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Corporate dividend policy revisited

H. Kent Baker
Kogod School of Business, American University, Washington, District of Columbia, USA, and
Rob Weigand
School of Business, Washburn University, Topeka, Kansas, USA

Abstract

Purpose – The purpose of this paper is to provide an overview and synthesis of some important literature on dividend policy, chronicle changing perspectives and trends, provide stylized facts, offer practical implications, and suggest avenues for future research.

Design/methodology/approach – The authors provide a survey of literature surveys with a focus on insights for paying cash dividends.

Findings – The analysis of literature surveys on dividend policy provides some stylized facts. For example, US evidence indicates that the importance of cash dividends as a part of investors' total returns has declined over time. Share repurchases now play an increasingly important role in payout policy in countries permitting stock buybacks. The popular view is that dividend policy is important, as evidenced by the large amount of money involved and the attention that firms, security analysts, and investors give to dividends. Firms tend to follow a managed dividend policy rather than a residual dividend policy, which involves paying dividends from earnings left over after meeting investment needs while maintaining its target capital structure. Certain determinants of cash dividends are consistently important over time in shaping actual dividend policies including the stability of past dividends and current and anticipated earnings. No universal set of factors is appropriate for all firms because dividend policy is sensitive to numerous factors including firm characteristics, market characteristics, and substitute forms of dividends. Universal or one-size-fits-all theories or explanations for why companies pay dividends are too simplistic.

Practical implications – The dividend puzzle remains an important topic in modern finance.

Originality/value – This is the first a survey of literature surveys on cash dividends.

Keywords Dividends, Survey research, Finance, Dividend policy, Financial theory, Dividend irrelevance

Paper type Literature review

Introduction

According to financial theory, the goal of management is to create value for stockholders, specifically to maximize shareholder wealth (Jensen, 2001). Despite extensive theorizing and empirical research, considerable debate exists on whether dividend policy plays a role in achieving this goal. Dividend policy refers to the payout policy that a firm follows in determining the size and pattern of distributions to shareholders over time. Firms distribute cash to shareholders through cash dividends, share repurchases, and specially designated dividends. DeAngelo *et al.* (2004) report that US firms rarely pay specially designated dividends, except in the case of large one-time special dividends, despite the fact that they were at one time as prevalent as regular cash dividends.

The early literature on dividend policy offers two very different views about the relationship between cash dividends and firm value. One view, attributed to Miller and Modigliani (1961) and echoed in Black (1976), suggests that dividends are irrelevant for firm value and possibly value-destroying. In his classic paper, Black (p. 5) notes,

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"The harder we look at the dividend picture, the more it seems like a puzzle, with pieces that just don't fit together." Another perspective, represented in the classic works of Williams (1938), Lintner (1965), and Gordon (1959), considers dividends as an important determinant of firm value. In the period following these early views, researchers examined the importance of distribution decisions to firm value. As Baker *et al.* (2002, p. 255) conclude, "Despite a voluminous amount of research, we still do not have all the answers to the dividend puzzle." Almost a decade later, Baker *et al.* (2011, p. 305) note, "Empirical evidence on whether dividend policy affects a firm's value offers contradictory advice to corporate managers." Nonetheless, substantial advancements have been made in studying payout policy over the past several decades.

In studying dividend policy, researchers typically rely on two main approaches. One approach uses statistical analysis of published financial data to test various hypotheses about dividend policy. Chiang *et al.* (2006) contend that such ex post data can explain surface reality but cannot measure motivation. As Frankfurter and Wood (2003, p. 167) note, "No theory based on the economic paradigm developed thus far completely explains the persistence of corporate payout policy."

The second approach uses survey methodology to obtain primary data about dividend policy from financial managers and others. As Frankfurter *et al.* (2002, p. 202) state, "[…] one cannot understand the motivation and perception of people by simply analyzing market data." According to Tufano (2001) and Graham and Harvey (2001), using different empirical approaches can help validate the results of quantitative studies using market-based research. Survey research complements research based on secondary data and provides additional insights into why firms engage in dividend policy decisions.

Our main purpose is to provide an introduction to this special issue of *Managerial Finance* on dividends and dividend policy. We offer an overview and synthesis of some important literature, chronicle changing perspectives and trends, provide stylized facts, offer practical implications, and suggest avenues for future research. We also identify pieces of the dividend puzzle that have received more empirical support than others. Although our main focus is on cash dividends, literature surveys on stock repurchases and specially designated dividends are available in Bierman (2001), Vermaelen (2005), Baker (2009), and Baker *et al.* (2011) among others.

This overview is inevitably incomplete given the massive literature on dividends. Unlike literature surveys that provide detailed examinations of the theories and empirical evidence of individual studies, we take a different approach and offer a broader view. The distinctive contribution of this paper is that we synthesize the major conclusions based on theoretical and empirical findings from relevant books (e.g. Lease *et al.*, 2000; Bierman, 2001; Frankfurter and Wood, 2003; Da Silva *et al.*, 2004; Baker, 2009; Baker *et al.*, 2011) and literature reviews (e.g. Frankfurter and Wood, 2002; Allen and Michaely, 2003; DeAngelo *et al.*, 2008; Al-Malkawi *et al.*, 2010; Farre-Mensa *et al.*, 2014) on dividend policy since 2000. Specifically, we provide a survey of surveys with a focus on new insights for paying cash dividends. Not surprisingly, conclusions drawn from different literature surveys sometimes contradict each other. Our synthesis incorporates results from both statistical analyses and managerial surveys. For our purpose, little need exists to systematically present reviews of individual studies given the availability of numerous in-depth literature surveys on dividend policy. This approach is unusual but appropriate in providing a backdrop from this special issue of *Managerial Finance*. To avoid misinterpreting or filtering the conclusions provided in these surveys, we often present them in the researchers' own words.

The remainder of the paper has the following organization. The next two sections address the fundamental issue of whether dividend policy affects firm value and hence shareholder wealth by discussing dividend irrelevance and relevance. This is followed by a review of dividend payouts and trends over time. The next two sections examine two basic questions: Why do firms pay dividends? What determines the magnitude of dividend payouts? The remaining sections offer some stylized facts, practical implications, areas of further research, and final observations.

Dividend irrelevance

A basic debate in finance is whether dividend policy affects firm value. Miller and Modigliani (MM) (1961) take a contrary view to the popular sentiment of the time that dividends directly affect firm value. According to their model, the value of a company is determined by its assets and the cash flows generated by those assets and not by the way firms distribute cash flows to shareholders. Thus, investment policy alone determines value. Besides establishing that dividend policy is irrelevant to share value in perfect and efficient capital markets, the MM model also demonstrates that rational investors should be indifferent between dividends and capital gains. MM contend that different payout policies constitute nothing more than slicing a fixed pie of cash flows into different pieces. In perfect, frictionless markets the value of these pieces will always sum up to the value generated by the underlying investment policy that produced the cash flows. Consequently, investors would be indifferent among the feasible dividend policies. Changing the form of the distribution has no effect on value.

DeAngelo and DeAngelo (2006) question the validity of MM's proof of the irrelevance theory, citing the unrealistic nature of these authors' restrictive assumptions involving perfect and frictionless capital markets. DeAngelo and DeAngelo (2007) also challenge MM's conclusion that all feasible payout policies are equally valuable to investors and assert that dividend policy can affect firm value. The fact remains, however, that MM's views on dividend irrelevance have exerted considerable influence on financial theory, although this influence may not be entirely positive.

Black (1976) asserts that paying dividends actually destroys value when considering the tax disadvantage of dividends. Ang and Ciccone (2009, p. 10), who examine dividend irrelevance theory, conclude that "[…] despite the volume of research devoted to their relevance and even existence, dividends continue to remain mysterious."

In reality, capital markets are neither frictionless nor perfectly efficient. Researchers have tried to find reasons that dividends exist focusing either on market frictions or imperfections, such as taxes, asymmetric information (signaling) and agency costs, or on behavioral considerations, such as investor preferences. Thus, dividend policy can affect shareholder wealth because of market imperfections or behavior considerations. As Bernstein (1992, p. 176) notes, the "MM theory was admittedly an abstraction when it was originally presented." He also states "No one – least of all Modigliani and Miller – would claim that the real world looks like this."

Dividend relevance

The view that dividends affect shareholder wealth as reflected in the intrinsic value of a firm's stock has existed for many decades. Williams (1938) developed a discounted cash flow (DCF) model depicting the intrinsic value of a firm's stock as the present value of a growing stream of dividends during an era when investors expected that dividends would provide the largest proportion of their total return. After Gordon (1959)

published an updated version of the same idea, the DCF model gained wide popularity among both academics and practitioners.

Almost 60 years ago, Lintner (1956) published a seminal study that included a model of how managers set their firm's dividend policy. He proposed that managers conservatively smooth past and current earnings changes into the level of a firm's dividend. Thus, changes in dividends only partially reflect changes in earnings. His partial-adjustment model designed to describe the dividend decision process explained about 85 percent of yearly dividend changes. Decades later, Benartzi *et al.* (1997, p. 1032) conclude, "Lintner's model of dividends remains the best description of the dividend setting process available."

This characterization of dividends and intrinsic value is consistent with the prevailing conventional wisdom of the early twentieth century, as related by Graham and Dodd (1951). They note that the stock market favors liberal dividends and that investors should consider this judgment when valuing common stock. Various versions of the model remain popular today. Security analysts still estimate the value of a firm and its securities as the present value of a stream of dividends, earnings, or other definitions of free cash flow.

Survey evidence such as Baker and Powell (1999), Baker *et al.* (2001), and Brav *et al.* (2005) support Lintner's (1956) findings. This evidence confirms that managers believe dividends should be related to permanent rather than temporary increases in profits. This finding is consistent with the notion that a fundamental relationship exists between dividends and firm value. Managers' responses also indicate dividend payments should be uninterrupted and increased only when the level and stability of earnings make the chance of reducing future dividends unlikely. Bulan and Hull (2013) find that managers remain as reluctant to cut dividends as Lintner originally described. This evidence suggests that managers do not reduce or omit dividends until forced to do so by the firm's creditors. These findings have implications for the signaling explanation of dividends.

Overall, the survey evidence coupled with other empirical studies leads to several stylized facts. First, some determinants of dividend policy appear similar to those identified by Lintner (1956) and remain consistently important over time in shaping actual policies. These primary determinants include the stability of past dividends and current and anticipated earnings. However, the same factors that influence dividend decisions are not equally important to all firms because factors such as firm characteristics, corporate governance, cultural differences and legal environments may influence how managers both view and implement dividend policy. For instance, Da Silva *et al.* (2004) find that the Anglo-American system has a clear advantage in providing higher investor protection while the German or Continental European system provides firms with a higher flexibility in terms of their dividend policy. As DeAngelo *et al.* (1996, p. 253) caution, "Taking history as a guide, there is no guarantee that the practices that currently seem of greatest relevance will continue to seem so important even 20 or 30 years from now."

Second, managers often perceive that dividend policy matters and hence pay careful attention to the choice of dividend policy. They typically follow a managed dividend policy instead of residual dividend theory espoused by Miller and Modigliani (1961) in which firms should pay out as dividends all cash flows after funding all profitable investments. According to Smith (2009), the empirical evidence suggests that firms rarely follow a strict short-run residual dividend policy but instead generally follow a managed payout policy. Managers' attitudes generally

support the dividend relevance hypothesis that a firm's dividend policy can influence shareholder value.

Dividend payouts and trends

During the nineteenth and early twentieth centuries, dividends were larger and comprised a much higher percentage of investors' total returns than those offered by US corporations today. According to Siegel (2002), the dividend yield (annual dividend/current price) on US stocks averaged 6.4 percent between 1,802 and 1,870. As Table I shows, dividends accounted for 90 percent of the total returns earned by investors during this period. Between 1,871 and 1,920 the average dividend yield of 5.18 percent represented slightly more than 70 percent of investors' total returns; between 1,921 and 1,945 the average yield of 5.49 percent comprised only 44 percent of total returns. Dividend yield fell to 39.8 percent of total returns from 1946 to 1982 and averaged a scant 22.1 percent of total returns from 1983 to 2012. This table shows the decreasing role of dividends in the composition of total returns by sub-period.

Table I does not, however, consider how the increasing propensity of corporations to use share repurchases as a means of distributing cash to existing shareholders has led to lower dividend payouts. According to Allen and Michaely (2003), evidence suggests that the rise in the popularity of repurchases increased both overall payout and firms' financial flexibility.

Historical dividend payouts provide a striking contrast with the payouts of today. According to the Wall Street Journal Market Data Center (2014), the dividend yield on the US S&P 500 equaled 1.96 percent in early 2014, higher than its all-time low of 1.20 percent in June 2000, but still far below its long-term historical average. Scholars have marveled over the paucity of modern dividend payouts. Bernstein (2005, p. 28) proposes that investments in securities or assets without an expected payout have no intrinsic value and suggests that investors' tolerance of low dividends is analogous to people who settle for frozen orange juice when fresh is so easy to obtain: "Never having indulged in the real thing, they have no concept of what they are missing."

Propensity to pay dividends

Besides the decline in the average dividend yield on US stocks shown in Table I, researchers document other trends in payout policy. Before the mid-1980s, US firms used cash dividends as the dominant means to distribute cash to shareholders. However, share repurchases have gained popularity accounting for more than 50

Period	Average total annual return (%)	Average capital gains (%)	Average dividend yield (%)	Dividends as % of return
1801-1870	7.11	0.71	6.50	90.0
1871-1920	7.26	2.08	5.18	71.3
1921-1945	12.47	6.98	5.49	44.0
1946-1982	11.37	6.85	4.52	39.8
1983-2012	12.10	9.43	2.67	22.1

Notes: This table shows changes in average total annual return, average capital gains, average dividend yield, and dividends as a percent of return over various periods. Overall, the results show the declining importance of dividends as a percent of return over time
Sources: Siegel (2002) and Shiller (2014)

Table I.
The changing relationship among total returns, capital gains, and dividend yield between 1801 and 2012

percent of aggregate payouts in the US in some years. Even with the increase in share repurchases, overall payouts (i.e. both cash dividends and share repurchases) seem to have declined over time. Roughly coincident with the surge in share repurchases has been a decline in the proportion of US firms paying dividends. Fama and French (2001) note that the proportion of US industrial companies paying dividends fell from 32 to 16 percent between 1984 and 1999. According to Julio and Ikenberry (2004), the percentage of dividend payers reached a low of 15 percent in 2001 in the US and then began to rise. By the end of the first quarter of 2004, more than 20 percent of US industrial companies were paying dividends.

Denis and Osobov (2005) find a similar pattern of "disappearing dividends" in Canada, Germany, France, Japan, and the UK. Fatemi and Bildik (2012) present further evidence of worldwide dividend disappearance in their study of more than 17,000 companies from 33 countries. They find the greatest decline in the propensity to pay among smaller and less profitable firms with more investment opportunities vs larger, more profitable, low-growth companies, but conclude that all firms are less likely to pay, even after controlling for firms' characteristics.

Baker and Wurgler (2004a, b) suggest that these appearing and disappearing dividends are an outcome of firms "catering" to transient fads for dividend-paying stocks. Hoberg and Prabhala (2009) empirically examine disappearing dividends and the catering explanation while also controlling for risk. They find that risk, specifically idiosyncratic risk, significantly explains the propensity to pay dividends and accounts for 40 percent of the disappearing dividends puzzle. Once they account for idiosyncratic risk, catering is not significant. Kuo *et al.* (2013) study a large sample of firms from 18 countries over 1989 to 2011 and also find little support for the catering theory after adjusting for risk. In their study of trends in dividends, Andres *et al.* (2009) conclude that no universally accepted explanation of the phenomenon of disappearing dividends exists to date.

In recent decades, dividend payers in the US have become increasingly concentrated among large-capitalization, mature companies. For example, Amenta (2013) reports that at the end of the third quarter of 2013, the number of stocks paying dividends in the S&P 500 reached a 17 year high (417 or 84 percent of the index), and the number of companies increasing their year-over-year dividend per share distribution hit the highest level in at least 20 years. For stocks in the S&P 500, dividends reached record levels in 2013 and the payout ratio of 31.5 percent remains one of the highest non-recession levels since 2004.

Wood (2002) and DeAngelo *et al.* (2004) find a widespread substitution of share repurchases for dividends in both the US and Europe below the large-cap level. According to Julio and Ikenberry (2004), the total dollar amount of repurchases exceeded the total amount of dividends paid in the US for the first time in 1997. As Farre-Mensa *et al.* (2014) note, "Indeed, perhaps the most important change in corporate payout policy in the last two decades is the secular increase of stock repurchases and the triumph of buybacks over dividends as the dominant form of corporate payouts."

For large-cap stocks, specifically those in the S&P 500, Amenta (2013) notes a rise in both dividend payers and companies engaging in buybacks. This contributed to a trend where very few large-cap companies do not engage in either form of shareholder distribution. In fact, just 16 companies in the S&P 500 (3.2 percent) did not pay a dividend or engage in a share buyback over the trailing 12-month period, which is the lowest number since at least 2005.

Dividends and earnings management

A branch of the literature has identified a connection between a firm's dividend policy and the practice of earnings management, also known as earnings smoothing. Earnings management occurs when either accrual items or real activities such as capital expenditures and other spending on new investments are adjusted to meet predetermined earnings targets (Zang, 2012). Daniel *et al.* (2008) find that, when pre-managed earnings fall short of the level necessary to support paying the same dividend as in the prior year, firms manage accruals upward to increase earnings and maintain the level of their dividend. Dechow *et al.* (2010) conjecture that dividend-paying firms should have higher earnings persistence (autocorrelation with past earnings innovations), which Skinner and Soltes (2011) confirm. Liu and Espahbodi (2014) find that earnings management activities (both real and accruals-based) drive a large amount of the earnings persistence of dividend-paying firms with the intention of maintaining the previous year's dividend.

The results of these studies reveal that the dividend signaling explanation, whereby dividend initiations and increases signal higher future earnings, may involve more complex sub-strategies than researchers previously thought. Future researchers are likely to focus on the extent to which earnings are managed to meet dividend-related, rather than profitability-related, objectives.

Why do firms pay dividends?

The seminal work of Miller and Modigliani (1961) influenced the early inquiries into the motives and consequences of dividend policy. According to DeAngelo and DeAngelo (2006, p. 295), MM have "limited our vision about the importance of payout policy and sent researchers off searching for frictions that would make payout policy matter, while it has mattered all along." For example, Lease *et al.* (2000, p. 50) state that "Market frictions are the key to the relevance of dividend policy." Thus, they develop a competing frictions model involving both the "big three imperfections" (taxes, asymmetric information or signaling, and agency costs) and minor imperfections (transaction costs, flotation costs, and irrational investor behavior) that managers should consider in formulating a reasonable dividend policy. Farre-Mensa *et al.*, 2014, p. 92) note, however, that "[…] none of the three classical explanations has had much to say about the secular trend of repurchases substitutions for dividends, nor about the cyclicality of repurchases."

Not surprisingly, the finance literature contains many theories, hypotheses, and explanations for paying dividends, some of which are related to each other. For example, De Rooij and Renneboog (2009) discuss the role of catering in explaining other dividend theories, specifically asymmetric information and signaling as well as agency models. Some similarities also exist among the bird-in-the-hand theory, behavioral explanations, and catering theory. Thus, some theory are not totally independent.

Table II shows major arguments for dividend relevance. The bird-in-the-hand theory is one of the older explanations, followed by several traditional theories involving market imperfections (taxes, asymmetric information, and agency costs), and then some more recent explanations (behavioral, firm life cycle, and catering). What do various literature surveys on dividend policy conclude? As Table II shows, the results for almost all theories, except the firm life-cycle theory with generally supported, is mixed. That is, studies are available both supporting and not supporting the various explanations for paying dividends.

Table II.
Major theories and explanations for paying dividends

Theories and explanations	Description	Implications	Empirical support
Bird in-the-hand	Investors prefer the certainty of dividend payments to the possibility of substantially higher future capital gains.	Firms should keep dividend payments high if they want to maximize share price	Mixed
Taxes and tax clienteles	Investors prefer that firms retain cash instead of paying dividends when tax rates are higher on dividends than on long-term capital gains	Prior to the equalization of the tax rate on dividends and capital gains, firms should keep dividend payments low if they want to maximize share price	Mixed
Asymmetric information and signaling	Company announcements of an increase (decrease) in dividend payouts act as an indicator of the firm possessing strong (weak) future prospects	Investors can infer information about a firm's future earnings through the signal coming from dividend announcements, both in terms of the stability of and changes in dividends. Thus, managers should be aware of market reactions before they make dividend policy decisions	Mixed
Agency costs	Firms pay dividends to align the interests and mitigate the agency problems between managers and shareholders, by reducing the discretionary funds available to managers	Holding excess cash balances increases managers' degree of investment flexibility but can be detrimental to shareholders. Paying more dividends reduces the agency costs between managers and shareholder	Mixed
Behavioral explanations	Investors prefer dividends for psychological reasons relating to self-control, mental accounting, hedonic editing, and regret as well as on the impact of age, income, and retirement status	Older, retired, and low-income households show increased demand for dividends for purposes of consumption and risk reduction	Mixed
Firm life-cycle theory	The optimal dividend policy depends on the firm's stage in its life cycle	A firm will start paying dividends when its growth rate and profitability are expected to decline in the future. Thus, a firm should retain all earnings in the rapid growth phase and pay out 100 percent; of earnings at maturity	Generally supported
Catering theory	Managers cater to investor demand for dividends by paying dividends when investors prefer dividend-paying firms and by not paying or reducing dividends when investors prefer non-dividend-paying companies	The dividend premium captures the relative market valuation of dividend payers vs nonpayers	Mixed

Note: This table outlines some major theories and explanations for the relevance of paying dividends from the traditional to the more recent

Bird-in-the-hand theory

An early rationale for paying dividends, as articulated by Lintner (1956) and Gordon (1959) is that dividend payments are associated with lower risk. The bird-in-the-hand theory indicates that more certainly is attached to dividend payments received now vs dividend retention for reinvestment in projects whose future returns are uncertain. Thus, this theory asserts that paying higher dividends or having a more stable dividend payment increases firm value because dividends represent a sure thing, while future share price appreciation is uncertain. Bhattacharya (1979), however, claims that under perfect capital markets the reasoning underlying the bird-in-the-hand theory is flawed. He asserts that the riskiness of project cash flows determines a firm's risk, not how the firm distributes these flows. Lease *et al.* (2000) indicate that the logic of the bird-in-the-hand argument can be refuted and thus dividend policy is irrelevant underunder perfect capital markets and uncertainty Baker *et al.* (2011) report mixed evidence regarding the link between dividends and risk based on US and non-US surveys of firm managers.

Taxes and tax clienteles

Taxes represent a major market imperfection. According to the tax preference explanation, investors should prefer that firms retain cash instead of paying dividends because the tax rate on dividends is often higher than on long-term capital gains. Thus, differences in tax rates could result in different tax clienteles regarding dividends.

Based on their examination of the relationship between taxation and dividend policy including an overview of the evolving literature over the past five decades, Saadi and Dutta (2009, p. 139), conclude "The extant theoretical and empirical evidence provide contradictory results involving the impact of taxation on both stock price and dividend policy." Kalay and Michaely (2000) suggest that the inability of researchers to link changes in tax laws to changes in the dividend policy of firms may relate to a more complex theory of tax effects, yet to be developed. According to Farre-Mensa *et al.* (2014), studies centered on the May 2003 dividend tax cut confirm that differences in the taxation of dividends and capital gains have only a second-order impact on setting payout policy. This finding is consistent with survey evidence by Brav *et al.* (2008) and a literature review by DeAngelo *et al.* (2008), who conclude that taxes are a second-order determinant or a minor influence on payout policy. Denis and Setpanyan (2009) also conclude that taxes do not seem to be a first-order determinant of dividend policies, which casts doubt on theories of dividend policy that focus on tax-based clienteles.

Baker *et al.* (2011) summarize the results of US and non-US surveys of managers and find highly variable results depending on the time period and country. For US firms, Baker *et al.* (2011, p. 278) conclude that "Evidence shows that taxes are a second-order determinant of dividend decisions." Managerial surveys involving non-US firms produce mixed results.

Asymmetric information

A second major market imperfection involves information asymmetry, which serves as the basis for signaling theory. According to signaling theory, managers, as insiders, choose dividend payment levels to convey private information about the firm's future prospects to investors, which in turn reduces asymmetries. Managers have an incentive to signal this private information to the investing public when they believe that

the current market value of their firm's stock is below its intrinsic value. Dividend initiations and omissions are opposing and complementary events that convey positive and negative future prospects of a firm, respectively. Therefore, they generate opposite abnormal returns on the announcement date.

Empirical tests involving the signaling explanation are voluminous and offer mixed results. According to Allen and Michaely (2003), the accumulated evidence indicates that changes in payout policies are not motivated by firms' desire to signal their true worth to the market. DeAngelo *et al.* (2008) conclude that a simple asymmetric information framework that suggests a need to distribute free cash flows based on the agency cost argument of Jensen (1986) and security valuation argument of Myers and Majluf (1984) does a good job of explaining the main features of observed payout policies.

Based on his review of the literature, Filbeck (2009, p. 174) notes, "Overall, most empirical evidence tends to support theoretical models regarding the ability of dividend changes to affect share price." One potential reason for this market reaction is that dividend changes signal future prospects of the firm, which may include future earnings. Filbeck (p. 174) concludes, "While signaling theory alone cannot explain the existence of firm dividend policy and subsequent changes in policy for dividend-paying stocks, it does offer some reasons why firms should carefully consider changes in dividend policy in terms of the market reaction to such changes."

The results based on management surveys generally produce agreement involving statements about dividend signaling. Baker *et al.* (2011) find that managers of both US and non-US firms generally believe that payout conveys information, which lends support to the academic signaling models. For US firms, Baker *et al.* (p. 278) state "Thus, regarding the three big market imperfections, the survey results appear more supportive of signaling than of taxes and clientele effects and agency costs." For non-US firms, Baker *et al.* (p. 299) conclude "While no explanation has universal support, signaling theory appears to have the most support based on the non-US studies reviewed." By contrast, Farre-Mensa *et al.* (2014, p. 92) conclude that "Signaling theories have found only weak support, both empirically in in survey evidence […]". However, their review of the survey evidence on signaling is limited and overlooks numerous studies examined by Baker *et al.* (2011).

Agency costs

The third major market imperfection is agency costs. Paying dividends provides a mechanism for mitigating the overinvestment problem by reducing agency costs of free cash flows. For example, paying regular cash dividends may indicate that managers of slower-growth firms are aware of the dangers of overinvestment and are willing to submit the firm to greater market scrutiny. Companies paying out cash that they could use to fund new investments must access capital markets more frequently than those that do not. This increased scrutiny by markets adds value as investors monitor managers' investment and operating decisions.

Mixed empirical evidence exists as to whether dividends are successful in reducing agency costs among the firm's stakeholders. This is not surprising given that agency costs are not directly observable and difficult to relate with a firm's dividend policy. Despite this mixed evidence, Megginson (1996, p. 377) states "the agency cost model is currently the leading mainstream economic model for explaining observed dividend payouts." Allen and Michaely (2003) conclude that both dividends and repurchases

seem to be paid to reduce potential overinvestment by management, which is an agency costs argument. Based on his review of the pertinent literature, Mukherjee (2009) concludes that the cumulative evidence supports the agency cost model as a contender for explaining why companies pay dividends. Bøhren *et al.* (2012) provide some of the strongest support yet for the argument that dividend payments can reduce agency-related conflicts among the firm's stakeholders. In a recent synthesis of academic research on corporate payout policy, Farre-Mensa *et al.* (2014) conclude that of the traditional motives of why firms pay out dividends (taxes, asymmetric information, and agency costs), the evidence is most persuasive in favor of agency considerations. Baker *et al.* (2011) examine the results from various US and non-US surveys involving agency costs and find mixed results.

Behavioral explanations

Many behaviorally based theories attempt to explain why investors find dividends attractive. Different behavioral elements include self-control, mental accounting, hedonic editing, and regret aversion. Various demographic factors involving age, income, and retirement status can also affect an investor's preference for dividends. Shefrin (2009) examines various behavioral explanations of dividends and concludes that a combination of anecdotal and empirical evidence provides strong support for behaviorally based theory. For example, the evidence shows that older, retired, and low-income households favor dividend-paying stocks to finance consumption. By contrast, younger investors with moderate to high incomes have little need to finance consumption with dividends. However, survey-based evidence summarized by Baker *et al.* (2011) shows mixed results in Germany but a lack of support in the Netherlands for behavioral theory.

Firm life-cycle theory

According to the firm life-cycle theory of dividends, a firm's ability to generate cash overtakes its ability to find profitable investment opportunities as it matures. Thus, a firm should eventually distribute any free cash flow to shareholders as dividends. This theory sharply contrasts with the signaling theory of dividends, which predicts that a firm will pay dividends to signal to the market that its growth and profitability have improved. A firm decides upon its optimal dividend policy by the relationship between its return on equity and its cost of capital, which is determined by the firm's life cycle stage. Based on their review of the literature, Bulan and Subramanian (2009, p. 211) conclude "Overall, the empirical evidence favors the firm life-cycle theory of dividends in terms of dividend payment propensity and life cycle characteristics." Baker *et al.* (2011) find that the limited evidence based on survey research supports the life-cycle theory of dividends.

Catering theory

Baker and Wurgler (2004a) develop a catering theory of dividends, which stresses the importance of investor sentiment in decisions about dividend policy. Managers cater to investor demand by paying dividends when investors prefer dividend-paying firms and by not paying or reducing dividends when investors prefer non-dividend-paying companies. Li and Lie (2006) extend the catering theory of dividends by investigating changes in the dividend levels in the US.

Based on their review of the literature, De Rooij and Renneboog (2009, pp. 234-235) state "The empirical results […] are far from conclusive or unanimous as to whether the catering theory of dividends can explain the dividend payout." However, despite these mixed results, they conclude that the catering theory seems to explain dividend initiations better than dividend omissions. They also conclude that individual firm characteristics should be integrated with investors' sentiment to explain dividend policy. Few managerial surveys examine the catering theory and these involve Canada. Baker *et al.* (2011) find that managerial views typically support this theory but caution that too few studies are available to draw definitive conclusions.

Recap on dividend policy

A striking feature of these literature surveys is that the results are far from unanimous as to what theory can best explain the dividend payout. Frankfurter and Wood (2002) conclude that none of the dividend theories or explanations is unequivocally verified. Baker *et al.* (2011, p. 251) note "There is no clear winner among the competing dividend theories, and no single theory has become the dominant solution to the dividend puzzle. Some empirical support exists for each theory." Among the three big imperfections, the agency costs and asymmetric information (signaling) explanations appear to have more convincing empirical support than the tax preference explanation. More recent theories involving behavioral considerations, life-cycle theory, and catering theory provide some useful insights despite producing some mixed results.

Others reach different conclusions based on their reviews of the literature. For example, DeAngelo *et al.* (2008) conclude that managerial signaling motives, clientele demands, tax deferral benefits, investors' behavioral heuristics, and investor sentiment have at best minor influences on payout policy. They find, however, that behavioral biases at the managerial level (e.g. over-confidence) and the idiosyncratic preferences of controlling stockholders plausibly have a first-order impact on payout policy.

Based on their review of the academic literature, Farre-Mensa *et al.* (2014) conclude that other payout motives such as changes in compensation practices and management incentives are better able to explain the observed variation in payout patterns over time than the traditional motives. They state that executive options compensation lead to more repurchases because option compensation creates an incentive not to pay dividends. They also note that non-executive employee options compensation creates an additional incentive for repurchase. This occurs because managers try to reverse the dilutive effect on earnings per share that occurs as a result of issuing shares resulting from the exercise of stock options by repurchasing shares.

Why do such differences occur? The mixed results could stem from using different time periods, methodologies, and variables to test each theory or explanation. Also, new data sources have become available over time. Lease *et al.* (2000) note the lack of empirical support for a particular dividend policy theory could result for two major reasons: first, problems in quantitatively measuring market frictions and second, the statistical complications in dealing with the myriad interactive imperfections that likely affect individual firms differently. Furthermore, those writing literature reviews could have their own interpretations of the evidence.

What determines the magnitude of dividend payouts?

Academic research shows that various factors influence dividends including firm characteristics, market characteristics, and substitute forms of dividends. Denis and

Setpanyan (2009) find many empirical determinants of corporate dividend payments among North American firms. For example, they find studies documenting that dividends are associated with such firm characteristics such as size (+), profitability (+), growth opportunities (–), firm maturity (+), regulation (+) leverage (+), insider stock holdings (–), and institutional stock holdings (+). They also document a relationship between dividends and characteristics of the market in which the firm operates including tax laws, investor protection, product market competition, investor sentiment, and public or private status as well as the availability of substitute forms of corporate payout, mainly, share repurchases.

Bancel *et al.* (2009) provide survey evidence involving cross-country determinants of payout policy for European firms. They provide some assuring evidence that the major factors influencing dividend policy are similar across countries. Yet, they find that some country-specific differences exist, which suggests that dividend policy is determined by a complex interaction of a country's legal and institutional structure and firm characteristics, such as ownership structure.

Stylized facts

Dividend policy has captured the attention of academicians and corporate managers alike. Numerous books and hundreds of articles are available on the subject. So what have we learned about dividend policy involving cash dividends? Although the dividend puzzle is not fully resolved, theoretical and empirical studies including management surveys have provided insights to move us closer to resolution. Here are some stylized facts identified by Farre-Mensa *et al.* (2014) among others about dividend policy:

- Corporate payouts involve large amounts of money and imply large wealth transfers in the economy.
- US evidence indicates that the importance of cash dividends as a component of investors' total returns has declined over time.
- Share repurchases now play an increasingly important role in firms' payout policies in countries permitting stock buybacks.
- The popular view is that dividend policy is important, as evidenced by the large amounts of money involved and the attention that firms, security analysts, and investors give to dividends.
- Firms tend to follow a managed, not a residual, dividend policy and are strongly committed to maintaining the level of dividends and smoothing dividend over time.
- Certain determinants of cash dividends are consistently important over time in shaping actual dividend policies. These factors are similar to those identified by Lintner (1956) and include the stability of past dividends and current and anticipated earnings.
- The market responds positively to payout increases and negatively to payout decreases.
- No universal set of factors is appropriate for all firms because dividend policy is sensitive to numerous factors including firm characteristics, market characteristics, and substitute forms of dividends.

- Universal or one-size-fits-all theories or explanations for why companies pay dividends are too simplistic.

Practical implications

Managers searching for help in making dividend policy decisions encounter many theories and explanations. Yet, some practical implications can be drawn from this body of literature:

- Under real-world conditions, determining an appropriate payout policy involves a difficult choice between the need to balance many potentially conflicting forces.
- Dividend policy decisions should be made on a firm-specific or micro level because various imperfections or factors affect firms differently. Thus, firms should develop an idiosyncratic view of dividends.
- Managers should consider the relative importance of the imperfections or factors as well as their interactions when making dividend policy decisions.
- Managers should not consider dividend policy in isolation from its other financial policies because in practice dividend policy is connected with investment policy and financing policy.
- Managers should be cognizant that options compensation creates an incentive to repurchase shares instead of paying cash dividends.
- Solving the dividend puzzle has become more challenging by including additional factors such as firm characteristics, market characteristics, and substitute forms of dividends.

Avenues for future research

Dividend policy is likely to be a topic of ongoing debate in finance because questions still remain unanswered. Below are some potential avenues for future research based on gaps identified in the literature:

- What is the effect of ultimate ownership structure (e.g. pyramidal ownership structures, cross-holdings, and multiple-class shares) on the relationship between taxation and dividend policy?
- Given the shifting trend toward share repurchases, do changes in dividend policy indicate future prospects for the firm or simply a change in corporate policy in keeping with market trends?
- How can researchers reconcile the evidence that dividend initiation does not signal life cycle changes but dividend increases and decreases do?
- What specific cross-country determinants help to explain dividend policy?
- To what extent do firms manage earnings to meet dividend-related, rather than profitability-related, objectives?
- How can payout decisions be considered as an integral part of a firm's larger financial ecosystem, with important implications for financing, investment, and risk management?

- How can payout policy be tied to capital structure decisions?
- What explains the choice between dividends and share repurchases beyond compensation and incentives?

Final observations

Although extensive theorizing and empirical research into the motivations of paying dividends help to explain the dividend puzzle, all of the pieces of this puzzle still do not fit into a coherent whole. For example, these efforts have not resulted in establishing an "optimal" dividend policy or a unified theory on dividends. As Farre-Mensa *et al.*, 2014, p. 92) note, "[…] until recently, most of the academic literature has analyzed payout policy in isolation."

Despite some inconclusive evidence about the competing theories of paying dividends, our review highlights that some theories or explanations have relatively more empirical support than others. Nonetheless, no single model to date provides a complete picture in which all of the pieces of the dividend puzzle fit seamlessly. Why does this occur? According to H.L. Mencken (1949), "Explanations exist; they have existed for all time; there is always a well-known solution to every human problem – neat, plausible, and wrong."

Academic researchers typically develop a theory in the abstract and then try to find empirical evidence to validate the theory. They tend to focus only on one piece of the dividend puzzle at a time. Consequently, many of the theories or explanations of why firms pay dividends are relatively simple. The competing frictions model of Lease *et al.* (2000) is a notable exception. These authors note, however, that comprehensively examining the interactions among the market imperfections becomes "mind-numbing."

Other approaches are available. For example, instead of building a theory in the abstract, researchers could start by determining the factors or characteristics that decision makers consider important in setting their firm's dividend policy and then estimating the relative weights. This positive rather than normative-based approach could help build more realistic dividend models, perhaps on a firm-specific basis. Yet, a drawback of the positive approach is that we need to know more about why firms behave in one way or another.

Another approach would be to develop a richer, more unified, and complex theory of dividend policy so as to explain more of the empirical regularities than currently exists. Such a holistic model might combine modern financial theories, firm and market characteristics, as well as behavioral and psychological influences. Thus, researchers should consider developing a new paradigm to deal with the dividend puzzle. Until they develop such a model, the tests of various theories are likely to remain inconclusive and inconsistent. Thus, dividend policy remains a controversial area in finance that still poses challenges to managers who are faced with making dividend policy decisions and to researchers trying to explain dividend policy.

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Corresponding author
Professor H. Kent Baker can be contacted at: kbaker@american.edu