

**Whose Taxes Matter? The Effects of Institutional Ownership on Dividend Payout Policy
around Tax Rate Changes**

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Abstract

We examine whether investors' tax-sensitivity affects dividend payout policy, and examine how the relations vary with institutions' monitoring ability and with insider ownership. Taxable investors prefer receiving dividends before tax increases (i.e., dividend acceleration), but tax-insensitive investors do not. Consistent with this, we find that the likelihood and magnitude of dividend acceleration is lower for firms with high tax-insensitive institutional ownership. We then re-examine the positive relation between taxable *insider* ownership and dividend acceleration (Hanlon and Hoopes 2014). We find that dividend acceleration generally increases with insider ownership even when tax-insensitive institutional ownership is high, indicating that managers' preferences outweigh institutions' preferences. However, we find that tax-insensitive *dedicated* institutions constrain insiders' ability to accelerate dividends, indicating that these institutions play a part in monitoring potentially excessive tax-motivated dividend payments. These results differ from several recent studies and provide important new insight in the relation between shareholder-level taxes and payout policy.

I. Introduction

Dividend policy represents a fundamental corporate financial policy (e.g., Allen and Michaely, 2003; Kalay and Lemmon, 2008). In this study, we examine how the heterogeneous tax preferences of a firm's owners affect the firm's dividend decisions. Specifically, we examine a setting where some firms accelerate dividends into the period prior to a tax rate increase and study how dividend acceleration decisions vary with firms' ownership structure. Hanlon and Hoopes (2014) find that firms modify dividend policy around dividend tax rate changes, but they provide only limited insight into the effect of ownership structure on firms' tax-motivated dividend decisions. Jacob and Michaely (2017) find that owners' taxes affect dividend policy for small, closely held firms, but find this effect varies with ownership structure and diminishes when firms have heterogeneous or dispersed owners. As such, Jacob and Michaely (2017, pg. 3181 and 3219) call for researchers to consider these frictions in payout policy studies, particularly in studies of publicly traded firms. We contribute to the literature by using Hanlon and Hoopes's (2014) advantageous setting to examine the effects of owners' tax preferences on payout policy among publicly traded firms, extending Jacob and Michaely's (2017) findings for small private firms and answering their call for research.

While Hanlon and Hoopes (2014) find that firms modify dividend policy in anticipation of dividend tax rates changes, especially when inside ownership is high, it is unclear whether and to what extent the tax-sensitivity of a firm's *overall* investor base influences the firm's decision to pay dividends (e.g., Grinstein and Michaely, 2005 versus Desai and Jin, 2011). Jacob and Michaely (2017) find that dividend policy responds more to owners' tax-sensitivity when there is less separation of ownership and control, consistent with Hanlon and Hoopes's (2014) finding that high insider ownership increases the likelihood and magnitude of the tax effect on dividends.

However, publicly traded firms have disperse owners with heterogeneous preferences (e.g., Manconi and Massa, 2013), such as institutional owners with (heterogeneous) tax preferences for dividends (Desai and Jin, 2011; Blouin, Bushee, and Sikes, 2017). While inside owners also have preferences around dividend policy (e.g., John and Williams, 1985; Brown, Liang, and Weisbenner, 2007), their preferences can interact or conflict with institutions' preferences. Additionally, institutions play a monitoring role in governing firms (e.g., Kline and Zur, 2009) which varies by type of institution (Bushee, 1998, 2001) and may not align with institutions' tax-preferences for dividends. Therefore, consistent with Jacob and Michaely's (2017) call for future research, we propose that firms' ownership structures, which Hanlon and Hoopes (2014) do not investigate due to data limitations, are important to understanding firms' dividend decisions.

Several studies use the periods following dividend tax rate *decreases* to evaluate the effect of shareholder-level taxes on firms' dividend payout policy. A key example, Chetty and Saez (2005), examines some of the relations between taxes, insider ownership, and institutional ownership. However, the periods around dividend tax rate *cuts* are often subject to various confounding factors. For example, dividend tax rate cuts often coincide with significant economic expansions, naturally resulting in increased dividends (Edgerton, 2013; see also Floyd, Li, and Skinner, 2015). Additionally, firms must weigh the tax preferences of shareholders against the long-term consequences of initiating a dividend because dividend policies are "sticky," with firms being reluctant to reduce dividends (Brav, Graham, Harvey, and Michaely, 2008). Overall, despite decades of research of the effect of shareholders on dividend policy, the relation between firms' dividend policy and both ownership structure and investor tax-sensitivities remains unclear (see Grinstein and Michaely, 2005 versus Desai and Jin, 2011).

We extend Chetty and Saez's (2005) and Jacob and Michaely's (2017) studies to a new

setting and examine how several previously unexplored dimensions of institutional ownership affect dividend policy, including examining how these dimensions interact with insider ownership. Using a unique setting where U.S. dividend tax rates were expected to *increase* significantly, we examine the influence of shareholder-level taxes on firms' decision to pay dividends prior to the potential tax increase. This setting arose as a result of the anticipated (2011) and actual (2013) expiration of the Jobs and Growth Tax Relief and Reconciliation Act of 2003 (JGTRRA) tax cuts. Hanlon and Hoopes (2014) find that firms accelerate dividends by paying special dividends in, or shifting regular dividends into, the periods prior to the potential and actual dividend tax rate increase. They find that dividend acceleration is positively associated with a firm's insider ownership.

Importantly, Hanlon and Hoopes's (2014) setting provides advantages over prior research by using a narrow time frame, which eliminates other non-tax factors that affect dividends, and examines dividend changes that are intended to be temporary, rather than changes that lock a firm into a new dividend policy. However, due to data limitations, Hanlon and Hoopes (2014, footnote 10) leave an open question as to whether there is a heterogeneous response to tax rate changes depending on the tax-sensitivity of the firms' shareholders. A newly developed measure that classifies institutions as tax-sensitive or tax-insensitive (Blouin, Bushee, and Sikes 2017) allows us to overcome this limitation.¹

Identifying the tax-sensitivities of investors allows us to study the relation between the likelihood and magnitude of dividend acceleration and the tax-sensitivity of shareholders. Most directly, we expect that firms with high (low) tax-insensitive (tax-sensitive) ownership will be

¹ While insiders and individuals are considered tax-sensitive investors, institutions are often considered tax-insensitive (e.g., Ayers, Lefanowicz, and Robinson, 2003). The Bouin et al. (2017) measure allows us to refine the classification of institutional investors.

less likely to accelerate dividends because a smaller share of owners will receive direct tax benefits. However, this prediction is complicated by three factors. First, unlike Jacob and Michaely's (2017) setting of closely held firms, our setting of publicly traded firms means that tax-favored dividends could affect share prices by attracting new taxable investors (e.g., Merton, 1987) or otherwise signaling that the firm pays attention to shareholders (Manconi and Massa, 2013; Hribar, Savoy, and Wilson, 2019). Thus, tax-insensitive investors may prefer dividend acceleration if it generates positive capital market consequences. Second, like some of the firms in Jacob and Michaely (2017), our setting involves separation of ownership and control. On one hand, this separation could weaken the link between shareholder taxes and dividend policy as in Jacob and Michaely (2017). On the other hand, this separation along with the wide dispersion of ownership in our public firm setting, versus the closely held firms in Jacob and Michaely (2017), could strengthen the relation between shareholder taxes and dividends to the extent that one group (e.g., insiders) wields disproportionate power in the dividend decision (e.g., DeAngelo, DeAngelo, and Skinner 2008a). Third, tax-insensitive institutions often serve as external monitors of management (e.g., Bushee, 1998; Hartzell and Starks, 2003) and their role as monitors, rather than the taxes they face, may affect their dividend preferences. We examine how these attributes interact with tax-sensitivity to affect firms' decisions to accelerate dividends.

Using a research design similar to Hanlon and Hoopes (2014) along with their advantageous setting, we find that the dividend acceleration documented by Hanlon and Hoopes (2014) decreases with tax-insensitive institutional ownership.² In other words, firms with higher levels of tax-insensitive ownership are less responsive to dividend tax rate changes than firms

² In our study, dividend acceleration in the period prior to the potential or actual tax increase generally refers to both the likelihood and magnitude of special dividend payments during November/December of 2010 and 2012 and the shifting of normal dividends from January 2013 into December of 2012. If an empirical finding diverges between these periods or payment methods, we specifically discuss the difference.

with more tax-sensitive investors. These results suggest that, on average, firms consider shareholder-level taxes in setting dividend policy.

We next examine whether this baseline relation varies by type of institution. We identify institutions more likely to exercise their monitoring role by using *dedicated* institutions, who are sophisticated investors and monitors (Bushee, 1998, 2001; Ramalingegowda and Yu, 2012; An and Zhang, 2013). We propose that the baseline negative relation between tax-insensitive investors and dividend acceleration should not exist for *dedicated* tax-insensitive institutions if a) their monitoring role encourages dividends overall (Jensen, 1986; Klein and Zur, 2009), or b) they anticipate price appreciation associated with dividend acceleration (Hribar et al., 2019) and thus encourage dividends that benefit other, tax-sensitive investors. Consistent with this, we find that the negative association between tax-insensitive institutions and special dividends is concentrated in non-dedicated institutions, while tax-insensitive dedicated institutions are generally not associated with special dividends. Turning to dividend shifting, we find tax-insensitive dedicated (non-dedicated) institutions are positively (negatively) associated with the acceleration of regular dividends into a tax-favored period. In sum, firms are less likely to accelerate dividends as tax-insensitive ownership increases; however, this effect primarily occurs when institutions are less likely to act as monitors (i.e., for non-dedicated institutions).

We then turn to examining how the previous relations vary with insider ownership. Hanlon and Hoopes (2014) find that dividend acceleration is increasing in insider ownership, while we find that dividend acceleration is decreasing in tax-insensitive institutional ownership. However, it is unclear if the muting effect of tax-insensitive institutions on dividend acceleration will constrain insiders. Specifically, if managers accelerate dividends for self-serving or myopic reasons, or believe there are non-tax benefits associated with acceleration, they are likely to

accelerate dividends even when tax-insensitive institutional ownership is high.

We find that increased tax-insensitive institutional ownership has little impact on insiders' desire to accelerate dividends. Thus, while tax-insensitive institutions generally constrain dividend acceleration, tax-insensitive institutions do not affect insiders' desire for dividend acceleration, on average. Interestingly, this result differs from Jacob and Michaely (2017), who find that taxes have less effect on dividend policy as tax preferences become more heterogeneous, highlighting the importance of their call to extend their research to publicly traded firms that differ from the small private firms they study. That is, managers' preferences continue to play a dominant role in dividend policy, even with heterogeneous ownership.

Finally, we examine the effect of tax-insensitive *dedicated* institutions on insiders' ability to accelerate dividends. As stronger monitors, dedicated institutional investors are most likely to curtail managerial myopia (Bushee, 1998). If inside owners are overly focused on accelerating dividends for self-serving reasons (i.e., personal tax-benefits), we expect dedicated institutions to mitigate the relation between insider ownership and dividend acceleration. Our results are consistent with this expectation. Although tax-insensitive dedicated institutions do not discourage special dividend payouts on average, they prevent payouts from increasing in insider ownership. Interestingly, this result differs from Chetty and Saez (2005) who find that dividend payout likelihood following a dividend tax rate cut is generally increasing in insider ownership for firms with high institutional ownership. This highlights the importance of our study investigating the effects of different types of institutions on dividend policy.

We perform several additional analyses. Of note, we perform a placebo test to rule out alternative explanations for our findings. We also examine repurchases and find some limited evidence that repurchases vary with ownership structure around the JGTRRA expiration, in

contrast to Hanlon and Hoopes's (2014) finding of no effect on average. Finally, we find evidence that tax-insensitive institutional owners learn from positive market reactions of earlier dividend accelerations and then encourage dividend acceleration at additional firms.

This study makes several contributions to the literature. We extend our understanding of the effect of heterogeneous shareholder tax-sensitivities on dividend payout policy and how these tax-sensitivities interact with both the type of institution and insider ownership. We find a negative relation between tax-insensitive institutional ownership and dividend acceleration, however this relation varies for dedicated versus non-dedicated institutions. To our knowledge, ours is the first dividend policy study accounting for both institution type (e.g., dedicated) and tax preferences, and our findings highlight the importance of accounting for both characteristics.

We also answer calls by Jacob and Michaely (2017) to consider agency conflicts in dividend payout for public firms, and more specifically by Blouin, Raedy, and Shackelford (2011) to further explore the relation between institutional ownership and payout policy for firms with high insider ownership. We find that insiders push for dividend acceleration even with high levels of tax-insensitive ownership, but this effect is mitigated by high levels of tax-insensitive *dedicated* institutional owners. This suggests that, while insiders may anticipate potential price appreciation associated with dividend acceleration, they likely also have self-serving interests that are mitigated by dedicated institutional investors. This provides an important extension of Hanlon and Hoopes (2014) who focus on the relation between insiders and dividend acceleration. It also provides an important extension of Chetty and Saez (2005), who focus on the relation between insiders and overall institutional ownership. We find that the type of institutional owner plays an important role, in addition to institutional tax preferences, in the relation between ownership and dividend policy.

II. Setting

In 2003, the Jobs and Growth Tax Relief and Reconciliation Act (JGTRRA), also known as the “Bush Tax Cuts,” reduced the individual tax rates on ordinary, capital gain, and dividend income. The dividend tax rates decreased from the ordinary rate of 38.6% to the new preferential tax rate of 15%.³ This change to dividend taxes significantly altered the marginal tax costs associated with payouts to investors. However, JGTRRA contained sunset provisions, meaning these rates were set to expire by December 31, 2010. Immediately prior to this initial (2010) expiration date, there was considerable uncertainty as to whether the tax cuts would receive an extension. While the Obama administration expressed a desire to raise taxes, the U.S. was entering a nascent recovery from the global financial crisis. Gridlock in Congress, combined with general uncertainty about the economy made it difficult for firms and investors to predict whether and to what extent tax rates would increase in 2011 (Hanlon and Hoopes, 2014). Ultimately, the 2010 Tax Relief Act, a two-year extension of the JGTRRA rates, was signed into law on December 17, 2010.

In 2012, the JGTRRA tax rates were again set to expire. Without another act of Congress, the dividend tax rate would increase to the prior high of 39.6% in 2013. Additionally, regardless of the fate of JGTRRA, the Patient Protection and Affordable Care Act of 2010 called for a 3.8% increase in the dividend and long-term capital gain tax rate for high-income taxpayers (the “net investment income tax”). Given that the economy was beginning to accelerate by this time, it was widely anticipated that there would be at least some increase to dividend tax rates. A

³ Capital gains rates decreased from 20% to 15%. The maximum ordinary rate decreased from 38.6% to 35%. Note that the maximum ordinary rate before JGTRRA was 38.6% due to the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) reducing the rate from 39.6% to 38.6%. However, the maximum ordinary rate was set to revert to 39.6% after expiration of JGTRRA and EGTRRA on December 31, 2010.

compromise was eventually reached and on January 2, 2013, President Obama signed ATRA into law which resulted in a permanent maximum dividend and long-term capital gain tax rate of 20%, plus the 3.8% additional net investment income tax for high-income individuals.

The enactment of JGTRRA in 2003 represented an opportunity for researchers to evaluate the effects of dividend tax rates on firm payout policies. Initial research finds that firms increase dividends in response to the decrease in dividend tax rates (e.g., Chetty and Saez, 2005, 2006; Blouin et al., 2011).⁴ However, the period surrounding the initiation of JGTRRA did not present a particularly clean setting to study the effects of the tax decrease on dividend policy. For example, Edgerton (2013) argues that dividend increases after the 2003 tax-cut coincided with a surge in corporate profits, and finds that share repurchases increased just as quickly as dividends. Yagan (2015) suggests that the increase in dividends around the 2003 tax cut was small in dollar terms and was driven by small private firms. Further, while JGTRRA significantly reduced the tax costs associated with dividend distributions, survey evidence suggests managers are reluctant to increase dividends, which are “sticky” and could constrain cash resources, in response to shareholder-level taxes (Brav et al., 2005, 2008).

Conversely, the potential and actual *expiration* of JGTRRA and the associated *increase* to the dividend tax rate provides a unique setting to evaluate the role of shareholder-level taxes on firms’ decisions to alter payout policies for public firms. The expiration of JGTRRA allowed firms to make a *one-time modification* to their payouts through either a shift in the timing of their regular dividend or a special dividend, neither of which require firms to commit to a long-term modification to their dividend policy. Additionally, given the short window for legislative action and limited time for firms to make a decision about their payout policy, this setting allows for a

⁴ Pérez-González (2003) finds similar evidence around the Tax Reform Act of 1986.

cleaner identification of a firm's investors that influence the decision to accelerate dividends.

III. Literature Review and Hypothesis Development

Hanlon and Hoopes (2014) were the first to utilize the JGTRRA dividend tax increase setting, finding that firms shift the timing of regular dividends and pay special dividends in both the November/December 2010 and 2012 periods. Their finding indicates that firms consider the effect of changing dividend tax rates in determining dividend policy and modify dividend policy in a way that reduces taxes for tax-sensitive insiders. However, it is still unclear whether firms consider the tax preferences of their other shareholders as part of their decision to accelerate dividends during these periods.

While the tax clientele literature argues that investor's tax-sensitivity motivates their desire for dividends (e.g., Elton and Gruber, 1970; Auerbach, 1983; Graham and Kumar, 2006; DeAngelo et al., 2008b; Blouin et al., 2011), it is not clear that firms adjust dividend policy to the tax-sensitivities of their investors.⁵ Grinstein and Michaely (2005) find that while institutions are generally attracted to dividend paying firms, these firms do not increase dividends when tax-insensitive ownership increases. Alternatively, Desai and Jin (2011) identify "dividend adverse" institutions based on hypothesized tax preferences and find that tax-insensitive ownership affects dividend payout policy. Neither Desai and Jin (2011) nor Grinstein and Michaely (2005) examine insiders. Blouin et al. (2011) examine the effect of the 2003 JGTRRA dividend tax cuts and find that dividend increases are increasing in tax-sensitive, including insider, ownership. Overall, however, evidence remains mixed. For example, Edgerton (2013) and Floyd et al.

⁵ Vast literatures cover the influence of shareholder-level taxes on other corporate policies (e.g., DeAngelo and Masulis, 1980; Graham, 2003) and asset pricing (e.g., Dhaliwal, Li, and Trezevant, 2003). These literatures are outside the scope of our study so we do not discuss them in detail.

(2015) raise questions regarding analyses of the 2003 dividend tax cuts. Further, Jacob and Michaely (2017) examine small private firms and find that the effect of shareholder tax-sensitivity on tax-motivated changes to dividend policy decreases as differences in shareholder tax preferences increase.⁶ This suggests that shareholder taxes may have little effect on dividends for public firms with heterogeneous shareholders (see also Manconi and Massa 2013). See Allen and Michaely (2003) and DeAngelo et al. (2008b) for reviews of the mixed literature on shareholder-level taxes and dividend policy.

In addition to the limitations associated with previous settings, studying the effect of tax-sensitivity on dividend payout policy has been limited by a lack of agreement on how to categorize institutional owners based on tax-sensitivity (Sikes, 2014; Blouin et al., 2017). Some research categorizes tax-sensitive ownership as 1 minus the percent of shares held by institutional investors, effectively treating all institutions as tax-insensitive (e.g., Ayers et al., 2003; Dhaliwal, et al., 2003). Other papers broadly classify certain groups of institutions as tax-sensitive or insensitive (see Blouin et al. (2017) for a summary of several alternative groupings, as used in Grinstein and Michaely (2005), Jin (2006), Chyz and Li (2012), and Sikes (2014)). However, Blouin et al. (2017) develop a new measure of institutional tax-sensitivity based on tax-motivated trading activity (i.e., institutions' revealed preferences) that identifies heterogeneous shareholder-level taxes within categories of institutional investors, improving upon prior measures based on broad groups of institutions (e.g., banks).⁷

We use the improved measure of institutional tax-sensitivity developed by Blouin et al. (2017) to provide new evidence on the impact of shareholders' tax-sensitivity on dividend

⁶ Berzins, Bøhren, and Stacescu (2018, 2019) perform related studies of dividends for small private firms.

⁷ Brian Bushee makes his categorizations of institutional investors, which we use in this study, available to the public on his website: <http://acct.wharton.upenn.edu/faculty/bushee/IIclass.html>.

payout policy in the periods prior to the expiration of JGTRRA, which offers previously discussed advantages over other settings.⁸ Tax-sensitive institutions, individuals, and insiders reap the benefit of a reduction in taxes on future cash flows if the firm accelerates payouts. Therefore, firms with larger ownership by these investors should be more likely to accelerate dividends (Blouin et al. 2011; Hanlon and Hoopes 2014).⁹ Conversely, tax-insensitive institutions will not realize the benefits of tax savings and should have relatively less reason to encourage firms to accelerate dividends than tax-sensitive investors. We therefore propose the following hypothesis, in the alternative form:

Hypothesis 1: Firms owned by a higher proportion of tax-insensitive investors are less likely to accelerate dividends relative to firms owned by a higher proportion of tax-sensitive investors.

However, it is not clear that this hypothesis will hold, on average. While tax-insensitive institutions, relative to tax-sensitive investors, are less likely to prefer dividend acceleration for tax reasons, it is also possible that non-tax benefits to dividend acceleration outweigh shareholder tax preferences. In a concurrent working paper, Hribar et al. (2019) find that the market rewards firms that accelerate dividends into the period prior to the expiration of JGTRRA with abnormal returns that exceed the imputed tax savings from these payouts. Similarly, regardless of their tax preferences, institutional investors acting as monitors could use the looming tax rate increase to encourage managers to pay more dividends overall (Jensen, 1986) or institutions could demand dividend payments as an additional monitoring mechanism (Klein and

⁸ Blouin et al. (2017) note that their measure may not be appropriate for testing *portfolio rebalancing* around dividend rate changes because, for tax-sensitive investors, rebalancing comes with costs associated with capital gains taxes incurred to rebalance. We examine the effects of the tax-sensitivity of current owners on payout policy, rather than examining rebalancing following rate changes, mitigating this concern.

⁹ The actual tax savings to investors of a firm paying a dividend in 2012 versus 2013 equals 8.8% (5% dividend rate change + new 3.8% net investment income tax). However, anecdotal evidence during this period suggests that investors were bracing for increases of over 25% if the dividend tax rate increased from 15% back to the original rate of 39.6% plus the 3.8% net investment income tax.

Zur, 2009). Finally, there are likely costs associated with special dividends (e.g., Farre-Mensa, Michaely, and Schmalz, 2018). Therefore, managers must evaluate these costs versus tax and non-tax benefits of accelerating dividends, given the firm's current ownership structure.

Relatedly, it is possible that the relation between tax preferences and dividend acceleration varies based on institution type. Generally, institutions have a strong incentive and ability to monitor management (e.g., Coffee, 1991; Huddart, 1993, Gillan and Starks, 2000; Hartzell and Starks, 2003) and can exercise "voice" to influence managerial decisions (Black, 1992). However, institutional investors vary in their investment horizons and involvement in the managerial decision-making process. Bushee (1998, 2001) develops a classification of institutions based on their trading strategies and portfolio holdings.¹⁰ Bushee (1998) finds that his class of "dedicated" institutional investors act more as "owners" than as "traders" and hold firms for longer periods of time, developing stronger relationships with firm management. Dedicated institutions represent sophisticated investors that provide a robust monitoring role for firms, reducing myopic investment decisions by management and focusing firms on longer-term value (Bushee, 1998, 2001). Additional research also suggests that dedicated institutional investors play an important role in corporate oversight (Hartzell and Starks, 2003; Ayers, Ramalingegowda, and Yeung, 2011; Ramalingegowda and Yu, 2012; An and Zhang, 2013).

On one hand, while tax-insensitive dedicated institutions will not realize the immediate tax benefits of an accelerated dividend, as sophisticated monitors they may anticipate the potential non-tax benefits of abnormal price appreciation associated with dividend acceleration (Hribar et al. 2019). Further, dedicated institutions may understand the value of firms'

¹⁰ Bushee (2001) classifies institutions as either dedicated, transient, or quasi-indexers. Transient institutions and quasi-indexers are treated as non-dedicated for our study. As with tax-sensitive and tax-insensitive institutions, Brian Bushee makes his classification of dedicated, transient, and quasi-indexer institutions available on his website.

considering shareholders' preferences (Manconi and Massa (2013)). In either case, dedicated tax-insensitive institutional ownership will be positively associated with dividend acceleration, regardless of the direct implications for their taxes. On the other hand, tax-insensitive dedicated investors may prefer firms understand their tax preferences and reduce dividend acceleration.

If tax-insensitive *non-dedicated* owners are less likely to monitor firms or to consider the market's reaction to dividends, firms may be more likely to focus on the actual tax preferences of these investors in their decision to accelerate dividends. Relatedly, if tax-insensitive non-dedicated owners, who by definition trade more frequently than dedicated institutions, focus on the tax consequences of a dividend, they may be more likely to divest themselves of firms that appear to ignore their tax preferences by accelerating dividends, limiting management's desire to accelerate dividends. In contrast, these investors may view dividend acceleration as a boost to share prices that enables their trading activity. Although we expect the relation between tax-sensitivity and dividend policy to vary based on the type of institution, the ultimate direction of the effect is unclear. As such, we pose the following non-directional hypothesis:

Hypothesis 2: The effect of institutional ownership on dividend acceleration differs for dedicated and non-dedicated institutional investors.

Hanlon and Hoopes (2014) find that the likelihood and magnitude of dividend acceleration increases with insider ownership. They suggest that this indicates that insiders' motivations are aligned with shareholders. However, the literature suggests that insiders' decisions are often motivated by their personal taxes, even if those decisions are not always best for the firm or the manager (e.g., Jin and Kothari, 2008; Hanlon, Verdi, and Yost, 2018; Yost, 2018; Armstrong et al., 2019; Goldman and Ozel, 2019). Blouin et al. (2011) find that corporate insiders, but not other individuals, were most likely to rebalance their portfolios to maximize after-tax returns following the 2003 tax rate reduction under JGTRRA. Likewise, Brown et al.

(2007) find that insiders were particularly influential among firms initiating dividends after the enactment of JGTRRA. More generally, Chetty and Saez (2005) find that firms with greater insider ownership are more sensitive to shareholder-level dividend tax rate changes.

This poses a question about whether firms accelerated dividends due to managers' tax preferences without fully accounting for other shareholders' tax preferences. Managers play a dual role in this setting as they are responsible for determining dividend policy and are also investors (Blouin et al., 2011; Yost, 2018). Jacob and Michaely (2017) suggest that, for closely held firms, conflicts of interest between managers and shareholders reduce the sensitivity of dividends to taxes. However, managers' dual role in *widely-held* public firms may allow managers to myopically focus on their own tax preferences over those of a disperse investor base (e.g., DeAngelo et al., 2008a), in contrast to the closely held firms in Jacob and Michaely (2017). Thus, it is an empirical question as to whether tax-insensitive institutional ownership affects managers' preference to accelerate dividends (documented by Hanlon and Hoopes 2014) in public firms. As such, we propose the following null hypothesis:

Hypothesis 3a: The positive effect of insider ownership on accelerated dividends does not vary with tax-insensitive institutional ownership.

We next explore whether the effect of tax-insensitive institutions on the relation between insider ownership and dividend policy varies for dedicated versus non-dedicated institutions. While we expect dedicated tax-insensitive institutions to provide better monitoring, these institutions should only constrain managers if they view managers' as being overly aggressive in accelerating dividends. Because non-dedicated institutions have less of a monitoring role, it is not clear that they will have any effect on the relation between insider ownership and dividend policy. Therefore, we pose the following hypothesis in the null form:

Hypothesis 3b: The effect of tax-insensitive institutions on the relation between insider ownership and dividend acceleration does not vary based on whether the tax-insensitive institutions are dedicated.

IV. Sample Selection and Research Design

4.1. Sample Selection – Special Dividends

Following Hanlon and Hoopes (2014), we obtain monthly dividend data from CRSP and retain all firm-distribution observations from January 1991 through December 2017.¹¹ For our main analysis of special dividend acceleration, we follow Hanlon and Hoopes (2014) and keep only observations with share code 10 or 11. Thus, we eliminate all securities that represent Mutual Funds, American Depository Receipts, closed-end funds, and firms incorporated outside of the United States. These firms have divergent dividend characteristics and may not produce the qualified dividends relevant for this study, because only qualified dividends were eligible for the reduced JGTRRA rates (Hanlon and Hoopes, 2014). We also exclude real estate investment trusts (REITs) because their dividends are not qualified and because of the unique timing of the taxation of their dividends. Unlike traditional dividends which are taxed when paid, REIT dividends declared in October, November, or December, but not paid until January, are taxed in the year of declaration.¹² Finally, we eliminate any observations in the utilities industry (SIC 4900 through 4949). This results in a sample of 162,593 firm-distributions.¹³

¹¹ 1991 represents the first date of available for institutional tax-sensitivity classifications. We select this long period of time to be consistent with Hanlon and Hoopes (2014), who begin their sample in 1980. To ensure that we are not picking up spurious relationships because of the high statistical power in our long window special dividend tests, we re-perform all primary special dividend tests using only data from 2004 through 2017. Results are unchanged.

¹² See IRS Publication 550. We examine REITs separately in Section 6.2.

¹³ In contrast to many research papers in accounting and finance, we retain financial firms. Financial firms represent a significant portion of the U.S. economy (e.g., 45.82% of cash dividends in our sample). Also, there is little theoretical reason to believe that financial firms' incentives differ from other firms in our setting. Overall, this design choice does not affect our inferences. We discuss additional analyses of financial firms in Section 6.2. While utilities, like financials, likely face dividend acceleration incentives similar to other firms but also face regulatory limits, we continue to exclude utilities because they represent a far smaller segment of the U.S. economy than

We then utilize the Compustat quarterly database to obtain firm-level control variables, resulting in 154,298 firm-distributions with the necessary data. To evaluate institutional ownership, we utilize 13-F filing data from Thomson Reuters and classify institutions as tax-sensitive [*TSI*], tax-insensitive [*TII*], tax-insensitive and dedicated [*TII_DED*], or tax-insensitive and not dedicated [*TII_NOTDED*] as coded by Brian Bushee.¹⁴ 112,238 firm-distributions remain after requiring the relevant institutional ownership data. To assess the impact of insider ownership on firm decisions, we require ExecuComp insider holdings data. This results in 78,521 firm-distributions with a subset of 62,637 firm-distributions with both insider ownership and institutional ownership data. Table 1, Panel A displays the sample selection.

INSERT TABLE 1 HERE

Table 2, Panel A presents descriptive statistics and Panel B presents Pearson correlations between variables utilized in the tests of special dividend payouts. Firm-distributions exhibit an average tax-insensitive (tax-sensitive) institutional ownership of 44.7% (6.9%). Tax-insensitive ownership breaks into 39.6% non-dedicated and 5.0% dedicated. Among firm-distributions with insider ownership data, insiders have 3.9% ownership, on average. Finally, 36.8% of our sample is comprised of financial services institutions. For the full sample of firm-distributions, institutional ownership measures are generally negatively correlated with the likelihood and magnitude of special dividend payments, while insider ownership is positively correlated with the likelihood and magnitude of special dividends. However, the focus of this study is the effects of ownership structure in the periods of November/December of 2010 and 2012. Thus, we defer discussion of results to the multivariate analyses below.

financial firms. CRSP data between 2010 and 2017 shows that utilities represent only 1.8% of all firms (untabulated).

¹⁴ <http://acct.wharton.upenn.edu/faculty/bushee/IIclass.html> accessed in May of 2018.

INSERT TABLE 2 HERE

4.2. Sample Selection – Dividend Shifting

To examine the cross-sectional differences among firms shifting dividends prior to JGTRRA's expiration, following Hanlon and Hoopes (2014), we first identify firms that paid a regular dividend in either January of 2010 or 2012. These periods act as a control to identify firms likely to regularly pay a dividend in January. This results in 3,027 firm-distributions between 2010 and 2013. Next, out of this set of firms, we identify firms that paid a dividend in December 2010, but not January 2011 (December 2010 shifters) and firms that paid a dividend in December 2012, but not January 2013 (December 2012 shifters). When analyzing the data, we find that only 8.2% of potential shifters actually shifted payment from January to December in 2010, compared to 46.3% in 2012. Therefore, in contrast to Hanlon and Hoopes (2014), we focus the sample on December 2012 shifters [*SHIFT*], resulting in a sample of 404 firms.

Table 1, Panel B presents sample selection. Table 3, Panel A displays descriptive statistics and Panel B presents the Pearson correlations between variables utilized in the cross-sectional tests of shifting firms.¹⁵ These statistics represent the sub-sample of dividend paying firms that generally pay dividends in January. On average, shifters are smaller firms with higher ROA and cash. *TII_DED* (*TII_NOTDED*) is positively (negatively) correlated with *SHIFT* (0.1208 versus -0.1257 respectively). This provides initial evidence on hypothesis 2, suggesting that tax-insensitive dedicated investors encourage shifting, while the opposite is true of other tax-insensitive dedicated investors. We defer further discussion to the multivariate analysis.

INSERT TABLE 3 HERE

4.3. Research Design

¹⁵ In our final sample, 50.4% of firms shift their dividends. This differs from the 46.3% reported above because we lose some observations when requiring control variables, as detailed in Table 1, Panel B.

We test our hypotheses regarding the likelihood and magnitude of special dividend payments using the following linear probability model, extending Hanlon and Hoopes (2014):¹⁶

$$\begin{aligned} SpecialDiv_{it} = & \beta_1 OWNERSHIP_{it} + \beta_2 NOVDEC2010_{it} + \beta_3 NOVDEC2012_{it} \\ & + \beta_4 NOVDEC2010 * OWNERSHIP_{it} + \beta_5 NOVDEC2012 * OWNERSHIP_{it} + \\ & \beta_6 CASH_{it} + \beta_7 ASSETS_{it} + \beta_8 ROA_{it} + \sum MonthFE + \sum YearFE \quad (1) \end{aligned}$$

Where *NOVDEC2010* (*NOVDEC2012*) represents an indicator variable for firm-months during November and December prior to the potential (actual) dividend tax-rate change. *OWNERSHIP* represents the independent variables of interest for each hypothesis. β_4 and β_5 represent the interactive effect of the ownership variables of interest on the likelihood and magnitude of payouts during the respective November/December period. A positive (negative) coefficient indicates that the variable of interest increases (decreases) the likelihood/magnitude of special dividend payout in November or December of 2010 or 2012.

SpecialDiv is either a) an indicator variable set equal to 1 for the presence of a special dividend and 0 otherwise, or b) the magnitude of the special dividend scaled by the total dividends paid in the same year.¹⁷ *CASH*, *ASSETS*, and *ROA* are used to control for the firm's size and ability to pay special dividends. We control for month and year fixed effects and cluster standard errors by firm. Following Hanlon and Hoopes (2014), we omit the intercept to allow for 12 monthly fixed effects. See Appendix A for a comprehensive list of variable descriptions.

To test our hypotheses related to the firm's decision to shift dividends into December

¹⁶ As with Hanlon and Hoopes (2014), we use a linear probability model to aid with interpretation of results, particularly as it relates to interaction variables.

¹⁷ This differs slightly from the Hanlon and Hoopes's (2014) magnitude calculation which scales the special dividend by the total dividends paid by the firm in the given *month*. Using Hanlon and Hoopes's (2014) measure of magnitude in our sample mechanically generates results similar to the likelihood of a special dividend. This occurs because special dividends are large relative to regular dividends, leading to a correlation of 94.3% between Special (indicator) and Special (magnitude), calculated using Hanlon and Hoopes's (2014) methodology.

2012, we estimate the following model, extending Hanlon and Hoopes (2014):

$$SHIFT_i = \gamma_0 + \gamma_1 OWNERSHIP_i + \gamma_2 CASH_i + \gamma_3 ASSETS_i + \gamma_4 ROA_i \quad (2)$$

SHIFT represents an indicator variable set to 1 if a firm shifted their regular dividend from January 2013 into December 2012 and 0 otherwise. *OWNERSHIP* is a placeholder for all independent variables of interest for each hypothesis.¹⁸ We report t-statistics robust to heteroscedasticity, but do not cluster because we only have one observation per firm.

V. Results

5.1. Hypothesis 1 – Tax-Sensitivity and Dividend Acceleration

To analyze hypothesis 1, examining whether institutional investors' tax preferences affect firms' decision to accelerate dividends, we begin by examining the decision to pay special dividends. We first include both tax-insensitive (*TII*) and tax-sensitive (*TSI*) institutional ownership separately as the *OWNERSHIP* measures in equation (1).¹⁹ Because we include both tax-insensitive and tax-sensitive institutions, non-institutional (i.e., taxable retail) investors comprise the reference group in the model. That is, our coefficients on *OWNERSHIP* variables must be interpreted relative to the reference group, taxable retail investors. Table 4, Panel A displays results from this regression. Columns 1 and 2 replicate Hanlon and Hoopes (2014) in our sample, confirming that firms were significantly more likely to pay specials in November/December of 2010 and 2012. Columns 3 and 4 include tax-insensitive and tax-

¹⁸ To obtain control variables, given the multiple firm-distributions that could be used in the shifting tests, we separate the sample into 2 subsets. If a firm shifted its dividend into December 2012, we use the control variables from that firm-distribution observation. If a firm did not make a distribution in December of 2012, we use the most recent available observation prior to December of 2012.

¹⁹ While our focus is on tax-insensitive ownership, we separate tax-sensitive institutional owners from the baseline reference group of tax-sensitive individuals because institutional and individual investors likely have differing effects on firm responses to the tax rate increases we examine.

sensitive institutional ownership and their interaction with the November/December of 2010 and 2012 periods. We find that, for each additional 1% of tax-insensitive ownership in November/December 2010 (2012), there is a 0.109% (0.098%) decrease in the likelihood of a special dividend and a 0.083% (0.087%) decrease in the magnitude of the special dividend ($p < 0.01$). In terms of economic significance, a one standard deviation (25.6%) increase in tax-insensitive ownership reduces the likelihood of a November/December 2010 (2012) special dividend by 25.69% (21.24%) versus the baseline November/December 2010 (2012) likelihoods.^{20, 21} This suggests that, on average, firms consider the tax-sensitivity of investors when formulating their dividend payout policy and the tax benefits of paying a special dividend are highest when tax-insensitive ownership is low (and taxable ownership is high), supporting hypothesis 1.

INSERT TABLE 4 HERE

We also present these results graphically. Figure 1, Panel A (B) displays the frequency (magnitude) of special dividends by month from 2008 to 2014. We graph these amounts for firms in the highest and lowest quintiles of tax-insensitive institutional ownership. In both panels, we observe obvious spikes around the end of 2010 and 2012 for both groups of firms, with a considerably larger spike for firms with low tax-insensitive ownership.

INSERT FIGURE 1 HERE

In contrast to our results for tax-insensitive institutions, our results show that tax-sensitive institutional ownership does not have an incremental effect on the likelihood and magnitude of dividend payouts during November/December 2010 and 2012. This suggests that

²⁰ For 2010, this is calculated as $(-0.1088 * 0.256) / 0.1084 = 0.2569$. For 2012, this is calculated as $(-0.979 * 0.256) / 0.1180 = 0.2124$.

²¹ As TII increases to 100%, the interaction term indicates that TII fully offsets the baseline increased likelihood and magnitude of special dividends during the November/December 2010 and 2012 periods ($0.1084 - 0.1088 = -0.0004$, $p=0.99$, for 2010 and $0.1180 - 0.0979 = 0.0201$, $p=0.31$, for 2012).

the effect of tax-sensitive institutional ownership on the decision to pay dividends does not differ from that of non-institutional (individual) owners. This is not surprising given that the tax preferences of tax-sensitive institutions and taxable investors are likely similar.

We next test hypothesis 1 by examining dividend shifting from 2013 to 2012. Table 4, Panel B displays the results from the cross-sectional regression using equation (2) to analyze the effects of tax-insensitive ownership on a firm's decision to accelerate regular dividends from January 2013 into December 2012.²² The results qualitatively mirror those from the test of special dividends, supporting hypothesis 1. Of the sample of traditional January dividend payers, a 1% increase in tax-insensitive ownership is associated with a 0.23% decrease in the likelihood of shifting dividends. In terms of economic significance, a one standard deviation increase in tax-insensitive ownership (24.60% in the sample of likely January dividend payers) results in a 5.66% decrease in the likelihood of shifting dividends compared to the mean percentage of firms that shift dividends of 50.04% (i.e., an 11.3% decrease in likelihood of shifting). The negative association between tax-insensitive ownership and dividend shifting, while not necessarily surprising, is interesting given that firms in this sample already plan to pay a dividend (e.g., issues related to monitoring of free cash flows should not play a role in the decision), only the timing of the dividend payment changes. We continue to find no evidence that tax-sensitive institutions influence dividend acceleration differently than taxable retail investors.

5.2. Hypothesis 2 – Variation in Dividend Acceleration with Institution Type

We investigate the possibility that different types of institutional investors have divergent impacts on the decision to accelerate dividends based on their monitoring role. We focus on dedicated versus non-dedicated institutional investors (Bushee, 1998). Dedicated institutional

²² Again, in contrast to Hanlon and Hoopes (2014), we focus on 2012 and exclude 2010 because the substantial majority of dividend shifting occurs in 2012 and examining a single year provides a cleaner test.

investors have greater ownership stakes in firms and a longer investment horizon, enhancing their role as corporate monitors (Bushee, 1998). As such, tax-insensitive dedicated institutions are unlikely to obtain tax benefits from tax-favored distributions but, as external monitors, they are likely to understand the importance of providing tax benefits to other, tax-sensitive shareholders (e.g., Manconi and Massa, 2013; Hribar et al., 2019). We test whether tax-insensitive dedicated investors differentially affect the payment of special dividends by modifying equation (1) to partition tax-insensitive institutional investors between dedicated (*TII_DED*) and non-dedicated (*TII_NOTDED*) investors. As with Table 4, the reference group in this table is all non-institutional (i.e., taxable retail) investors.

Panel A of Table 5, Columns 1 and 2, display the results from examining the effects of *TII_DED* and *TII_NOTDED* on the likelihood and magnitude of special dividend payouts in the November/December 2010 and 2012 periods. Tax-insensitive non-dedicated institutions (quasi-indexers, transient institutions, and those institutions not otherwise classified by Bushee (1998, 2001)) are significantly negatively associated with the likelihood and magnitude of a special dividend payout in November/December of both 2010 and 2012 ($p < 0.01$), consistent with the full sample results for tax-insensitive institutional investors. For each additional 1% ownership by tax-insensitive non-dedicated institutions in 2010 (2012), there is a 0.12% (0.10%) decrease in the likelihood of a special dividend during these periods. In terms of economic significance, a one standard deviation (24.60%) increase in tax-insensitive non-dedicated ownership results in a 27.00% (21.23%) decrease in the likelihood of a special dividend in November/December 2010 (2012) versus the baseline November/December 2010 (2012) likelihoods.²³ In contrast, tax-insensitive dedicated institutions exhibit a positive but insignificant interaction with the

²³ For 2010, this is calculated as $(-0.1206 * 0.246) / 0.1099 = 0.2700$. For 2012, this is calculated as $(-0.1007 * 0.246) / 0.1167 = 0.2123$.

November/December 2010 and 2012 periods.²⁴ Overall, we find that the average effects of tax-insensitive institutional ownership on special dividends, presented in Table 4, are concentrated in non-dedicated investors. That is, tax-insensitive dedicated institutional ownership does not decrease special dividends during this period.²⁵

INSERT TABLE 5 HERE

Table 5, Panel B provides additional evidence that tax-insensitive dedicated institutions anticipate the positive market implications of dividend acceleration despite the fact that these investors do not obtain direct tax benefits from dividend acceleration. We modify equation (2), examining dividend shifting, to include tax-insensitive institutional ownership split between dedicated and non-dedicated institutions as well as tax-sensitive institutional ownership. We find a significant difference between the effects of tax-insensitive dedicated and non-dedicated institutional investors. Similar to the special dividend tests and the main analysis in Table 4, tax-insensitive non-dedicated institutions are negatively associated with the likelihood of shifting a dividend. Conversely, tax-insensitive dedicated institutions are *positively* associated with the likelihood of shifting a regular dividend. For every additional 1% of tax-insensitive dedicated institutional ownership, firms are 1.8% more likely to shift dividends from January 2013 into December 2012. A one standard deviation (2.80%) increase in tax-insensitive dedicated institutional ownership is associated with a 5.03% increased likelihood of shifting distributions

²⁴ Given the very limited ownership by tax-sensitive dedicated institutions in our sample (and broadly, e.g., Blouin et al., 2017), we focus on the results of tax-insensitive dedicated versus non-dedicated institutional ownership and do not split tax-sensitive institutions by type.

²⁵ We point out that there are fewer dedicated institutional owners than other institutions. This results in a significant number of firm-distribution observations with 0 reported tax-insensitive dedicated institutional ownership, potentially biasing against finding results. In an untabulated test of 74,451 firm-distributions with non-zero tax-insensitive dedicated ownership, we find the likelihood and magnitude of special dividends during November/December 2010 and 2012 is *increasing* in tax-insensitive dedicated ownership (two-tailed $p=0.022$ and $p=0.089$ respectively). This provides some limited evidence that these investors potentially *encourage* the payment of special dividends to obtain non-tax benefits (e.g., capital appreciation).

into 2012, compared to the mean percentage of firms that shift dividends of 50.04% (i.e., a 10.1% decrease in likelihood of shifting). This test suggests that dedicated institutional owners help to mitigate shareholder conflicts associated with heterogeneous taxes observed in other settings (e.g., Jacob and Michaely 2017) by ignoring their own tax-sensitivity to allow the firm to consider other shareholders' tax preference which leads to positive market consequences in our setting (Hribar et al. 2019). Overall, results support hypothesis 2, suggesting that institution type affects the relation between institutional ownership and dividend acceleration.

5.3. Hypotheses 3a and 3b – Variation with Institution Type and Insider Ownership

Next, we examine whether increased tax-insensitive institutional ownership mitigates the positive interaction between insider ownership and the likelihood/magnitude of special dividend payments documented by Hanlon and Hoopes (2014). Hanlon and Hoopes (2014) acknowledge that their results may be due to an agency issue associated with insiders' myopic focus on their own tax benefits. They offer a preliminary test by interacting the negative value of firms' G-index (Gompers, Ishii, and Metrick, 2003) with the November/December 2010 and 2012 periods and find a positive interaction, indicating that firm's with stronger shareholder protections were more likely to pay dividends.²⁶ However, this test does not capture an interaction between insider ownership and other shareholders' tax preferences or institutions' monitoring ability leaving an open question about whether managers accelerate dividends based on personal preferences or the preferences of the overall shareholder base.

In Table 6, Panel A, we modify equation (1) to evaluate the interaction between ExecuComp insider ownership (*INSIDER*) and the likelihood of special dividend payments

²⁶ The G-Index is calibrated so that higher values equal lower quality governance. Thus Hanlon and Hoopes (2014) invert the value to ease interpretation.

during November/December 2010 and 2012.²⁷ Column 1 shows the interaction results for the full dataset with available institutional ownership, replicating Hanlon and Hoopes (2014) and providing a baseline for the tests of our hypotheses.²⁸ Insider ownership is positively and significantly associated with the likelihood of paying a special dividend in November/December of 2010 and 2012. In order to examine hypothesis 3a regarding the effect of tax-insensitive institutions on the relation between insider ownership and special dividends without turning to a three-way interaction term, we split the sample based on the level of tax-insensitive ownership and compare the coefficients on the interaction between November/December 2010 and 2012 and insider ownership across subsamples. If tax-insensitive institutional ownership deters managers from paying special dividends, the magnitude of the interaction coefficients should decrease for high tax-insensitive institutional ownership samples. Columns 2 and 3 display the results of the regression split on the bottom and top terciles of tax-insensitive institutional ownership. In these columns, the reference group is all non-insider ownership, bearing in mind that this ownership consists of relatively low (high) tax-insensitive institutional ownership in column 2 (3). The positive interactions between insider ownership and November/December 2010 and 2012 remain significant in the top tercile of tax-insensitive institutional ownership ($p < 0.05$, one-tailed and $p < 0.01$, one-tailed respectively).

INSERT TABLE 6 HERE

We perform a test of the statistical relationship between the coefficients in the bottom and top tercile of tax-insensitive institutional ownership. There is no (weak) evidence of a statistical difference between the bottom and top tercile models for the November/December 2012 (2010)

²⁷ For brevity, we only report effects on the likelihood of a special dividend. Inferences are unchanged when replacing the dependent variable with magnitude of special dividend payouts.

²⁸ Because the positive relationship between insider ownership and the periods before the tax rate change is identified in Hanlon and Hoopes (2014), we report one-tailed p-values for the *INSIDER* coefficients.

interaction (rows 2 and 1, respectively). As such, we fail to reject null hypothesis 3a. Overall, we find little evidence of a difference in the effect of insider ownership on special dividends across tax-insensitive institutional ownership deciles, suggesting that insiders' tax preferences dominate those of outside investors. To put these results in perspective, Panel B of Table 6 displays descriptive statistics for the levels of tax-insensitive institutional ownership. The average level of tax-insensitive ownership for the full sample with data for insider ownership is 59% with a range of ownership between 0% and 97%. At the top tercile, the average level of tax-insensitive institutional ownership is 78%, with a range between 68% and 97%.

To provide an alternative perspective on these results, Panel C of Table 6 includes the interaction of insider ownership and tax-insensitive institutional ownership. To continue to avoid a triple-interaction, we perform this analysis within the subsample of firm-distributions occurring in November/December of 2010 and 2012, resulting in 1,265 observations. The F-test of $INSIDER + INSIDER * TII = 0$ is positive and significant ($p < 0.01$) for both the likelihood and magnitude of special dividends during this period. The results in Table 6 suggest that, among firms paying dividends in these periods, insiders were able to pay tax-favored special dividends even when a significant majority of current owners were tax-insensitive. However, this could also suggest that sophisticated tax-insensitive institutions understand the benefits of paying special dividends to appear responsive to shareholder preferences, potentially delivering capital markets benefits to the firm (e.g., Merton, 1987; Manconi and Massa, 2013; Hribar et al., 2019). We explore this possibility in more detail below (see Table 8).

We next turn to the effect of insider ownership on firms shifting dividends from January 2013 to December 2012. Table 7 displays the interactive effect between insider ownership and

the two categories of institutional tax-sensitivity.²⁹ As in Hanlon and Hoopes (2014), we find that insider ownership is positively associated with a firm's likelihood of shifting regular dividends into December 2012. Further, dividend shifting increases in insider ownership for both tax-sensitive and tax-insensitive institutional owners. Thus, results mirror those in Table 6, suggesting that insiders' ability to shift dividends is uninhibited by tax-insensitive institutional ownership. Overall, we are unable to reject the null hypothesis 3a.

INSERT TABLE 7 HERE

It is possible that insiders, rather than accelerating dividends for personal tax benefits, anticipate the potential for non-tax benefits to dividend acceleration (e.g., price appreciation) through increases in firm value (Merton, 1987; Hribar et al., 2019). Thus, the results in Table 6 and 7 may indicate that institutional investors do not constrain managers' dividend acceleration because of the associated non-tax benefits. Given our previous assertion that tax-insensitive *dedicated* institutions act as monitors that focus on the non-tax benefits of dividend acceleration, we next examine the effect of insider ownership on the decision to pay special dividends after partitioning between the bottom and top tercile of tax-insensitive dedicated institutional ownership. If tax-insensitive dedicated institutions exercise their role as monitors, we expect that tax-insensitive dedicated institutions will constrain the effect of insider ownership only if insiders myopically focus on their own tax benefits. Conversely, if insiders appropriately anticipate the non-tax benefits of dividend acceleration, then we do not expect tax-insensitive

²⁹ We center variables for tests of the interaction between insider and institutional ownership in the shifting dataset (Tables 7 and 9) because firms in this dataset (traditional January dividend payers) have right skewed institutional ownership (1st percentile = 2.52%, 5th percentile = 36.41% *TII*, compared to the special dividend dataset where 1st percentile = 0.07%, 5th percentile = 5.69% *TII*). Burks, Randolph, and Seida (2019) note that in this case, the main effect (*INSIDER*) will not represent a meaningful central tendency because the interaction term (*INSIDER*TII*) will take on a value of zero only at an extreme or infeasible point. Centering variables provides a better measure of central tendency that is more relevant for evaluating a conditional effect (in this case, the effect of *INSIDER* when *TII* is at its mean level) given the distribution of this data.

dedicated institutions to constrain insiders.

Table 8, Panel A displays the results from a modified equation (1) examining the interaction between insider ownership and the November/December 2010 and 2012 periods, now partitioning by *TII_DED*. The reference group is all non-insider ownership, bearing in mind that this ownership consists of low (high) tax-insensitive dedicated institutional ownership in column 2 (3). Results indicate that, within the bottom tercile of tax-insensitive dedicated institutional ownership, the likelihood of a special dividend increases with insider ownership ($p < 0.01$). However, the insider effect on the likelihood of a special dividend during these periods weakens to the point of statistical insignificance when examining the top tercile of tax-insensitive dedicated institutional ownership.³⁰ This suggests that tax-insensitive dedicated institutional owners constrain insiders' ability to accelerate special dividends during these periods. To get a perspective on the levels of ownership in each column presented in Table 8, Panel B displays descriptive statistics for insider and tax-insensitive dedicated ownership by tercile. Insider ownership appears similar in each tercile of tax-insensitive dedicated ownership.

INSERT TABLE 8 HERE

To get an alternative view on these results, Table 8, Panel C displays the interactive relation between insider ownership and tax-insensitive dedicated institutional ownership. As with Panel C of Table 6, we limit our sample to only those firm-distributions in November/December of 2010 and 2012 to avoid a triple interaction. We perform F-tests of $INSIDER + INSIDER * TII_DED = 0$ and $INSIDER + INSIDER * TII_NOTDED = 0$. Results continue to suggest that insiders are (not) able to increase the likelihood and magnitude of special dividends

³⁰ Given that the dependent variable, *SPECIAL*, may not vary significantly in the top tercile of tax-insensitive dedicated institutional owners, we test the power of the coefficient on $NovDec2010(2012) * INSIDER$ within the top tercile. In both cases, the power of our test appears high ($(1 - \beta) > 0.90$).

when the firm is owned by tax-insensitive non-dedicated (dedicated) institutions.

In Table 9, we modify equation (2) to evaluate the effect of institutional ownership on insiders' ability to increase the likelihood of shifting dividends into December 2012. We split the institutional ownership between tax-insensitive dedicated, tax-insensitive non-dedicated, and tax-insensitive. The insider effect on dividend shifting is not mitigated by either tax-sensitive or tax-insensitive *non-dedicated* institutions. However, similar to the results for special dividends, tax-insensitive *dedicated* ownership constrains insiders' ability to shift dividend payments.³¹ Thus, we can reject the null hypothesis 3b, finding that effect of tax-insensitive institutional ownership on the relation between insider ownership and dividend policy varies with the type of institution.

INSERT TABLE 9 HERE

Taken together, tests of hypothesis 3 suggest that insider ownership plays a role in accelerating dividends around tax rate changes and that tax-insensitive institutions do not constrain this acceleration (hypothesis 3a). This could reflect either excessive tax-motivated dividend payments by insiders, or insiders accelerating dividends given non-tax benefits associated with the acceleration. The tests of hypothesis 3b suggest that tax-insensitive *dedicated* institutions mitigate insiders' effect on dividend acceleration. This indicates that insiders overweight their tax-benefits when evaluating the tax and non-tax benefits of dividend acceleration to shareholders. Dedicated institutions appear to exercise their monitoring role to limit insiders' ability to accelerate dividends.

VI. Additional Analyses

³¹ In tests of *INSIDER* plus interactions with *TII_DED*, *TII_NOTDED*, and *TSI* presented at the bottom of Table 9, *INSIDER + INSIDER*TII_DED* is not significantly different from zero ($p=0.45$) while the other sums are significantly greater than zero (both $p<0.01$)

6.1 Additional Analysis – Timing of Dividend Declarations

Our results suggest tax-insensitive dedicated institutions pay attention to non-tax (capital markets) benefits of dividend acceleration (e.g., Hribar et al., 2019) and influence firms' decision to accelerate dividends. As such, we might expect that there is a “learning” mechanism whereby these institutions observe positive market reactions to early tax-favored dividend announcements and then subsequently encourage dividend acceleration. If this mechanism applies, we expect firms with greater levels of dedicated tax-insensitive ownership to be associated with dividend declarations occurring later in the quarter prior to the expiration of JGTRRA.

We examine if this learning effect is at work in our sample of firms that pay special dividends in the fourth quarter of 2012. To increase sample size, we use EDGAR proxy filings to hand collect insider ownership for 60 firms missing insider ownership around this period. This results in a sample of 123 (111) fourth quarter firm distributions (with non-missing ownership data). We begin by confirming the results of Hribar et al. (2019) by finding a positive market reaction of 2.65% ($t=5.01$) in the three day window around dividend announcement dates.³² Next, we confirm that “early” announcers experienced positive returns that investors could learn from by grouping the declarations into the earliest median, tercile, quartile, or decile. We find that the first grouping of declarations are always statistically positive at the 10% level or better.

Next, we regress the number of days between the first dividend acceleration declaration and the firm's declaration, scaled so that the first declaration is set to 0 and the last declaration is set to one, for specials paid in the fourth quarter of 2012 on proxies for shareholder ownership. We continue to control for size, ROA, and available cash. In addition, we add industry indicator

³² We examine market returns using the Fama and French (2015) five factor model to evaluate expected returns using firms' returns over the prior year beginning 40 days before the dividend declaration [t-405, t-40]. We then calculate buy and hold abnormal returns (BHAR) for the three day window around the announcement date [t-1, t+1].

variables (Fama and French 12 Industries) to control for potential differences in learning between industries. We present results in Table 10. Column 1 shows that tax-insensitive institutional ownership is positively associated with the number of days from the first dividend announcement, suggesting that earlier distributions are more likely to be made specifically for tax-sensitive investors. Column 2 splits ownership between tax-insensitive dedicated and non-dedicated institutional owners, presenting evidence that the learning effect from positive market reactions to dividend declarations is primarily concentrated within dedicated owners (i.e., higher dedicated ownership for later declarations). Finally, column 3 interacts institutional ownership with insider ownership. Tax-insensitive dedicated institutional ownership remains positive ($p < 0.01$), suggesting that when insider ownership is low, dedicated owners push for distributions after seeing positive market reactions from tax-favored special dividend declarations.

INSERT TABLE 10 HERE

6.2 Additional Analysis – Financial Services Industry

We also use our research setting to examine potential differences between the payout policies of financial and non-financial firms. While financial firms are often excluded from accounting and finance research, these firms represent a significant portion of the U.S. economy. Like non-financial firms, financial firms (SIC 6000 to 6999) likely consider tax consequences to owners when setting dividend policy. In untabulated tests, we modify equations (1) and (2) to examine potential differential relations between financial firms and the likelihood and magnitude of dividend acceleration. Results suggest that financial firms were just as likely to increase special dividends during November and December of 2010 as other non-financial firms. However, financial firms were less likely to accelerate dividends during November and

December of 2012, possibly suggesting that these firms faced regulatory backlash or capital constraints due to dividend acceleration in 2010.³³

We also evaluate the differential effect of financial firms on the likelihood of shifting dividends from January 2013 into December 2012. In untabulated tests, we find that financial firms are just as likely as non-financials to shift dividends during this period. Shifting of dividends that were already going to be paid has a limited impact on financial firms' capital adequacy ratings, explaining the lack of a difference between financial firms and other firms.³⁴ Overall, financial services firms need not be broadly excluded from research studies, but rather only need to be excluded when a clear reason for a difference exists.³⁵

6.3 Additional Analysis – Placebo Tests

Thus far, our results indicate that firms' ownership structure, specifically tax-sensitivity, affects firms' decisions to accelerate dividends into the year just before a dividend tax rate increase. In order to rule out the possibility that we are picking up an association that will occur in any period (e.g., some type of year-end effect), regardless of the change in tax rates, we re-perform our tests in November/December periods in 1995, 2000, 2005, and 2015. These periods should be unrelated to any particular tax-incentive to pay special dividends and are not expected

³³ In November/December of 2010 (2012), 19 out of 63 (22 out of 126) special dividend payments came from financial institutions, resulting in \$1.27 (\$2.05) billion of special dividends compared to \$4.22 (\$7.64) billion paid by non-financial firms.

³⁴ Untabulated analysis of shifted dividends indicates that, in our sample, financial firms shifted \$1.5 billion of regular dividends into December of 2012. This resulted in up to \$132.0 million in actual taxes saved (8.8% savings) and \$426.0 million in potential taxes saved if the dividend tax rate increased to the personal rate of 43.4% (39.6% + 3.8%). These results suggest that financial firms also pay attention to dividend taxes when setting dividend policy.

³⁵ We also evaluate the dividend declaration patterns of real estate investment trusts (REITs) in the fourth quarter of 2012. REIT investors in the top tax bracket in 2012 face an increase in the top marginal rate (REIT dividends are not qualified and thus subject to the ordinary tax rate) plus the new net investment income tax. REIT dividends declared in the fourth quarter, but paid in January, are taxed in the year of declaration. Thus, REITs potentially face the lowest cost of "dividend acceleration" because they can accelerate dividends by simply declaring their traditional January dividend in the prior quarter. However, we find no clear evidence of dividend acceleration by REITs in 2012. This either indicates that REIT investors are not in the top marginal tax bracket (e.g., Graham and Kumar, 2006) or that REITs are subject to regulatory constraints preventing this shifting.

to have an interactive relation with tax-insensitive non-dedicated ownership.

INSERT TABLE 11 HERE

Table 11 displays the results of this placebo test. As expected, through all periods, *TII_NOTDED* is not associated with the likelihood of a special dividend distribution. Similarly, *TII_DED* and *TSI* are also generally not negatively associated with special dividends (with the exception of one of the four periods each, each with lower statistical significance than the effect of *TII_NOTDED* in our main tests). This suggests that our results are not driven by an effect unrelated to the dividend tax rate increase.

6.4 Additional Analysis – Share Repurchases

Finally, we briefly examine the effect of institutional ownership on share repurchases during November/December of 2010 and 2012 (untabulated). Consistent with Hanlon and Hoopes (2014), we find no significant difference in the overall likelihood of a share repurchase during the periods prior to the potential and actual expiration of JGTRRA. However, when controlling for the interactive effects of tax-sensitive and tax-insensitive institutional ownership, we find a baseline negative association between the likelihood of repurchases and the November/December of 2012 time period ($p < 0.05$), providing evidence of a substitution effect (i.e., fewer repurchases in the dividend acceleration period) when owners are less-sophisticated, non-institutional shareholders. We find that this effect reverses when a firm is owned by tax-sensitive institutional investors ($p < 0.05$), suggesting that these investors prefer repurchases as a tax-favored distribution method and actually encourage repurchases as an additional method for firms to accelerate distributions prior to the tax rate increase. When we turn to the magnitude of repurchases, we find no evidence of a relation between repurchases and the dividend acceleration period, regardless of ownership structure. This suggests dividends were the main method of tax-

motivated payouts in this period.

VII. Conclusion

Using the setting presented by the potential (2010) and actual (2012) dividend tax rate increase following the expiration of JGTRRA, we examine the effect of the investors' tax-sensitivity on firms' decisions to accelerate dividends into a tax-favored period. We find that dividend acceleration is negatively associated with tax-insensitive institutional ownership, providing evidence that firms consider shareholder-level dividend taxes when setting dividend policy.

We extend Jacob and Michaely (2017) by examining agency issues and shareholder conflicts for public firms with active capital markets. We find that tax-sensitive inside owners accelerate dividends to tax-favored periods, even in the presence of high tax-insensitive institutional ownership, differing from Jacob and Michaely's (2017) findings for private firms. However, dedicated tax-insensitive institutional owners are able to constrain this behavior.

In sum, we provide important extensions of Hanlon and Hoopes (2014), Chetty and Saez (2005), and Jacob and Michaely (2017) by using a unique setting to show that the previously documented relation between institutional ownership and dividend payout policy varies based on tax preferences, institution type (dedicated versus non-dedicated), and insider ownership in a public firm setting where non-tax capital markets benefits can also play a role. Overall, our study expands on all three aspects of the Scholes et al. (2015) "all taxes, all costs, all parties" framework by integrating new dimensions of institutional ownership and its relation with insider ownership into the study of taxes and dividend policy.

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Appendix A

| | |
|--------------------------------|---|
| <i>SpecialDiv</i> (Likelihood) | An indicator variable set to 1 if a firm-distribution share code [SHRCD] is classified as 1262, 1272, 1212, 1222, 1232, or 1242. |
| <i>SpecialDiv</i> (Magnitude) | The value of the special dividend scaled by the total dividends paid by a firm throughout the year. This can range between 0 and 1 depending on the value of other regular dividends paid throughout the year, with 1 indicating that the special is the only dividend paid by the firm. Note that this magnitude diverges from Hanlon and Hoopes (2014) which utilizes a scale based on the total monthly dividends. |
| <i>NovDec2010</i> | An indicator variable set to 1 if a distribution is made in either November or December of 2010, 0 otherwise. |
| <i>NovDec2012</i> | An indicator variable set to 1 if a distribution is made in either November or December of 2012, 0 otherwise. |
| <i>Financial</i> | An indicator variable set to 1 if a firm's SIC code ranges between 6000 and 6999. Note that this does not include REITs as these are eliminated from the main regression. |
| <i>OWNERSHIP</i> | The relevant insider or institutional ownership variables, <i>TII</i> , <i>TSI</i> , <i>INSIDER</i> , <i>TII_NOTDED</i> , or <i>TII_DED</i> , defined as follows. |
| <i>TII</i> | The percentage of Tax-Insensitive Institutional Ownership as categorized by Blouin, Bushee, and Sikes (2017). This is calculated as the total shares owned by tax-insensitive institutions during the quarter of the firm-dividend observation divided by the shares outstanding as reported by Compustat. Institutional ownership data comes from Thomson Reuters Institutional 13f Holdings - S34 master file. |
| <i>TSI</i> | The percentage of Tax-Sensitive Institutional Ownership as categorized by Blouin, Bushee, and Sikes (2017). This is calculated as the total shares owned by tax-sensitive institutions during the quarter of the firm-dividend observation divided by the shares outstanding as reported by Compustat. Institutional ownership data comes from Thomson Reuters Institutional 13f Holdings - S34 master file. |
| <i>INSIDER</i> | The percentage of executive ownership for each firm-dividend observation. This is calculated as the total shares owned (options excluded) by executive owners during the month of the firm-dividend observation divided by the shares outstanding as reported by Compustat. Executive ownership data comes from ExecuComp - Monthly Updates Annual Compensation file. |

| | |
|-------------------|--|
| <i>TII_NOTDED</i> | The percentage of Tax-Insensitive Institutional Ownership that is categorized as either transient (TRA) or quasi-indexer (QIX) by Blouin, Bushee, and Sikes (2017) and Bushee (1998, 2001). This is calculated as the total shares owned by institutions that are classified as both dedicated and tax-insensitive during the quarter of the firm-dividend observation divided by the shares outstanding as reported by Compustat. Institutional ownership data comes from Thomson Reuters Institutional 13f Holdings - S34 master file. |
| <i>TII_DED</i> | The percentage of Tax-Insensitive Dedicated Institutional Ownership as categorized by Blouin, Bushee, and Sikes (2017) and Bushee (1998, 2001). This is calculated as the total shares owned by institutions that are classified as both dedicated and tax-insensitive during the quarter of the firm-dividend observation divided by the shares outstanding as reported by Compustat. Institutional ownership data comes from Thomson Reuters Institutional 13f Holdings - S34 master file. |
| <i>ROA</i> | Return on assets calculated as the sum of the pre-tax income (PIQ) over the current and prior three quarters divided by the ending balance of total assets in the current quarter (ATQ). Variables retrieved from Compustat quarterly fundamentals. |
| <i>CASH</i> | Cash and short term investments from the quarter prior (CHEQ) to dividend distribution scaled by current quarter's assets (ATQ). Variables retrieved from Compustat quarterly fundamentals. We use the lagged value of cash rather than the current quarter value of cash, used in Hanlon and Hoopes (2014), to eliminate the negative relation between payment of a dividend in a quarter and that quarter's cash balance. |
| <i>ASSETS</i> | Current quarter assets (ATQ) as reported by Compustat quarterly fundamentals. Assets are not lagged, following Hanlon and Hoopes, 2014. |
| <i>DCLR_DAYS</i> | The number of days between a firm's special dividend declaration and the first declaration date of a special dividend to be paid in either November or December of 2012, beginning with the first declaration on September 20, 2012 and ending with the last declaration on December 21, 2012. This number is scaled by the total number of days between the first and last dividend declarations overall, such that 0 represents the first declaration and 1 represents the last declaration. |

Figure 1

Panel A: Number of Special Dividends, by High and Low Quintile of Tax Insensitive Institutional Ownership

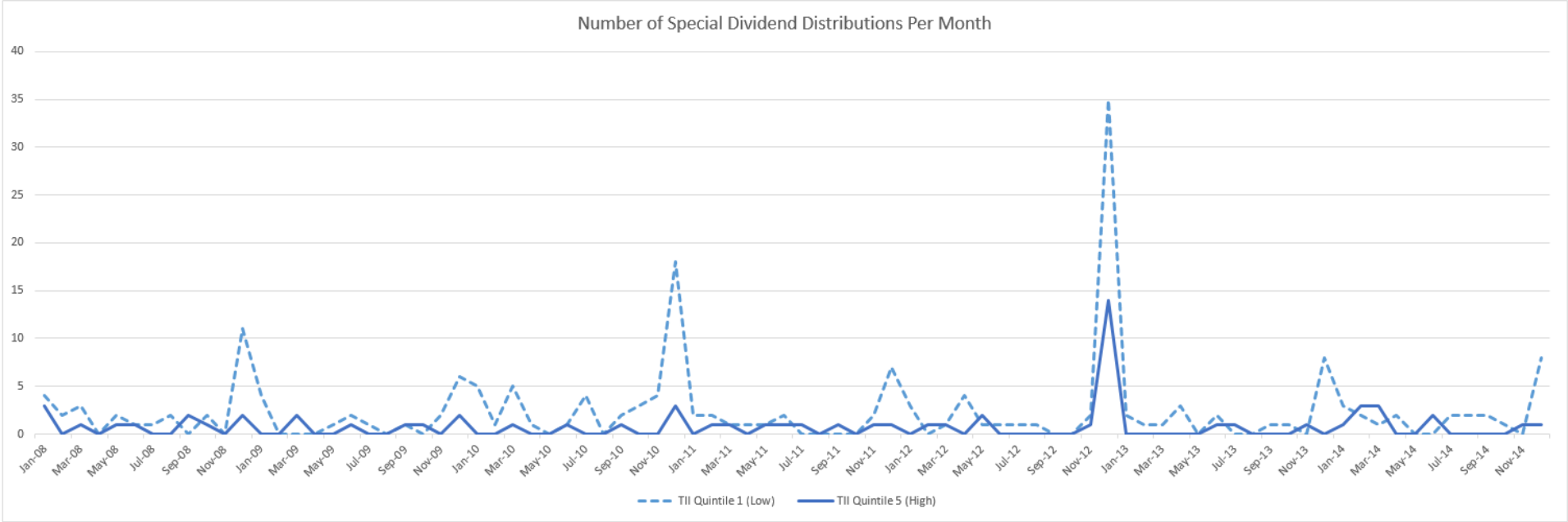


Figure 1 (continued)
Panel B: Magnitude of Special Dividends Scaled by Yearly Dividends, by High and Low Quintile of Tax Insensitive Institutional Ownership

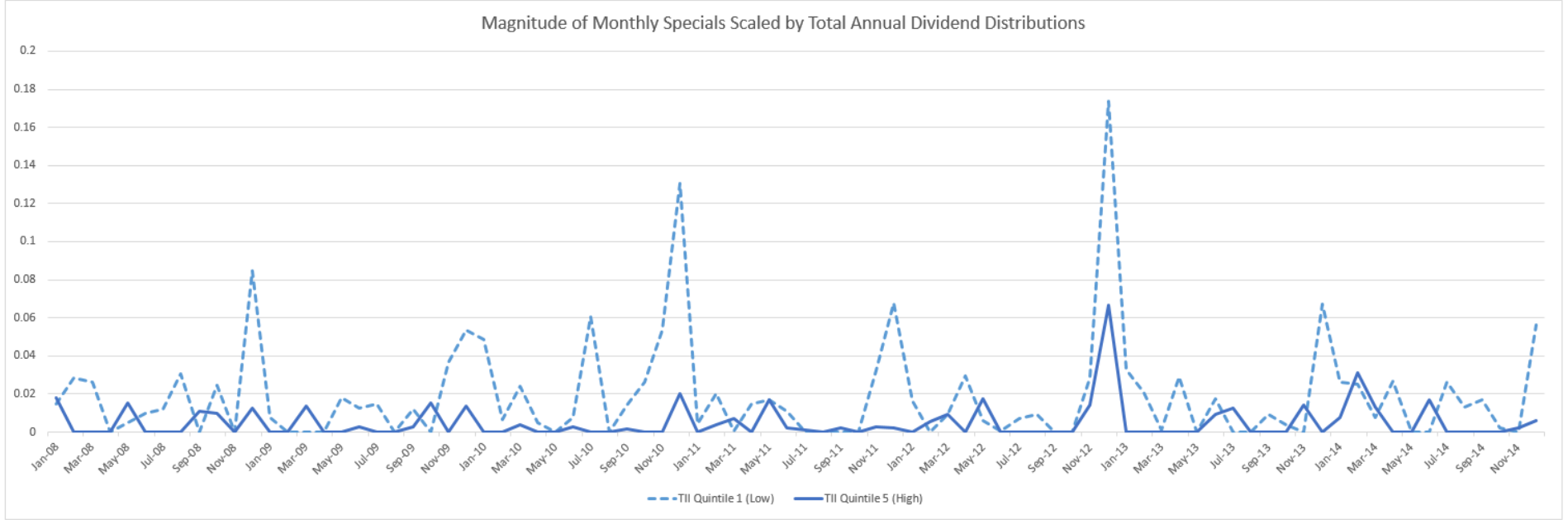


Table 1

Panel A: Sample Selection for Tests of Special Dividends

| | |
|---|----------------|
| Sample of Firm-Distributions Between 1991 and 2017 | 162,593 |
| With Data for Compustat Controls | 154,298 |
| With Data for Institutional Ownership | 112,238 |
| With Data for Insider Ownership | 78,512 |
| With Data for Both Insider and Institutional Ownership | 62,637 |

Panel B: Sample Selection for Tests of Dividend Shifting

| | |
|--|------------|
| Sample of Dividend Paying Firms, paying in January of 2012 | 404 |
| With Data for Compustat Controls | 374 |
| With Data for Institutional Ownership | 341 |
| With Data for Institutional and Insider Ownership | 236 |

Table 2
Special Dividend Sample

| Panel A: Descriptive Statistics | | | | | |
|---------------------------------|---------|-------|--------|--------|---------|
| VARIABLES | N | Mean | S.D. | Min | Max |
| <i>SpecialDiv (Likelihood)</i> | 112,238 | 0.013 | 0.111 | 0.000 | 1.000 |
| <i>SpecialDiv (Magnitude)</i> | 112,238 | 0.007 | 0.076 | 0.000 | 1.000 |
| <i>FINANCIAL</i> | 112,238 | 0.368 | 0.482 | 0.000 | 1.000 |
| <i>ROA</i> | 112,238 | 0.076 | 0.081 | -0.119 | 0.362 |
| <i>CASH</i> | 112,238 | 0.094 | 0.116 | 0.001 | 0.591 |
| <i>ASSETS</i> | 112,238 | 9,443 | 28,650 | 20 | 212,405 |
| <i>TII</i> | 112,238 | 0.447 | 0.256 | 0.002 | 0.968 |
| <i>TSI</i> | 112,238 | 0.069 | 0.059 | 0.001 | 0.306 |
| <i>TII_DED</i> | 112,238 | 0.050 | 0.072 | 0.000 | 0.372 |
| <i>TII_NOTDED</i> | 112,238 | 0.396 | 0.246 | 0.002 | 0.925 |
| <i>INSIDER</i> | 62,637 | 0.039 | 0.084 | 0.000 | 0.466 |

| Panel B: Correlation Matrix | | | | | | | | | | |
|------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| (1) <i>SpecialDiv (Likelihood)</i> | 1 | | | | | | | | | |
| (2) <i>SpecialDiv (Magnitude)</i> | 0.8325* | 1 | | | | | | | | |
| (3) <i>FINANCIAL</i> | 0.001 | -0.0199* | 1 | | | | | | | |
| (4) <i>ROA</i> | 0.0354* | 0.0374* | -0.4119* | 1 | | | | | | |
| (5) <i>CASH</i> | 0.0968* | 0.1139* | -0.1431* | 0.3389* | 1 | | | | | |
| (6) <i>ASSETS</i> | -0.0260* | -0.0253* | 0.1016* | -0.0775* | 0.0023 | 1 | | | | |
| (7) <i>TII</i> | -0.0532* | -0.0376* | -0.4326* | 0.2116* | 0.0725* | 0.1816* | 1 | | | |
| (8) <i>TSI</i> | -0.0086* | 0.0016 | -0.1142* | 0.1107* | 0.0597* | -0.0907* | 0.1023* | 1 | | |
| (9) <i>TII_DED</i> | -0.0308* | -0.0309* | -0.1928* | 0.0655* | -0.0374* | 0.0415* | 0.2877* | -0.0141* | 1 | |
| (10) <i>TII_NOTDED</i> | -0.0485* | -0.0316* | -0.3964* | 0.2003* | 0.0857* | 0.1782* | 0.9544* | 0.1127* | 0.0181* | 1 |
| (11) <i>INSIDER</i> | 0.0407* | 0.0445* | -0.0356* | 0.0786* | 0.1076* | -0.1255* | -0.2955* | 0.0071 | -0.0487* | -0.2663* |

This table presents descriptive statistics for the sample of firm-dividend observations between 1991 and 2017. These variables are utilized in all tests of special dividend distributions. We winsorize all continuous variables at 1% and 99% to mitigate the effect of outliers. In panel A we present the summary statistics for all main variables. Panel B presents the pairwise correlation matrix of all main variables. Bolded figures are statistically significant at greater than 5% threshold.

Table 3
Dividend Shifting Sample

| Panel A: Descriptive Statistics | | | | | |
|---------------------------------|-----|--------|--------|-------|---------|
| VARIABLES | N | Mean | S.D. | Min | Max |
| <i>SHIFT</i> | 341 | 0.504 | 0.501 | 0.000 | 1.000 |
| <i>FINANCIAL</i> | 341 | 0.299 | 0.459 | 0.000 | 1.000 |
| <i>ROA</i> | 341 | 0.092 | 0.083 | 0.001 | 0.362 |
| <i>CASH</i> | 341 | 0.117 | 0.125 | 0.001 | 0.591 |
| <i>ASSETS</i> | 341 | 13,640 | 34,441 | 20 | 212,405 |
| <i>TII</i> | 341 | 0.552 | 0.246 | 0.004 | 0.968 |
| <i>TSI</i> | 341 | 0.066 | 0.051 | 0.001 | 0.306 |
| <i>TII_DED</i> | 341 | 0.006 | 0.028 | 0.000 | 0.372 |
| <i>TII_NOTDED</i> | 341 | 0.545 | 0.246 | 0.004 | 0.925 |

| Panel B: Correlation Matrix | | | | | | | | |
|-----------------------------|-----------------|-----------------|-----------------|---------|-----------------|----------------|--------|---------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| (1) <i>SHIFT</i> | 1 | | | | | | | |
| (2) <i>FINANCIAL</i> | -0.0826 | 1 | | | | | | |
| (3) <i>ROA</i> | 0.1424* | -0.4950* | 1 | | | | | |
| (4) <i>CASH</i> | 0.1466* | -0.1093* | 0.4662* | 1 | | | | |
| (5) <i>ASSETS</i> | -0.1502* | 0.1250* | -0.1374* | -0.0508 | 1 | | | |
| (6) <i>TII</i> | -0.0821 | -0.2928* | 0.0874 | -0.0704 | 0.1658* | 1 | | |
| (7) <i>TSI</i> | 0.0549 | -0.1438* | 0.1100* | 0.0447 | -0.1600* | 0.0413 | 1 | |
| (8) <i>TII_DED</i> | 0.1208* | -0.0737 | 0.0817 | -0.0022 | -0.0772 | 0.0831 | 0.0366 | 1 |
| (9) <i>TII_NOTDED</i> | -0.1257* | -0.2695* | 0.0748 | -0.0702 | 0.1785* | 0.9878* | 0.0288 | -0.0733 |

This table presents descriptive statistics for the sample of firm observations in 2012. These variables are utilized in all tests of shifting dividends from January 2013 into December 2012. To obtain control variables, given the multiple firm-distributions that could be used, we separate the sample into 2 subsets. If a firm shifted its dividend into December 2012, we use the control variables from that firm-distribution observation. If a firm did not make a distribution in December of 2012, we use the most recent available observation prior to December of 2012. We winsorize all continuous variables at 1% and 99% to mitigate the effect of outliers. In panel A we present the summary statistics for all main variables. Panel B presents the pairwise correlation matrix of all main variables. Bolded figures are statistically significant at greater than 5% threshold.

Table 4
Panel A: Special Dividends and Tax-Sensitivities of Institutional Owners

| VARIABLES | (1) | (2) | (3) | (4) |
|--------------------------------------|---------------------|---------------------|-------------------------------------|-------------------------------------|
| | Likelihood | Magnitude | Likelihood | Magnitude |
| <i>TII</i> | | | -0.0239*** (-8.74) | -0.0140*** (-8.24) |
| <i>TSI</i> | | | -0.0204** (-2.05) | -0.0027 (-0.42) |
| <i>NovDec2010</i> | 0.0368*** (4.78) | 0.0313*** (5.07) | 0.1084*** (3.85) | 0.0840*** (3.75) |
| <i>NovDec2012</i> | 0.0658*** (8.72) | 0.0594*** (9.36) | 0.1180*** (4.77) | 0.1008*** (4.57) |
| <i>NovDec2010*TII</i> | | | -0.1088*** (-3.05) | -0.0831*** (-2.80) |
| <i>NovDec2012*TII</i> | | | -0.0979*** (-2.88) | -0.0872*** (-2.85) |
| <i>NovDec2010*TSI</i> | | | -0.1550 (-0.82) | -0.0843 (-0.49) |
| <i>NovDec2012*TSI</i> | | | 0.0707 (0.44) | 0.1250 (0.84) |
| Observations | 154,298 | 154,298 | 112,238 | 112,238 |
| Test NovDec2010 + TII Interaction =0 | NA | NA | p=0.99 | p=0.95 |
| Test NovDec2012 + TII Interaction =0 | NA | NA | p=0.31 | p=0.42 |
| R-squared | 0.032 | 0.032 | 0.039 | 0.038 |
| Controls | Yes | Yes | Yes | Yes |
| Fixed Effects | M/Y | M/Y | M/Y | M/Y |
| Cluster | Firm | Firm | Firm | Firm |

Panel B: Likelihood of Dividend Shifting Into December 2012

| VARIABLES | (1) | (2) | (3) |
|--------------|------------------------------------|--------------------------------|------------------------------------|
| | <i>DEC12SHIFT</i> | <i>DEC12SHIFT</i> | <i>DEC12SHIFT</i> |
| <i>TII</i> | -0.2313** (-2.06) | | -0.2325** (-2.07) |
| <i>TSI</i> | | 0.0799 (0.15) | 0.1273 (0.24) |
| Constant | 0.5648*** (7.71) | 0.4388*** (7.95) | 0.5572*** (6.94) |
| Observations | 341 | 341 | 341 |
| R-squared | 0.058 | 0.046 | 0.059 |
| Controls | Yes | Yes | Yes |

This table reports the effects of institutional tax-sensitivities on dividend acceleration. Panel A displays the effect on the magnitude and likelihood of dividend distributions in November/December of 2010 and 2012. Panel B displays the effect of institutional tax-sensitivity on the likelihood of shifting dividends from January 2013 into December 2012. Robust t-statistics in parentheses. Reported p-values are based on two-tailed tests except where predicted. If a sign is opposite of expectation, the p-value reverts to two-tailed. Signs are only predicted for the effect of insider ownership given this finding occurred in Hanlon and Hoopes (2014).

*** p<0.01, ** p<0.05, * p<0.1

Table 5
Panel A: Special Dividends and Dedicated Institutional Ownership

| VARIABLES | (1) Likelihood | (2) Magnitude |
|--|-------------------------------------|-------------------------------------|
| <i>NovDec2010</i> | 0.1099*** (3.91) | 0.0833*** (3.76) |
| <i>NovDec2012</i> | 0.1167*** (4.74) | 0.0993*** (4.57) |
| <i>TII_DED</i> | -0.0019 (-0.11) | -0.0038 (-0.74) |
| <i>TII_NOTDED</i> | -0.0272*** (-7.82) | -0.0154*** (-7.92) |
| <i>TSI</i> | -0.0191* (-1.95) | -0.0020 (-0.32) |
| <i>NovDec2010*TII_DED</i> | 0.2979 (1.08) | 0.0714 (0.44) |
| <i>NovDec2012*TII_DED</i> | 0.0862 (0.45) | 0.0099 (0.08) |
| <i>NovDec2010*TII_NOTDED</i> | -0.1206*** (-3.34) | -0.0859*** (-2.87) |
| <i>NovDec2012*TII_NOTDED</i> | -0.1007*** (-2.99) | -0.0874*** (-2.88) |
| <i>NovDec2010*TSI</i> | -0.1336 (-0.71) | -0.0758 (-0.44) |
| <i>NovDec2012*TSI</i> | 0.0718 (0.44) | 0.1253 (0.84) |
| Observations | 112,238 | 112,238 |
| Test NovDec2010 + TII_NOTDED interaction = 0 | p=0.59 | p=0.89 |
| Test NovDec2012 + TII_NOTDED interaction = 0 | p=0.42 | p=0.50 |
| R-squared | 0.039 | 0.038 |
| Controls | Yes | Yes |
| Fixed Effects | M/Y | M/Y |
| Cluster | Firm | Firm |

Panel B: Tax Insensitive Dedicated Institution Effect on Dividend Shifting Into December 2012

| VARIABLES | (1) <i>DEC12SHIFT</i> | (2) <i>DEC12SHIFT</i> |
|-------------------|-----------------------------------|------------------------------------|
| <i>TII_DED</i> | 1.8593*** (2.80) | 1.7971** (2.57) |
| <i>TII_NOTDED</i> | | -0.2643** (-2.36) |
| <i>TSI</i> | | 0.1808 (0.35) |
| Constant | 0.4390*** (9.94) | 0.5617*** (6.95) |
| Observations | 341 | 341 |
| R-squared | 0.059 | 0.074 |
| Controls | Yes | Yes |

This table reports the effect of the subset of tax-insensitive institutions that are also classified as ‘dedicated’ by Bushee (1998, 2001). Panel A displays the effect on the likelihood and magnitude of dividend distributions in November/December of 2010 and 2012. Panel B displays the effect on the likelihood of shifting dividends from January 2013 into December 2012. Robust t-statistics in parentheses. Reported p-values are based on two-tailed tests except where predicted. If a sign is opposite of expectation, the p-value reverts to two-tailed. Signs are only predicted for the effect of insider ownership given this finding occurred in Hanlon and Hoopes (2014).

*** p<0.01, ** p<0.05, * p<0.1

Table 6
Panel A: Insider Ownership and Special Dividends across TII Terciles

| VARIABLES | Expected Sign | (1) | (2) | (3) |
|---------------------------|---------------|-----------------------------------|----------------------------------|-----------------------------------|
| | | Likelihood Full Sample | Likelihood TII - Bottom Tercile | Likelihood TII - Top Tercile |
| <i>INSIDER</i> | + | 0.0298** (2.51) | 0.0098 (0.77) | 0.0236 (1.04) |
| <i>NovDec2010</i> | | 0.0145* (1.73) | 0.0459 (1.28) | 0.0057 (0.54) |
| <i>NovDec2012</i> | | 0.0312*** (3.43) | 0.0397 (1.44) | 0.0227** (2.03) |
| <i>NovDec2010*INSIDER</i> | + | 0.5029** (2.30) | 0.0683 (0.27) | 0.8555** (1.67) |
| <i>NovDec2012*INSIDER</i> | + | 0.6309*** (3.61) | 0.4025** (1.66) | 0.7501*** (2.44) |
| Observations | | 62,637 | 20,835 | 20,898 |
| R-squared | | 0.030 | 0.032 | 0.031 |
| Controls | | Yes | Yes | Yes |
| Fixed Effects | | M/Y | M/Y | M/Y |
| Cluster | | Firm | Firm | Firm |

Chow Test of Coefficients

| | | |
|---|--------------------------|-----------------|
| 1) Insider*NovDec2010[Bottom Tercile] - Insider*NovDec2010[Top Tercile] = 0 | <i>Chi-Square</i> = 1.89 | <i>P</i> = 0.17 |
| 2) Insider*NovDec2012[Bottom Tercile] - Insider*NovDec2012[Top Tercile] = 0 | <i>Chi-Square</i> = 0.78 | <i>P</i> = 0.38 |
| 3) NovDec2010[Bottom Tercile] - NovDec2010[Top Tercile] = 0 | <i>Chi-Square</i> = 1.16 | <i>P</i> = 0.28 |
| 4) NovDec2012[Bottom Tercile] - NovDec2012[Top Tercile] = 0 | <i>Chi-Square</i> = 0.33 | <i>P</i> = 0.57 |

Panel B: Tercile Descriptives

| | TII Percentage | | | Insider Percentage | | |
|----------------------|----------------|------|------|--------------------|-----|------|
| | Mean | Min | Max | Mean | Min | Max |
| Full Sample | 0.59 | 0 | 0.97 | 0.039 | 0 | 0.46 |
| Bottom Tercile - TII | 0.37 | 0 | 0.52 | 0.071 | 0 | 0.46 |
| Top Tercile - TII | 0.78 | 0.68 | 0.97 | 0.019 | 0 | 0.24 |

Table 6 (Continued)
Panel C: Interaction between Insider Ownership and Tax-Insensitive Institutional Ownership during Nov/Dec 2010 and 2012

| VARIABLES | Expected Sign | (1) Likelihood | (2) Magnitude |
|----------------------------------|---------------|----------------------|----------------------|
| <i>INSIDER</i> | + | 0.0695 (0.21) | 0.1111 (0.37) |
| <i>TII</i> | | -0.1142** (-2.36) | -0.0908** (-2.37) |
| <i>INSIDER*TII</i> | + | 0.7903* (1.49) | 0.6441* (1.34) |
| Constant | | 0.0810** (2.26) | 0.0670** (2.38) |
| INSIDER + INSIDER*TII = 0 | + | p=0.003*** | p=0.005*** |
| Observations | | 1,265 | 1,265 |
| R-squared | | 0.075 | 0.080 |
| Controls | | Yes | Yes |
| Fixed Effects | | No | No |
| Cluster | | Firm | Firm |

This table reports the interactive effect between insider ownership and the periods of accelerated special dividends on the likelihood of a special dividend. Panel A displays the coefficients for the full sample of firms with both insider ownership and institutional ownership, followed by firms in the bottom and top tercile of tax-insensitive institutional ownership. Panel B provides relevant information about the tax-insensitive and insider ownership at various terciles of tax-insensitivity. TII percentages are mechanically increasing between quartiles. Insider min and max are reported at the 1% and 99% respectively to remove the effect of outliers. Panel C presents the effect of the interaction between insider ownership and tax-insensitive institutional ownership for the sub-sample of observations in November/December of 2010 and November/December of 2012. Robust t-statistics in parentheses. Reported p-values are based on two-tailed tests except where predicted. If a sign is opposite of expectation, the p-value reverts to two-tailed. Signs are only predicted for the effect of insider ownership given this finding occurred in Hanlon and Hoopes (2014).

*** p<0.01, ** p<0.05, * p<0.1

Table 7
Likelihood of Dividend Shifting Into December 2012

| VARIABLES | Expected Sign | (1) <i>DEC12SHIFT</i> |
|---------------------------------|------------------|------------------------------------|
| <i>INSIDER</i> | + | 1.0344*** (2.49) |
| <i>TII</i> | | -0.3612* (-1.90) |
| <i>TSI</i> | | -0.2330 (-0.33) |
| <i>INSIDER*TII</i> | | 3.2455** (2.10) |
| <i>INSIDER*TSI</i> | | 35.1876*** (3.25) |
| Constant | | 0.4730*** (7.00) |
| Observations | | 236 |
| INSIDER+ INSIDER*TII = 0 | | p=0.003*** |
| INSIDER+ INSIDER*TSI = 0 | | p=0.001*** |
| R-squared | | 0.097 |
| Controls | | Yes |

This table reports the interactive effect of institutional ownership on insiders' ability to shift dividends from January 2013 into December 2012. All continuous variables are centered to ease interpretation given a right skewed institutional ownership structure (i.e., the interpretation of an un-centered *INSIDER* is unclear because it represents the effect of *INSIDER* when *TII* is 0, which is not feasible for firms in this dataset). Robust t-statistics in parentheses. Reported p-values are based on two-tailed tests except where predicted. If a sign is opposite of expectation, the p-value reverts to two-tailed. Signs are only predicted for the effect of insider ownership given this finding occurred in Hanlon and Hoopes (2014).

*** p<0.01, ** p<0.05, * p<0.1

Table 8
Panel A: Insider Ownership and Specials across TII_DED Terciles

| VARIABLES | Expected Sign | (1) | (2) | (3) |
|---------------------------|---------------|-----------------------------------|-------------------------------------|----------------------------------|
| | | Likelihood Full Sample | Likelihood TII_DED - Bottom Tercile | Likelihood TII_DED - Top Tercile |
| <i>INSIDER</i> | + | 0.0298** (2.51) | 0.0368** (2.08) | -0.0006 (-0.06) |
| <i>NovDec2010</i> | | 0.0145* (1.73) | 0.0110 (1.24) | 0.0635 (1.20) |
| <i>NovDec2012</i> | | 0.0312*** (3.43) | 0.0287*** (2.72) | 0.0695** (2.09) |
| <i>NovDec2010*INSIDER</i> | + | 0.5029** (2.30) | 0.5873*** (2.51) | -2.4242 (-1.24) |
| <i>NovDec2012*INSIDER</i> | + | 0.6309*** (3.61) | 0.6745*** (3.59) | 1.1559 (1.01) |
| Observations | | 62,637 | 20,945 | 20,823 |
| R-squared | | 0.030 | 0.050 | 0.025 |
| Controls | | Yes | Yes | Yes |
| Fixed Effects | | M/Y | M/Y | M/Y |
| Cluster | | Firm | Firm | Firm |

Chow Test of Coefficients

| | | |
|---|--------------------------|-----------------|
| 1) Insider*NovDec2010[Bottom Tercile] - Insider*NovDec2010[Top Tercile] = 0 | <i>Chi-Square</i> = 2.33 | <i>P</i> = 0.13 |
| 2) Insider*NovDec2012[Bottom Tercile] - Insider*NovDec2012[Top Tercile] = 0 | <i>Chi-Square</i> = 0.17 | <i>P</i> = 0.67 |
| 3) NovDec2010[Bottom Tercile] - NovDec2010[Top Tercile] = 0 | <i>Chi-Square</i> = 0.95 | <i>P</i> = 0.33 |
| 4) NovDec2012[Bottom Tercile] - NovDec2012[Top Tercile] = 0 | <i>Chi-Square</i> = 1.37 | <i>P</i> = 0.24 |

Panel B: Tercile Descriptives

| | TII_DED Percentage | | | Insider Percentage | | |
|--------------------------|--------------------|-------|-------|--------------------|-----|------|
| | Mean | Min | Max | Mean | Min | Max |
| Full Sample | 0.06 | 0 | 0.371 | 0.04 | 0 | 0.46 |
| Bottom Tercile – TII_DED | 0 | 0 | 0.001 | 0.04 | 0 | 0.46 |
| Top Tercile – TII_DED | 0.14 | 0.069 | 0.371 | 0.03 | 0 | 0.44 |

Table 8 (Continued)
Panel C: Interaction between Insider Ownership and Tax-Insensitive Institutional Ownership during Nov/Dec 2010 and 2012

| VARIABLES | Expected Sign | (1) Likelihood | (2) Magnitude |
|-------------------------------------|---------------|-----------------------|-----------------------|
| <i>INSIDER</i> | + | -0.0530 (-0.16) | 0.0318 (0.11) |
| <i>TII_DED</i> | | 0.3612** (2.20) | 0.1142 (1.17) |
| <i>TII_NOTDED</i> | | -0.1395*** (-2.73) | -0.0964** (-2.50) |
| <i>INSIDER*TII_DED</i> | ? | -6.2346 (-1.61) | -3.6495 (-1.12) |
| <i>INSIDER*TII_NOTDED</i> | + | 1.0810** (2.02) | 0.8434** (1.75) |
| Constant | | -0.0000*** (-4.31) | -0.0000*** (-4.10) |
| INSIDER+INSIDER*TII_DED = 0 | | p=0.101 | p=0.263 |
| INSIDER+INSIDER*TII_NOTDED=0 | | p=0.001*** | p=0.002*** |
| Observations | | 1,264 | 1,264 |
| R-squared | | 0.083 | 0.083 |
| Fixed Effects | | No | No |
| Controls | | Yes | Yes |
| Cluster | | Firm | Firm |

This table reports the interactive effect between insider ownership and the periods of accelerated special dividends on the likelihood of a special dividend. Panel A displays the coefficients for the full sample of firms with both insider ownership and institutional ownership, followed by firms in the bottom and top tercile of tax-insensitive dedicated institutional ownership. Panel B provides relevant information about the tax-insensitive and insider ownership at the bottom and top tercile of dedicated tax-insensitivity. *TII_DED* percentages are mechanically increasing between quartiles. Insider min and max are reported at the 1% and 99% respectively to remove the interpretation of outliers. Panel C presents the effect of the interaction between insider ownership and tax-insensitive dedicated and non-dedicated institutional ownership for the subsample of observations in November/December of 2010 and November/December of 2012. Robust t-statistics in parentheses. Reported p-values are based on two-tailed tests except where predicted. If a sign is opposite of expectation, the p-value reverts to two-tailed. Signs are only predicted for the effect of insider ownership given this finding occurred in Hanlon and Hoopes (2014). Robust t-statistics in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Table 9
Likelihood of Dividend Shifting Into December 2012

| VARIABLES | Expected Sign | (1) <i>DEC12SHIFT</i> |
|--|------------------|------------------------------------|
| <i>INSIDER</i> | + | 1.0565*** (2.57) |
| <i>TII_DED</i> | | 1.4858** (2.34) |
| <i>TII_NOTDED</i> | | -0.4264** (-2.29) |
| <i>TSI</i> | | -0.2015 (-0.28) |
| <i>INSIDER*TII_DED</i> | + | 6.4973 (0.65) |
| <i>INSIDER*TII_NOTDED</i> | + | 3.6886** (2.25) |
| <i>INSIDER*TSI</i> | + | 31.9961*** (3.06) |
| Constant | | 0.4919*** (7.24) |
| Observations | | 236 |
| INSIDER+ INSIDER*TII_DED = 0 | | p=0.448 |
| INSIDER+ INSIDER*TII_NOTDED = 0 | | p=0.002*** |
| INSIDER+ INSIDER*TSI = 0 | | p=0.002*** |
| R-squared | | 0.113 |
| Controls | | Yes |

This table reports the interactive effect of institutional ownership on insiders' ability to shift dividends from January 2013 into December 2012. All continuous variables are centered to ease interpretation given a right skewed institutional ownership structure (i.e., the interpretation of an un-centered *INSIDER* is unclear because it represents the effect of *INSIDER* when *TII_DED* is 0, which is not feasible for firms in this dataset). Robust t-statistics in parentheses. Reported p-values are based on two-tailed tests except where predicted. If a sign is opposite of expectation, the p-value reverts to two-tailed. Signs are only predicted for the effect of insider ownership given this finding occurred in Hanlon and Hoopes (2014).

*** p<0.01, ** p<0.05, * p<0.1

Table 10
Learning from Market Reactions to Dividend Declaration

| VARIABLES | Expected Sign | (1) DCLR_DAYS | (2) DCLR_DAYS | (3) DCLR_DAYS |
|--------------------------------------|------------------|---------------------------|---------------------------|----------------------------|
| <i>TII</i> | + | 0.1932** (1.98) | | |
| <i>TII_NOTDED</i> | | | 0.1421 (1.53) | 0.0829 (0.68) |
| <i>TII_DED</i> | + | | 0.5352** (1.69) | 0.7925*** (2.72) |
| <i>TSI</i> | | -0.0720 (-0.16) | -0.0707 (-0.16) | -0.1175 (-0.26) |
| <i>INSIDER</i> | | 0.0609 (0.44) | 0.0461 (0.33) | -0.0803 (-0.44) |
| <i>INSIDER*TII_NOTDED</i> | | | | 0.4554 (0.77) |
| <i>INSIDER*TII_DED</i> | | | | -2.1586 (-1.09) |
| Constant | | 0.7616*** (4.69) | 0.7554*** (4.52) | 0.8107*** (4.86) |
| <i>TII_DED + INSIDER*TII_DED = 0</i> | | | | p=0.461 |
| Observations | | 111 | 111 | 111 |
| R-squared | | 0.151 | 0.154 | 0.165 |
| Fixed Effects | | FF12 | FF12 | FF12 |
| Controls | | Yes | Yes | Yes |
| Cluster | | Firm | Firm | Firm |

This table reports the association between firms' ownership structures and the number of days between the earliest special dividend declaration and the firm's declaration (scaled so that the earliest declaration equals 0 and the last declaration equals 1) of special dividends to be paid in November/December of 2012. Robust t-statistics in parentheses. Reported p-values are based on two-tailed tests except where predicted. If a sign is opposite of expectation, the p-value reverts to two-tailed. Signs are only predicted for the effect of insider ownership given this finding occurred in Hanlon and Hoopes (2014).

*** p<0.01, ** p<0.05, * p<0.1

Table 11
Placebo Test: Special Dividends and Tax Sensitivities of Institutional Owners

| VARIABLES | (1) Likelihood | (2) Likelihood | (3) Likelihood | (4) Likelihood | (5) Likelihood |
|-----------------------------|--------------------------------|----------------------------------|----------------------------------|--------------------------------|----------------------------------|
| <i>NovDec1995</i> | 0.0044 (0.33) | | | | 0.0034 (0.25) |
| <i>NovDec2000</i> | | 0.0035 (0.30) | | | 0.0024 (0.20) |
| <i>NovDec2005</i> | | | 0.0092 (0.69) | | 0.0078 (0.59) |
| <i>NovDec2015</i> | | | | -0.0150 (-1.33) | -0.0155 (-1.37) |
| <i>NovDec1995*TH_DED</i> | -0.0579 (-1.43) | | | | -0.0595 (-1.47) |
| <i>NovDec2000*TH_DED</i> | | -0.0684** (-2.00) | | | -0.0699** (-2.03) |
| <i>NovDec2005*TH_DED</i> | | | -0.0835 (-0.95) | | -0.0857 (-0.97) |
| <i>NovDec2015*TH_DED</i> | | | | -0.0527 (-0.55) | -0.0549 (-0.57) |
| <i>NovDec1995*TH_NOTDED</i> | 0.0106 (0.30) | | | | 0.0104 (0.30) |
| <i>NovDec2000*TH_NOTDED</i> | | -0.0238 (-1.08) | | | -0.0237 (-1.08) |
| <i>NovDec2005*TH_NOTDED</i> | | | -0.0046 (-0.24) | | -0.0047 (-0.24) |
| <i>NovDec2015*TH_NOTDED</i> | | | | 0.0045 (0.21) | 0.0044 (0.21) |
| <i>NovDec1995*TSI</i> | -0.1213* (-1.91) | | | | -0.1215* (-1.92) |
| <i>NovDec2000*TSI</i> | | 0.0416 (0.47) | | | 0.0403 (0.45) |
| <i>NovDec2005*TSI</i> | | | -0.0748 (-0.86) | | -0.0751 (-0.86) |
| <i>NovDec2015*TSI</i> | | | | 0.0028 (0.06) | 0.0019 (0.04) |
| Observations | 112,238 | 112,238 | 112,238 | 112,238 | 112,238 |
| R-squared | 0.035 | 0.035 | 0.035 | 0.035 | 0.035 |
| Ownership Intercepts | Yes | Yes | Yes | Yes | Yes |
| Fixed Effects | M/Y | M/Y | M/Y | M/Y | M/Y |
| Cluster | Firm | Firm | Firm | Firm | Firm |

This table reports the effect of a firms' ownership structure on the likelihood of a special dividend distribution during various years that are plausibly unrelated to taxes. Robust t-statistics in parentheses. Reported p-values are based on two-tailed tests except where predicted. If a sign is opposite of expectation, the p-value reverts to two-tailed.

*** p<0.01, ** p<0.05, * p<0.1