BEHAVIORAL FINANCE: DIVIDEND POLICY DECISIONS

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INTRODUCTION

Although firms have been distributing dividends to their shareholders for four centuries (Baskin, 1988), the motivation for this corporate policy is under debate in the academic community. In an early paper, Black (1976, p. 5) coined the term the "dividends puzzle" to illustrate the poor understanding of dividend payment policy: "The harder we look at the dividend picture, the more it seems like a puzzle, with pieces that just don't fit together." Over the years, dozens of theories have attempted to explain the dividends phenomenon with no consensus reached. Many of the theories view agents as rational and dividends either serve as an efficient way to resolve agency problems or as a signaling device to mitigate information asymmetry problems. Allen and Michaely (2003), Frankfurter and Wood (2006), Baker (2009), and DeAngelo, DeAngelo, and Skinner (2009) provide excellent reviews of these theories and the related empirical facts. After reviewing the literature, Allen and Michaely and Frankfurter and Wood (2006) conclude that theories based on agency or signaling are not consistent with the empirical evidence and that the question of why firms distribute dividends remains a puzzle. DeAngelo et al., however, reach a different conclusion and argue that asymmetric information could provide an explanation for the dividends phenomenon.

This chapter reviews the main stylized facts about dividends and examines the behavioral theories that attempt to explain the evidence. Given the focus on the behavioral perspective, this chapter reexamines and reclassifies some of the empirical facts that previous researchers have used to support rational theories. As such, it does not replace the many surveys written about dividends over the years (e.g., Allen and Michaely, 2003; DeAngelo et al.,

2009). Rather, this chapter tries to assess whether the empirical evidence is consistent with a departure from rational behavior on the part of investors or managers.

The role of behavioral finance in explaining the existence of dividends is debated as a matter of academic dispute. Miller (1986) presents a traditional argument against behavioral finance by contending that behavioral theories may be able to explain the micro-behavior of agents, but that rational theories should suffice to explain the aggregate behavior of firms. Frankfurter and Lane (1992) and Frankfurter and Wood (2006) emphasize the normative aspects of dividend payments and call for an alternative theory, based on behavioral and social aspects, to explain dividend policy.

The chapter is organized as follows. It begins by listing the known empirical facts about dividends that research has discovered over the years. Then the chapter describes two sets of behavioral-based explanations. The first set includes explanations that are descriptive in nature and combine the stylized facts into a description of corporate policy and investor behavior. The second set of theories offers motivations as to why investors seek dividends and why managers pay them. This chapter ends with a summary and conclusions.

THE DIVIDENDS PUZZLE: STYLIZED FACTS

Wide agreement exists on the empirical stylized facts about dividends. The following list of facts has been compiled from the empirical papers reviewed in this chapter including work by Allen and Michaely (2003) and DeAngelo et al. (2009).

1. Dividends have been the primary payout method for four centuries.
2. Dividends are primarily paid by established firms. Dividend payers tend to be large, well-established, and stable firms with low idiosyncratic risk.
3. Dividends have been a popular method to distribute cash to investors but, in recent years, an increasing number of firms have used repurchases as a distribution method. The

proportion of dividend-paying firms have been declining since the 1960s (Fama and French, 2001), although it has picked up in recent years (Julio and Ikenberry, 2004).

4. Dividends tend to be sticky and smoothed over time. Dividend volatility is far lower than the volatility of stock prices or earnings.
5. Dividends are an inefficient way to distribute cash to individual shareholders, relative to share repurchases because dividends are subject to double taxation. Until the passage of the Jobs and Growth Tax Relief Reconciliation Act of 2003 in the United States, dividend income for individuals had been taxed more heavily than capital gains. Yet, individual investors receive a large fraction of dividends paid by corporations.
6. Investors consider dividend initiation and increases (omissions) as good (bad) news. A stock's price reacts positively to dividend initiation and to dividend increase announcements. The price reaction to dividend omissions is particularly negative.
7. Because managers view dividend distribution as a sticky decision, which is costly to reverse, they are cautious about initiating dividend payments and even more cautious about omitting them.

Many papers have tried to provide rational explanations for why firms distribute dividends and why investors like them. Allen and Michaely (2003) summarize the economic determinants of dividend payments for rational agents: taxes, signaling to mitigate asymmetric information, incomplete contracts (agency), transaction costs, or institutional investors. The tax argument suggests that firms should minimize dividend payments due to the high tax burden on individuals. In signaling theory, managers use dividends as a costly signal for their private information (e.g., Bhattacharya, 1979). According to agency theory, the persistent distribution of cash out of the firm disciplines managers and reduces the extent of agency costs (e.g., Easterbrook, 1984). Dividends may be an optimal way to reduce transaction costs to shareholders in managing their funds. For example, dividends may be valuable to shareholders if it is costly for them to finance their consumption by selling shares. Finally, firms may pay out

dividends to attract institutional investors. Since legal restrictions (e.g., prudent man rule as discussed in Brav and Heaton, 1997) make dividends appealing to institutional investors, then distributing dividends might be an appropriate way to encourage such investment.

Whether rational theories can explain dividend policy is still under discussion. Allen and Michaely (2003) argue that rational theories have low explanatory power but DeAngelo et al. (2009) claim that dividend distribution could be an efficient device in mitigating information asymmetry problems. To illustrate this academic debate, Benartzi, Michaely, and Thaler (1997), Grullon, Michaely, and Swaminathan (2002), and Grullon, Michaely, Benartzi, and Thaler (2005) all find that dividend changes do not predict future earnings growth or improvement in operating performance, contradicting signaling theory. In contrast, Denis, Denis, and Sarin (1994) and Guay and Harford (2000) find support for the idea that dividends convey information about future investments. Frankfurter and McGoun (2000) argue that the search for a rational explanation for dividends is an example of thought contagion in the field of economics. They claim that there is little doubt that dividends appeared in financial markets to help investors value common stocks. In the last four decades, economists strove for a rational explanation for the dividends phenomenon that fitted into the dominant contemporary paradigm of mathematical economics and the doctrine of rational behavior.

The first set of explanations for dividends that are covered in this chapter is descriptive in nature. The dividend clientele explanation suggests that some investors prefer dividends over capital gains. This conjecture is based on the observation that certain types of investors are more likely to invest in dividend-paying firms. Alternately, the life-cycle explanation suggests that paying dividends is a part of the maturing stage in a firm's life. While these theories describe the firms paying dividends and the characteristics of the investors who receive them, they do not provide much insight into the reasons firms pay dividends or why investors prefer them.

The second set of explanations attempts to explain the "why" question. Several behavioral theories see market inefficiency (investor sentiment), investor biases, and managerial biases as the key drivers of dividend payments. The catering theory of dividends suggests that firms initiate dividends when investors value dividend-paying firms more highly. The bird-in-hand, self control, and mental accounting theories motivate dividend payment by arguing that investors favor dividends because of behavioral biases (lack of understanding, regret avoidance, and narrow framing, respectively). There is also some mixed empirical evidence about the link between managerial bias and dividend payout. Some studies find that optimistic or overconfident managers are less likely to pay out dividends, while others argue that managers will too quickly commit to paying dividends based on private signals. Finally, two theories suggest that dividends are a result of social processes in the population of firms and investors. One theory argues that, among the population of mature firms, dividends became a social norm, i.e., an action without a purpose. The second proposes that although dividends do not convey information about the future (as the empirical literature broadly shows), investors put pressure on firms to pay them because they are traditionally used as a valuation tool.

On balance, although behavioral finance may explain many aspects of dividend paying, the question of why firms pay dividends remains open. A review of the literature suggests strong empirical support for the life-cycle theory, as many authors find that mature firms with stable cash flows begin to distribute dividends. Nevertheless, this theory does not explain why mature firms choose to distribute dividends and not repurchase shares. Promising research directions involve social norms and investor demand for dividends for valuation purposes.

DESCRIPTIVE THEORIES OF DIVIDENDS

Clientele Theories

This line of thinking suggests that investors may have different reasons for favoring dividends as a result of institutional features such as regulatory requirements or tax differentials,

or from behavioral preference. In particular, Shefrin and Thaler (1988) argue that investors' personal life-cycle considerations determine the predilection for dividends: older investors favor dividend-paying stocks because they substitute for a regular employment income.

Several studies find supporting evidence for dividend clientele among institutional investors. Allen et al. (2000) present a model in which dividends attract institutional investors because they are taxed less than retail investors, which in turn imposes a better governance structure. Brav and Heaton (1997) identify a preference to dividend payouts using the prudent man rules that require certain types of institutional investors to hold mature, and thus dividend paying firms. Dhaliwal, Erickson, and Trezevant (1999) and Seida (2001) find empirical evidence that supports the existence of tax-based clientele for dividends. Pérez-González (2003) presents evidence that investors' tax status affects firm dividend policy. Hotchkiss and Lawrence (2002) find complementary evidence that firm returns are higher following dividends announcements for firms with institutional investors who favor dividends. Furthermore, based on a managerial survey, Brav, Graham, Harvey, and Michaely (2005) report that managers consider their investor preferences towards dividends when making dividend-related decisions.

Other studies fail to find support for the clientele hypothesis among institutional investors. Grinstein and Michaely (2005) do not find supporting evidence for the clientele theory. They investigate whether institutional investors do indeed favor dividend-paying firms and find that institutions avoid investing in non-paying firms, but nevertheless favor firms that pay low dividends over high ones. In a recent paper, Barclay, Holderness, and Sheehan (2009) investigate whether corporations that have the lowest dividend tax bracket favor dividends. In a contradiction of previous findings, they find that corporate shareholders do not induce firms to pay dividends, but rather are concerned with improving the firms' operating business. Brav et al. (2005) conduct a comprehensive survey of 384 managers and interview another 23 firms. Their goal is to reconcile managerial views with common academic theories of dividends. According

to their survey, managers are skeptical about the relation between dividends and investor clientele and believe that institutional investors are indifferent to dividend decisions.

Researchers also find evidence for dividend clientele's existence among retail investors. Using data about retail investors' portfolio holdings, Graham and Kumar (2006) find that older and low-income retail investors tend to hold a larger fraction of dividend-paying stocks than other investors do. The authors argue that older investors' preference for dividends results from their desire for income, and that low-income investors have an advantageous tax status that makes dividends preferable. The authors also find that these classes of investors purchase dividend-paying stocks after dividend announcements, in keeping with the behavioral attention hypothesis that news attracts investors' attention (Lee, 1992; Barber and Odean, 2008). In addition, Rantapuska (2008) uses Finnish investor-level trading data to find that tax status is a major determinant in the holding and trading of dividend-paying stocks: investors with a preferable tax status with respect to dividends tend to buy dividend-paying stocks before the ex-day and to sell after the ex-day. Conversely, Michaely (1991), using aggregate data, finds no evidence for the effects of trading by long-term retail investors around ex-dates following the 1986 Tax Reform Act. According to Becker, Ivkovic, and Weisbenner (2007), firms are more likely to distribute dividends if they are located in geographical areas where investors tend to hold shares of local firms and if the investor base is older. This evidence lends further support to the dividend clientele hypothesis and the relationship between investor preference and firm payout policy.

Firm Life Cycle

Another vein of the literature ties dividend payout to firms' life cycle. In particular, numerous papers observe that firms that pay dividends tend to be more mature and less volatile. According to Grullon et al. (2002), firms that increase (decrease) dividends experience a future decline (increase) in their profitability. According to these authors, firms that exhaust

their investment opportunities increase their dividends, and thus dividends indicate firm maturity rather than signaling future profitability.

Several papers highlight the link between dividends and idiosyncratic risk. Venkatesh (1989) reports that idiosyncratic risk and the informational content of earnings decline following dividend initiation. Fink, Fink, Grullon, and Weston (2006) document that dividend-paying firms have lower idiosyncratic volatility. Bradley, Capozza, and Seguin (1998) and Chay and Suh (2008) explain the link between dividends and volatility in selection: only firms with low cash-flow uncertainty feel comfortable in committing to paying dividends, an attitude consistent with the conservative managerial views in Lintner (1956) and Brav et al. (2005). Hoberg and Prabhala (2008) determine that the disappearance of dividends (Fama and French, 2001) is associated with an increase in idiosyncratic risk.

Supporting the view that the decline in idiosyncratic risk is related to firm maturity, studies find that idiosyncratic risk is negatively correlated with the firm governance index (Ferreira and Laux, 2007) and firm age (Fink et al., 2006). DeAngelo, DeAngelo, and Stulz (2006) and Denis and Osobov (2008) also find supporting evidence for the life-cycle theory: firms are more likely to pay out dividends when their equity is earned through operations, rather than contributed by investors. Von Eije and Megginson (2007) perform similar tests for firms in the European Union but without finding evidence that firms are more likely to pay dividends out of earned rather than contributed capital.

Among the theories surveyed in this chapter, researchers broadly agree on firm life-cycle theory. To some extent this theory negates the rational theories that attempt to explain dividends as mitigating information asymmetries because information asymmetry problems are actually weaker in mature firms. Despite the evidence in support of this theory, it is insufficient to resolve the fundamental question of why mature firms opt to distribute dividends rather than repurchase stocks.

BEHAVIORAL BIASES AS EXPLANATIONS FOR DIVIDENDS

Investor Sentiment and the Catering Theory of Dividends

As the demand for dividends by investors varies over time (Baker and Wurgler, 2004b), one possibility is that investor demand reflects time-varying risk preferences or "sentiment". Specifically, in low-sentiment periods (e.g., recessions) investors may prefer "safer" dividend-paying stocks, while in good times (e.g., booms) investors prefer "riskier" stocks that invest their earnings rather than distribute them.

Long (1978) finds evidence supporting the hypothesis that investors' demand for dividends vary over time. He investigates the share price time-series of the Citizens Utility Company. The company has two classes of shares. One class pays cash dividends, while the other pays stock dividends. The classes are otherwise virtually identical. Based on rational asset pricing models, prices of the dividend-paying shares should be lower because the investors holding them pay higher taxes due to dividend income, relative to investors who hold the other class of shares and who are exposed only to the lower capital gains tax. Long notices, however, that the market places a premium on dividends relative to capital gains. This observation contradicts not only the Miller and Modigliani (1961) theorem, but also simple arbitrage theory (Jensen, 1978). Gemmill (2005) finds similar evidence for U.K. split-capital mutual funds in which dividend-paying shares traded at different prices than shares that did not pay dividends.

As some investors have a preference for cash payouts in dividend form, firms may simply cater to these preferences. Baker and Wurgler (2004a) consider a theory of dividend catering in which firms accommodate the dynamic preferences of investors with respect to dividends. In their model, investors' demand for dividends varies over time and firms respond to this demand. Thus, non-payer firms initiate dividend payouts when investor demand for dividends is high, and dividend-paying firms tend to omit dividend payments more frequently when investors do not appreciate dividends. The authors identify investor demand in several

ways. First, they use Long's (1978) finding concerning the price premium that dividend-paying shares have over non-paying shares. Second, the authors compute the "market premium of dividends": the difference in market valuations (market-to-book) between dividend-paying and non-dividend-paying stocks. Baker and Wurgler find that both time-series correlate positively with the annual time-series of the number of firms that initiate dividend payments. Li and Lie (2006) report similar findings regarding changes in dividend amounts.

Baker and Wurgler (2004b) use their catering argument to explain the fact that dividends disappear over time, as originally documented by Fama and French (2001). They argue that the disappearance of dividends is in accordance with a decline in the market dividend premium. Ferris, Sen, and Yui (2006) offer supporting evidence for the relationship between the dividend premium and the time-series of the number of dividend payers in the United Kingdom. In later papers, Baker and Wurgler use the dividend premium time-series as a proxy for investment sentiment (e.g., Baker, Wurgler, and Yuan, 2009).

Several studies find evidence contradicting the catering hypothesis. DeAngelo et al. (2009) analyze the recent trends in dividends and report that dividends did not disappear, but have become more concentrated. They find that the number of dividend payers declined because small dividend payers stopped paying them. However, firms that paid large dividends in the past have increased their current payout. Denis and Osobov (2008) present similar findings for firms in Canada, the United Kingdom, Germany, France, and Japan. Von Eije and Meggison (2007) find that the proportion of dividend-paying firms in the European Union declined towards the turn of the millennium, but they do not find supporting evidence that the catering hypothesis explains this phenomenon. DeAngelo et al. (2009) show that overall, the volume of dividends increased over time in almost a monotonic trend; they argue that investor demand is not a likely explanation of this trend. Hoberg and Prabhala (2008) determine that proxies for investor fads cannot explain the cross-section of dividend-paying firms after controlling for proxies of risk.

The idea of firms' catering to investors is not new. In particular, many studies find evidence supporting the hypothesis that firms respond to investor demand across a variety of firm policies. For example, Lee, Shleifer, and Thaler (1991) show that new close-end funds are started when the discount of closed-end funds share prices is low relative to the underlying net asset value (NAV) and when investor sentiment is high (measured as the premium on small stocks). Similarly, Dong, Hirshleifer, Richardson, and Teoh (2006), Ben-David and Roulstone (2009), and others find evidence consistent with the hypothesis that firms initiate mergers and acquisitions in response to overvaluation of their own stock. Barberis and Thaler (2003) and Baker, Ruback, and Wurgler (2007) provide a further review of studies in this subfield.

Theories of Investor Biases

Several theories based on investor psychological biases have been proposed to explain why investors like dividends.

Bird-in-Hand Theory

The bird-in-hand argument suggests that investors need to realize wealth in order to consume and therefore have a preference for cash dividends over capital gains. This argument was first formally put forth by Gordon (1959) and Lintner (1962) but was theoretically contested by Miller and Modigliani (1961). Miller and Modigliani's seminal paper shows that capital gains and dividends substitute for each other. Also, investors could produce their "home-made dividends" by selling stock if they chose to do so.

Self-Control

Thaler and Shefrin (1981) and Shefrin and Statman (1984) propose that investors favor dividends as a self-control mechanism. Without dividends, investors would be tempted to sell stocks and use the proceeds for consumption, and they might sell more stock than they originally intended. In this explanation, dividends help investors to pace consumption and avoid

later regret from their own over consumption. Black (1990) subscribes to the view that investors like dividends because they like the idea of readily available wealth that spares them from consuming out of their capital.

Mental Accounting

Shefrin and Statman (1984) also suggest that investors may prefer dividends because they derive less utility from one big gain (e.g., a large capital gain) than from a series of small gains (e.g., a small capital gain and a dividend). They base their argument on prospect theory (Kahneman and Tversky, 1979). According to the theory, people evaluate profits in isolation of their overall wealth (narrow framing), and their utility function is concave in the area of gains and convex in the area of losses. Further, the slope of the utility function is greater near the origin. Thus, a big gain that is divided into several small gains provides more pleasure to investors and fuels investors' demand for dividends.

To demonstrate the process, suppose a firm gains 10 percent over a year. Barberis and Thaler (2003) also provide an illustration of this idea. If investors have prospect-theory preferences, then they would derive more utility from such a gain if it is split, for example to a dividend of 3 percent and a capital gain of 7 percent. The same applies for losses. For a person with prospect-theory preferences, a 10 percent loss would hurt less if it is separated into a 3 percent gain (dividend) and a 13 percent loss.

Theories of Managerial Biases

Several studies find that dividend policy interacts with the psychological biases of managers. Ben-David, Graham, and Harvey (2009) find that overconfident chief financial officers (CFOs) are less likely to pay dividends. In their study, they measure overconfidence as the stock market volatility perceived by managers. The authors collect managers' one-year forecasts for the S&P 500 together with confidence intervals for the forecasts. The study finds that managers who are more confident about their forecasts (i.e., have narrow confidence

intervals) also implement aggressive corporate policies including high investments, high leverage, and low dividends.

Other studies that link managerial biases and dividends employ the Malmendier and Tate (2005) proxies for optimism. Chief executive officers (CEOs) are considered optimistic about their firm's cash flows ("overconfident" is the term they use) if they do not diversify their portfolio holdings by selling executive options or if they commend themselves in the press. Cordeiro (2009) finds support for the hypothesis that managers who are optimistic about their firm's cash flows are less likely to pay dividends, and Deshmukh, Goel, and Howe (2009) document that the level of payout (dividend yield) is lower for optimistic managers. The intuition behind the test is that managers with a buoyant belief in their firm's future prefer to invest cash in firm projects rather than pay it out to investors. Bouwman (2009) uses the same proxy for optimism and presents evidence consistent with the hypothesis that managers who are optimistic about their future earnings distribute larger dividends. She finds that, controlling for earnings surprise and for dividends changes, the market reacts more strongly to dividend changes announced by optimistic managers. This evidence is consistent with the hypothesis that optimistic managers overestimate their private signal about the future profitability of their firms.

Deshmukh et al. (2009) control for selection in the announcements of dividends changes and find that the market reaction to dividend increases by optimistic CEOs is less positive than the response to announcements by less optimistic CEOs. Dividend payouts by biased managers can be self-regulating in the sense that if dividends are too high due to optimism about future earnings, then lower-than-expected realizations of future earnings might force biased managers to reduce their dividends. In practice, dividend payout is almost never of sufficient magnitude to become a constraining or disciplining factor (DeAngelo, DeAngelo, and Skinner, 1996).

THE INERTIA-BASED EXPLANATION FOR DIVIDENDS

Dividends as a Valuation Yardstick

The original purpose of dividends, four centuries ago, was to make equity look like debt, providing investors with a tangible return and a way to calculate the value of shares (Baskin, 1988; Frankfurter and Wood, 1997). Dividend yields make stocks comparable to each other, just as bond yields make bonds comparable to each other. By construction, dividend yield is a similar value measure to earnings-to-price, i.e., comparing flow (dividends) to stock (price, which is the equal of discounted dividends). As dividends became a common means of payout, paying dividends could have plausibly become a social norm, putting pressure on managers to conform to it (Frankfurter and Wood, 1997).

Investors often use statistics such as ratios to evaluate investments. For example, investors may compare firms' asset turnover (sales-to-assets) ratios, price-earnings ratios, market-to-book, so they can determine which company is undervalued and which might be overvalued. Practitioners commonly hold the view that dividend yield (annual per share dividends scaled by the share price) is a yardstick for valuation, i.e., an indicator of value (Graham, Dodd, and Cottle, 1934; Gordon, 1959; Baskin 1988).

Frankfurter and McGoun (2000) discuss the role dividends played in the 19th century railroad industry (based on Ripley, 1915; Cleveland and Powell, 1912; Withers, 1915; Dewing, 1921; Morgan and Thomas, 1969). Using the dividends paid by firms, investors could calculate the value of shares without concerning themselves too much with the accounting practices used to calculate earnings. Hence, firms and investors treated dividends on shares like coupons on debt. In the case of the 19th century railroad firms, these firms paid stable dividends even in years in which they did not have positive earnings. In addition, the pressure to distribute dividends was an effective mechanism for preventing accounting manipulations on the part of managers.

Empirical evidence seems to support the valuation-as-yardstick concept. First, casual observation shows that analysts often employ terms like “attractive dividend yield” to describe undervalued stocks. This is consistent with dividend yield being a measure of value. Second, Brennan, Chordia, and Subrahmanyam (1998) present empirical support to this conjecture by finding that dividend yield can be used as an alternative factor in an asset pricing model. Third, Graham and Kumar (2006) offer evidence that could be interpreted as investors using dividend yield as a measure of value. Consistent with the idea that retail investors are value investors in general (Barber and Odean, 2000), Graham and Kumar find that retail investors prefer to hold high versus low dividend-yield stocks.

Although both the valuation yardstick hypothesis and the catering hypothesis argue that firms distribute dividends to satisfy investor demand, there is a crucial difference between the two theories. According to the catering hypothesis, firms initiate dividends when dividend-paying firms are more appreciated by investors and omit paying dividends when they are discounted in the marketplace. Conversely, the valuation yardstick hypothesis proposes that firms manage their dividends in order to help investors value their stream of cash flows and make them comparable to other firms, often within the same industry.

One prediction that follows from the yardstick valuation hypothesis is that firms time their dividend initiation to periods when they are relatively undervalued by investors; they omit dividends when they are relatively overvalued. Michaely, Thaler, and Womack (1995) find evidence consistent with this conjecture. In studying dividend initiations and omissions between 1964 and 1988, they observe that firms initiating dividends outperform the market portfolio in the year after the announcement, while firms omitting dividends underperform this benchmark. Again, while the catering hypothesis considers systematic mispricing of dividend-paying firms, the valuation yardstick hypothesis focuses on idiosyncratic misvaluation. Denis et al. (1994) find that analysts revise their earnings forecasts following dividend changes, potentially showing that such changes convey information to the market.

Another prediction is that dividend changes are correlated within industries. If investors use the same dividend yield to price firms within an industry and if firms are interested in having high valuations, a change in dividend payout by one firm is expected to be followed with payout changes in the same direction by peer firms. Firth (1996) presents empirical evidence about the relation between dividends changes in intra-industry performance which can be interpreted as supporting this hypothesis.

In order to be a useful tool for valuation based on models such as the Gordon (1959, 1962) model, firms should smooth their dividend payouts. Michaely and Roberts (2007) find that private firms in the United Kingdom smooth dividends less than large firms do. They further report that public firms pay higher dividends and are more sensitive to investment opportunities. Leary and Michaely (2008) explore the determinants of dividend smoothing. They find that "cash cows," which are larger firms, those with tangible assets, and firms with low price volatility, tend to smooth dividends more, as do firms with a larger fraction of institutional ownership and a high payout.

Are Dividends a Useful Tool for Valuation?

Given that investors use dividends for guidance in valuation, investigating whether dividends contain useful information about firms' future cash flows is important. According to signaling theories, dividend distribution serves as a signaling device for the management's quality and commitment level (Miller and Modigliani, 1961; Bhattacharya, 1979; Miller and Rock, 1985; John and Williams, 1985). In other words, firms commit to pay dividends in order to credibly signal to investors private information about their bright future.

Signaling theories may prove correct if dividend yield is correlated with the extent to which firms are over- or undervalued. Several studies have attempted to answer this question with largely inconclusive results. While early studies uncover no evidence that dividends initiation, omission, and changes convey information about future cash flows, some later studies

find support for this hypothesis. Benartzi et al. (1997), Grullon et al. (2002), and Grullon et al. (2005) find no relation between dividend changes and future earnings or operating performance.

DeAngelo et al. (1996) examine the dividend policy of firms with high past growth of earnings. They find that these firms tend to increase their dividends are a period of earnings growth. However, dividend increases do not forecast earnings growth. The authors argue that one explanation for the dividends could be optimism about future earnings (in the spirit of Jensen's (1993) corporate culture optimism argument). In addition, they find that dividends are sufficiently low for the investigated corporation so as to not pose a binding constraint on cash flow usage. Nissim and Ziv (2001) find that dividend changes convey information about future changes in earnings beyond market and accounting data. Denis et al. (1994) also report that firms increase their capital expenditure following dividend increases.

Overall, what do these studies show? The balance of studies shows that although dividend initiation does not predict changes in operating performance, it could convey information about firm undervaluation.

Are Dividends a Social Norm?

Investors' affection for dividends and the observed stickiness of dividends raise the question of whether dividends have become a social norm (Frankfurter and Lane, 1992; Frankfurter and Wood, 2006). The idea behind such a hypothesis is that dividends might have had an initial use in, for example, mitigating information asymmetry problems., Over the course of time, however, dividend paying evolved into a custom that is difficult to question and hard to resist.

Baskin (1988) reviews the historical development of firms in the United Kingdom and the United States and observes that pressure on behalf of investors turned dividend paying into a hard-to-evade norm. Surveys of managers also provide evidence in support of this hypothesis. In an early survey, Lintner (1956) qualitatively explores the dividend policy of 28 corporations

over seven years (1947-1953) in personal interviews with their managers. He makes several important observations. First, he notes that managers consider the amount of payout relative to the benchmark of the existing rate of dividends paid by their firm, rather than independent of this rate, which the theory of the time had predicted. Hence, inertia and conservatism about the ability to maintain the dividend rate in the future governed dividend decisions. Second, the interviewees believe that distributing dividends at a high rate was their fiduciary duty. In other words, they view dividend distribution as a benefit to shareholders. Third, the prime drivers of dividend amounts are long-term earnings. Managers believe that dividends should be a smoothed function of earnings and believe that investors view it similarly.

Brav et al. (2005) conduct a comprehensive survey of executives in order to learn their view on the purpose of dividends. The results of the survey show no support for rational theories of signaling, agency, or for the clientele hypothesis. Conversely, the results of the survey are consistent with a social explanation for dividends—managers report that their firms distribute dividends due to inertia and because ending the payout would result in a negative market reaction.

Proving that a corporate policy is a social norm is generally difficult because this requires disproving any economic reasons for the policy at the same time. In particular, an empirical work that attempts to show that dividends are socially normative needs to control for other reasons for dividend payouts. Benartzi et al. (2009), provide an example of behavioral work that attempts to identify norms, which argues that inertia and social norms drive the stability of new issue share prices at around $20 for the whole of the 20th century.

SUMMARY AND CONCLUSIONS

The chapter surveys the main behavioral theories proposed to explain why firms distribute dividends and why investors appreciate dividends in spite of dividends' inefficiency as a means of paying out cash. Several theories explain the determinants of paying dividends. On

the demand side, the clientele explanation suggests that some groups of investors prefer dividends. On the supply side, the life-cycle explanation proposes that steady and mature firms are more likely to distribute dividends. On the time-series aspect, the catering theory suggests that firms respond to time-varying demand by investors.

Several theories attempt to explain why investors like dividends. Theories of behavioral biases suggest that dividends are an efficient way to consume capital gains and avoid the mental costs associated with selling stock. Social-based theories propose that dividends became a signal of firm stability and a tool for valuation to many investors, and thus there is a demand for dividends by investors and pressure on firms to distribute them.

Across the different theories surveyed in this chapter, there is a broad consensus among researchers about the life-cycle theory; many studies find that mature firms are more likely to pay dividends. In general, these are large firms with low investment opportunities, stable cash flows, good governance, and low idiosyncratic risk. Nevertheless, this theory is descriptive in nature rather than having an economic rationale because it fails to explain *why* firms distribute dividends.

The puzzle of why investors like dividends and why firms distribute them remains unresolved. Despite the compelling behavioral theories, the empirical debate is unsettled. Additionally, several of the behavioral explanations for investors' demand a lack any empirical evidence and thus are difficult to assess. One of the promising directions of research is the question whether dividends became a social norm in the corporate world and whether investors use them as a yardstick for valuation. While these theories were proposed decades ago and are consistent with some empirical facts, they need to be established by additional empirical evidence.

DISCUSSION QUESTIONS

1. What is the fundamental problem with descriptive theories such as the dividend clientele and the life cycle theory?
2. What is the empirical challenge in testing whether dividends are a social norm?
3. Can theories of managerial biases explain the dividends puzzle?
4. What is the empirical difficulty in testing the "bird-in-hand", "self control", and "mental accounting" theories?
5. Can the "valuation yardstick" hypothesis be valid even if dividends do not have predictive power about future returns?

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