2 (strongly disagree) to 2 (strongly agree). The percentage of respondents that answered 1 (agree) and 2 (strongly agree) is given in Column 1. The average for each question and *p*-values for the statistical tests in which the null hypothesis is that the average rating equals zero are given in Column 2. Column 3 provides *p*-values for the comparison of the responses of dividend payers to those of repurchasers that are analyzed in Table 3. Column 4 provides the percentage that answered 1 or 2 sorted by cash cow, in which a cash cow firm has a debt rating of A or higher, profits greater than zero, and price earnings ratio (P/E) less than the median P/E of profitable firms with debt ratings of A or higher. A non cash cow firm is the complement. There are 35 cash cow dividend payers. ***, **, and * denote a significant difference at the 1%, 5%, and 10% level, respectively. Lowercase letters following each statement indicate the order in which they appeared on the survey instrument.

Statement:	Percent agree or strongly agree (1)	Mean rating (2)	H0: dividend rating = repurchases rating (3)	Cash cow (4)	
				No	Yes
(1) There are negative consequences to reducing dividends (d)	88.1	1.4***	***	88.8	85.3
(2) Dividend decisions convey information about our company to investors (b)	80.0	1.0***		79.4	82.4
(3) Rather than reducing dividends, we would raise new funds to undertake a profitable project (e)	65.4	0.7***	***	63.2	73.5
(4) Dividends are as important now to the valuation of common stocks in our industry as they were 15 or 20 years ago (f)	40.3	0.0		39.2	44.1
(5) Paying dividends makes the stock of a firm less risky (versus retaining earnings) (c)	37.5	0.0	**	34.9	47.1
(6) We make dividend decisions after our investment plans are determined (a)	33.1	−0.3**	***	34.1	29.4
(7) We use our dividend policy to make us look better than our competitors (h)	24.7	−0.4***		21.6	36.4
(8) We use our dividend policy as one tool to attain a desired credit rating (g)	24.5	−0.4***		24.0	26.5
(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)	4.4	−1.2***		2.4	11.8

Table 3
Survey responses for 167 repurchasers to the question: do these statements agree with your company's views

Ratings are based on a scale of −2 (strongly disagree) to 2 (strongly agree). The percentage of respondents that answered 1 (agree) and 2 (strongly agree) is given in Column 1. The average for each question and *p*-values for the statistical tests in which the null hypothesis is that the average rating equals zero are given in Column 2. Column 3 provides *p*-values for the comparison of the responses of repurchasers to those of dividend payers that are analyzed in Table 2. Column 4 provides the percentage that answered 1 or 2 sorted by cash cow, in which a cash cow firm has a debt rating of A or higher, profits greater than zero, and price earnings ratio (P/E) less than the median P/E of profitable firms with debtratings of A or higher. A non cash cow firm is the complement. There are 35 cash cow repurchasers. ***, **, and * denote a significant difference at the 1%, 5%, and 10% level, respectively. Lowercase letters following each statement indicate the order in which they appeared on the survey instrument.

Statement:	Percent agree or strongly agree (1)	Mean rating (2)	H0: dividend rating = repurchases rating (3)	Cash cow (4)	
				No	Yes
(1) Repurchase decisions convey information about our company to investors (b)	85.4	1.1***		85.7	84.4
(2) We make repurchase decisions after our investment plans are determined (a)	78.8	1.0***	***	81.5	68.8
(3) Repurchases are as important now to the valuation of common stocks in our industry as they were 15 or 20 years ago (f)	36.4	0.0		37.0	34.4
(4) Repurchasing makes the stock of a firm less risky (versus retaining earnings) (c)	24.5	−0.3***	**	24.4	25.0
(5) We use our repurchase policy as one tool to attain a desired credit rating (g)	23.3	−0.5***		25.4	15.6**
(6) There are negative consequences to reducing repurchases (d)	22.5	−0.5***	***	22.7	21.9
(7) We use our repurchase policy to make us look better than our competitors (h)	17.4	−0.5***		18.6	12.9
(8) Rather than reducing repurchases, we would raise new funds to undertake a profitable project (e)	15.9	−0.8***	***	13.4	25.0
(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)	2.7	−1.2***		2.6	3.1

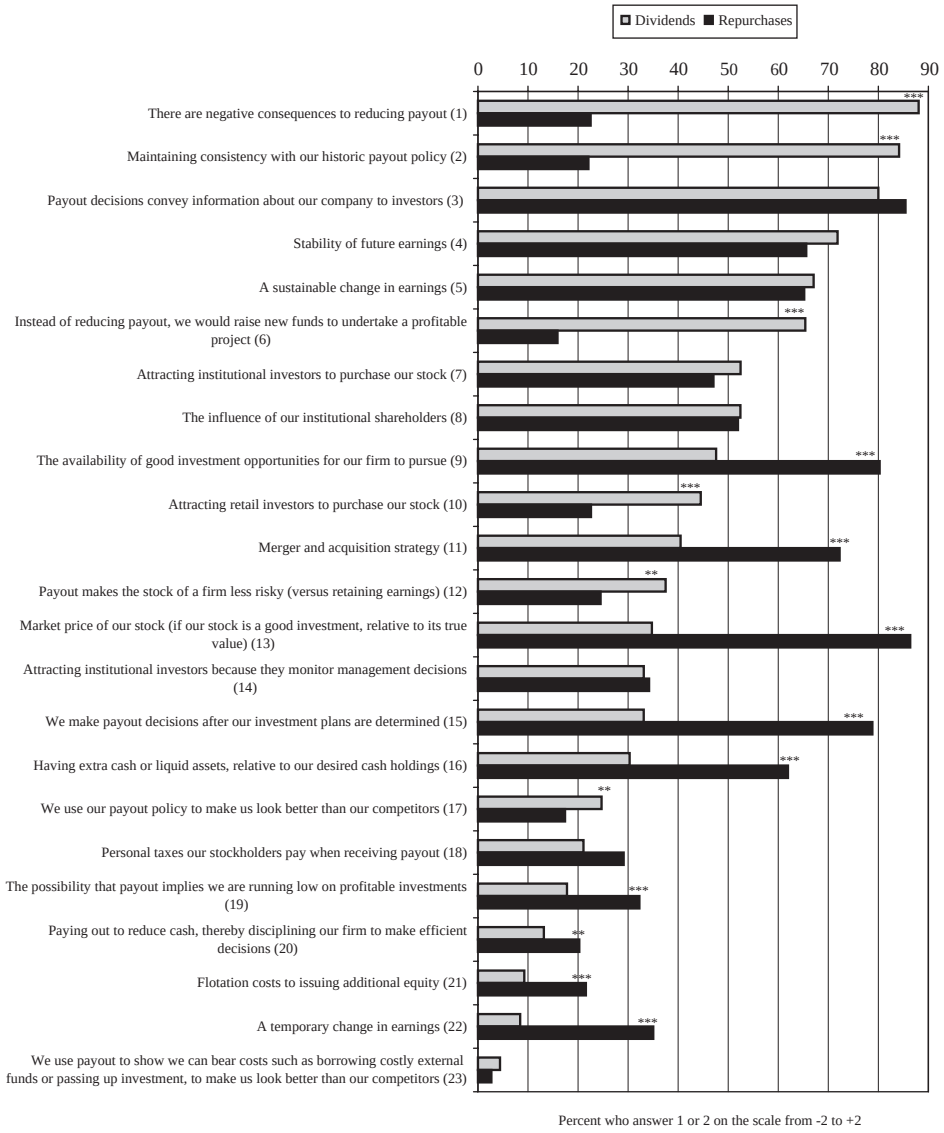


Fig. 1. Some of the most important factors for dividend and repurchase policy. For each question, we report the percentage of respondents who answer 1 or 2 on a scale from -2 to $+2$. The bars are sorted by the magnitude of the response to the dividend question. ***, **, and * denote differences in responses between dividend and repurchase answers are significantly different from each other at the 1%, 5%, and 10% level, respectively.

Table 4
Survey responses for 166 dividend-payers to the question: do these statements describe factors that affect your company's dividend decisions

Ratings are based on a scale of −2 (strongly disagree) to 2 (strongly agree). The percentage of respondents that answered 1 (agree) and 2 (strongly agree) is given in Column 1. The average for each question and *p*-values for the statistical tests in which the null hypothesis is that the average rating equals zero are given in Column 2. Column 3 provides the percentage that answered 1 or 2 sorted by cash cow, in which a cash cow firm has a debt rating of A or higher, profits greater than zero, and price earnings ratio (P/E) less than the median P/E of profitable firms with debt ratings of A or higher. A noncash cow firm is the complement. There are 35 cash cow dividend payers. ***, **, and * denote a significant difference at the 1%, 5%, and 10% level, respectively. Lowercase letters following each statement indicate the order in which they appeared on the survey instrument.

Statement:	Percent agree or strongly agree (1)	Mean rating (2)	Cash cow (3)	
			No	Yes
(1) We try avoid reducing dividends per share (d)	93.8	1.6***	92.9	96.8*
(2) We try to maintain a smooth dividend stream from year to year (c)	89.6	1.3***	87.6	96.8***
(3) We consider the level of dividends per share that we have paid in recent quarters (a)	88.2	1.3***	89.4	83.9
(4) We are reluctant to make dividend changes that might have to be reversed in the future (j)	77.9	1.0***	74.6	90.3*
(5) We consider the change or growth in dividends per share (b)	66.7	0.8***	63.7	77.4***
(6) The cost of raising external capital is smaller than the cost of cutting dividends (f)	42.8	0.2**	42.1	45.2
(7) We pay dividends to attract investors subject to "prudent man" investment restrictions (e)	41.7	0.2**	40.7	45.2
(8) We pay dividends to show that our firm is strong enough to raise costly external capital if needed (g)	17.9	−0.6***	14.9	29.0*
(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 (h)	16.6	−0.6***	13.2	29.0**
(10) We pay dividends to show that our firm is strong enough to pass up some profitable investments (i)	9.0	−1.0***	11.4	0.0

Table 5
Survey responses for 166 dividend-payers to the question: how important are the following factors to your company's dividend decisions

Ratings are based on a scale of −2 (strongly disagree) to 2 (strongly agree). The percentage of respondents that answered 1 (important) and 2 (very important) is given in Column 1. The average for each question and *p*-values for the statistical tests in which the null hypothesis is that the average rating equals zero are given in Column 2. Column 3 provides *p*-values for the comparison of the responses of dividend payers to those of repurchasers that are analyzed in Table 6. Column 4 provides the percentage that answered 1 or 2 sorted by cash cow, with cash cow defined in Table 2. There are 35 cash cow dividend payers. ***, **, and * denote a significant difference at the 1%, 5%, and 10% level, respectively. Lowercase letters following each statement indicate the order in which they appeared on the survey instrument.

Statement:	Percent important or very important (1)	Mean rating (2)	H0: dividend rating = repurchases rating (3)	Cash cow (4)	
				No	Yes
(1) Maintaining consistency with our historic dividend policy (1)	84.1	1.2***	***	81.5	94.1**
(2) Stability of future earnings (c)	71.9	0.9		75.2	58.8
(3) A sustainable change in earnings (b)	67.1	0.8***		69.2	58.8
(4) Attracting institutional investors to purchase our stock (o)	52.5	0.3***		51.9	54.5
(5) The influence of our institutional shareholders (i)	52.4	0.4***		53.8	47.1
(6) The availability of good investment opportunities for our firm to pursue (h)	47.6	0.2**	***	48.9	42.4
(7) Attracting retail investors to purchase our stock (n)	44.5	0.2*	***	40.0	61.8***
(8) Merger and acquisition strategy (j)	40.5	0.1	***	38.8	47.1
(9) The dividend policies of competitors or other companies in our industry (e)	38.3	−0.2*	***	36.1	47.1
(10) Market price of our stock (if our stock is a good investment, relative to its true value) (q)	34.8	0.0	***	33.8	38.2
(11) Attracting institutional investors because they monitor management decisions (p)	33.1	−0.1		32.3	36.4
(12) Having extra cash or liquid assets, relative to our desired cashholdings (d)	30.3	−0.2**	***	31.3	26.5
(13) Personal taxes our stockholders pay when receiving dividends (g)	21.1	−0.5***		24.2	8.8
(14) The possibility that paying dividends indicates we are running low on profitable investments (m)	17.8	−0.6***	***	19.4	11.8
(15) Paying out to reduce cash, thereby disciplining our firm to make efficient decisions (f)	13.2	−0.9***	**	14.3	8.8
(16) Flotation costs to issuing additional equity (k)	9.3	−0.8***	***	9.4	8.8*
(17) A temporary change in earnings (a)	8.4	−1.1***	***	8.3	8.8

Table 6
Survey responses for 167 repurchasers to the question: how important are the following factors to your company's repurchase decisions

Ratings are based on a scale of −2 (strongly disagree) to 2 (strongly agree). The percentage of respondents that answered 1 (important) and 2 (very important) is given in Column 1. The average for each question and *p*-values for the statistical tests in which the null hypothesis is that the average rating equals zero are given in Column 2. Column 3 provides *p*-values for the comparison of the responses of dividend payers to those of repurchasers that are analyzed in Table 5. Column 4 provides the percentage that answered 1 or 2 sorted by cash cow, with cash cow defined in Table 2. There are 35 cash cow repurchasers. ***, **, and * denote a significant difference at the 1%, 5%, and 10% level, respectively. Lowercase letters following each statement indicate the order in which they appeared on the survey instrument.

Statement:	Percent important or very important (1)	Mean rating (2)	H0: dividend rating = repurchases rating (3)	Cash cow (4)	
				No	Yes
(1) Market price of our stock (if our stock is a good investment, relative to its true value) (q)	86.4	1.3***	***	87.7	81.3
(2) The availability of good investment opportunities for our firm to pursue (h)	80.3	1.1***	***	81.6	75.0
(3) Merger and acquisition strategy (j)	72.3	0.9***	***	72.4	71.9
(4) Stability of future earnings (c)	65.6	0.7***		69.6	50.0*
(5) A sustainable change in earnings (b)	65.2	0.7***		66.7	59.4
(6) Having extra cash or liquid assets, relative to our desired cash holdings (d)	61.9	0.7***	***	66.1	45.2
(7) The influence of our institutional shareholders (i)	51.9	0.4***		53.3	46.9
(8) Attracting institutional investors to purchase our stock (o)	47.1	0.2**		48.4	41.9
(9) A temporary change in earnings (a)	35.0	−0.1	***	32.0	46.9
(10) Attracting institutional investors because they monitor management decisions (p)	34.2	0.0		35.8	28.1
(11) The possibility that repurchasing indicates we are running low on profitable investments (m)	32.3	−0.2**	***	33.3	28.1
(12) Personal taxes our stockholders pay when receiving repurchases (g)	29.1	−0.3***		33.3	12.5*
(13) Attracting retail investors to purchase our stock (n)	22.6	−0.5***	***	22.8	21.9
(14) Maintaining consistency with our historic repurchase policy (l)	22.1	−0.3***	***	22.0	22.6
(15) Flotation costs to issuing additional equity (k)	21.6	−0.4***	***	20.5	25.8*
(16) Paying out to reduce cash, thereby disciplining our firm to make efficient decisions (f)	20.3	−0.6***	**	20.6	18.8
(17) The repurchase policies of competitors or other companies in our industry (e)	15.2	−0.7***	***	15.1	15.6

exploiting profitable investment opportunities, retaining the historic level of the dividend is (nearly) untouchable and is on par with initiating new investment.[6]

Another issue is the relation between dividends and repurchases and the extent to which managers view them as substitutes (e.g., Fama and French, 2001 and Grullon and Michaely, 2002). We ask dividend-paying firms what they 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. 2, Panel A). The second most popular answer is to repurchase shares, followed by increasing investment ("mergers or acquisitions" and "invest more," respectively). When we ask what they would do with the extra funds from reducing repurchases, the most popular answer again is to pay down debt.[7] In a notable asymmetry, very few firms would choose to pay dividends with forgone repurchases (see Fig. 2, Panel B). In fact, it was the least popular choice.

These replies indicate that managers do not view the relation between dividends and repurchases as a fluid, one-for-one, substitution. Managers are hesitant to shift dollars away from repurchases toward dividends because a substitution in this direction is not reversed except under extraordinary circumstances. Managers value the flexibility of repurchases and dislike the rigidity of dividends. The managers we interviewed express the same sentiment.

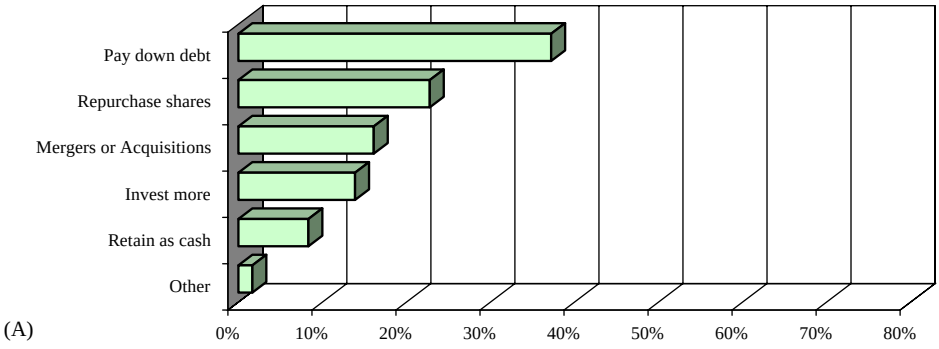
The executives' views on the form of payout they would choose if they were hypothetically paying out for the first time provide additional evidence supporting an asymmetric substitution between dividends and repurchases. The survey reveals that, among firms that do not currently pay out, two-thirds say that if they were beginning to pay out they would repurchase only, while only 22% say they would only pay dividends (see Fig. 2, Panel C). The interviews reveal a similar view among payers: Once free of the tradition of paying dividends, most firms would emphasize repurchasing shares. That is, once all constraints are removed, most payers would substitute from dividends toward repurchases.

4. Benchmarking to Lintner (1956)

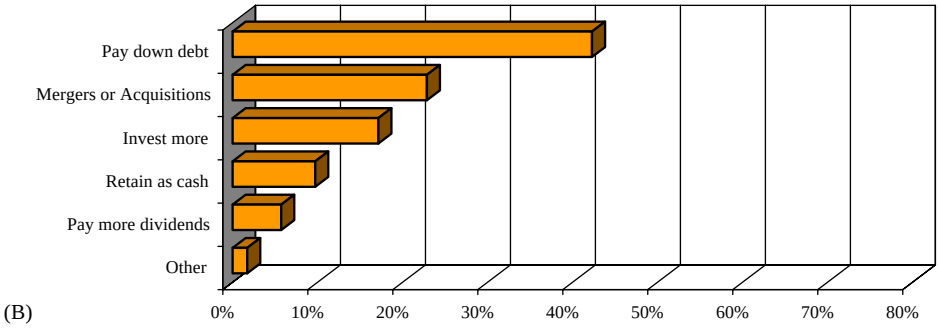
Lintner (1956) offers two key results. First, corporate dividend decisions were made conservatively. Second, the starting point for most payout decisions was the

[6]By "on par with incremental investment" we do not mean that the historic dividend level is more important than all investment projects. Certainly some investments have higher priority than payout decisions. Our point is that, at many firms, maintaining the level of the dividend is more important than pursuing some positive NPV projects. We did not explicitly ask managers whether they would bypass projects that yield extremely large NPV to maintain the current level of the dividend. Based on the interviews and survey responses, our understanding is that they would attempt to borrow externally or reduce repurchases before cutting the dividend to fund an extremely large NPV project.

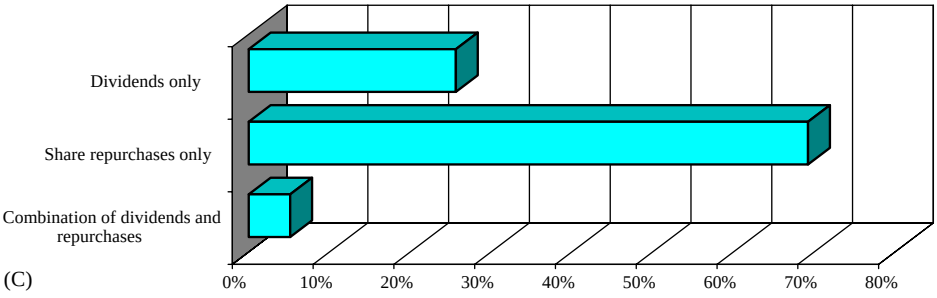
[7]For hypothetical cuts of both dividends and repurchases, the firms that say they would pay down debt have higher debt ratios and lower revenue growth than firms that would retain or make acquisitions with the new funds. Firms that are growing faster say that they are more likely to use the funds to make acquisitions or to retain as cash.



Panel A. Of funds that are used to pay dividends, what is their most likely alternative use? (Current dividend payers only.)



Panel B. Of funds that are used to repurchase shares, what is their most likely alternative use? (Current share repurchasers only.)



Panel C. What would your first payout be if you were hypothetically deciding to pay out capital for the first time? (Current nonpayers only.)

Fig. 2. Alternative use of payout funds. For each response, we report the percentage of respondents who answer 1 or 2 on a scale from −2 to +2.

payout ratio (i.e., dividends as a proportion of earnings). Combining these two key features, Lintner's empirical model of dividend policy is simple: Dividends per share equal a coefficient times the difference between the target dividend payout and lagged dividends per share. The coefficient is less than one because it reflects a partial

adjustment (dividend conservatism implies that dividends per share do not move completely to the target in a single year). In this section, we benchmark our results to Lintner's. We find that dividend decisions are still made conservatively but that the importance of targeting the payout ratio has declined. Another difference in our paper relative to Lintner's is that we study repurchases in depth. Unlike dividends, it is difficult to speak about a repurchase target per se; managers argue that it is a moving target. As important, while the level of dividends is critical in dividend decisions, the historic level of repurchases plays only a minor role.

4.1. Are payout 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. We find ample evidence that dividend policy is made conservatively. On our survey, 94% of dividend-payers strongly (rating of +1) or very strongly (rating of +2) agree that they try to avoid reducing dividends. This is the highest score for any single question on the survey, with an average rating of 1.6 in Table 4 (Row 1). Eighty-eight percent of executives strongly or very strongly agree that there are negative consequences to reducing dividends (Table 2, Row 1). Eighty-four percent list maintaining consistency with historic dividend policy as an important or very important factor in determining dividend policy (Table 5, Row 1). Eighty-eight 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 4, Row 3).

Ninety percent of firms strongly or very strongly agree that they smooth dividends from year to year (Table 4, Row 2). We similarly find that 78% of dividend-payers say that they are reluctant to make a dividend decision that might need to be reversed (Table 4, Row 4). Finally, two-thirds of survey respondents strongly or very strongly agree that the change in dividends is the decision variable (Table 4, Row 5), which is consistent with firms essentially taking lagged dividends per share as given and focusing the dividend decision primarily on whether dividends should be increased.

Cash cows are the firms most like the ones in Lintner's interview sample; therefore, they are particularly interesting to study. (We define a cash cow as a firm that is profitable, has a credit rating of A or better, and has a price/earnings (P/E) ratio that is lower than the median P/E among profitable firms with a credit rating of A or higher.) Generally, these firms are committed to paying out in the form of dividends. In particular, cash cows are statistically more likely than other firms to try to maintain a smooth dividend stream (Table 4, Row 2); be reluctant to make changes that they might have to reverse in the future (Table 4, Row 4); focus on growth or change in dividend per share (Table 4, Row 5); try to maintain consistency with historic dividend policy (Table 5, Row 1); and try to avoid cutting dividends (Table 4, Row 1). Cash cows target growth in dividends per share, instead of targeting the level of dividends like other firms (not in table).

Another dimension of the conservative nature of dividends is that they tend to change in response to permanent changes in earnings. More than two-thirds of

dividend-payers state that the stability of future earnings is an important factor affecting dividend decisions (Table 5, Row 2). Similarly, 65.6% of executives report that stability of future cash flows is an important factor affecting repurchases (Table 6, Row 4). Likewise, two-thirds of CFOs say that a sustainable change in earnings is important or very important (Table 5, Row 3) for dividends, and 65.2% say the same for repurchases (Table 6, Row 5 and Fig. 1, Row 4).

Greater differences can be found between the forms of payout in relation to a temporary increase in earnings (Fig. 1, Row 22). About one-third of firms that repurchase say that a temporary increase in earnings is an important or very important factor (Table 6, Row 9). In contrast, only 8.4% of dividend payers say that a temporary increase in earnings is important to dividend decisions (Table 5, Row 17). Likewise, excess cash on the balance sheet (Fig. 1, Row 16) is more important to repurchase decisions than it is to dividend decisions. Only 30.3% of CFOs state that having extra cash or liquid assets is an important or very important factor affecting dividend decisions (Table 5, Row 12).[8] In contrast, twice as many CFOs (61.9%; Table 6, Row 6) say that temporary excess cash or liquid assets affect repurchases significantly. (See Lie, 2000, for archival evidence that repurchases vary with cash on the balance sheet.)

Repurchase decisions are not conservative in the same sense as dividends. Only 22.5% of executives believe that reducing repurchasing has negative consequences (Table 3, Row 6), and only 22.1% say that maintaining consistency with historic repurchase policy is important or very important (Table 6, Row 14). The response for dividends was vastly different: Almost 90% think that reducing dividends has negative consequences. The different response is reflected graphically in Fig. 1 (Row 1).

The interviews confirm that managers believe that the market is more willing to accept a reduction in repurchases than in dividends, which allows firms to be less conservative in their repurchase policy (because potential future reductions in repurchases are less costly). In the words of managers, repurchases are more flexible than are dividends. In the interviews, managers characterize this flexibility as a primary advantage of repurchases. (This flexibility permits managers to vary payout to achieve other payout objectives discussed in Section 5, such as to convey information or to offset stock option dilution.)

Several issues about the conservative nature of dividends emerge from the interviews. First, 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 number of employees, borrowing heavily, or bypassing positive NPV projects, before slaying the sacred cow by cutting dividends. Second, and very much related, managers perceive a substantial asymmetry between dividend increases and decreases: There is not much

[8]Baker et al. (1985) find that future cash flows are important to dividends. However, contrary to our finding, they conclude that cash is also an important factor affecting dividend policy. Also in contrast to our results, Wansley et al. (1989) do not find evidence that excess cash is significantly related to repurchases.

reward in increasing dividends, but there is perceived to be a large penalty for reducing dividends. Nearly three-fourths of the interviewed executives expressed this viewpoint. Third, dividends per share are path-dependent, with the level of dividends for a given firm in a given year being greatly affected by how the firm got there. Fourth, 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 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 increase dividends somewhat less than the split ratio, to reduce total dividend payout.

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

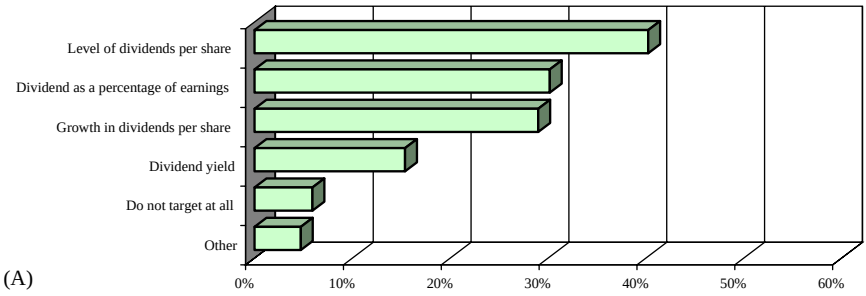
Lintner (1956) stated that one of the most important aspects of dividend policy (after the firm had determined its earnings) was choosing a payout ratio. As described next, our results indicate that a number of potential targets now exist, and the degree to which firms adhere to any of these targets is not as strict as implied in Lintner's model.

4.2.1. Survey and interview evidence

We ask dividend-payers what they attempt to target within their dividend policy. Nearly 40% of survey respondents say that they target dividends per share (see Fig. 3, Panel A). Only 28% target dividend payout, and another 27% target growth in dividends per share. Thirteen percent tell us they target dividend yield. Six percent of dividend-payers claim not to target dividends at all. The firms that we identify as cash cows primarily target the growth in dividends per share, apparently because they feel pressure to return capital to investors when earnings growth is robust (a view consistent with Jensen's free cash flow hypothesis). At the other end of the spectrum, the payers that have a tendency not to target the payout ratio or growth in dividends are somewhat smaller, more indebted, and less profitable.

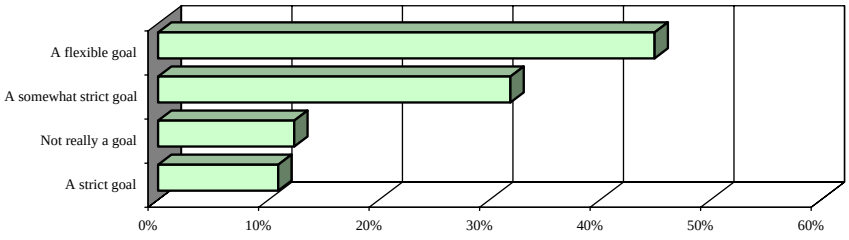
Fig. 3, Panel B reports whether managers consider dividend targets to be strict or flexible. Forty-five percent say that they are flexible in pursuing their target, and another 12% say the target is not really a goal at all. In contrast, 32% say that their dividend target is somewhat strict, and another 11% say it is very strict.

We ask firms that repurchased at some point during the last three years, "What do you target when you make your repurchase decision?" More than 40% of these firms target the dollar value of repurchases (Fig. 3, Panel C). Twenty-two percent do not target repurchases at all. Only 4% target the repurchase payout ratio, that is, repurchases as a proportion of earnings. Finally, more than 20% 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. 3, Panel D, even among firms that target repurchases, 53% say the target is a flexible goal (compared with around 45% for dividends) and another 19% say it is not really a goal (compared with 12% for dividends). Only 27% say that their repurchase target is either strict or somewhat



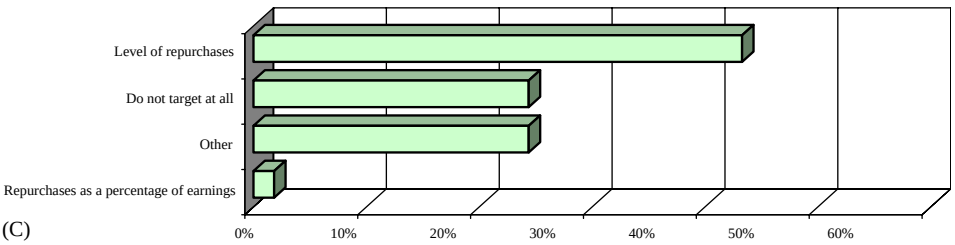
(A)

Panel A. For those that paid dividends within the past three years, what do you target when you make your dividend decisions?



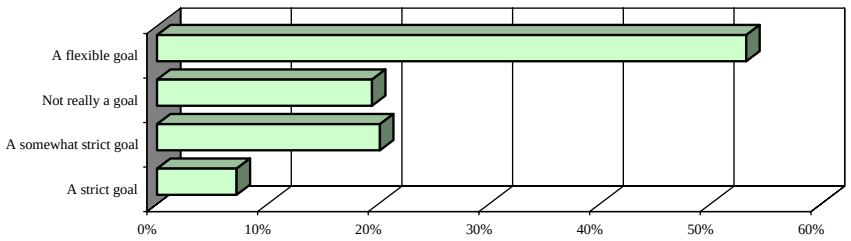
(B)

Panel B. For those that paid dividends within the past three years, is the target part of a strict goal or a flexible goal?



(C)

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



(D)

Panel D. For those that repurchased shares within the past three years, is the target part of a strict goal or a flexible goal?

Fig. 3. Dividend payment and share repurchase targets. For each response, we report the percentage of respondents who answer 1 or 2 on a scale from -2 to $+2$.

strict. The interviews also indicate that repurchases are a valued means of returning capital to investors in part because they are more flexible than dividends, without a rigid target.

4.2.2. Regression evidence on dividend payout

The change in potential targets and their relative importance marks an important change relative to Linter's (1956) survey. We therefore conduct additional tests in an attempt to link these survey responses to actual corporate behavior and to ensure that the pattern that emerges from the survey and interview responses is not unique to our sample. To this end, we extend the analysis in Fama and Babiak (1968) and Choe (1990). Fama and Babiak's work is interpreted as an implementation of Lintner's partial adjustment model of dividend policy to the cross section of firms on Compustat. We adopt their empirical design and models and provide direct evidence linking estimates of the speed of adjustment (SOA) and target payout (TP) to the survey responses. The empirical specification is given by

$$\Delta D_{i,t} = \alpha_i + \beta_{1i} D_{i,t-1} + \beta_{2i} E_{it} + u_{it}.$$

Firm i's change in annual dividend in year t is modeled as a function of lagged level of dividends (D) and current earnings (E).[9] The SOA is estimated as $-\hat{\beta}_1$ and TP as $-\hat{\beta}_2/\hat{\beta}_1$.

We begin by estimating regressions on a sample of firms matched to the survey respondents as follows: For each surveyed firm, we attempt to find at least one matched firm in the same two-digit Standard Institutional Classification (SIC) code and within 20% of the surveyed firm's inflation-adjusted sales. If a match cannot be found by sales, we look for a candidate firm within 20% of the surveyed firm's value of assets. We estimate the partial adjustment model for all matched firms with available dividend and earnings data for each of three distinct subperiods. These subperiods roughly match Fama and Babiak's (1950–1964), Choe's (1965–1983), and the most recent sub sample (1984–2002). The matching by sales (or assets) is done at the beginning of each subperiod. There are 89 firms in the first sub-period, 244 in the second, and 223 in the third.

The results are given in Table 7, Panel A. To save space we do not report the individual firm estimates but instead report fractiles of the distribution of the resulting SOA and TP. We boldface the median estimate to facilitate comparison across subperiods. The median speed of adjustment estimate declines from 0.74 to 0.39 to 0.37 across the time periods. A decline in SOA does not by itself imply that a firm's target payout has necessarily changed. It implies that firms do not correct toward this target as fast as they used to. This could be the result of higher costs of adjustment or because the benefits for being close to the target have declined. However, we also find that the median target payout estimate declines over the three subperiods from 0.35 to 0.29 to 0.21. Finally, the median adjusted R-squares also fall

[9]We estimate two additional models proposed by Fama and Babiak (1968). These differ from the one in the main text via either the exclusion of the intercept or the inclusion of lagged level of earnings. Because the results from these models are qualitatively similar, we do not report them.

Table 7
Regression-based evidence using Lintner's partial adjustment model of dividend policy

The table provides summary statistics for speed-of-adjustment coefficients and the target payout ratios. Following Fama and Babiak (1968), we estimate the following regression specification for annual dividend changes, $\Delta D_{i,t} = \alpha + \beta_1 D_{i,t-1} + \beta_2 E_{i,t} + u_{i,t}$, where $D_{i,t}$ is firm i's annual dividend obtained as Compustat data item 26 (dividends per share – ex-date), and $E_{i,t}$ is firm i's earnings using Compustat data item 58 [Earnings per share (basic) – exclude extraordinary items]. Each regression yields an estimate of β_1 and β_2, $\hat{\beta}_1$ and $\hat{\beta}_2$. The speed of adjustment (SOA) is obtained as $-\hat{\beta}_1$ and the target payout ratio (TP) by $-\hat{\beta}_2/\hat{\beta}_1$. In Panel A, we report various statistics of the cross-sectional distribution for both SOA and TP. The sample of firms is selected as follows: For each surveyed dividend-paying firm, we attempt to find at least one matched firm in the same two-digit standard industrial classification code and within 20% of the surveyed firm's inflation-adjusted sales. If a match cannot be found by sales, we look for a candidate firm within 20% of the surveyed firm's value of assets. Matched firms are required to have valid data in the following three subperiods: 1950–1964, 1965–1983, and 1984–2002. In Panel B we focus on similar regression results for all Compustat firms with complete dividend and earnings data in a given subperiod. In Panel C, we focus on regression results for Compustat firms that survive the full period from 1950 through 2002. A surviving firm is defined as having a continuous record of either, sales, total assets, price, or shares outstanding. In Panel D, we focus on the third subperiod, 1984–2002, and our surveyed firms with available data (113 firms). Column 1 provides the cross-sectional distribution results based on all surveyed firms. In Columns 2–7 we report similar statistics for subsamples of surveyed firms based on the firms' survey responses. Specifically, in Column 2, we focus on firms that responded that they target the level of dividend per share; in Column 3, on firms that target growth in dividend per share: in Column 4, on those that target dividend yield; in Column 5, regression results for firms that target payout ratio; in Column 6, on firms that have other unspecified targets: and in Column 7, on those firms that state that they do not target. Finally, in Panel E, we partition the surveyed firms with available Compustat data into three groupings The first is composed of firms that do not target either a target payout ratio or growth in dividends, the second is based on firms that target a payout ratio and the third is based on firms that target growth in dividends. We report, for each group, the following information: median income growth (Income is Compustat data item 18, income before extraordinary items, in millions of dollars. Income growth is then the annualized five-year income growth, defined as the annualized growth in income from 1996 to 2001.); median, across firms, of the percentage of negative annual incomes in the past ten years, from 1992 through 2001; median income standard deviation in the past ten years in millions of dollars; median payout ratio defined as Compustat data item 21, common dividends, divided by data Compustat data item 18; median dividend per share defined as Compustat data item 26, dividends per share-ex-date; median sales, defined as Compustat data item 12, net sales; and median debt to assets, defined as Compustat data item 9, long-term debt, divided by Compustat data item 6, total assets.

	1950–1964 ($N = 89$)					1965–1983 ($N = 244$)					1984–2002 ($N = 223$)				
	Average	Standard deviation	25th percentile	Median	75th percentile	Average	Standard deviation	25th percentile	Median	75th percentile	Average	Standard deviation	25th percentile	Median	75th percentile
Panel A. Parameter estimates for Compustat matched sample (based on industry affiliation and sales) with valid data over the chosen subperiod															
Speed of adjustment	0.70	0.31	0.50	**0.74**	0.93	0.42	0.31	0.18	**0.39**	0.65	0.42	0.32	0.14	**0.37**	0.65
Target payout	0.34	0.32	0.22	**0.35**	0.48	0.36	1.70	0.14	**0.29**	0.50	0.22	0.69	0.07	**0.21**	0.38
Adjusted R^2	0.57	0.30	0.29	**0.64**	0.82	0.41	0.26	0.21	**0.40**	0.57	0.34	0.26	0.13	**0.32**	0.52

Panel B. Parameter estimates for all Compustat firms with valid data over the chosen subperiod

	1950–1964 ($N = 513$)					1965–1983 ($N = 1705$)					1984–2002 ($N = 1856$)				
Speed of adjustment	0.67	0.44	0.44	**0.66**	0.88	0.40	0.31	0.16	**0.35**	0.60	0.33	0.37	0.00	**0.22**	0.56
Target payout	0.37	0.44	0.19	**0.35**	0.49	0.17	3.65	0.11	**0.24**	0.43	0.08	3.42	0.01	**0.11**	0.29
Adjusted R^2	0.53	0.29	0.3	**0.56**	0.77	0.38	0.25	0.18	**0.37**	0.57	0.32	0.27	0.11	**0.30**	0.49

Panel C. Parameter estimates for Compustat firms having survived from 1950 through 2002 and valid data over the chosen subperiod

	1950–1964 ($N = 171$)					1965–1983 ($N = 224$)					1984–2002 ($N = 202$)				
Speed of adjustment	0.72	0.62	0.52	**0.68**	0.91	0.47	0.30	0.22	**0.47**	0.69	0.44	0.34	0.15	**0.37**	0.70
Target payout	0.36	0.34	0.21	**0.36**	0.53	0.30	0.86	0.14	**0.28**	0.44	0.04	1.69	0.05	**0.17**	0.31
Adjusted R^2	0.55	0.30	0.32	**0.61**	0.81	0.44	0.28	0.22	**0.42**	0.65	0.32	0.27	0.10	**0.28**	0.50

Panel D. Parameter estimates for surveyed firms, sorted based on reported dividend target, 1984–2002

Model	Surveyed firms		Target level of DPS		Target growth in DPS		Target dividend yield		Target payout ratio		Target others		Do not target	
	(1)		(2)		(3)		(4)		(5)		(6)		(7)	
	SOA	TP	SOA	TP	SOA	TP	SOA	TP	SOA	TP	SOA	TP	SOA	TP
N	113		51		35		19		36		7		9	
Average	0.47	0.05	0.46	−0.17	0.42	0.27	0.52	0.22	0.50	0.25	0.45	0.17	0.48	0.14
Standard deviation	0.29	1.72	0.31	2.55	0.24	0.21	0.23	0.22	0.25	0.21	0.26	0.24	0.36	0.18
25th percentile	0.26	0.06	0.20	0.00	0.26	0.13	0.33	0.05	0.31	0.15	0.27	0.00	0.20	0.02
Median	**0.41**	**0.20**	**0.40**	**0.19**	**0.36**	**0.26**	**0.55**	**0.19**	**0.47**	**0.23**	**0.41**	**0.10**	**0.32**	**0.12**
75th percentile	0.67	0.35	0.69	0.35	0.62	0.40	0.69	0.43	0.69	0.37	0.48	0.17	0.77	0.14

Panel E. Firm characteristics for surveyed firms conditional on self-reported dividend target

	N	Median income growth	Median percent negative income	Median income standard deviation (millions)	Median payout (div. /earnings)	Median div. per share	Median sales (millions)	Median debt to assets
Target payout ratio	36	109%	0.0%	39.14	0.38	0.62	1,640	0.16
Target growth in dividends	35	8.0	0.0	64.85	0.38	0.76	2,856	0.18
Do not target either of these two	55	3.5	10.0	68.69	0.17	0.26	2,131	0.23

across the three time periods, from 64% in the early subperiod, to 40% in the second subperiod, to 32% in the most recent subperiod. Taken together, the reduction in all three of these variables indicates deterioration in the performance of the Lintner partial adjustment model. This is consistent with our survey evidence that the target payout ratio is no longer the central focus of dividend policy at many firms (In addition to our evidence that managers do not target the payout ratio as much as they used to, Skinner, 2004, notes that declining earnings quality can contribute to a deterioration in the performance of the Lintner model.)

Our next step is to repeat the test for the entire universe of firms on Compustat with complete dividend and earnings data in a given subperiod. The results are presented in Panel B. Median SOA and TP decline through time and end up at even lower levels than in Panel A. In Panel C, we constrain the universe of Compustat firms to those that survive the full sample period from 1950 through 2002. A surviving firm is defined as having a continuous record of either sales, total assets, stock price, or shares outstanding over the full period. For each subperiod, we estimate the Lintner model for the surviving firms that have complete dividend and earnings data. The number of surviving firms differs across the three subperiods because some firms do not have complete dividend or earnings data within a given subperiod. Here, too, we observe the pattern of declining median SOA, TP, and adjusted *R*-squares. The pattern in these estimates is therefore consistent with our conclusion that, conditional on the Lintner model, payout targeting is not as preeminent as it was in Lintner's day.

We report in Panel D regression estimates of SOA and TP for our survey firms for the period 1984 to 2002. Column 1 provides the results for all surveyed firms with available data. The results establish that the small values for the target payout ratio and speed of adjustment for the surveyed firms parallel those for the Compustat universe. In Columns 2–7 of Panel D, we report similar statistics for groups of surveyed firms based on a firm's self-declared dividend target. Specifically, we report SOA and TP for firms that indicate that they target the level of dividends (Column 2), growth in dividend per share (Column 3), dividend yield (Column 4), the payout ratio (Column 5), other unspecified targets (Column 6), and firms that do not target (Column 7). While sample size declines rapidly and does not allow us to reliably make statistical inferences, the following trend emerges: Firms that say that they do not target (Column 7) or that target something unspecified (Column 6) have lower speeds of adjustment and target payout ratios, relative to firms that say they target the dividend payout ratio (Column 5). This is consistent with firms not targeting the payout ratio when they claim not to target.

We augment, in Panel E, the information on the surveyed firms' responses to the targeting questions with their characteristics. Specifically, we sort surveyed firms into three groups based on whether they claim to target the payout ratio, claim to target growth in dividends, and do not target either of these two. We then report the median of the following firm characteristics: annualized income growth calculated over the past five years (1996–2001), median income growth, percentage of the firms with negative annual income in the past ten years (1992–2001), median income standard deviation over the past ten years, median payout ratio, median dividend per

share, median sales, and median debt to assets. The main message from Panel E is that firms that do not target tend to have lower income growth (albeit still positive on average), have higher leverage ratios, and pay fewer dividends.

5. Factors affecting payout policy

Miller and Modigliani (1961) show that corporate value is unrelated to payout policy in perfect and frictionless capital markets. Numerous theories show how payout policy can affect firm value if one of the Miller and Modigliani assumptions is relaxed. In this section, we present our findings within the context of these theories, to determine which are most consistent with our survey findings. When appropriate, we highlight differing implications for dividends versus repurchases.

5.1. Taxes

When we administered the survey and interviews, dividends were taxed at rates as high as 40% for retail investors, while the maximum long-term capital gains tax rate was 20%. (The recent tax legislation greatly reduces the tax disadvantage of dividends. However, because participation in repurchase programs is optional, capital gains can be deferred, and therefore dividends are still moderately tax disadvantaged relative to capital gains.) Even when dividends were greatly tax disadvantaged, the survey evidence indicates that taxes were of second-order importance. When we mentioned personal taxes paid by investors (without highlighting that dividends were tax disadvantaged relative to capital gains), only 21.1% of dividend-payers cited this as an important or very important factor affecting dividend decisions (Table 5, Row 13). Likewise, only 29.1% of repurchasing firms cited personal taxes as an important factor affecting the number of shares repurchased (Table 6, Row 12). When we were more explicit and asked repurchasers whether the tax advantage that repurchases had over dividends affected their decision to repurchase, 41.8% agreed that it did (Table 8, Row 5). The interviewed executives frequently cite tax inefficiency as a factor that causes them to favor repurchases over dividends. However, when we asked dividend-payers why they do not reduce dividends (or increase them less) because of tax inefficiency, it became clear that investor-level taxes were not a dominant factor. Overall, executives indicate that differential taxes were a consideration, but not a first-order concern, in payout policy decisions.

We further investigate the relative importance of taxes in a June 2003 survey that examines the effects of tax legislation that reduced investor tax rates for dividends and capital gains to 15% (http://www.cfosurvey.org). Among CFOs whose firms currently pay dividends, 28% (two percent) say that the reduction in dividend taxation probably (definitely) would lead to their firm increasing dividends. The other 70% say that reducing dividend taxes would definitely not or probably not affect their dividend decisions. Among firms that do not currently pay dividends, 13% say that their firm probably would initiate dividends because of reduced

Table 8
Survey responses for 167 repurchases to the question: how important are the following factors to your company's share repurchase decisions

Ratings are based on a scale of −2 (strongly disagree) to 2 (strongly agree). The percentage of respondents that answered 1 (important) and 2 (very important) is given in Column 1. The average for each question and *p*-values for the statistical tests in which the null hypothesis is that the average rating equals zero are given in Column 2. Column 3 provides the percentage that answered 1 or 2 sorted by cash cow, with cash cow defined in Table 2. There are 35 cash cow repurchasers. ***, **, and * denote a significant difference at the 1%, 5%, and 10% level, respectively. Lowercase letters following each statement indicate the order in which they appeared on the survey instrument.

Statement:	Percent important or very important (1)	Mean rating (2)	Cash cow (3)	
			No	Yes
(1) Whether our stock is a good investment relative to other available investments (e)	78.9	1.0***	76.1	87.9
(2) Increasing earnings per share (b)	76.1	0.9***	74.3	81.8
(3) Offsetting the dilutionary effect of stock option plans or other stock programs (f)	67.6	0.7***	70.6	57.6
(4) The float or overall liquidity of our stock (i)	51.4	0.2**	45.9	69.7**
(5) Investors paying lower taxes on repurchases relative to dividends (a)	41.8	0.1	47.2	24.2
(6) Changing our debt-to-equity ratio so it is closer to our desired debt ratio (d)	28.2	−0.3**	30.3	21.2
(7) The belief that well-informed investors benefit more from a repurchase program than do less-informed investors (j)	21.3	−0.2***	19.4	27.3
(8) Accumulating shares to increase the chance of resisting a takeover bid (c)	14.1	−0.8***	12.8	18.2
(9) Selling stockholders cashing out and taking some benefits of the repurchase program with them (h)	12.9	−0.7***	11.2	18.2
(10) Using repurchases instead of dividends because stock options are not dividend protected (g)	10.6	−0.6***	9.2	15.2

dividend taxation. The other 87% say that the elimination of dividend taxation probably or definitely would not lead to dividend initiation for their firm. Recent research indicates that initiations and dividend increases have picked up in the last few years (e.g., Chetty and Saez, 2004; Julio and Ikenberry, 2004). To date, the number of dividend initiations is consistent with what one would expect, based on our survey evidence.

Overall, our results indicate that taxes affect payout decisions, but they are not the dominant effect for the majority of firms.[10] The results also suggest that the factors that we identify below as affecting corporate views on payout policy should most likely still be important in a low dividend tax environment.

5.2. Clienteles

Even with the large tax disadvantage of dividends for retail investors at the time we administered the survey, executives believed that if there was any class of investors that preferred dividends as the form of payout, it was retail investors. The survey evidence indicates that almost half of executives believe that paying dividends is an important or very important factor in attracting retail investors to their stock (Table 5, Row 7), while only one-fifth believe that repurchasing shares attracts retail investors (Table 6, Row 13). A direct comparison is presented in Fig. 1, Row 10. In contrast, the survey evidence indicates little difference between the proportion of CFOs who believe dividends attract institutions and those who feel repurchases do so (both approximately 50%, see Fig. 1, Row 7). Thus, the relative importance of dividends is stronger for retail investors. In the interviews, 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 (which is consistent with the brokerage account evidence in Graham and Kumar, 2005). More common, however, is the belief that retail investors prefer dividends in spite of tax implications.

The CFOs do not indicate that institutions as a class prefer dividends over repurchases, except perhaps the existence of a small dividend payout that is needed to attract certain types of institutions. In the survey we ask whether companies pay dividends to attract investors subject to "prudent man" investment restrictions (Brav and Heaton, 1997). We find modest support for this motive (41.7% strongly or very strongly agree, Table 4, Row 7). From management's perspective, institutions attempt to influence dividend decisions as much as they try to influence repurchase decisions (Fig. 1, Row 8). Slightly more than half of the respondents report that the influence of institutional shareholders affects dividend decisions (Table 5, Row 5).[11] This is indistinguishable from the 51.9% who report that institutions influence repurchase decisions (Table 6, Row 7).

[10]Our survey might more closely represent the supply side of dividends (i.e., views of managers) than it does the demand side (e.g., Baker and Wurgler, 2004).

[11]In the interviews, a few managers indicate 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 owns a large block of stock or is part of the founding family.

Contrary to the assumptions of several dividend payout theories (e.g., Allen, Bernardo, and Welch, 2000), our evidence does not indicate that executives believe that institutions have a stronger preference for dividends than do individual investors. Moreover, in the interviews, most managers disagree with the statement that firms pay dividends to attract institutions (beyond perhaps the decision to pay nonzero dividends), and not a single manager agrees with the assertion that firms pay dividends so that institutions would monitor them.[12] On the survey, only one-third of dividend-payers do so to attract institutions so that institutions will monitor their stock (Table 5, Row 11).[13] A statistically similar percentage (34.2%) say that the monitoring service provided by institutions is an important or very important factor affecting repurchasing decisions (Fig. 1, Row 14 and Table 6, Row 10). Overall, our survey and interview evidence consistently indicates that management does not believe that dividend payments are a significant factor affecting institutions' decisions about which firms to hold, 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 or invest in negative NPV projects. One way to remove unnecessary cash from the firm is to increase payout.

Most executives do not view payout policy as a means of self-imposing discipline. Almost 87% of executives think that the discipline imposed by dividends is not an important factor affecting dividend policy (Table 5, Row 15). Likewise, about 80% believe that discipline imposed by repurchases is not important (Table 6, Row 16 and Fig. 1, Row 20). In the interviews, executives state that management integrity or the discipline imposed by the bottom line ensures that free cash flow is not wasted on negative NPV projects.[14] At the same time, a notable minority of the interview firms admit that "money can burn a hole in our pocket." 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 they all agree that dividends are much less flexible).

[12]This result is consistent with the empirical results of Grinstein and Michaely (2005), who find no relation between the level of dividends and the extent of the institutional holdings (other than institutions preferring firms with nonzero dividends).

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

[14]We recognize that managers might not admit, even to themselves, that at times they could need someone to monitor, or impose discipline on, their actions. Further, management could respond to market pressures to pay out, and unbeknownst to managers these market pressures reflect investors' demands that the firm pay out to curtail free cash flow problems. Our results should be interpreted accordingly.

5.4. Information, signaling, and stock prices

If insiders have superior information about a firm's future cash flows, many researchers argue that dividends can convey information about the firm's prospects. One possibility is that dividends could simply convey information not previously known to the market (e.g., through the sources and uses of funds identity, as in Miller and Rock, 1985), even if managers are not explicitly signaling private information. Alternatively, according to several models, dividends can be used explicitly and deliberately as a costly signal 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 these possibilities. We initially ask CFOs whether they think some association exists 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?

Survey evidence indicates a pervasive view that payout conveys information. Eighty percent of executives believe that dividend decisions convey information to investors (Table 2, Row 2). Somewhat surprisingly, given their flexibility, repurchases are thought to convey at least as much information as dividends: 85.4% of executives feel that repurchase decisions convey information (Table 3, Row 1 and Fig. 1, Row 3). Almost every executive we interviewed volunteered that dividend payout and share repurchases convey management's confidence about the future.[15]

Some interviewed mangers view their information conveyance as concerning 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 of earnings. The survey evidence (Fig. 1, Row 12) does not explicitly address whether information conveyance affects the second moment, but it does indicate that nearly 40% believe that dividends make the stock less risky, while only one-fourth believe that repurchases make the stock of the firm less risky, a significant difference. This evidence is consistent with the notion that firms that increase dividends do so when they become more mature and less risky (Grullon et al., 2002; Julio and Ikenberry, 2004), as well as with the bird-in-the-hand argument.

[15]The executives generally use the word "signal" instead of "convey." In the text, we use "convey" to indicate any form of information sharing with outsiders and reserve "signal" for the academic sense of the word (i.e., an action that leads to a self-imposed cost). Dividends and repurchases could also convey negative information. For example, the investment community could infer that the firm does not have ample investment opportunities if the firm increases payout. This negative form of information conveyance receives 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 5, Row 14). Although still only modest, a statistically larger 32.3% believe that repurchasing might indicate a lack of investment opportunities (Table 6, Row 11 and Fig. 1, Row 9).

While the survey is not able to separate these two alternatives, it is nevertheless important to acknowledge the connection managers see between risk reduction and dividend increases.

The interviews make it clear, however, that any conveyance of information, either through earnings announcements or direct communication with the investor community (such as conversations with analysts and investors), is thought to transmit 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."

5.4.2. Payout policy and signaling

We ask a series of questions to determine whether this general support for payout information conveyance is consistent with signaling models. First, we inquire whether payout is used to separate a given firm from its competitors. We find that 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 2, Row 7). Similarly, only 17% view repurchase policy as a means to look better than competitors (Table 3, Row 7 and Fig. 1, Row 17).

Second, we ask whether companies use payout policy to show that they can bear costs, in the self-imposed academic sense, to make their company look better than competitors. Only 4.4% of companies agree with this premise with respect to dividend policy, which is the weakest support for any dividend question on the survey (rating of –1.2 in Table 2, Row 9). Even lower, only 2.7% agree or strongly agree that they repurchase to signal that their firm can bear self-imposed costs, the lowest score on the entire survey (rating of –1.2 in Table 3, Row 9 and Fig. 1, Row 23). The replies to this question indicate that managers do not consciously use payout as a costly signal.

To explore the specific theories, we ask questions about particular costs that underlie dividend signaling 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 the firm would have to resort to external capital, which is costly. Among dividend-payers, only 17.9% of companies agree or strongly agree that they use dividends to show that they are strong enough to bear the cost of acquiring external capital if needed (Table 4, Row 8). Sixty percent of companies disagree or strongly disagree with this assertion (not shown in table). The John and Williams (1985) model centers on the historically higher taxation of dividends relative to capital gains as the cost. Only 16.6% agree that they use dividends to show that their stock is valuable enough that investors should buy it, even though they have to pay relatively costly dividend taxes (Table 4, Row 9). Finally, Miller and Rock (1985) argue that the cost of dividends is that "good" firms shave investment to pay the dividend (and only good firms would find it valuable to do so). Only 9.0% agree that they pay dividends to show that their firm is strong enough to pass up profitable investments (Table 4, Row 10). As low as these three signaling scores are, the scores are even

lower among growth firms, which is the opposite of 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 all firms, cash cows provide relatively more support for the signaling hypotheses in Rows 8 and 9 of Table 4.

With the exception of the John and Williams model, the signaling theories can be extended to repurchases as well. As indicated in Fig. 1, Rows 17 and 23, the endorsement of the repurchase signaling theories is meager. Fewer than one in 20 companies say that they repurchase to show they can bear the cost of external financing or pass up investment opportunities.

While little evidence is available that payout decisions are consistent with predictions from academic signaling models, some indication exists 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, several executives told us that they would try to avoid reducing dividends, if possible, especially if they thought that their own firm would be affected only temporarily by the liquidity crisis. They reason 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 it expects its own liquidity crisis to be severe. It would be extremely costly for "bad" competitors to mimic the "good" firm policy of not cutting dividends. Therefore, by not cutting its dividend, a good firm might be able to separate from bad competitors. Even if there is some truth to this scenario, it does not adequately explain dividend policy in general, because dividend cuts (by competitors) are rare. Consequently, there are infrequent opportunities to separate by not cutting. Moreover, this argument is insufficient to explain why dividends exist in the first place. In no interview or survey response did managers argue that firms initiate dividends so that at some time in the future they might get an opportunity to separate themselves by not cutting.

Overall, a clear pattern emerges from both the surveys and interviews about signaling: Payout policy conveys information; however, it rarely is thought of as a tool to separate a company from competitors. There is no evidence that initiating or increasing payout is viewed consciously as a self-imposed cost to reveal a strong firm's private information about its ability. Continuing the "as if" discussion from Section 2, our finding that the assumptions that underlie many signaling models are not realistic (in the sense that they do not reflect managers' intentions or a realistic market structure) does not refute these models if the ultimate test is whether these models predict actual dividend behavior. Allen and Michaely (2003) and DeAngelo et al. (2004) provide empirical evidence 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.

5.4.3. Stock price

The executives tell us that they accelerate (or initiate) share repurchases when their company's stock price is low by recent historical standards. The most popular response for all repurchase questions on the entire survey is that firms repurchase when their stock is a good value, relative to its true value: 86.4% of all firms agree or strongly agree with this supposition (Table 6, Row 1).[16] The interviews provide insight into this issue. About one-half of the interviewed CFOs say that their firm tracks repurchase timing and that their firm can beat the market, some say by $1 or $2 per share over the course of the year. In contrast, dividend policy is not greatly affected by stock price (34.8% in Table 5, Row 10).[17] In general, the importance of stock price indicates a perceived informational asymmetry between executives and investors.

5.5. Public versus private

Many theories posit that asymmetric information and agency considerations drive payout policies (see Allen and Michaely, 2003, for a review of payout asymmetric information models). Asymmetric information and agency considerations are likely to be more severe in public firms than in private firms. While conditioning the analysis on whether the firm is publicly traded or on insider stock ownership cannot distinguish between asymmetric information and agency theories, it can shed some light on the importance of the union of these theories. For example, we expect that public firms would be more reluctant to reduce dividends. For a privately held firm, it should be easier to transmit information by other means, and it would be easier to monitor managers and prevent them from excess spending. Hence, the consequence of reducing dividends could be more severe for public firms. Similarly, private firms should be more willing to cut dividends when they identify profitable investment opportunities.

In general, the different responses between public and private firms support the notion that information and agency problems help determine payout policy. In untabulated analysis (available upon request), we find that private firms view the negative consequences of cutting dividends as less severe. Private firms also believe that dividends contain less information than do public firms, although the difference is not statistically significant. They also believe that repurchases convey less

[16]The perception of an undervalued stock price is the most popular factor driving repurchase decisions in 1979 (Baker et al., 1981) and in 1987 (Wansley et al., 1989). The close link between repurchases and stock price valuation is also consistent with the evidence in Graham and Harvey (2001) that equity valuation is one of the most important factors affecting management decisions regarding issuing equity.

[17]Another oft-mentioned reason for buybacks relates to takeover battles. By buying back shares from investors who value them the least, the firm makes any potential takeover more expensive by increasing the price the acquirer would have to pay to gain control (Bagwell, 1991). Only 14.1% of CFOs feel that accumulating shares to resist a potential takeover bid is an important or very important factor affecting repurchases (Table 8, Row 8).

information. Private firms are also less likely to pay dividends in lieu of investing, and they are more likely to pay dividends in response to temporary changes in earnings. Beyond these examples, the responses by private and public managers are generally in agreement about the motives behind payout policy decisions.

5.6. Other factors affecting payout decisions

We also investigate whether concerns about earnings per share, stock option dilution, liquidity, issuance costs, credit ratings, or capital structure affect payout policy.

5.6.1. Earnings per share and stock option dilution

Three-fourths of survey respondents indicate that increasing earnings per share (EPS) is an important factor affecting their share repurchase decisions (Table 8, Row 2).[18] Like the survey respondents, the interviewees express great concern about the effects of repurchases on EPS. A number 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 set of managers understands that only if repurchases are carried out using funds that would otherwise not earn the cost of capital are they accretive to earnings.

Many companies tie the magnitude of their repurchases (in part) to the amount necessary to eliminate earnings dilution by stock option compensation 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). In contrast, virtually no support exists for the idea that companies repurchase instead of use dividends because employee stock options are not dividend-protected (only 10.6% in Table 8, Row 10). Our results are, thus, inconsistent with those in Fenn and Liang (2001) 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.

5.6.2. Liquidity and issuance costs

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 would decrease if the overall liquidity of

[18]This is consistent with findings in Bens et al. (2003) that firms use repurchases to manage diluted EPS when earnings are, otherwise, below the level required to achieve desired EPS growth and when the dilutive effect of stock options increases. The importance of EPS to share repurchase decisions is also consistent with the evidence in Graham and Harvey (2001) that concern about EPS is the most important factor affecting management decisions to issue equity.

the stock were to fall. One-half of firms feel that the liquidity of their stock is an important or very important factor affecting their repurchase decisions (Table 8, Row 4). Interview discussion clarifies that the executives think that reduced liquidity can hurt their stock price because demand for a stock falls if investors think that their trades would move the stock price. Therefore, a company would restrict repurchases if it feels that doing so would reduce liquidity below some critical level.

There is less support for the idea that payout decisions are linked to issuance costs. Only one-fifth of financial executives list the costs to issuing additional equity as an important or very important factor affecting repurchase decisions (Table 6, Row 15). Only one-tenth say that dividend decisions are affected by issuance costs (Table 5, Row 16).

5.6.3. Credit ratings and capital structure

The surveys provide mixed evidence on the interaction of payout and capital structure policies. One piece of survey evidence strongly supports the importance of managing debt with payout policy. Panels A and B of Fig. 2, show that "pay down debt" is the most popular use of funds that would otherwise be used to repurchase or pay dividends. (In unreported analysis, we find that the propensity to pay down debt increases with the firm's debt ratio). However, only one-fourth of respondents say that they use dividends (Table 2, Row 8) or repurchases (Table 3, Row 5) as a tool to manage credit ratings. The interviews indicate that at least some firms are reluctant to increase dividends or repurchase shares if that would reduce their debt ratings. In fact, a few firms even mentioned that they would consider cutting their dividend to prevent a rating downgrade. This is especially true for companies with a division in the financial services industry or that might want to access the commercial paper market. This also factors into why companies might not repurchase stock when the price is low. At that very moment, they might hoard cash in part to convince rating agencies that they can weather a negative spell.

6. When and why will nonpayers initiate payout?

Fama and French (2001) note that the proportion of firms paying dividends fell dramatically from the late 1970s through the rest of the twentieth century. Julio and Ikenberry (2004) and Chetty and Saez (2004) show that the proportion of payers bottomed out at around 17% in 2000 and rebounded to about 25% in early 2004. Therefore, it is important to understand what leads firms to initiate payout.

Table 9 summarizes the initiation plans of firms that do not pay out. Row 1 indicates more than three-fourths of firms that do not currently pay dividends say that they perhaps will never initiate. Firms that do not repurchase are not in a hurry to begin repurchasing either, though the stance is not as pronounced. Fifty-six percent of companies that do not currently repurchase say that they perhaps will never begin to do so (Row 2). About one-third of the firms say that they will begin to repurchase shares in five or fewer years. Row 3 indicates that more than half of the firms that neither pay dividends nor repurchase shares say that they perhaps will

Table 9
Dividend or repurchase initiation horizon

We ask firms that currently do not pay out when, hypothetically, they would pay, either in the form of dividends, repurchases, or both. For each possible choice of payout the table provides the fraction of firms (in percent) that expect to begin paying during the specified window.

Frequency	2 years	3–5 years	6–20 years	21–50 years	Possibly never
For those that have not paid dividends within the last three years, within how many years do you anticipate initiating dividends?	2.70	12.16	6.76	1.35	77.03
For those that have not repurchased shares within the last three years, within how many years do you anticipate repurchasing shares?	14.29	21.43	7.14	1.43	55.71
For those that have neither paid dividends nor repurchased shares within the last three years, within how many years do you anticipate initiating some form of payout?	10.39	19.48	9.09	2.60	58.44

never pay dividends or repurchase shares; another 13% of these firms say that it will be within six to 50 years before they begin to pay out in any form.[19]

We investigate why firms that do not currently pay out might begin doing so (see Table 10). Because the relative importance of many initiation factors parallels the results presented in previous sections, our discussion of these results is brief. The factors that would lead to the initiation of dividends are the influence of institutional investors and a sustainable increase in earnings. Among other things, firms indicate that they would begin repurchasing when their stock is undervalued, when they have excess cash or fewer investment opportunities, when their stock's liquidity increases, and when pressure comes from institutions. Though not tabulated, nearly 90% of firms with low P/E ratios state that market undervaluation could lead to repurchases. Overall, the consistency between the results in this section and previous sections highlights the pervasiveness of management views about what drives payout policy.

The interviews provide one interesting insight about dividend initiation. The inflexibility of dividends, once a company starts paying them, acts as a strong deterrent to dividend initiation. The CFOs argue that dividend inflexibility makes nondividend-paying firms 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.

[19]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 as an indication that initiating payout is not in the CFO's five-year plan.

Table 10
Panel A reports survey responses for 82 firms that have not repurchased shares within the past three years to the question: what factors might get your company to seriously consider repurchasing shares in the future

Panel B reports survey responses for 76 firms that have not paid dividends within the past three years to the question: What factors might get your company to seriously consider paying dividends in the future?

Ratings are based on a scale of −2 (strongly disagree) to 2 (strongly agree). The percentage of respondents that answered 1 (important) and 2 (very important) is given in Column 1. The average for each question and *p*-values for the statistical tests in which the null hypothesis is that the average rating equals zero are given in Column 2. Column 3 provides *p*-values for the comparison of the responses to those analyzed in Panels A and B. ***, **, and * denote a significant difference at the 1%, 5%, and 10% level, respectively, n.a. in Panel A (B) means that there is no corresponding dividend question in Panel B (A). Lowercase letters following each statement indicate the order in which they appeared on the survey instrument.

Statement:	Percent important or very important (1)	Mean rating (2)	H0:dividend rating = repurchases rating (3)
Panel A			
(1) Market undervaluation of our stock (i)	75.7	1.1***	***
(2) Our company having extra cash or marketable securities (c)	60.0	0.5***	**
(3) To convey info about our stock to investors (if the market is not fairly valuing our firm) (m)	58.7	0.5***	***
(4) The influence of our institutional shareholders (g)	56.8	0.5***	
(5) A change in the float or overall liquidity of our stock (n)	50.7	0.3***	n.a.
(6) Having fewer profitable investments available (e.g., as our industry matures) (h)	50.7	0.3***	
(7) Offsetting the dictionary effect of stock option plans or other stock programs (1)	50.7	0.3***	n.a.
(8) Increasing earnings per share (j)	50.7	0.5***	n.a.
(9) A sustainable increase in earnings (b)	46.7	0.1	

(10) Accumulating shares to increase the chance of resisting a takeover bid (k)	34.7	−0.1	n.a.
(11) The share repurchase policies of competitors or other companies in our industry (d)	31.1	−0.1	
(12) The relatively low taxes investors pay when selling shares (relative to receiving dividends) (f)	20.3	−0.4***	n.a.
(13) A temporary increase in earnings (a)	17.6	−1.0***	
(14) Repurchasing shares to reduce cash, thereby disciplining our firm to make efficient decisions (e)	13.5	−0.9***	
Panel B			
(1) The influence of our institutional shareholders (f)	57.7	0.4*	
(2) A sustainable increase in earnings (b)	57.7	0.3***	
(3) Having fewer profitable investments available (e.g., as our industry matures) (i)	49.3	0.1	
(4) Our company having extra cash or marketable securities (c)	43.7	0.0	**
(5) To convey information about our stock to investors (if the market is not fairly valuing our firm) (1)	37.1	0.0	***
(6) Market undervaluation of our stock (j)	36.6	−0.2	***
(7) To attract investors subject to "prudent man" investment restrictions to purchase our stock (k)	33.8	−0.1	n.a.
(8) The dividend policies of competitors or other companies in our industry (d)	31.0	−0.2	
(9) To attract investors who will monitor or certify our decisions (h)	31.0	−0.3*	n.a.
(10) The influence of our retail shareholders (g)	25.4	−0.3**	n.a.
(11) Paying dividends to reduce cash, thereby disciplining our firm to make efficient decisions (e)	8.5	−1.1***	n.a.
(12) A temporary increase in earnings (a)	8.5	−1.3***	

7. Summary and discussion

By asking managers about their opinions and the motives underlying their firms' payout policies, this paper provides a unique perspective on corporate dividend and repurchase policies at the beginning of the 21st century. The evidence gathered through surveying and interviewing a large number of CFOs contributes to an understanding of payout policy along three dimensions. First, in line with Lintner (1956), we show stylized facts concerning dividend policy. In addition, we gather parallel information on repurchase policies that we compare and contrast to dividend decisions. We also study firms that do not pay dividends and do not repurchase shares. Second, given the wealth of payout theories, we explore some of the underpinnings of these theories. Our hope is that this exploration will enable researchers to derive theories that encompass a wider array of the motives for dividend and repurchase policies. Finally, we provide a synthesis of the rules of the game that determine the context within which management makes corporate decisions. Table 11 summarizes our key findings regarding dividends and repurchases.

With respect to dividend policy, one of Lintner's key findings still holds: Dividend policy is conservative. From management's perspective, dividend conservatism emanates primarily from the market's asymmetric reaction to dividend increases and decreases. Firms, therefore, are reluctant to cut dividends, and the current level of dividend payments is taken as given (except in extreme cases). Dividend conservatism also affects nonpayers, who are reluctant to initiate dividends because, once they do, they must operate in the inflexible dividend-payers' world.

We also find that many of those firms that pay dividends wish they did not, saying that if they could 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 many of these firms would prefer to pay out in the form of repurchases. We identify two important differences relative to Lintner. First, our evidence indicates that firms target the dividend payout ratio less than they used to and they view the target as more flexible than they used to. Second, share repurchases are now an important form of payout. The interviewed managers state that the flexibility of repurchases (relative to dividends) is one of the main reasons that repurchases have increased. This flexibility allows managers to alter payout in response to the availability of good investment opportunities, to accommodate time-varying attempts to affect EPS or stock valuation, to offset stock option dilution, or simply to return capital to investors at the appropriate time.

Beyond showing 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, and external funds would be raised before dividends

Table 11
Summary of financial executives' views about payout policy

	Dividends	Repurchases
Historical level	Very important. Do not cut dividends except in extreme circumstances	Not important
Flexibility	Sticky. Inflexible. Smooth through time	Very Flexible. No need to smooth
Consequence if increased	Little reward for increasing	Stock price increase when repurchase plan announced
Consequence if reduced	Big market penalty for reducing or omitting	Little consequence to reducing from one year to the next, though firms try to complete plans
Target	Most common target is the level of dividend, followed by payout ratio and growth in dividends.	Most common target is dollar amount of repurchases, a very flexible target
Relation to external funds	External funds would be raised before cutting dividends	Repurchases would be reduced before raising external funds
Relation to investment	First maintain historic dividend level, then make incremental investment decisions	First investment decisions, then make repurchase decisions
Earnings quality	Dividend increases tied to permanent, stable earnings	Repurchases increase with permanent earnings but also with temporary earnings
Substitutes?	Hypothetical reduction in repurchases not used to increase dividends	Hypothetical reduction in dividends used to increase repurchases
Taxes	Tax disadvantage of dividends of second-order importance	Tax-advantage of repurchases of second-order importance
Convey information?	Dividends convey information	Repurchases convey information
Signal?	Dividends are not a self-imposed cost to signal firm quality or separate from competitors	Repurchases are not used as a self-imposed cost to signal firm quality or separate from competitors
Retail investors	Retail investors like dividends even if tax disadvantaged. Retail investors like dividends about the same as institutions like dividends	Retail investors like repurchases less than they like dividends
Institutional investors	Institutions generally like dividends but institutions are not sought out to monitor firm	Institutions generally like repurchases about the same as they like dividends
Stock price	Not important	Repurchase shares when stock undervalued by market

Table 11 (*continued*)

	Dividends	Repurchases
Earnings per share	Not important	Repurchase in an attempt to increase EPS is very important
Stock options	Not important	Repurchase to offset stock option dilution is important
Cash on balance sheet	Not important	Use to reduce cash holdings when cash is sufficiently high
Float or liquidity	Not important	Do not repurchase if float is not sufficient
Mergers and acquisitions	Not important	Important
Takeovers	Not important	Not important
Cash cows	Expected to pay dividends. Dividend growth is very important	Expected to return capital, including repurchasing shares
If we were starting over …	We would keep dividend commitment minimized	We would rely heavily on repurchases to return capital to investors
Nonpayers will initiate when …	Earnings become positive and stable	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

would be cut. Dividend increases, however, are secondary to investment decisions. Though the recent reduction in dividend tax rates has led to initiation at some firms, our survey and interviews indicate that managers at most firms generally believe that taxes are not a dominant factor affecting payout choices. Moreover, we do not find that managers' views are consistent with payout clientele explanations. Unlike the assumptions and implications from several theories, executives believe that repurchases are equally as attractive as dividends to most institutional investors. Even firms that want to attract institutional investors do not view payout policy as an important tool to persuade institutional investors to hold their stock.

Furthermore, no evidence indicates that payout is being used to self-impose discipline or that payout is being used to separate a firm from its competitors (in the academic signaling sense). Not a single interviewed executive told us that his or her

firm had ever thought of increasing payout as a costly means of separating itself from competitors.

Finally, 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 would react. We believe that these rules of the game determine the playing field for many corporate decisions. With respect to payout policy, the rules of the game include the following: expect a severe penalty for cutting dividends; do not deviate far from competitors; maintain a good credit rating; have a broad and diverse investor base; maintain flexibility; and, given that an important portion of investors price stocks using earnings multiples, do not take actions that reduce EPS. These rules 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 focusing on 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 an understanding of the interaction between corporations and investors. Such research could also shed light on how the decision-making process affects corporate decisions in general, and payout policy in particular.

Appendix

Survey and interview 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's 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 is a joint effort of Duke University, Cornell University, and Financial Executives International (FEI). FEI has approximately eight thousand members throughout the United States and Canada who hold senior executive positions such as CFO, treasurer, and controller. At the time of this survey, Duke University and FEI polled these financial officers quarterly with a one-page survey on important topical issues (http://www.survey.org). The response rate for the quarterly survey is typically 7–8%.

Using the penultimate version of the survey, we conducted beta tests at both Duke University and FEI. This involved having executive Masters of Business Administration 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 at http://faculty.fuqua.duke.edu/~jgraham/payout/survey1.htm.

We used two different versions of the survey, with the ordering reversed on the nondemographic questions. We were concerned that the respondents might burn out as they responded to 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 the ordering of 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, Colorado. 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 present to take 15 minutes to complete the paper version of the survey that we had placed on their chairs.[20] We used this approach to ensure a large response rate and, in fact, approximately two-thirds of the conference attendees completed the survey. These respondents make up approximately one-half of our final sample. The second mechanism for administering the survey occurred in connection with the Forum on Corporate Finance (FCF), held on May 3, 2002 in Austin, Texas.[21] Twelve FCF firms completed the paper version of the survey, and an additional 15 FCF firms later completed the Internet version of the survey, for a response rate of more than 50%.

The third method of administering the survey consisted of a mass e-mailing on April 24, 2002 to the 2,200 members of FEI who 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 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 e-mail was sent out on May 1, 2002, which was planned in advance to improve the response rate. One hundred sixty nine people in this group responded to the Internet survey, for a response rate of approximately 8%. Importantly, the responses based on the Internet sample do not differ from those obtained from the in-person survey, which yielded a two-thirds response rate, so we do not feel that the response rate has affected our conclusions.

Averaged across all three mechanisms of delivering the survey, the response rate was 16%, which compares favorably with recent surveys of financial executives. For

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

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

example, Trahan and Gitman (1995) obtain a 12% response rate in a survey mailed to 700 CFOs, and Graham and Harvey (2001) obtain a 9% response rate for 4,400 faxed surveys. Graham, Harvey, and Rajgopal (2005) obtain a 10.4% response rate. Aggregating the three forms of the survey, our final sample has 256 public companies and 128 private firms. Most of our analysis is based on the responses of the public firms, though we separately analyze the responses of the private firms in Section 5.5.

The Internet version of the survey was handled by a third-party data vendor, StatPac Inc. The output of 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 compare the responses based on the paper survey with matched Internet respondents (matching based on firm size, industry, and whether they pay dividends or repurchase shares or both). Unreported analysis indicates that responses from the different forms of the survey are not statistically different. Therefore, we present the combined results.

The interviews were designed to add another dimension to the 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, in a sense, we over sampled these firms. In general, our method of selecting firms is similar to the method 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 would remain anonymous. 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 preset agenda. Instead 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 interviews to the surveys.

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

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