Protecting Brands, Promoting Payouts: How Trademark Protection Law Shapes Corporate Dividend Policy

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Abstract

This paper examines how trademark protection affects corporate dividend policy using the Federal Trademark Dilution Act of 1996 as a quasi-natural experiment. Our empirical analysis shows that firms with famous trademarks significantly increased dividend payments following the FTDA's passage and reduced them after its subsequent nullification in 2003. These effects are stronger for firms with better information environments, weaker corporate governance, higher growth opportunities, and lower retained earnings than for their counterparts. Additionally, the marginal value of cash holdings decreased following trademark protection, suggesting that markets recognize the reduced need for precautionary savings. Our cross-sectional results provide insights into how trademark protection is related to signaling, agency, and life cycle theories and reveal that legal protection can substitute for financial maturity in dividend decisions. Our findings provide the first causal evidence that intellectual property protection significantly influences dividend policies, highlighting a novel channel through which regulatory changes affect corporate financial decisions.

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1. Introduction

Trademarks have emerged as one of the most economically significant forms of intellectual property in modern economies. According to the latest report by the United States Patent and Trademark Office (USPTO), *Intellectual Property and the U.S. Economy: Third Edition* (updated July 2024 with 2019 data), intellectual property-intensive industries contributed about US$7.8 trillion to U.S. GDP - representing 41% of the nation's total economic output.[1] Among these industries, trademark-intensive industries are pivotal drivers: they not only lead in direct employment - providing roughly 41.6 million jobs - but also underpin a broad supply chain that lifts total employment to around 62.5 million jobs (44% of U.S. employment).[2]

The legal protection of trademarks significantly affects firms' market power and financial performance. Recent research shows that strong trademark protection enhances firms' ability to differentiate products, maintain price premiums, and establish barriers to entry (Heath and Mace, 2020). These advantages translate into stable cash flow and improved operating performance, with studies documenting substantial reductions in cash flow volatility following enhanced trademark protection (Krasnikov et al., 2009). The market recognizes these benefits, as evidenced by significant increases in firm valuations and market-to-book ratios when trademark protection is strengthened (Hsu et al., 2022).

[1] See https://www.uspto.gov/ip-policy/economic-research/intellectual-property-and-us-economy-third-edition.

[2] Trademark-intensive industries are those where firms register significantly more trademarks per employee than the national average, reflecting their heavy reliance on brand identity to drive market value. For example, beverage manufacturing (e.g., Coca-Cola), clothing retail (e.g., Zara or Gap), and online shopping (e.g., Amazon) are considered trademark-intensive industries.

Despite the growing economic significance of trademark protection and its demonstrated effects on firms' cash flows and market power, we know relatively little about how it influences corporate financial policies, particularly firms' payout decisions. This gap is especially noteworthy because trademarks fundamentally differ from other forms of intellectual property in their focus on protecting corporate reputation and brand image rather than specific innovations. Unlike patents that protect discrete technologies or copyrights that safeguard creative works, trademarks preserve the intangible relationship between firms and consumers—the accumulated goodwill, trust, and recognition that constitute brand value (Krasnikov et al., 2009). This reputational protection creates customer loyalty and pricing power that can be renewed indefinitely, providing a more permanent foundation for financial planning than time-limited patents (Madden et al., 2006). While mounting evidence suggests that intangible capital fundamentally alters traditional corporate finance frameworks (Falato et al., 2022~~0~~), existing studies of intellectual property rights have largely focused on patents (e.g., Farre-Mensa et al., 2020; Hegde et al., 2018) or copyright protection (e.g., Goldstein, 2001; Landes and Posner, 2003). Our study's focus on trademarks addresses this gap by examining how firms leverage reputation-based competitive advantages—a mechanism that becomes increasingly important as brand value dominates modern corporate assets.

Understanding how trademark protection affects dividend policy is crucial because dividends represent a primary channel through which firms distribute the benefits of enhanced market power to shareholders. Despite the well-documented decline in the propensity of public firms to pay dividends over recent decades (Fama and French, 2001; Skinner, 2008), dividend policy remains a fundamental corporate finance decision

deserving scholarly attention. While share repurchases have grown in popularity (Grullon and Michaely, 2002), dividends still represent a substantial portion of total shareholder payouts, with aggregate dividend payments reaching record levels in absolute terms (Floyd et al., 2015). Moreover, dividend-paying firms continue to be rewarded with higher valuations and lower costs of capital (Baker and Wurgler, 2004), and dividend announcements still trigger significant market reactions (Michaely et al., 1995), suggesting that dividends serve functions beyond simple cash distribution that cannot be perfectly replicated by alternative mechanisms.

The economic mechanisms linking trademark protection to dividend policy operate through several distinct but interrelated channels. First, trademark protection directly affects firms' cash flow stability by reducing competitive threats and maintaining price premiums. Recent studies document that firms with strong trademark protection experience lower cash flow volatility and higher operating margins than similar firms without such protection (e.g., Krasnikov et al., 2009; Madden et al., 2006). This enhanced stability reduces the need for precautionary cash holdings and increases firms' capacity to maintain consistent dividend payments. Second, trademark protection creates barriers to entry and product differentiation advantages that strengthen firms' market power. Research shows that strengthening trademark protection increases operating margins, which is an indication of increased market power (e.g., the ability to maintain market share and pass on costs) (Heath and Mace, 2020). Greater market power results in higher and more sustainable cash flows available for distribution to shareholders. Third, trademark protection improves firms' access to external capital markets by providing more stable collateral value and reducing information asymmetry about brand value. Studies find that firms with stronger trademark

protection face lower costs of debt and have significantly better access to both public and private equity markets (Chiu et al., 2021) than firms without such protection. This improved access to external financing reduces firms' need to retain earnings for future investment, potentially enabling higher dividend payments.

Building on these economic insights and theories of dividend policies, we develop four hypotheses about how trademark protection affects dividend policy.[3] Our baseline hypothesis suggests that after the implementation of trademark protection laws, firms with famous trademarks will increase dividend payments, due to their improved cash flow stability (Heath and Mace, 2020) and their stronger market positions backed by legally protected barriers to entry (Hoberg and Phillips, 2016).

Our next three hypotheses are null hypotheses because there are arguments for opposing outcomes. The second hypothesis addresses how information environments moderate the effects of trademark protection. Traditional signaling theory suggests that better information environments strengthen dividend responses, because the enhanced protection makes dividend signals more credible and valuable (Ham et al., 2020). However, the substitution theory of corporate disclosure suggests that poor information environments might strengthen dividend responses, as firms might use increased payouts to substitute for opaque information environments (Healy and Palepu, 2001). Lang and Bhattacharya (1979) and Miller and Rock (1985) also argue that dividend announcements have larger price impacts for firms with high information asymmetry than for their counterparts.

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[3] Our study examines the effect of trademark protection on dividend policy, with the three dividend theories (signaling, agency, and life cycle) serving as theoretical frameworks to identify the channels through which this effect operates. Rather than testing these theories directly, we use them to develop predictions about how trademark protection's impact on dividends varies across different firm characteristics - information environment quality, governance structure, and life cycle stage. This approach allows us to document not only whether trademark protection affects dividend policy, but also the economic mechanisms underlying this relationship.

Our third hypothesis highlights a particularly intriguing tension within agency theory. The substitution hypothesis suggests that firms with strong governance would have weak dividend responses to trademark protection, as these firms already have effective monitoring mechanisms that reduce agency concerns (Cremers and Nair, 2005; La Porta et al., 2000b) and therefore might prioritize brand-building investment or financial flexibility when trademark protection enhances cash flows (DeAngelo et al., 2006; Harford et al., 2008). Conversely, the complementarity hypothesis argues that strong governance might lead to pronounced dividend responses, as well-governed firms are more responsive to economic changes than poorly governed firms and thus more likely to distribute excess cash (Jensen, 1986; Lambrecht and Myers, 2012), particularly when trademark protection increases the resources subject to managerial discretion and triggers the disciplining function of dividends (Easterbrook, 1984; Giroud and Mueller, 2011; Hoberg and Phillips, 2016).

Our fourth hypothesis examines competing predictions about life cycle effects. One perspective suggests that mature firms with substantial retained earnings would demonstrate stronger responses to trademark protection than early-stage or growth firms, as they are natural dividend payers with established financial stability (DeAngelo et al., 2006) and trademark protection would simply increase their distributable resources without creating compelling new investment opportunities (Fama and French, 2001). The competing perspective argues that early-stage and growth firms would exhibit stronger responses, as trademark protection might accelerate their life cycle progression by reducing cash flow volatility (Grullon et al., 2002), providing organizational capital that substitutes for accumulated financial capital (Owen and Yawson, 2010) and improving access to

external financing (Hsu et al., 2022). This would enable young firms to initiate dividends earlier than typically expected, resulting in proportionally stronger responses to trademark protection than mature firms with already established dividend policies.

We examine these hypotheses by investigating the relationship between trademark protection and dividend policy using the Federal Trademark Dilution Act (FTDA) as a quasi-natural experiment. Enacted in 1996, the FTDA significantly strengthened U.S. trademark protection by introducing federal-level safeguards against trademark dilution, allowing owners of famous trademarks to seek injunctive relief against uses that could weaken their marks' distinctiveness. This exogenous shock to trademark protection provides an ideal setting to address the endogeneity concerns that typically plague studies of intellectual property and financial policy (Brown et al., 2009), as firms' decisions to invest in intangible assets and their payout policies are often jointly determined. The nullification of the FTDA's main provision by the U.S. Supreme Court in 2003 provides additional identification power to our tests.

We use U.S. trademark data from the USPTO, along with financial and capital market data from Compustat and CRSP, to perform difference-in-differences analyses. Consistent with our first hypothesis, we find that the FTDA has a significant positive impact on dividend payments for firms with famous trademarks. Specifically, firms holding famous trademarks in 1995 had greater increases in their dividend payouts following the FTDA's passage than firms without famous trademarks. This effect persists even after controlling for various firm characteristics, firm fixed effects, and industry-year fixed effects.[4]

[4] Our industry-year fixed effects account for time-varying industry shocks. Additionally, we conduct placebo tests assigning treatment status to firms in similar industries but without famous trademarks. These tests find no significant effects, suggesting that our results are not driven by industry-specific trends.

Conversely, the subsequent nullification by the Supreme Court in *Moseley v. V. Secret Catalogue, Inc*. (2003; *Moseley* hereafter) of the FTDA's main provision in 2003 led to a decrease in dividend payments for firms with famous trademarks. These effects are economically meaningful and statistically significant across different model specifications, supporting our prediction that trademark protection enhances firms' ability to maintain stable dividend policies (Grullon et al., 2002; Hoberg and Phillips, 2016).

We use cross-sectional analyses to test the other three hypotheses. First, we find that the implementation of the FTDA has stronger positive effects on the dividends of firms with low earnings management and high analyst following than on their counterparts. This suggests that firms with better information environments are more likely to use dividends to signal their improved financial position and prospects following enhanced trademark protection than firms in poor information environments. Second, we find that trademark protection has a stronger effect on dividend payouts in firms with weak corporate governance than in firms with strong corporate governance, which is consistent with the substitution hypothesis that dividends serve as an alternative governance mechanism in poorly governed firms (La Porta et al., 2000b). This finding suggests that poorly governed firms rely more heavily on dividend commitments to mitigate agency concerns when trademark protection increases available resources, while well-governed firms use more efficient monitoring tools to control managerial behavior (Harford et al., 2008). Third, we find that firms with high growth opportunities and low retained earnings exhibit stronger dividend responses to trademark protection than their counterparts, with mature firms showing minimal changes in dividend policy. This asymmetric response is consistent with the notion that trademark protection effectively accelerates firms' transition toward mature-

firm financial policies by substituting institutional maturity for accumulated financial capital.

Additionally, consistent with market recognition of enhanced trademark protection, we find that the marginal value of cash holdings decreased following the implementation of the FTDA and subsequently reversed after its nullification in 2003. This finding implies that stronger trademark protection reduces the need for precautionary cash holdings by providing more stable cash flows. Our results are robust to a variety of checks. In particular, the placebo tests using the Trademark Law Revision Act (TLRA) of 1988, which initially contained but ultimately excluded dilution provisions similar to those in the FTDA, find that the TLRA had no significant effects on dividend policies, supporting the causal interpretation of our findings. Additional robustness tests using alternative measures of dividend payout, different sample periods, and various model specifications further confirm our main results.

While trademark protection does enhance future cash flows and market position, it is not merely another measure of these outcomes. The FTDA represents a legal right that operates through preemptive mechanisms - deterring competitor encroachment and protecting brand exclusivity - affecting firm behavior before any cash flow realization. Our findings are fundamentally different from prior literature examining how future cash flows and market position affect dividend policy, which typically finds that firms with stronger cash flows and market positions pay higher dividends. In contrast, we document that young, cash-constrained firms show the strongest dividend responses to trademark protection, suggesting it provides organizational capital that substitutes for financial resources rather than simply improving cash flows. Moreover, the immediate and symmetric reversal

following *Moseley* demonstrates that managers respond to the protection itself, not just its economic consequences. If FTDA merely proxied for cash flow improvements, we would not observe (1) stronger effects in financially constrained firms[5], (2) decreased marginal value of cash holdings, or (3) rapid policy reversals based solely on legal standard changes. These patterns reveal that trademark protection fundamentally alters firms' strategic environment and risk profile in ways that transcend traditional cash flow or market position effects.

Our study makes several important contributions. First, we contribute to the growing literature on intangible capital and corporate financial policies by providing both theoretical and empirical insights. While there are studies on how tangible assets influence dividend decisions (e.g., Denis and Osobov, 2008; Fama and French, 2001), the impact of intangible assets on payout policy remains largely unexplored. Our analysis provides the first causal evidence that intellectual property protection significantly influences firms' dividend policies.[6] Our findings are particularly important given that trademarks are regarded as the most valuable form of intellectual property (USPTO report, 20242).[7]

[5] In untabulated results, we find that the FTDA's effect on dividend payout is stronger for financially constrained firms. This pattern reflects a baseline effect: unconstrained firms already pay substantial dividends due to ample resources, so trademark protection only marginally increases their payout capacity. In contrast, constrained firms face binding restrictions preventing optimal dividend payments. Trademark protection relaxes these constraints through stable cash flows and improved capital market access (Chiu et al., 2021), enabling shifts from minimal to positive dividends—a proportionally larger change consistent with greater marginal value of resources for constrained firms (Faulkender and Wang, 2006). These results are upon request.

[6] This study is an extension of Heath and Mace (2020), who document the effects of trademark protection on cash flows and market power but do not examine how these enhanced resources are allocated. We specifically investigate the transmission mechanism from trademark protection to shareholder payouts, finding that firms distribute the benefits of trademark protection to shareholders through increased dividends rather than retaining these resources. Our cross-sectional analyses further reveal that this transmission varies systematically with firms' information environments, governance structures, and life cycle stages, providing novel insights into how intellectual property protection shapes corporate financial policy decisions.

[7] While several papers examine the FTDA's impact on firm value (Heath and Mace, 2020) and product market behavior (Hoberg and Phillips, 2016), we provide the first analysis of how enhanced trademark protection affects corporate financial policies. The FTDA setting is particularly suitable because it represents an exogenous shock to trademark protection that was not driven by contemporaneous changes in other

Second, our study advances dividend theory by examining how an exogenous institutional shock affects dividend policies through multiple theoretical channels simultaneously. While other studies test individual theory of dividend payout in isolation (e.g., DeAngelo and DeAngelo, 2006; Grullon et al., 2002), our cross-sectional analyses reveal differential responses to trademark protection across information environments, governance structures, and life cycle stages. This integrated approach provides novel insights into long-standing theoretical tensions, including the puzzling behavior of high-growth firms that increase dividends despite presumed investment needs (Smith and Watts, 1992) and the acceleration of financial maturity through non-financial means (Owen and Yawson, 2010). By leveraging the quasi-experimental setting of the FTDA, we identify causal mechanisms through which legal institutions shape dividend behavior, demonstrating how informational, governance, and life cycle factors interact with intellectual property protection to determine payout policies in ways that single-theory approaches cannot fully explain.

Third, we also contribute to the literature on how product market dynamics influence capital market outcomes. While prior work examines product market competition's effects on firm value (Hoberg and Phillips, 2016), we provide novel evidence on the transmission mechanism from product market power to shareholder distributions. Specifically, legal protection of product differentiation through trademark enforcement directly translates into increased dividends. This product-to-capital market channel is evident in our finding that cash holdings' marginal value decreases following trademark protection, as investors recognize reduced precautionary savings needs when market positions are legally protected.

intellectual property rights or broader corporate governance reforms.

Finally, we extend the literature on how the legal environment shapes corporate financial policies. While there is extensive documentation examining the impact of shareholder rights (La Porta et al., 2000a) and creditor rights (Acharya et al., 2011) on corporate decisions, the role of intellectual property rights in determining financial policies remains understudied. Our theoretical framework shows how trademark protection interacts with the information environment, governance mechanisms, and life cycle stage to affect dividend policy. Our empirical results demonstrate that strengthening trademark protection leads to significant changes in firms' dividend policies, highlighting a novel channel through which regulations affect corporate financial decisions.

The rest of this paper is organized as follows. Section 2 introduces the institutional background and reviews the related literature. Section 3 develops the hypotheses. Section 4 describes our sample, data sources, and research designs. Section 5 discusses the results. Finally, Section 6 concludes the paper.

2. Institutional Background and Literature Review

2.1. The Federal Trademark Dilution Act

Prior to 1996, protection from trademark dilution was granted only at the state level in cases of proven dilution (Oswald, 1998). The resultant patchwork of state-level statutes and precedents created substantial uncertainty for nationally recognized brands (Oswald, 1998~~9~~; Welkowitz, 2012). The concept of dilution, which began to play an increasing role in litigation after the Lanham Act of 1946, is much broader than infringement. Infringement focuses on consumer confusion, whereas dilution posits that a trademark has broader effects by creating an "aura" and evoking specific feelings in consumers related to concepts,

attributes, or associations linked to a brand name (Welkowitz, 2012).[8]

The implementation of the FTDA in 1996 marked a watershed moment in U.S. trademark protection by introducing federal-level safeguards against trademark dilution.[9] The FTDA significantly expanded trademark rights by no longer requiring proof of actual infringement—trademark holders needed to only convince a judge of the likelihood of dilution to obtain an injunction (Bickley, 2011).[10] This change was particularly important for famous brands, as the FTDA explicitly limited dilution protection to "famous" trademarks. The law's impact is evidenced in cases like *Nabisco v. PF Brands* (1999), where Pepperidge Farms successfully blocked Nabisco from selling fish-shaped crackers, despite Nabisco having already invested US$3.4 million in product development.

The FTDA provides an ideal setting to examine the relationship between trademark protection and dividend policy for several reasons. First, it represents an exogenous shock to trademark protection that is not driven by firm-specific characteristics or market conditions (Heath and Mace, 2020). Second, the subsequent nullification by the Supreme Court in *Moseley* of the FTDA's main provision, which required proof of actual economic damages, provides additional identification power.[11] This regulatory reversal allows us to

[8] Here are some examples of trademark dilutions. (1) *Moseley v. Victoria's Secret Catalogue, Inc.* (2003). In this case, Victoria's Secret claimed that the defendant's use of the "VS" mark diluted the distinctiveness of Victoria's Secret's "Victoria's Secret" mark. (2) *Louis Vuitton Malletier v. Dooney & Bourke, Inc.* (2006). Louis Vuitton alleged that Dooney & Bourke's use of a "monogram" pattern similar to Louis Vuitton's famous "LV" monogram diluted the distinctiveness of the "LV" mark. (3) Hypothetical Case of *McDonald's Golden Arches*. If a seedy or low-quality establishment were to use golden arches similar to McDonald's in its branding, it could cause consumers to associate McDonald's with that negative or unseemly establishment. This association would harm McDonald's reputation and brand image, amounting to dilution by tarnishing.

[9] Prior to the FTDA, protection against dilution existed through a patchwork of state laws, with 28 states having some form of anti-dilution statute. However, these state laws varied substantially in scope and enforcement, creating uncertainty for national brands.

[10] The FTDA's passage followed a decade-long lobbying effort by major U.S. corporations and represented the most important change to U.S. trademark law since the Lanham Act of 1946. The law passed with broad bipartisan support, suggesting that its enactment was not driven by partisan political considerations.

[11] The Supreme Court's decision in *Moseley* was unexpected by legal scholars and practitioners. A survey of trademark attorneys conducted before the ruling showed that 78% expected the Court to uphold the FTDA's

observe whether the effects of trademark protection are symmetric and causal. Third, the fact that only "famous" trademarks qualified for protection creates a natural treatment group, allowing for a difference-in-differences research design.

This setting provides a uniquely powerful context for advancing our understanding of dividend theory. From a signaling theory perspective, this event study reveals whether and how firms adjust dividend signals when cash flow predictability is changed by legal rather than operational means, providing novel evidence on the relationship between signal credibility and information environment quality. From an agency theory perspective, the FTDA's focus on famous trademarks creates heterogeneous effects across governance structures[12], allowing us to observe whether dividend policy primarily functions as a substitute for weak governance or as a complementary mechanism in well-governed firms when market power increases. From a life cycle theory perspective, this setting allows us to test whether the legal protection of intellectual property can function as a form of organizational maturity that substitutes for accumulated financial capital in dividend decisions - a mechanism not previously identified in the literature. Moreover, the law's implementation in 1996 preceded major shifts in the importance of intangible assets (Peters and Taylor, 2017), making it a particularly relevant setting for understanding how intellectual property protection shapes corporate financial policies.

2.2. Theories Related to Dividend Policies

"likelihood of dilution" standard.

[12] Famous trademarks generate the largest cash flows and market power among intellectual property assets. When the FTDA strengthened their protection, it created the most significant increases in resources under managerial control, making the quality of governance mechanisms particularly important. Firms with different governance structures would thus show varying responses in how they distribute these enhanced resources, allowing us to identify whether dividends substitute for or complement internal governance mechanisms.

2.2.1. Dividend Signaling Theory

The signaling theory of dividends, pioneered by Bhattacharya (1979), Miller and Rock (1985), and John and Williams (1985), posits that firms use costly dividend payments to convey private information about future prospects to market participants. The theory suggests that dividends are credible signals because they are costly - firms must maintain sufficient future cash flows to sustain dividend payments or face significant market penalties (Benartzi et al., 1997). Recent research shows that the effectiveness of dividend signals varies significantly with information asymmetry and market structure, though the evidence is mixed. While Ham et al. (2020) find stronger signaling effects in transparent environments where market participants can better interpret signals, other studies document the opposite. Bhattacharya (1979) and Miller and Rock (1985) theorize that dividends are most valuable as signals precisely when information asymmetry is high, as they provide credible information that cannot be obtained elsewhere. Empirically, Li and Zhao (2008) find that dividend announcements generate larger price reactions for firms with poor information environments, and Dewenter and Warther (1998) show stronger dividend signaling in opaque markets.

The relationship between information environment and dividend signaling remains contested. Healy and Palepu (2001) suggest that high analyst coverage makes dividend signals more valuable by helping resolve remaining information asymmetries, while Skinner and Soltes (2011) find dividend increases are more credible when accompanied by high earnings quality. However, these findings coexist with evidence that dividends serve as substitutes for poor disclosure quality - firms in opaque information environments may rely more heavily on costly dividend signals to convey private information (Lang and

Lundholm, 1993; Francis et al., 2005).

2.2.2. Agency Theory and Dividend Policy

According to agency theory, dividend policies mitigate conflicts between managers and shareholders (Jensen, 1986). The free cash flow hypothesis suggests that firms with excess cash and limited investment opportunities should increase payouts to reduce agency costs, thus limiting the resources under managerial control. Dividend payments force managers to subject themselves to external capital market discipline when seeking funds for new investments, thereby reducing managerial discretion and the potential extraction of private benefits (Easterbrook, 1984).

There is empirical evidence on the role of dividends in corporate governance. Some studies show that dividend increases occur most frequently in firms with substantial free cash flow relative to investment opportunities, where agency concerns are most acute (Grullon et al., 2002). However, other studies demonstrate that firms with weak governance structures (i.e., high agency problems) tend to pay low dividends (La Porta et al., 2000b), and improved governance is often followed by increases in payouts (Fama and French, 2001). Agency theory helps to explain why dividend policy varies systematically with firm characteristics, institutional environments, and legal protections for investors, complementing other theoretical approaches to understanding corporate payout decisions.

2.2.3. Life Cycle Theory of Dividends

The life cycle theory of dividends, developed by DeAngelo et al. (2006), posits that firms' dividend policies evolve with their business maturity. The theory suggests that young firms with high growth opportunities and limited resources tend to retain earnings, whereas mature firms with established business models and stable cash flows are natural dividend

payers, and thus firms with greater retained earnings are more likely to pay dividends. Faff et al. (2016) show how different forms of institutional maturity can accelerate this progression. Complementing these findings, Heath and Mace (2020) find that trademark protection provides a level of stability typically associated with mature firms.

Some extensions of life cycle theory focus on how different forms of organizational capital affect firms' progression through life cycle stages. Owen and Yawson (2010) show that intangible assets can accelerate life cycle progression, and Brown et al. (2009) demonstrate how accumulated organizational capital can substitute for financial capital in determining firm maturity. This line of research suggests that institutional factors like trademark protection might provide a form of organizational maturity that substitutes for accumulated financial capital in dividend payment decisions.

3. Hypothesis Development

3.1. Baseline Effect of Trademark Protection

We argue that enhanced trademark protection should increase dividend payments by reinforcing cash flow stability and market power. First, trademark protection, unlike patents, has unlimited duration if maintained properly, providing a more permanent foundation for long-term dividend commitments. Second, trademark protection creates legally enforceable barriers against brand dilution, which stabilizes cash flows by allowing firms to maintain price premiums with less competitive pressure (Heath and Mace, 2020).[13] Third, the market position secured through trademark protection requires less ongoing

[13] We verify the cash flow stability channel by examining changes in cash flow volatility, operating leverage, and earnings persistence around the implementation of the FTDA. In our sample, treated firms experience significant improvements in all three measures, supporting our prediction that trademark protection enhances cash flow stability.

capital investment than other forms of intellectual property. Finally, enhanced trademark protection improves firms' access to external capital markets (Chiu et al., 2021), reducing their need to retain earnings for future investment. Based on the above arguments, we propose the following hypothesis.

H1: The FTDA's enhancement of trademark protection increases firms' dividend policies.

3.2. Information Environment Effects

There are competing predictions regarding the effects of firms' information environments on the relationship between trademark protection and dividend policy. One perspective suggests that good information environments will strengthen dividend responses to trademark protection. In good information environments, characterized by high analyst coverage and low earnings management, markets can better understand and value the enhanced stability provided by trademark protection. Furthermore, when financial reporting quality is high, dividend signals become more credible, because they are supported by transparent financial information (Skinner and Soltes, 2011).

The opposing view argues that firms with poor information environments might actually have stronger dividend responses to trademark protection than firms with good information environments. This perspective builds on the substitution theory of corporate disclosure (Healy and Palepu, 2001), which suggests that firms use dividends as a substitute for weak information environments. When firms operate in opaque information environments, they may rely more heavily on dividend payments to signal their financial strength and future prospects. Bhattacharya (1979) explicitly theorizes dividends as credible signals, especially when asymmetric information is high. Firms use dividends as

signals precisely because investors cannot directly observe managers' private information. Miller and Rock (1985) also explicitly argue that dividend announcements convey managers' private information about firm profitability, directly tying dividend impact to information asymmetry.

These competing arguments lead to the following null hypothesis.

H2: The effect of trademark protection on dividend payouts does not vary with the quality of firms' information environments.

3.3. Agency Theory and Corporate Governance Effects

The relationship among trademark protection, corporate governance, and dividend policy presents intriguing theoretical tensions. One perspective suggests firms with strong governance will have weak dividend responses to trademark protection. This substitution hypothesis posits that well-governed firms already have effective monitoring mechanisms and incentive alignments that reduce agency concerns, decreasing the need to use dividends as a disciplining device (Cremers and Nair, 2005; La Porta et al., 2000b). When trademark protection enhances cash flows and market power, firms with strong governance might prioritize investing in brand-building activities or maintaining financial flexibility rather than increasing dividends (DeAngelo et al., 2006). Additionally, governance mechanisms like board independence and institutional ownership may more efficiently constrain managerial behavior than dividend commitments when competitive pressure declines (Grinstein and Michaely, 2005; Harford et al., 2008).

The competing perspective argues that strong governance leads to greater dividend responses. This complementarity hypothesis suggests that well-governed firms are, relative

to poorly governed firms, more responsive to economic changes and more likely to distribute excess cash than to retain it for managerial benefit (Jensen, 1986; Lambrecht and Myers, 2012). When trademark protection enhances cash flow stability and reduces competitive pressure, it increases the resources that are potentially subject to managerial discretion, making dividends' disciplining function particularly valuable in well-governed firms (Easterbrook, 1984). Moreover, strong governance mechanisms may amplify firms' responsiveness to changes in their operating environment, enabling more effective adaptation of financial policies to shifts in market power and competitive positioning (Giroud and Mueller, 2011; Hoberg and Phillips, 2016).[14]

Therefore, we propose the following null hypothesis.

H3: The effect of trademark protection on dividend payouts does not vary with firms' corporate governance quality.

3.4. Life Cycle Effects

Life cycle theory offers competing predictions about which stages of firm development are associated with strong dividend responses to trademark protection. One perspective suggests that mature firms will demonstrate stronger responses to trademark protection than early-stage and growth firms. According to DeAngelo et al. (2006), mature firms with substantial retained earnings are natural dividend payers, as they have established the

[14] While our primary focus is on Type I agency problems (manager-shareholder conflicts), Type II agency problems (controlling-minority shareholder conflicts) may also influence the relationship between trademark protection and dividends. Minority shareholders, facing uncertainty about future cash flows when trademark protection is weak, may demand higher current dividends as compensation for bearing this risk (La Porta et al., 2000b). This mechanism would predict stronger dividend responses to trademark protection in firms with concentrated ownership or weak minority shareholder protection, as enhanced trademark protection reduces cash flow uncertainty and alleviates minority shareholders' concerns about expropriation. However, in the U.S. context where Type I agency problems predominate due to dispersed ownership structures, we expect the manager-shareholder conflict to be the primary channel.

financial stability necessary to distribute cash. Enhanced trademark protection would simply increase their distributable resources without creating compelling new investment opportunities (Fama and French, 2001), leading to larger dividend increases among these mature firms.

The competing perspective suggests that early-stage and growth firms exhibit stronger dividend responses to trademark protection than mature firms. While traditional life cycle theory suggests that young firms should prioritize retention (Smith and Watts, 1992), trademark protection might accelerate their progression through the life cycle. Protected trademarks reduce cash flow volatility, traditionally a significant barrier to dividends for young firms (Grullon et al., 2002). They also provide organizational capital that substitutes for accumulated financial capital (Owen and Yawson, 2010) and improve access to external financing (Hsu et al., 2022). These effects could enable young firms to initiate or increase dividends earlier than typically expected in their life cycle, resulting in a proportionally stronger response to trademark protection than mature firms that have already established stable dividend policies.

Therefore, we propose the following null hypothesis.

H4: The effect of trademark protection on dividend payouts does not vary with firms' life cycle.

4. Data Sample and Research Design

4.1. Data Sample

We collect U.S. trademark data from the USPTO and follow the methodology of Heath and Mace (2020) to match trademarks registered in a given year with corresponding

Compustat firm-years. Financial and capital market data are sourced from Compustat and CRSP, respectively. Our sample is limited to U.S. firms from 1989 to 2005 with book assets and market values of at least US$1 million, and with non-missing research variables. Using the registration, renewal, and expiry dates of each USPTO trademark, we determine each firm's stock of trademarks. All of the continuous variables are winsorized at the 1% and 99% levels, and industries are classified at the four-digit level using the North American Industry Classification System (NAICS).[15]

Table 1 presents the summary statistics for our key variables. Notably, the mean dividend-to-equity ratio (*Dividends*) is 0.571 for the full sample, with substantial variation, as indicated by the standard deviation of 1.670. About 11.6% of the firms in our sample held famous trademarks in 1995 (*FamousTM1995*). The sample firms are diverse in terms of size, profitability, and other characteristics, providing a rich dataset for our analysis.

4.2. Regression Design

To examine the causal impact of trademark protection on firms' dividend payouts, we leverage two key events that led to an increase and a decrease in the legal protection of certain trademarks. The first event is the FTDA, enacted on January 16, 1996, which substantially strengthened trademark protection, limiting any likely dilution of "famous" trademarks (Becker, 2000; Bickley, 2011; Dollinger, 2001). The second event occurred on March 4, 2003, when the U.S. Supreme Court ruled in *Moseley* that a federal trademark dilution claim required proof of actual economic damages, effectively nullifying the

[15] We follow Heath and Mace (2020) and match USPTO trademark data with Compustat data using a multi-step procedure that combines exact matches on company names with fuzzy matching algorithms and manual verification.

protections granted by the FTDA (Pulliam, 2003). We use these two events to conduct two sets of difference-in-differences analyses.[16]

In our main specification, we follow Heath and Mace (2020) and classify a trademark as plausibly affected by the FTDA (i.e., "famous" trademark) if it was registered in 1974 or earlier and remained active as of January 16, 1996. This criterion ensures that, as of the FTDA's effective date, a plausibly famous trademark had been renewed at least once and had been in active use for at least 21 years.

Following Heath and Mace (2020), we classify firms into treatment and control groups based on their trademark holdings.[17] Firms with one or more plausibly famous trademarks as of 1995 are assigned to the treated group, and firms with no such trademarks are placed in the control group for the first event.[18] The same classification procedure is applied to the second event, using 2002 as the reference year.[19]

For the first event, our specification is as follows:

[16] To address potential violations of the parallel trend assumption, we use a synthetic control method following Abadie et al. (2010). This approach constructs a synthetic control group that matches the pre-treatment trend in the dividend policies of treated firms. The results (untabulated) are consistent with our main findings.

[17] While our main analysis uses a binary treatment variable following Heath and Mace (2020), we address trademark heterogeneity in two ways. First, regarding the number of trademarks, approximately 23% of treated firms hold multiple famous trademarks. In robustness tests (footnote 17), we weight observations by the number of famous trademarks and find qualitatively similar results. Second, regarding trademark quality and value, our identification strategy inherently captures higher-value trademarks by requiring they be (i) registered before 1974 and (ii) continuously renewed through 1995, indicating at least 21 years of commercial value. This approach aligns with the FTDA's focus on "famous" marks, which courts interpret as marks with substantial consumer recognition and market value (Hsu et al., 2022).

[18] Our control group consists of firms without famous trademarks but with similar pre-treatment characteristics. To ensure robustness, we construct three alternative control groups: (1) firms with trademarks registered just after our 1974 cutoff, (2) firms with trademarks that failed to achieve renewal, and (3) a propensity score matched sample based on pre-FTDA characteristics including size, profitability, and industry.

[19] Our sample selection procedure requires firms to have non-missing data for all of the control variables. To ensure that our results are not driven by this requirement, we conduct two robustness checks: (1) using a reduced set of controls to maximize sample size, and (2) using multiple imputation for missing values. Both approaches produce results that support our main findings.

$$\frac{Dividends}{Equity}_{it} = \beta(FamousTM1995_i \times PostFTDA_t) + \gamma X_{it} + \phi_i + c + \lambda_{jt} + \epsilon_{it} \quad (1)$$

where firms are indexed by i, industries are denoted by j, and ϕ_i, ϕ_i , and λ_{jt} are firm, year, and industry-by-year fixed effects, respectively. The dependent variable, *Dividends/Equity*, is defined as dividends scaled by total equity multiplied by 100. The variable *FamousTM1995* is a dummy that equals one if a firm held one or more famous trademarks in 1995 and zero otherwise. *PostFTDA* is a dummy variable that equals zero for all years from 1989 to 1995 and one for all years from 1996 to 2002 to ensure that we cover 7 years surrounding the enactment of the FTDA (1996).

The term X_{it} represents firm-year control variables, including firm size (*Firm Size*), market-to-book ratio (*MB*), financial performance (*ROA*), cash holdings (*Cash Holdings*), annual buy-and-hold stock returns (*Stock Returns*), a dummy for negative profits (*LOSS*), leverage (*Leverage*), volatility of daily stock returns (*Return Volatility*), and lagged dividend payout (*Lag (Dividend Payout)*). Detailed definitions of these control variables are provided in Appendix A.

For the second event, we use the following regression model:

$$\frac{Dividends}{Equity}_{it} = \beta(FamousTM2002_i \times Post2002_t) + \gamma X_{it} + \phi_i + c + \lambda_{jt} + \epsilon_{it} \quad (2)$$

where *Famous2002* is a dummy variable that equals one if the firm held one or more famous trademarks in 2002 and zero otherwise. *Post2002* is a dummy variable that equals zero if the year is between 1996 and 2002 and one if the year is between 2003 and 2005.[20]

[20] Our sample period aligns with that of Heath and Mace (2020), ending in 2005. This cutoff reflects the enactment of the Trademark Dilution Revision Act (TDRA) in 2006. Drafted explicitly as a response to *Moseley*, the TDRA restored the ability of famous trademark holders to sue for likely dilution without requiring proof of damages. However, it also introduced provisions that narrowed the scope of protection compared with the FTDA, failing to restore the pre-*Moseley* status quo (Beebe, 2007; Cendali and Schriefer, 2006).

The control variables are the same as those in Eq. (1).

5. Discussion of Results

5.1. Baseline Effect of Trademark Protection on Dividend Payments

Table 2 presents the difference-in-differences estimates of the trademark protection's effect on dividend payments. The dependent variable is *Dividends/Equity*. The results of our baseline specification in column (2) show that firms with famous trademarks significantly increase their dividend payouts following the FTDA's passage. The coefficient on *FamousTM1995×PostFTDA* is 0.125 ($p < 0.01$), indicating that treated firms increase their dividend-to-equity ratio by 12.5 percentage points relative to control firms in the post-enactment period.[21] This effect is economically significant, representing approximately 21.9% of the sample mean dividend ratio of 0.571. The effect remains robust after controlling for various firm characteristics including firm size, profitability, leverage, and prior dividend payout.

Consistent with our identification strategy, we find that the effect reverses following the nullification of the FTDA's main provision in *Moseley*. Column (4) shows that the coefficient on *FamousTM2002×Post2002* is -0.108 ($p < 0.01$), suggesting that treated firms reduced their dividend payouts after the law's effectiveness was diminished.[22] The

[21] Approximately 23% of the treated firms in our sample hold multiple famous trademarks. In robustness tests, we (1) use only the oldest trademarks to determine treatment status, (2) require all trademarks to meet the fame criteria, and (3) weight observations by the number of famous trademarks. The results remain qualitatively similar to our baseline results.

[22] To rule out alternative explanations, we conduct three sets of analyses. First, for product market competition, we examine changes using the Hoberg–Phillips Text-based Network Industry Classifications (TNIC) data, industry-level Herfindahl-Hirschman Index (HHI) at the NAICS four-digit level, and firm-specific product market fluidity measures. The trademark protection effects persist after controlling for these competitive dynamics. Second, regarding investor composition, we analyze changes in institutional ownership around the implementation of the FTDA using Thomson Reuters 13F data, including shifts between transient and dedicated investors following Bushee (1998). We also account for changes in analyst

magnitude of this reversal is similar to the initial increase, supporting a causal interpretation of our findings.

The dividend "ratchet effect" suggests managers only increase dividends when expecting sustainable earnings improvements (Lintner, 1956; Brav et al., 2005). Our findings align with this view: trademark protection, unlike patents, has unlimited duration if properly maintained, providing permanent competitive advantages through legally protected barriers to entry and stable price premiums (Heath and Mace, 2020). The symmetric response - dividend increases after the FTDA (1996) and decreases after *Moseley* (2003) - confirms that managers viewed trademark protection as providing sustainable rather than transitory earnings changes, justifying permanent dividend adjustments.

Table 3 tests the dynamic effects of trademark protection through an event-study framework. *Year – 1 (−2)* equals one if the fiscal year is 1 (2) year(s) before the event and zero otherwise. *Year 0* equals one if the fiscal year is the event year and zero otherwise. *Year + 1 (+2)* equals one if the fiscal year is 1 (2) year(s) after the event and zero otherwise. *Year +3* equals one if the fiscal year is 3 years or more after the event and zero otherwise. The event in column (1) is the enactment of the FTDA in 1996. The event in column (2) is the subsequent nullification of the main provision in *Moseley* in 2003. The results show that the impact becomes statistically significant starting from *Year +1* (coefficient = 0.128, $p < 0.05$) and remains stable through *Year +2* (coefficient = 0.130, $p < 0.05$). Importantly,

coverage and institutional ownership concentration. The dividend effect remains significant, suggesting that our results are not driven by changes in the investor base. Third, we examine corporate governance changes using ISS (formerly RiskMetrics) data, controlling for board independence, CEO–Chair duality, G-Index and E-Index scores, classified board status, and poison pill provisions. Our main results remain robust. Moreover, a falsification test using firms without famous trademarks that experienced similar governance changes shows no significant dividend response, supporting our interpretation that the effects are driven by trademark protection rather than these alternative channels.

we find no significant coefficients on the pre-event indicators, suggesting that the treated and control firms follow parallel trends in the period before the implementation of the FTDA or *Moseley*. The gradual manifestation of effects is consistent with firms taking time to adjust their dividend policies in response to enhanced trademark protection (Michaely and Roberts, 2012).[23]

Figure 1 Panel A illustrates the dynamic effects through an event-study framework.[24] We observe no significant differences in the trends in dividend policies between treated and control firms in the years leading up to the FTDA, supporting the parallel trend assumption. The divergence in dividend policies between the two groups becomes apparent immediately after the FTDA's implementation and persists until its nullification.

5.2. Cross-sectional Tests of the Information Environment

To better understand the channels through which trademark protection affects dividend policy, we examine how firms' information environments moderate this relationship. Our choice of earnings management and analyst following as proxies for information environment quality draws on the rich accounting and finance literature. First, earnings management, measured by the absolute value of discretionary accruals using the modified Jones model (Dechow et al., 1995; Kothari et al., 2005), captures the transparency and reliability of firms' financial reports. Low earnings management indicates high financial reporting quality and thus an information environment in which dividend signals are

[23] Alternative specifications using different time windows (2, 3, and 5 years) around the implementation of the FTDA yield similar patterns, suggesting that our results are not driven by the choice of event window.
[24] Beyond the visual evidence in Figure 1, we formally test for parallel trends using placebo treatments in the pre-FTDA period. These tests fail to reject the null hypothesis of parallel trends (p-value = 0.233), supporting the validity of our difference-in-differences design.

credible.

Table 4 presents the results of the H2 test. Panel A shows that firms with low earnings management exhibit stronger dividend responses to trademark protection than firms with high earnings management. The coefficient on *FamousTM1995×PostFTDA* is 0.173 ($p < 0.01$) for the low earnings management subsample and 0.055 (not significant) for firms in the high earnings management subsample. The difference is statistically significant ($p < 0.01$). The results remain consistent when analyzing the effect of *FamousTM2002×Post2002*. These results suggest that high earnings quality enhances firms' use of dividends as signals following trademark protection.

Second, analyst following has been widely used as a measure of information environment quality because analysts serve as information intermediaries who reduce information asymmetry between firms and investors (Lang and Lundholm, 1996; Yu, 2008).[25] High analyst following indicates large volumes of information production and dissemination, leading to efficient price discovery and signal interpretation. Table 4 Panel B demonstrates that firms with high analyst following show stronger dividend responses than firms with low analyst following. The coefficient on *FamousTM1995×PostFTDA* is 0.145 ($p < 0.05$) for the high analyst following subsample; for the low analyst following subsample, the coefficient is smaller and not significant (0.007). A similar pattern emerges when examining the interaction term *FamousTM2002×Post2002*.

The results in Table 4 suggest that the effect of trademark protection on dividends is stronger in good information environments than in poor information environments, consistent with the notion that dividend increases are more credible signals in better

[25] Analyst following data are from the I/B/E/S database.

information environments (e.g., Caskey and Hanlon, 2013; Skinner and Soltes, 2011), where sophisticated market participants can better interpret dividend signals (Healy and Palepu, 2001). The results also support the broader literature suggesting that analyst coverage improves the information environment and enables more effective corporate signaling (Hong et al., 2000; Kelly and Ljungqvist, 2012).

5.3. Cross-sectional Tests of Corporate Governance

We examine how corporate governance moderates the relationship between trademark protection and dividend policy using two widely accepted governance metrics: the entrenchment index (E-Index) developed by Bebchuk et al. (2009) and board independence. The E-Index captures the strength of shareholder rights and managerial entrenchment through various anti-takeover provisions and governance structures. Board independence, measured as the proportion of independent directors on the board, has been widely used as a key indicator of governance quality in the literature (e.g., Ali and Zhang, 2015; Brickley et al., 1994).[26]

Table 5 presents the results of tests examining how corporate governance quality affects firms' dividend responses to trademark protection. Panel A shows the results using the E-index, where firms with high index values (weak governance) are compared with those with low values (strong governance). We find that firms with weak governance exhibit stronger dividend responses to trademark protection than firms with strong governance. The coefficient on *FamousTM1995×PostFTDA* is 0.056 ($p < 0.05$) for the weak governance subsample and 0.023 (not significant) for the strong governance

[26] Board director data are from the BoardEx database.

subsample. The difference is statistically significant ($p < 0.10$). Similar patterns emerge when examining the *FamousTM2002×Post2002* interaction, where the coefficient is -0.050 ($p < 0.05$) for poorly governed firms and -0.018 (not significant) for well-governed firms, with the difference being statistically significant ($p < 0.05$).

Panel B presents the results using board independence and reveals consistent findings. The coefficient on *FamousTM1995×PostFTDA* is 0.197 ($p < 0.01$) for the weak governance subsample and 0.096 (not significant) for the strong governance subsample, with a statistically significant difference between the two groups ($p < 0.05$). Testing the *FamousTM2002×Post2002* interaction yields similar results, with the coefficient at -0.097 ($p < 0.05$) for poorly governed firms and 0.032 (not significant) for well-governed firms. The difference is statistically significant ($p < 0.01$).

These findings support the substitution hypothesis that dividend payments serve as alternative governance mechanisms when internal monitoring is not effective (Cremers and Nair, 2005; La Porta et al., 2000b). When trademark protection enhances cash flow stability and increases resources under managerial control, poorly governed firms, relative to well-governed firms, rely more heavily on dividend commitments as a self-disciplining device to mitigate agency concerns. In contrast, well-governed firms benefit from more efficient monitoring tools to control managerial behavior and potentially direct the enhanced resources toward more productive uses (Grinstein and Michaely, 2005; Harford et al., 2008).

5.4. Cross-sectional Tests of the Life Cycle Effects

We use growth opportunities and retained earnings as measures of the life cycle of

dividends.[27] First, following the corporate finance literature, we use the market-to-book ratio as a measure of growth opportunities (Gaver and Gaver, 1993; Smith and Watts, 1992). This ratio captures the market's assessment of a firm's growth potential and is widely used in studies of the interaction between growth opportunities and financial policies (Adam and Goyal, 2008; Denis and Osobov, 2008). Table 6 Panel A presents the results of the tests using growth, and we find that high-growth firms show stronger dividend responses to trademark protection than low-growth firms. The coefficient on *FamousTM1995×PostFTDA* is 0.192 ($p < 0.01$) for firms with high market-to-book ratios and 0.101 (not significant) for low-growth firms. The difference is statistically significant ($p < 0.05$). A similar pattern appears when *FamousTM2002×Post2002* is the variable of interest. These results suggest that the effect of trademark protection on dividend payouts is stronger in firms with high growth opportunities than in firms with low growth opportunities.

Second, following DeAngelo et al. (2006) and Denis and Osobov (2008), we use the ratio of retained earnings to total equity (RE/TE) to measure a firm's life cycle stage. This measure captures the degree to which a firm is self-sufficient in financing and the level of financial capital it has accumulated over time, providing a proxy for organizational maturity that has strong theoretical foundations (DeAngelo and DeAngelo, 2006; Fama and French, 2001). Table 6 Panel B shows that firms in the low retained earnings subsample

[27] We do not use firm age as a measure because chronological age may not accurately capture a firm's functional development stage, particularly when intellectual property and intangible assets are involved (Owen and Yawson, 2010). Market-based measures like growth opportunities and accounting-based indicators like retained earnings more directly reflect the economic maturity relevant to dividend decisions (DeAngelo et al., 2006). Furthermore, recent studies suggest that innovation-intensive firms may experience accelerated life cycle transitions that are not reflected in their chronological age (Brown et al., 2009), and that firms at similar ages can exhibit substantially different financial characteristics and payout behaviors (Dickinson, 2011; Faff et al., 2016).

exhibit significantly stronger dividend responses to trademark protection (coefficient on *FamousTM1995×PostFTDA* = 0.144, $p < 0.01$) than firms in the high retained earnings subsample (coefficient on *FamousTM1995×PostFTDA* = 0.098, not significant). The difference is statistically significant ($p < 0.05$). Testing the *FamousTM2002×Post2002* interaction yields consistent findings. These results suggest that the effect of trademark protection on dividend payout is stronger in firms with low retained earnings than in firms with high retained earnings.

Overall, the results reveal that young and growth firms with low retained earnings show greater sensitivity to trademark protection than older firms with more retained earnings, indicating that the trademark protection provides them with the cash flow stability typically associated with mature life cycle stages (Grullon et al., 2002). The results validate our prediction that trademark protection provides a form of institutional maturity that can substitute for accumulated financial capital. Consistent with prior studies of organizational capital (Brown et al., 2009; Peters and Taylor, 2017), our findings suggest that intangible assets, particularly protected trademarks, can serve as a substitute for accumulated financial capital and thus facilitate dividend payments, but for mature firms that have already accumulated substantial retained earnings, the benefit of the cash flow stability obtained from trademark protection is marginal.

5.5. Additional Analyses

5.5.1. Value of Cash Holdings

To provide additional evidence of how markets perceive the impact of trademark protection, we examine changes in the market value of cash holdings following Faulkender

and Wang (2006) and Dittmar and Mahrt-Smith (2007). This analysis is particularly relevant because if trademark protection truly enhances cash flow stability and reduces precautionary motives, we should observe a decrease in the marginal value of cash holdings among protected firms. Such a decline would complement our main findings by suggesting that firms face less need to retain cash internally and are therefore more likely to distribute it via dividends when the trademarks are better protected.

Table 7 presents the results for the regression examining how trademark protection affects the market's valuation of corporate cash holdings. Following Faulkender and Wang (2006), the dependent variable is excess stock return (*ABRET*), calculated relative to the firms' 25 Fama–French size and book-to-market portfolios. Our key coefficient of interest is the triple interaction term $\Delta Cash \times FamousTM1995 \times PostFTDA$, which captures how trademark protection affects the marginal value of cash. The coefficient is -0.402 ($p < 0.01$), indicating that a US$1 increase in cash holdings is associated with a 40.2 cent lower market value for treated firms following the implementation of the FTDA. This effect reverses after the *Moseley* decision (coefficient on $\Delta Cash \times FamousTM2002 \times Post2002 = 0.422$, $p < 0.05$).

These results suggest that markets recognize trademark protection's role in reducing the precautionary value of cash holdings. The findings align with recent studies showing that the market value of cash varies systematically with firms' precautionary savings motives (Duchin et al., 2017) and institutional environment (Fresard and Salva, 2010). When firms receive enhanced trademark protection, markets appear to place a lower value on firms' cash holdings, consistent with the firms' reduced need for precautionary savings due to more stable cash flows and stronger market positions under the FTDA.

5.5.2. Robustness Tests

To further establish causality, we conduct placebo tests using the TLRA of 1988, an earlier legislative effort that initially proposed but ultimately excluded dilution protections similar to those later introduced in the FTDA. As shown in Table 8, we find no significant changes in dividend policies around the implementation of the TLRA (coefficient on *FamousTM1995×PostTLRA* = 0.108, not significant) despite its initial inclusion of dilution provisions similar to those in the FTDA. This null result in a setting where trademark protection was proposed but ultimately not implemented strengthens the causal interpretation of our findings (Atanasov and Black, 2016). The parallel trend analysis in Figure 1 Panel B further supports this interpretation, showing no differential trends between treated and control firms around the implementation of the TLRA.

To further strengthen our identification strategy, we implement one-to-one matching approaches to construct more precisely defined control groups. Table 9 presents the results of the main analysis using alternative control groups where firms are matched exactly one-to-one based on either ROA (columns (1)–(3)) or CFO (i.e., cash flow from operations scaled by total assets) (columns (4)–(6)) to avoid potential mismatching problems. These matching criteria ensure that the treated and control firms have similar financial performance and operating cash flow patterns prior to the regulatory changes, addressing concerns that our baseline results might be driven by fundamental differences between firms with and without famous trademarks. The results reported in Table 9 remain robust across these alternative specifications and are consistent with our main results, supporting our conclusion that trademark protection causally affects dividend policies.

We further conduct several robustness tests to ensure that our findings are not driven

by measurement choices or sample specifications. First, Table 10 shows that our results are robust to alternative measures of dividend payout. When using dividends scaled by market value (columns (1)–(3)) or total assets (columns (4)–(6)), we continue to find significant positive effects of the FTDA on dividend payments in the treated firms. The economic magnitude remains similar across specifications, suggesting that our findings are not sensitive to the choice of scaling variable (Denis and Osobov, 2008; Skinner, 2008).

Second, Table 11 examines the robustness of our results to alternative sample periods. Columns (1) and (4) use narrow windows of 4 and 2 years around the implementation of the FTDA, and find coefficients of 0.098 and 0.079, respectively (both significant at conventional levels). These shorter-window analyses help to mitigate concerns that our results are driven by confounding events or long-term trends (Roberts and Whited, 2013). Columns (2) and (5) conduct similar analysis around the *Moseley* decision, finding consistent reversal effects. The similarity in magnitude across different windows suggests that our results capture the causal effect of trademark protection rather than other temporal factors.

6. Conclusion

This study examines how trademark protection affects corporate dividend policy by using the implementation of the FTDA in 1996 as a quasi-natural experiment. We develop four hypotheses examining how trademark protection affects dividend payments both directly and through interactions with firms' information environments, corporate governance, and life cycle stages. Our empirical analysis demonstrates that firms with famous trademarks significantly increased dividend payments following the FTDA's

passage and reduced them after its nullification in 2003, supporting our prediction that trademark protection enhances firms' ability to maintain stable dividend policies through improved cash flow stability and market power.

Our cross-sectional tests provide insights into the channels through which trademark protection influences dividend policy. Firms with good information environments show stronger dividend responses than those with poor information environments, supporting the implication of traditional signaling theory that dividend increases are more credible signals when financial reporting quality is high. Firms with weak corporate governance demonstrate larger dividend increases than those with strong corporate governance, consistent with the substitution hypothesis that poorly governed firms are more likely to use dividend payouts as a self-disciplining mechanism when trademark protection enhances cash flow stability and increases resources under managerial control, thereby mitigating potential agency concerns in the absence of strong internal governance structures. We also find that firms with high growth opportunities and low retained earnings exhibit stronger dividend responses than their counterparts, suggesting that trademark protection effectively accelerates firms' transition toward mature financial policies by providing a form of institutional maturity that substitutes for accumulated financial capital.

Additionally, the market appears to recognize these effects: the decreased marginal value of cash holdings for protected firms indicates that trademark protection reduces the need for precautionary savings through more stable cash flows. These findings contribute to our understanding of how intellectual property protection shapes corporate financial decisions and highlight a novel channel through which legal institutions affect payout policies.

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Appendix A: Variable Definitions

Variable Name	Definition	Source
Dividends/Equity	Total dividends scaled by shareholder equity, multiplied by 100.	Compustat, 10-K
FamousTM1995	A dummy variable that equals one if a firm held one or more famous trademarks in 1995 and zero otherwise.	USPTO, Compustat, CRSP
PostFTDA	A dummy variable that equals zero if a year is between 1989 and 1995 and one if a year is between 1996 and 2002.	Compustat, 10-K
FamousTM2002	A dummy variable that equals one if a firm held one or more famous trademarks in 2002 and zero otherwise.	USPTO, Compustat, CRSP
Post2002	A dummy variable that equals zero if a year is between 1996 and 2002 and one if a year is between 2003 and 2005.	Compustat, 10-K
Firm Size	The natural logarithm of total assets.	Compustat, 10-K
MB	Market-to-book ratio = (PRCC_F *CSHO)/CEQ.	Compustat, 10-K
ROA	Income before extraordinary items, scaled by total assets = IB/AT.	Compustat, 10-K
Cash Holdings	Cash and cash equivalents divided by total assets.	Compustat, 10-K
Stock Returns	The annual buy-and-hold stock returns.	CRSP
LOSS	A dummy variable that equals one if a firm experiences an operating loss in a given year and zero otherwise.	Compustat, 10-K
Leverage	Total debt divided by total assets = (DLCC+ DLT) / AT.	Compustat, 10-K
Return Volatility	The annual standard deviation of daily stock returns.	CRSP
Dividend Payout	A dummy variable that equals one if a firm pays out dividends in a given year and zero otherwise.	Compustat, 10-K
PostTLRA	A dummy variable that equals one if a year is after 1988 and zero otherwise.	Compustat, 10-K
ABRET	The abnormal stock return over a firm's fiscal year, where the 25 benchmark portfolios are constructed based on the size and BE/ME breakpoints.	CRSP Kenneth French's website
$\Delta Cash$	Change in cash and cash equivalents (CHE) scaled by beginning market value of equity.	Compustat, 10-K
ΔEarnings	Change in earnings before extraordinary items scaled by beginning market value of equity.	Compustat, 10-K

ΔNCA	Net assets (AT-CHE) scaled by beginning market value of equity.	Compustat, 10-K
ΔRD	Change in R&D expenses (XRD) scaled by beginning market value of equity.	Compustat, 10-K
ΔINT	Change in interest expenses (XINT) scaled by beginning market value of equity.	Compustat, 10-K
ΔDIV	Change in common dividends (DVC) scaled by beginning market value of equity.	Compustat, 10-K
CASH	Cash and cash equivalents scaled by beginning market value of equity.	Compustat, 10-K
LEV	Long-term debt (DLTT) plus short-term debt (DLC) scaled by beginning market value of equity.	Compustat, 10-K
Financing	New equity issues (SSTK-PRSTKC) plus new debt issues (DLTIS-DLTR) scaled by beginning market value of equity.	Compustat, 10-K
PostTLRA	A dummy variable that equals zero if a year is before 1988 and zero otherwise.	Compustat, 10-K
Dividends/Market	Total dividends scaled by market valuation.	Compustat, 10-K
Dividends/Total Assets	Total dividends scaled by total assets.	Compustat, 10-K

Table 1: Summary Statistics

Variable	Mean	Q1	Median	Q3	Std.
Variables in columns (1) and (2) of Table 2 (*N* = 68,641)					
Dividends/Equity	0.571	0.000	0.000	0.249	1.670
FamousTM1995	0.116	0.000	0.000	0.000	0.320
PostFTDA	0.539	0.000	1.000	1.000	0.499
Firm Size	5.148	3.597	5.035	6.561	2.139
MB	2.112	1.013	1.372	2.224	2.206
ROA	-0.046	-0.030	0.019	0.061	0.263
Cash Holdings	0.147	0.019	0.062	0.195	0.193
Stock Returns	0.131	-0.268	0.030	0.351	0.707
LOSS	0.314	0.000	0.000	1.000	0.464
Leverage	0.239	0.041	0.191	0.366	0.241
Return Volatility	0.041	0.022	0.034	0.053	0.027
Lag(Dividend Payout)	0.388	0.000	0.000	1.000	0.487
Variables in columns (3) and (4) of Table 2 (*N* = 49,241)					
Dividends/Equity	0.447	0.000	0.000	0.169	1.264
FamousTM2002	0.116	0.000	0.000	0.000	0.320
Post2002	0.255	0.000	0.000	1.000	0.436
Firm Size	5.567	4.067	5.512	6.922	2.064
MB	2.221	1.064	2.221	2.397	2.223
ROA	-0.055	-0.031	0.016	0.059	0.284
Cash Holdings	0.169	0.023	0.070	0.241	0.212
Stock Returns	0.167	-0.250	0.056	0.382	0.767
LOSS	0.315	0.000	0.000	1.000	0.464
Leverage	0.227	0.029	0.172	0.349	0.244
Return Volatility	0.040	0.021	0.033	0.051	0.025
Lag(Dividend Payout)	0.373	0.000	0.000	1.000	0.484
Variables in columns (5) and (6) of Table 2 (*N* = 85,653)					
Dividends/Equity	0.565	0.000	0.000	0.241	1.670
FamousTM1995	0.115	0.000	0.000	0.000	0.319
PostFTDA	0.579	0.000	1.000	1.000	0.494
FamousTM2002	0.120	0.000	0.000	0.000	0.325
Post2002	0.148	0.000	0.000	0.000	0.355
Firm Size	5.241	3.671	5.145	6.680	2.162
MB	2.100	1.024	1.391	2.231	2.151
ROA	-0.041	-0.025	0.020	0.062	0.252
Cash Holdings	0.153	0.020	0.065	0.207	0.197
Stock Returns	0.160	-0.233	0.058	0.370	0.711
LOSS	0.307	0.000	0.000	1.000	0.461
Leverage	0.236	0.040	0.187	0.361	0.239
Return Volatility	0.039	0.021	0.032	0.050	0.026
Lag(Dividend Payout)	0.391	0.000	0.000	1.000	0.488

Table 2: Effects of the Trademark Protection on Dividend Payments

This table presents the results of the analyses of the effects of the 1996 Federal Trademark Dilution Act (FTDA) and the subsequent nullification of its main provision in *Moseley v. V. Secret Catalogue, Inc*. in 2003 on firms' dividend payments. The dependent variable *Dividends/Equity* is total dividends scaled by shareholder equity. *FamousTM1995* and *FamousTM2002* are dummy variables that equal one if a firm holds at least one plausibly famous trademark at the end of 1995 and 2002, respectively. The sample period for columns (1) and (2) is 1989–2002, for columns (3) and (4) it is 1996–2005, and for columns (5) and (6) it is 1989–2005. Industry-by-year fixed effects are calculated at the NAICS four-digit level. All of the other variables are defined in Appendix A. Robust standard errors are clustered at the firm level and reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
$FamousTM1995_i \times PostFTDA_t$	0.139***	0.125***			0.124**	0.116**
	(0.050)	(0.047)			(0.055)	(0.052)
$FamousTM2002_i \times Post2002_t$			-0.130***	-0.108***	-0.157***	-0.118***
			(0.029)	(0.027)	(0.041)	(0.038)
$Firm\ Size_t$		-0.159***		-0.127***		-0.169***
		(0.021)		(0.017)		(0.019)
MB_t		0.000		0.000		0.003
		(0.004)		(0.002)		(0.005)
ROA_t		0.141***		0.079***		0.160***
		(0.029)		(0.020)		(0.028)
$Cash\ Holdings_t$		0.170**		0.076*		0.183***
		(0.072)		(0.040)		(0.067)
$Stock\ Returns_t$		-0.003		0.003		0.002
		(0.006)		(0.005)		(0.005)
$LOSS_t$		-0.016		-0.011		-0.031**
		(0.014)		(0.010)		(0.013)
$Leverage_t$		0.082**		0.051*		0.086**
		(0.041)		(0.027)		(0.041)
$Return\ Volatility_t$		-1.746***		-0.835**		-1.813***
		(0.440)		(0.377)		(0.457)
$Lag(Dividend\ Payout_t)$		0.815***		0.553***		0.899***
		(0.053)		(0.041)		(0.048)
Constant	0.581***	1.122***	0.439***	0.960***	0.558***	1.128***
	(0.003)	(0.110)	(0.002)	(0.098)	(0.005)	(0.103)
Observations	68,641	68,641	49,241	49,241	85,653	85,653
R-squared	0.761	0.770	0.843	0.849	0.728	0.739
Firm FEs	Yes	Yes	Yes	Yes	Yes	Yes
Industry × Year FEs	Yes	Yes	Yes	Yes	Yes	Yes

Table 3: Dynamic Effects of Trademark Protection

This table presents the results of the regression examining the dynamic effects of trademark protection on dividend payout. *Year –1 (−2)* equals one if the fiscal year is 1 (2) year(s) before the event and zero otherwise. *Year 0* equals one if the fiscal year is the event year and zero otherwise. *Year +1 (+2)* equals one if the fiscal year is 1 (2) year(s) after the event and zero otherwise. *Year +3* equals one if the fiscal year is 3 years or more after the event and zero otherwise. The event in column (1) is the 1996 Federal Trademark Dilution Act (FTDA). The event in column (2) is the nullification of the FTDA's main provision in *Moseley v. V. Secret Catalogue, Inc*. in 2003. All of the other variables are defined in Appendix A. The coefficients of the control variables and the constant are not reported for brevity. Robust standard errors, clustered at the firm level, are shown in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	(1) *FamousTM = FamousTM1995$_i$*	(2) *FamousTM = FamousTM2002$_i$*
FamousTM × Year -1	0.068	-0.040
	(0.053)	(0.027)
FamousTM × Year -2	0.014	-0.001
	(0.056)	(0.021)
FamousTM × Year 0	-0.002	-0.052
	(0.058)	(0.034)
FamousTM × Year +1	0.128**	-0.114***
	(0.060)	(0.031)
FamousTM × Year +2	0.130**	-0.122***
	(0.063)	(0.034)
FamousTM × Year 3+	0.142**	-0.013
	(0.067)	(0.025)
Observations	68,641	49,241
R-squared	0.770	0.849
Controls	Yes	Yes
Firm FEs	Yes	Yes
Industry × Year FEs	Yes	Yes

Table 4: Cross-sectional Tests of Information Environment Effects

This table presents the results of the analysis of the effects of the information environment on the relationship between trademark protection and dividend payout. The information environment is measured using earnings management and analyst following. Firms are considered to have high (low) *Earnings Management* if the absolute value of discretionary accruals estimated using the modified Jones Model is above (below) the sample median. Firms are considered to have high (low) *Analyst Following* if the number of analysts following the firm is above (below) the sample median. The coefficients of the control variables and the constant are not reported for brevity. Robust standard errors, clustered at the firm level, are shown in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Earnings management as a proxy for the information environment

	(1) Low earnings management	(2) High earnings management	(3) Low earnings management	(4) High earnings management
$FamousTM1995_i \times PostFTDA_t$	0.173***	0.055		
	(0.050)	(0.042)		
$FamousTM2002_i \times Post2002_t$			-0.097***	-0.025
			(0.037)	(0.028)
p-value of coefficient differences	0.009***		0.021**	
Observations	19,248	48,205	15,467	33,069
R-squared	0.806	0.784	0.790	0.873
Control Variables	Yes	Yes	Yes	Yes
Firm FEs	Yes	Yes	Yes	Yes
Industry × Year FEs	Yes	Yes	Yes	Yes

Panel B: Analyst following as a proxy for the information environment

	(1) High analyst following	(2) Low analyst following	(3) High analyst following	(4) Low analyst following
$FamousTM1995_i \times PostFTDA_t$	0.145**	0.007		
	(0.066)	(0.108)		
$FamousTM2002_i \times Post2002_t$			-0.241***	-0.023
			(0.050)	(0.023)
p-value of coefficient differences	0.032**		0.006***	
Observations	45,687	21,785	33,416	14,961
R-squared	0.817	0.795	0.869	0.902
Control Variables	Yes	Yes	Yes	Yes
Firm FEs	Yes	Yes	Yes	Yes
Industry × Year FEs	Yes	Yes	Yes	Yes

Table 5: Cross-sectional Tests of Corporate Governance Effects

This table presents the results of the analysis of the effects of corporate governance on the relationship between trademark protection and dividend payout. Governance is measured using the entrenchment index (E-Index) developed by Bebchuk et al. (2009) and by board independence, measured as the proportion of independent directors serving on the board of directors. Firms are considered to have weak (strong) governance if their E-Index is above (below) the sample median or board independence below (above) the sample median. The coefficients for the control variables and the constant are not reported for brevity. Robust standard errors, clustered at the firm level, are shown in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Using E-Index to measure corporate governance

	(1) Weak governance	(2) Strong governance	(3) Weak governance	(4) Strong governance
$FamousTM1995_i \times PostFTDA_t$	0.056**	0.023		
	(0.024)	(0.023)		
$FamousTM2002_i \times Post2002_t$			-0.050**	-0.018
			(0.020)	(0.022)
p-value of coefficient differences	0.069*		0.049**	
Observations	6,071	7,659	6,417	7,219
R-squared	0.724	0.705	0.659	0.762
Control Variables	Yes	Yes	Yes	Yes
Firm FEs	Yes	Yes	Yes	Yes
Industry × Year FEs	Yes	Yes	Yes	Yes

Panel B: Using board independence to measure corporate governance

	(1) Weak governance	(2) Strong governance	(3) Weak governance	(4) Strong governance
$FamousTM1995_i \times PostFTDA_t$	0.197***	0.096		
	(0.053)	(0.073)		
$FamousTM2002_i \times Post2002_t$			-0.097**	0.032
			(0.044)	(0.023)
p-value of coefficient differences	0.047**		0.009***	
Observations	23,620	11,005	16,033	18,168
R-squared	0.790	0.852	0.825	0.862
Control Variables	Yes	Yes	Yes	Yes
Firm FEs	Yes	Yes	Yes	Yes
Industry × Year FEs	Yes	Yes	Yes	Yes

Table 6: Cross-sectional Tests of Life Cycle Effects

This table presents the results of the analysis of the life cycle effects on the relationship between trademark protection and dividend payout. Firms are considered to have high (low) growth opportunities if their *Market-to-book ratio* is above (below) the sample median. Firms are considered to have low (high) retained earnings if their retained earnings scaled by market value is below (above) the sample median. The coefficients for the control variables and the constant are not reported for brevity. Robust standard errors, clustered at the firm level, are shown in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Growth opportunity as a proxy for the life cycle

	(1) High growth opportunity	(2) Low growth opportunity	(3) High growth opportunity	(4) Low growth opportunity
$FamousTM1995_i \times PostFTDA_t$	0.192***	0.101		
	(0.069)	(0.076)		
$FamousTM2002_i \times Post2002_t$			-0.110***	-0.041
			(0.028)	(0.043)
p-value of coefficient differences	0.029**		0.017**	
Observations	32,191	32,443	22,862	23,172
R-squared	0.802	0.814	0.872	0.875
Control Variables	Yes	Yes	Yes	Yes
Firm FEs	Yes	Yes	Yes	Yes
Industry × Year FEs	Yes	Yes	Yes	Yes

Panel B: Retained earnings ratio as a proxy for the life cycle

	(1) Low retained earnings	(2) High retained earnings	(3) Low retained earnings	(4) High retained earnings
$FamousTM1995_i \times PostFTDA_t$	0.144***	0.098		
	(0.051)	(0.144)		
$FamousTM2002_i \times Post2002_t$			-0.131**	-0.055
			(0.057)	(0.043)
p-value of coefficient differences	0.019**		0.021**	
Observations	22,610	23,552	14,050	14,935
R-squared	0.831	0.871	0.870	0.926
Control Variables	Yes	Yes	Yes	Yes
Firm FEs	Yes	Yes	Yes	Yes
Industry × Year FEs	Yes	Yes	Yes	Yes

Table 7: Effects of Trademark Protection on the Value of Cash Holdings

This table presents the results of the effects of the 1996 Federal Trademark Dilution Act (FTDA) and the subsequent nullification of its main provision in *Moseley v. V. Secret Catalogue, Inc*. in 2003 on the value of firms' cash holdings. The dependent variable *ABRET* is excess stock returns over the firm's fiscal year. *ΔCash* is the change in cash stock. *FamousTM1995* and *FamousTM2002* are dummy variables that equal one if the firm held at least one plausibly famous trademark at the end of 1995 and 2002, respectively. The sample period is 1989–2002 for columns (1) and (2), 1996–2005 for columns (3) and (4), and 1989–2005 for columns (5) and (6), respectively. Industry-by-year fixed effects are clustered at the NAICS four-digit level. All of the other variables are defined in Appendix A. Robust standard errors are clustered at the firm level and reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable: *ABRET*	(1)	(2)	(3)
$FamousTM1995_i \times PostFTDA_t$	0.016		0.010
	(0.013)		(0.012)
$\Delta Cash \times FamousTM1995_i \times PostFTDA_t$	-0.402***		-0.461***
	(0.147)		(0.134)
$\Delta Cash \times FamousTM1995_i$	0.024		0.079**
	(0.041)		(0.039)
$\Delta Cash \times PostFTDA_t$	0.132		0.098
	(0.100)		(0.089)
$FamousTM2002_i \times Post2002_t$		-0.104***	-0.097***
		(0.016)	(0.014)
$\Delta Cash \times FamousTM2002_i \times Post2002_t$		0.422**	0.505***
		(0.198)	(0.185)
$\Delta Cash \times FamousTM2002_i$		0.048	0.081
		(0.062)	(0.062)
$\Delta Cash \times Post2002_t$		-0.376***	0.000
		(0.121)	(0.000)
ΔCash	0.992***	1.203***	0.954***
	(0.048)	(0.056)	(0.043)
ΔEarnings	0.585***	0.616***	0.609***
	(0.022)	(0.031)	(0.020)
ΔNCA	0.089***	0.072***	0.084***
	(0.007)	(0.009)	(0.006)
ΔRD	1.450***	1.120***	1.238***
	(0.235)	(0.305)	(0.207)
ΔINT	-1.927***	-2.026***	-1.855***
	(0.160)	(0.232)	(0.141)
ΔDIV	1.865***	1.433***	2.217***
	(0.273)	(0.415)	(0.242)
$Cash_{t-1}$	0.473***	0.750***	0.463***
	(0.022)	(0.033)	(0.019)
LEV	-0.387***	-0.469***	-0.352***
	(0.033)	(0.052)	(0.028)
Financing	0.200***	0.208***	0.182***
	(0.022)	(0.027)	(0.019)
$\Delta Cash \times Cash_{t-1}$	-0.350***	-0.406***	-0.342***
	(0.027)	(0.043)	(0.025)
ΔCash ×LEV	-0.517***	-0.480***	-0.476***
	(0.096)	(0.127)	(0.086)
Constant	-0.162***	0.001	-0.170***
	(0.014)	(0.016)	(0.042)
Observations	51,389	34,544	63,521
R-squared	0.322	0.366	0.321
Firm FEs	Yes	Yes	Yes
Industry × Year FEs	Yes	Yes	Yes

Table 8: Placebo Tests: Trademark Law Revision Act

This table reports the results of the regression for the placebo tests that restrict the analyses to the 1982–1996 period and set the effective year of pseudo-reform as the passage year of the TLRA of 1988. All of the variables are defined in Appendix A. Robust standard errors are clustered at the firm level and reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	(1) *FamousTM = FamousTM1995$_i$*	(2) *FamousTM = FamousTM2002$_i$*
FamousTM × PostTLRA$_t$	0.108	0.092
	(0.088)	(0.078)
Firm Size$_t$	-0.290***	-0.292***
	(0.036)	(0.036)
MB$_t$	0.015	0.015
	(0.010)	(0.010)
ROA$_t$	0.448***	0.450***
	(0.082)	(0.082)
Cash Holdings$_t$	-0.049	-0.049
	(0.129)	(0.129)
Stock Returns$_t$	0.009	0.008
	(0.018)	(0.018)
LOSS$_t$	-0.026	-0.025
	(0.028)	(0.028)
Leverage$_t$	0.010	0.011
	(0.063)	(0.063)
Return Volatility$_t$	-2.484***	-2.515***
	(0.796)	(0.800)
Lag(Dividend Payout$_t$)	1.735***	1.733***
	(0.091)	(0.091)
Constant	1.591***	1.597***
	(0.180)	(0.180)
Observations	63,215	63,215
R-squared	0.722	0.722
Firm FEs	Yes	Yes
Industry × Year FEs	Yes	Yes

Table 9: Robustness Checks: Alternative Control Groups

This table shows the results of robustness checks that use different control groups. Columns (1) to (3) show results where firms are matched based on ROA (return on assets). Columns (4) to (6) show results where firms are matched based on CFO (cash flow from operations scaled by total assets). Matching is performed one-to-one to avoid mismatching problems in the control group. The coefficients for the control variables and the constant are not reported for brevity. Robust standard errors, clustered at the firm level, are shown in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Matched by ROA			Matched by CFO		
	(1)	(2)	(3)	(4)	(5)	(6)
$FamousTM1995_t \times PostFTDA_t$	0.248***		0.277***	0.093*		0.117**
	(0.070)		(0.077)	(0.052)		(0.053)
$FamousTM2002_t \times Post2002_t$		-0.375***	-0.305**		-0.100**	-0.153**
		(0.126)	(0.135)		(0.049)	(0.070)
Observations	19,131	10,544	22,898	16,136	9,378	19,815
R-squared	0.887	0.928	0.870	0.849	0.885	0.820
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Firm FEs	Yes	Yes	Yes	Yes	Yes	Yes
Industry × Year FEs	Yes	Yes	Yes	Yes	Yes	Yes

Table 10: Robustness Checks: Alternative Measurements

This table presents the results of robustness checks that use alternative measures of dividend payments. Columns (1) to (3) use dividends scaled by market value as an alternative dependent variable. Columns (4) to (6) use dividends scaled by total assets as another alternative dependent variable. The coefficients for the control variables and the constant are not reported for brevity. Robust standard errors, clustered at the firm level, are shown in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable:	(1) *Dividends/ Market Value*	(2) *Dividends/ Market Value*	(3) *Dividends/ Market Value*	(4) *Dividends/ Total Assets*	(5) *Dividends/ Total Assets*	(6) *Dividends/ Total Assets*
$FamousTM1995_i \times PostFTDA_t$	0.102***		0.099***	0.063***		0.053**
	(0.035)		(0.036)	(0.024)		(0.027)
$FamousTM2002_i \times Post2002_t$		-0.058**	-0.073**		-0.090***	-0.086***
		(0.028)	(0.035)		(0.015)	(0.021)
Observations	68,641	49,241	85,653	68,641	49,241	85,653
R-squared	0.768	0.804	0.739	0.738	0.774	0.710
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Firm FEs	Yes	Yes	Yes	Yes	Yes	Yes
Industry × Year FEs	Yes	Yes	Yes	Yes	Yes	Yes

Table 11: Robustness Checks: Alternative Sample Schemes

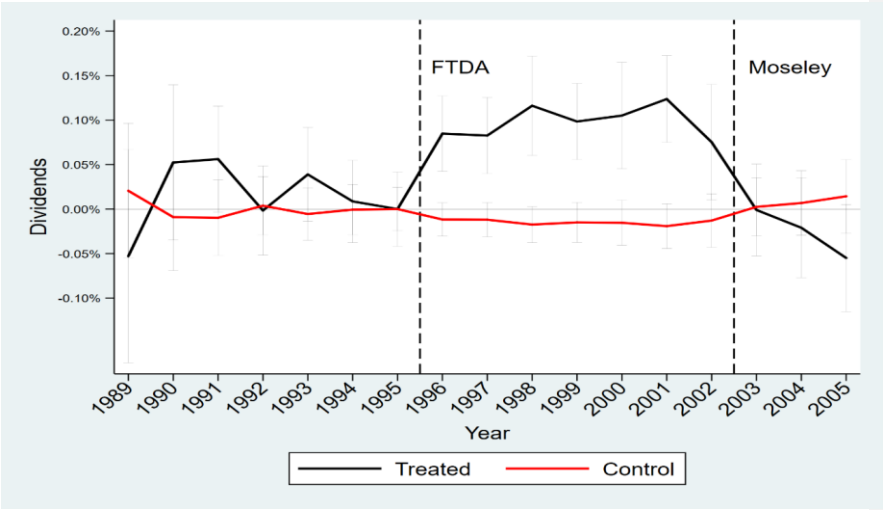
This table shows the results of robustness checks that use different sample periods. Columns (1) and (2) use sample periods extending from 4 years before to 4 years after the event, covering the 1992–1999 and 1999–2005 periods, respectively. Column (3) combine the sample periods from columns (1) and (2). Columns (4) and (5) use a shorter sample period of 2 years before and after the event, spanning the 1993–1997 and 2000–2004 periods, respectively. Column (6) combine the sample periods from columns (4) and (5). The coefficients for the control variables and the constant are not reported for brevity. Robust standard errors, clustered at the firm level, are shown in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	(1) 4 yrs around FTDA (1996) [1992,1999]	(2) 4 yrs around *Moseley* (2003) [1999,2005]	(3) 4 yrs around the events [1992,2005]	(4) 2 yrs around FTDA (1996) [1994,1997]	(5) 2 yrs around *Moseley* (2003) [2001,2004]	(6) 2 yrs around the events [1994,2004]
$FamousTM1995_t \times PostFTDA_t$	0.098**		0.104**	0.079**		0.104***
	(0.041)		(0.041)	(0.037)		(0.037)
$FamousTM2002_t \times Post2002_t$		-0.085***	-0.117***		-0.083***	-0.113***
		(0.024)	(0.031)		(0.024)	(0.029)
Observations	41,205	32,090	69,062	21,196	17,740	56,217
R-squared	0.844	0.862	0.806	0.888	0.897	0.826
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Firm FEs	Yes	Yes	Yes	Yes	Yes	Yes
Industry × Year FEs	Yes	Yes	Yes	Yes	Yes	Yes

Figure 1

The figure illustrates the yearly average dividends for treated and control firm groups, obtained from panel regressions with firm and industry-year fixed effects. It also includes 95% confidence intervals for each group's mean in each year. To facilitate trend comparison, the two series are aligned at zero in the final pretreatment year. In Panel A, the dashed lines indicate the passage of the Federal Trademark Dilution Act (FTDA) and the nullification of its main provision in *Moseley v. V. Secret Catalogue, Inc*. In Panel B, the dashed line marks the passage of the Trademark Law Revision Act (TLRA).

Panel A. Effects of the FTDA and *Moseley v. V. Secret Catalogue, Inc.*



Panel B. Placebo test around the implementation of the TLRA