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Musings on Dividend Policy

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Musings on Dividend Policy

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Abstract

Purpose: The crux of this report touches upon two overarching themes. It first uncovers the historical patterns of what fraction of net income is actually distributed to equity holders (*dividend payouts*) and what could have been actually returned (*free-cash-flow-to-equity, FCFE*) to equity holders over the long-haul. Then, this study derives and estimates the expected future growth in FCFE.

Originality/value: Historical patterns of stock dividend payouts may shed a light on how public companies have been treating to their income-focused shareholders, especially stockholders. The bare fact is that firms' stagnant dividend payouts and yields are unattractive to the majority of investors since they are more prone to hold dividend-paying stocks over time. However, dividend payouts are discretionary and inconsistent. Firms' dividend policies mostly depend on the degree of their earnings, capital expenditure, and leverage. This phenomenon is even more puzzling for lodging firms due to high levels of capital expenditure and external borrowing that cause great fluctuations in earnings, retention rates, cash holdings, and free cash flows. Therefore, assessing historical payout structure of lodging firms plays a key role for equity holders to make informed decisions about their investment. In this way, this study compliments existing literature by providing an extensive historical outlook of lodging firms' dividend policies and by demonstrating growth predictions in FCFE over the long-run.

Relevance of the topic: Firms' propensity to pay dividends demonstrates the firms' behavior in sustaining shareholders' financial well-being and goals. The main objective of both individual and institutional equity investors is to make solid investment judgements according to the firms' dividend policies. Hence, it is economically sound and significant to conduct a thorough analysis about firms' historical dividend policies. This assessment becomes even more important for investors holding equities of lodging companies since those companies are capital-intensive, they constantly depend on debt financing, and they frequently experience high levels of uncertainty in earnings and profit margins that make dividend payouts very volatile. Due to this, lodging investors are in need of solid information about dividend payout patterns, strategies, and policies of lodging firms.

Design/methodology/approach: Estimations are centered upon a fifteen-year time window (2000 - 2014) to better observe and understand the dividend policies across lodging firms. Individual firm data for the lodging industry are gathered from Damadoran Online Data Source, which is compiled from Morningstar, Bloomberg, and Capital IQ filings. Ex-post dividend tradeoff parameters (*i.e., net capital expenditures*) and dividend proxies (*i.e., augmented dividend payout ratio*) are quantified to examine the differences between actual dividend distributions and residual cash availability for potential dividend disbursements. Beyond those estimations, this paper has also scrutinized the growth pattern in FCFE by decomposing equity reinvestment rate and non-cash return on equity (*ROE*) to observe the future growth in FCFE.

Key findings: Linking the dividend policy with dividend tradeoff variables and dividend proxies, the primary findings revealed that firms tend to cut dividends during recessions yet they maintained their capital expenditures and borrowing habits for firm expansions. Based on the historical patterns, even though there was a greater potential for the lodging firms to return more to their shareholders, most of the time, they returned a small portion of what could have been returned to them. Looking forward, lodging firms' current payout behavior is likely to continue since fluctuating equity reinvestment rates and sluggish expected growth patterns in FCFE are estimated.

Implications for practice and policy: The findings identify that payout policy decisions are among the hardest financial decisions for policy makers to make and dividend payouts mostly change according to macro conditions in the economy. The primary take-away and relevancy for several industry professionals and policy makers from this study are summarized as follows.

- One of the catering explanations of the empirical findings is that managers can set an optimal point among share repurchases, retained earnings, and dividend distributions in their capital structure. As the results suggested, when there is a slow growth in the economy and/or slowdown in economic activity (*i.e., around recession times due to low business profits, falling inflation, and increasing unemployment rate, etc.*), preserving more cash and cash equivalents is a better idea than distributing them in the form of dividends to sustain firm's liquidity and to balance financial and downsize risk. Alternatively, repurchasing shares is a viable action to take to boost falling stock prices so that companies can maintain the firm value and still return wealth to the shareholders during uncertain market conditions.

- Conversely, when economic conditions improve and are stabilized (*i.e., higher levels of business earnings in the lodging industry*), lodging firms should pay out more dividends by either drawing on existing cash and assets or injecting new shares (*i.e., common stock*) to the market. This will prevent agency problems such as, double taxation due to excess cash flow, and it will build healthy relationships with potential investors, especially prospective equity holders.
- Another essential empirical understanding from the evidences is that managers should reduce dividend payouts if firms have opportunities to capitalize on financially favorable (*i.e., projects yielding positive net present value*). In the long-run, this will help managers unlock shareholders' value, to be able to disburse higher amounts of dividends per share, and thus, maximize shareholders' wealth.

There are possible research extensions to the current stance of this study such as, an inclusion of heterogeneously sorted lodging firm portfolios based on different firm sizes (*i.e., high growth, small growth, mid-size, etc.*) across the entire lodging industry. However, empirical evidences are both reliable and persuasive to help managers of lodging companies to be better equipped with industrial norms and conditions in regard to historical patterns of dividend tradeoff parameters, payouts, and FCFE in the lodging industry.

Key Words: dividend policy, free-cash-flow-to-equity, cash distributions, augmented dividend payout ratio, dividend yield

Introduction

Is it better to establish growth and wealth by periodic cash flows in the form of dividends or is it more reasonable to enhance portfolio value by price appreciation? An educated answer to these questions is becoming more and more difficult for both individual and institutional equity investors as firms' dividend policies remain an open "puzzle" in imperfect markets. Firms' dividend policies are complicated due to many reasons. First of all, firms' dividend behavior has a significant influence on stock prices. Share prices decline when the ex-dividend dates are announced. Therefore, as an alternative to dividends, stock repurchases become more beneficial and advantageous to firms for external financing and tax purposes.¹ Further, firms' high propensity to capitalize on positive-NPV projects², their complex corporate governance structures, and information asymmetry problems give rise to agency issues in regard to FCFE disbursement and earning retention strategies. Also, transitional changes in firms' profitability, liquidity, and solvency forced them to shift their dividend policies most of the time.³ Moreover, firms might choose to refrain from paying dividends because the cost of internal equity is cheaper and a less risky source of capital than tapping into new stock issuances in capital markets. In that case, they do not return the excess cash to their shareholders due to financially profitable investment opportunities.

Given these complexities, investors have become more income-focused and they started to pay more attention to dividend-paying companies because they would like to achieve higher returns and increase their chances to sell their shares at a higher price in the future. Dividend-paying companies achieved 9.28% return whereas non-dividend-paying firms only yielded 2.34% return between 1972 and 2014.⁴ Perhaps investors would like to take advantage of dividend-paying equities to obtain higher growth in their investments as well as to mitigate the impact of their capital losses. For instance, a hypothetical \$10,000 investment grew into \$461,904 for an investor holding dividend-paying stocks, whereas the investment stopped at \$30,316 for the same investor that owning non-dividend-paying stocks in last 25 years.⁵

¹ Skinner, D.J. (2008). The evolving relation between earnings, dividends, and stock repurchases. *Journal of Financial Economics*, 87(3), 582-609.

² Hail, L., Tahoun, A., & Wang, C. (2014). Dividend payouts and information shocks. *Journal of Accounting Research*, 52(2), 403-456.

³ Baker, H.K., Veit, E.T., & Powell, G.E. (2001). Factors influencing dividend policy decisions of NASDAQ firms. *Financial Review*, 36(3), 19-38.

⁴ Dividend History Data. (2016, January 19). In *Dividend.com*. Retrieved from <http://www.dividend.com/dividend-history/>

⁵ Focusing on quality companies through rising dividends. (2016, January 15). In *Goldman Sachs Investment Solutions*. Retrieved from <https://assetmanagement.gs.com/content/gsam/us/en/individual/resources/investment-ideas/focusing-on-quality-companies-through-rising-dividends.html>

Whatever the reason is, informed and educated investors not only gauge the state of broad market dynamics, but also analyze firms' dividend payment trends (*i.e.*, *dividend yields*), future sentiments, and other fundamentals related to their overall dividend philosophy to make solid investment decisions. Therefore, it is crucial to examine and understand the extensive history of firms' ex-post dividend policy over the long-haul. In this vein, this paper's ultimate goal is to rationalize trailing patterns of lodging firms' dividend behaviors and to forecast potential growth and future prospects in relation to how much lodging corporations could have afforded to payout (*FCFE*) to their shareholders.

Dividend policies are even more puzzling for lodging firms because they report varying degrees of earnings, retention rates, free cash flow, and cash holdings. Also, the number of growing firms (*small and mid-size*) is outnumbered than value firms (*large-size*). Additionally, lodging firms need high levels of capital expenditure and use long-term debt heavily to expand and generate cash flows. Thus, it becomes difficult for those firms to stabilize dividend payouts.⁶ For these reasons, the potential dividends can be very different from actual dividends for the lodging firms. In other words, dividends payouts are not equal to the availability of free cash flow that can be distributed as dividends. Further, advocates strictly emphasize that restricting peers to the same industry in the cross section as opposed to clustering all firms in one portfolio improves the accuracy in estimations due to the existence of comparable assets.⁷ Hence, cross-industry effects are eliminated and controlling for the independent variables that are designed to “*holding other things constant*” is demolished.⁸ On that account, if lodging firms' ex-post dividend policies and dividend payment behaviors are not absorbed extensively, the goal of shareholder value maximization cannot fully be achieved and fundamental understanding for the practice will remain inconclusive. These clarifications stand to reasons why this report concentrates solely on lodging industry.

Background Note

The following disclaimer: “*past firm performance is no guarantee of future performance*” has solid validity in imperfect markets. A fundamental premise is that there has been a

⁶ Kizildag, M. (2016). Financial leverage phenomenon in hospitality industry sub-sector portfolios. *International Journal of Contemporary Hospitality Management*, 27(8), 1949-1978.

⁷ Gibson, S., Hotchkiss, E., & Ruback, R. (2000). Valuation of bankrupt firms. *The Review of Financial Economics*, 13(1), 43-74.

Yee, K.T. (2004). Combining value estimates to increase accuracy. *Financial Analysts Journal*, 60(4), 23-28.

⁸ Bradley, M., Capozza, D.R., & Seguin, P.J. (1998). Dividend policy and cash flow uncertainty. *Real Estate Economics*, 26(4), 555-580.

substantial shift in corporate payout policy over the last thirty years (*quarterly dividend payout versus share repurchases*). Firms with a history of distributing high dividend amounts now have lower propensity to reward their shareholders. This metamorphosis occurred around late 1970s where there were imbalance of power in information and business transactions, regulatory alterations, and inherent agency issues.

Compelling evidences demonstrate that the percentage of U.S. public corporations paying regular cash dividends declined from 66.5% in 1978 to 20.8% in 1999. During this period, stock repurchases as an alternative to dividend payouts jumped in the 1980s from 13.0% to 28.0%.^{9 10} Although large-size firms did not change their dividend policies drastically, the declining pattern continued until the recent economic downturn in 2008. The amount of dividend payments and payouts by U.S. stocks was \$248 billion in that year and just a year after, they hit the rock bottom point of \$196 billion. This major fall in dividend distributions was because stocks were possibly subject to a market correction (*i.e., sharp decline in overvalued stock prices*). Most firms retained their earnings to reinvest when there was a rebound in the economy.^{11 12} After the recent recession, aggregate payout ratios have rebounded and they reached at 31.8% in 2010.¹³

Methodological Approach

The data contains comparable firms in the lodging industry from 2000 to 2014. Individual firm observations are cumulated for each year and they are gathered from Damadoran Online Data Source, which is merged with Morningstar, Bloomberg, and Capital IQ filings.¹⁴ The methodological rationale of this approach is solely based on proxy variables and estimation. Dividend tradeoff parameters (*i.e., net capital expenditures, leverage, FCFE, etc.*) were derived to better observe and understand what is behind firms' dividend yield, dividend payout, and cash distributions as a percentage of FCFE. In addition to the analysis of ex-post dividend policy, this study also predicts the potential future growth in cash availability for dividend payouts by decomposing FCFE parameters (*i.e. equity reinvestment rate*).

⁹ Fama, E. F., & French, K. R. (2001). Disappearing dividends: changing firm characteristics or lower propensity to pay? *Journal of Financial economics*, 60(1), 3-43.

¹⁰ Hail, L., Tahoun, A., & Wang, C. (2014). Dividend payouts and information shocks. *Journal of Accounting Research*, 52(2), 403-456.

¹¹ Focusing on quality companies through rising dividends. (2016, January 15). In *Goldman Sachs Investment Solutions*. Retrieved from <https://assetmanagement.gs.com/content/dam/gsam/pdfs/us/en/fund-literature/investment-solution/rdg-investment-solutions-quality-companies-rising-dividends.pdf>

¹² Fama, E. F., & French, K. R. (2001).

¹³ DeLegge, R. (2013, September 17). Dividend payout ratios reach 15-year high. *Yahoo Finance*. Retrieved from:

<http://finance.yahoo.com/news/dividend-payout-ratios-reach-15-201610159.html>

¹⁴ Dr. Aswath Damadoran's archived datasets is available at: <http://people.stern.nyu.edu/adamodar/>

Findings and Solutions

Tradeoff Parameters and Dividends vs. FCFE:

Estimations demonstrate deviant associations between the amount of cash returned and what could have been actually returned to shareholders after firms' reinvestment needs were satisfied and debt payments were made. Dividend payments topped in both 2013 and 2014 over the past fifteen years. In these years, not only has the volume of dividend payments grown, but has the payout ratios increased. Total amount of dividends paid were \$5,116.20 and \$5,104.94 million in 2013 and 2014 respectively. The payouts also reached record level over the trailing fifteen years. Augmented payout ratios were scaled as 167.01% and 126.86% providing 2.04% and 2.03% in dividend yields in 2013 and 2014 respectively. Those were the best performing years in terms of lodging firms' generosity in distributing dividends over the course of fifteen years (*Mean= 45.80%, Median= 29.92%*).

In contrast, dividend payments and payouts were subject to a drastic slowdown due to global macroeconomic conditions (*i.e., declining consumer prices*) during the last two major economic downturns. Dividends distributed were as low as \$288.12, \$335.71, and \$301.61 thousand driving the augmented payout ratios as 4.75%, 7.08%, and 10.37% in 2001, 2002, and 2009 respectively. The downfall on both dividend payments and payout ratios affected the dividend yields as well. Lodging firms' dividend distributions only yielded 0.68%, 0.27%, and 10.37% in 2001, 2002, and 2009 respectively (*Mean= 0.84%, Median= 0.62%*). During these economic crises, it is observed that lodging firms generated net cash flows from new debt issuances (*i.e., bonds*) and they netted out the cash outflow against repayment of old debt. Net capital expenditures (*Net CAPEX hereafter*) and leverage (*D/E hereafter*) surged greatly. Net CAPEXs were at the highest levels as \$12,960.80, \$12,153.50, and \$13,483.80 million along with the D/E ratios, 47.12%, 49.11%, and 58.78% in 2001, 2002, and 2008 respectively (*Mean= 39.31%, Median= 39.75%*). Although FCFEs were much greater than the dividend payments, very small portions of FCFE were distributed due to reasons mentioned above. For instance, FCFE was \$4,646.15 million but only 6.20% of FCFE was returned to the equity holders in the form of dividends in 2001. However, when the economic conditions were recovered, lodging firms paid to their equity holders more than what was available as FCFE. For example, the total amount of dividends paid was \$584.38 thousand while there was only \$125.12 thousand in FCFE in 2010. In other words, dividend distributions were 467.04% higher than cash distributed as a

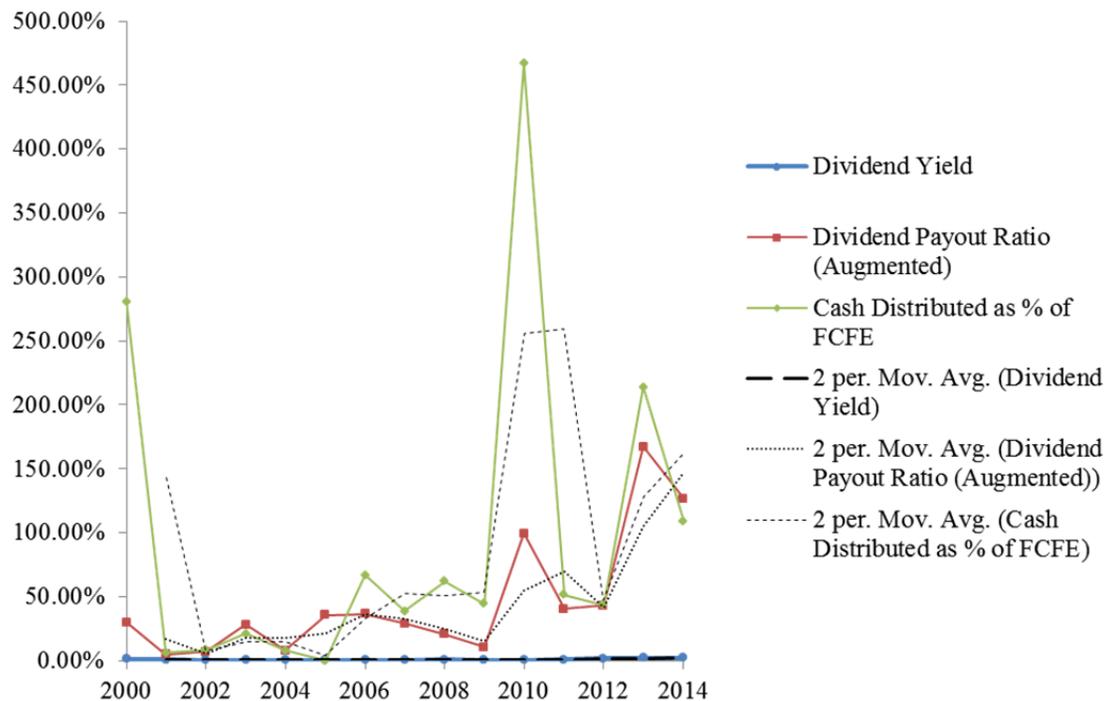
percentage of FCFE immediately after the recent recession. Table 1 reports historical patterns in dividend tradeoff variables and dividend proxies over the course of fifteen years. Figure 1 plots the annual patterns in augmented dividend payout ratios, dividend yields, and cash distributed as percentage of FCFE.

Table 1.
Dividend Policy: Dividends vs. FCFE

Years	Parameters				Proxies		
	Net Capital Expenditures	Leverage (D/E)	Dividends Paid	FCFE	Dividend Yield	Dividend Payout Ratio (Augmented)	Cash Distributed as % of FCFE
2000	\$5,978.50	45.74%	\$429.24	\$152.92	1.21%	29.92%	280.70%
2001	\$12,960.80	47.12%	\$288.12	\$4,646.25	0.68%	4.75%	6.20%
2002	\$12,153.50	49.11%	\$335.71	\$4,020.48	0.27%	7.08%	8.35%
2003	\$4,533.50	39.75%	\$755.16	\$3,558.57	0.48%	27.94%	21.22%
2004	\$10,907.70	30.13%	\$364.97	\$4,667.12	0.30%	7.75%	7.82%
2005	\$6,170.50	26.28%	\$1,137.01	(\$46,760.35)	0.45%	35.73%	N/A
2006	\$9,891.80	24.92%	\$1,563.78	\$2,332.09	0.42%	36.71%	67.05%
2007	\$12,515.30	26.29%	\$1,225.06	\$1,986.12	0.58%	29.16%	38.67%
2008	\$13,483.80	58.78%	\$1,025.89	\$1,651.57	0.73%	20.68%	62.12%
2009	\$11,465.90	46.21%	\$301.61	\$676.71	0.62%	10.37%	44.57%
2010	\$5,508.50	32.75%	\$584.38	\$125.12	0.45%	99.42%	467.04%
2011	\$5,536.80	34.24%	\$793.24	\$1,540.69	0.70%	40.37%	51.49%
2012	\$5,028.10	30.91%	\$2,029.74	\$4,654.56	1.58%	43.30%	43.61%
2013	\$7,855.05	48.40%	\$5,116.20	\$3,810.24	2.04%	167.01%	213.66%
2014	\$8,591.77	48.95%	\$5,104.94	\$4,647.62	2.03%	126.86%	109.15%
<i>Mean:</i>	\$8,838.77	39.31%	\$1,403.67	-\$552.69	0.84%	45.80%	101.55%
<i>Median:</i>	\$8,591.77	39.75%	\$793.24	\$2,332.09	0.62%	29.92%	48.03%
<i>Max.:</i>	\$13,483.80	58.78%	\$5,116.20	\$4,667.12	2.04%	167.01%	467.04%
<i>Min.:</i>	\$4,533.50	24.92%	\$288.12	-\$46,760.35	0.27%	4.75%	6.20%
<i>Spread:</i>	\$8,950.30	33.86%	\$4,828.08	\$51,427.47	1.77%	162.26%	460.84%

Notes: Values are cumulated for each year. Leverage is quantified by the market value estimate of the total debt ratio, obtained by dividing the cumulated value of debt by the cumulated value of debt plus the cumulated market value of equity for the entire portfolio for each year. Capital expenditures are the net of (*capital spending + investments in R&D + acquisitions*).

Figure 1.
Annual Patterns in Dividend Proxies



Growth Estimations in FCFE:

Growth predictions demonstrate that lodging firms' aggregate net income will grow at a higher rate than non-cash return on equity (*ROE*) from 2015 to 2020. For instance, equity reinvestment rates are calculated as 106.85%, 141.54%, and 102.88% while non-cash ROEs were 11.92%, 14.00%, and 7.94% in 2016, 2017, and 2018 respectively. This means that lodging firms will be able to generate cash flow in the next five-year period. Also, after lodging firms' debt repayments and reinvestment needs were met, it seems like those firms will build up more cash available to be returned to their equity holders since there will be a stable growth expectations in FCFE until the beginning of 2018 (*FCFE*= 10.23%, 12.74%, and 19.82% in 2015, 2016, and 2017 respectively). After this point, a sharp decline is observed in both FCFE and its growth parameters. FCFE growth drops to 8.17% in 2018 and continues to decline to 0.41% until the end of 2020. This can be attributed to lodging firms' increasing debt financing needs due to higher capital expenditures and working capital.

In terms of forward-looking guidance, this forecast demonstrates that lodging firms will continue to retain earnings to fund financially profitable projects for future expansion. Also, these predictions might be a possible indicator that those firms might issue new common stock

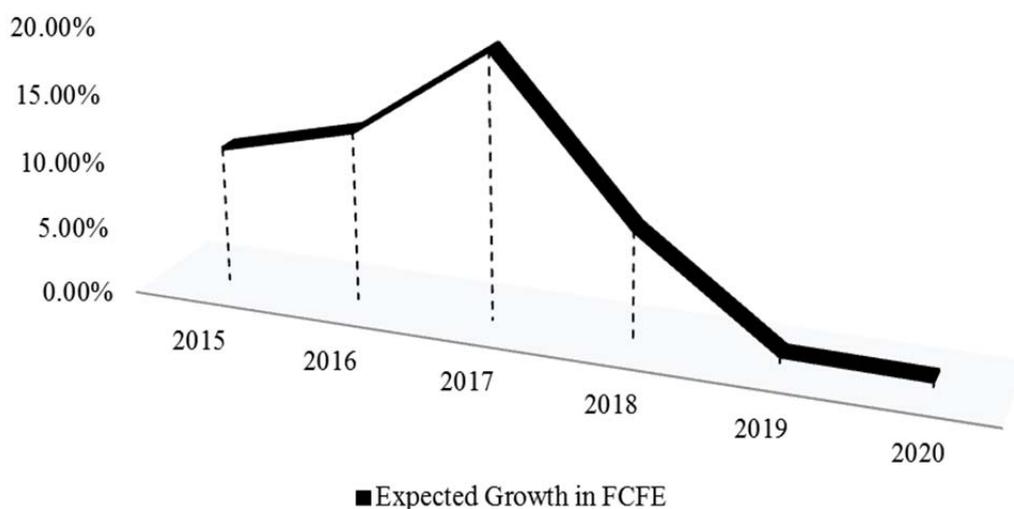
shares to fund the reinvestments rather than returning the free cash flow to their equity holders. The characteristics of growth decomposition in FCFE and the prediction estimations for the next five years are provided in table 2 and figure 2.

Table 2.
Growth Predictions in FCFE

Years	Parameters		
	Reinvestment Rate (Equity)	Non-cash ROE	Expected Growth in FCFE
2015	92.89%	11.01%	10.23%
2016	106.85%	11.92%	12.74%
2017	141.54%	14.00%	19.82%
2018	102.88%	7.94%	8.17%
2019	39.18%	1.39%	0.54%
2020	8.86%	4.59%	0.41%
<i>Mean:</i>	82.03%	8.48%	8.65%
<i>Median:</i>	97.89%	9.48%	9.20%
<i>Max.:</i>	141.54%	14.00%	19.82%
<i>Min.:</i>	8.86%	1.39%	0.41%
<i>Spread:</i>	132.68%	12.61%	19.41%

Notes: Values are cumulated for each year.

Figure 2.
Growth Forecast in FCFE



Implications for Practice

This study intends to add value by presenting pervasive and persuasive analysis to the current conjecture of lodging firms' dividend policies, and therefore, it should be beneficial for practice, policy, and future research extensions. The primary take-away from the evidences presented for the executives of lodging companies is that lodging firms have a high potential to return more to their equity holders. Main reasons for why those companies may pay out less than is available could hinge upon various reasons and explanations. The following discussions and suggestions will give managers detailed solutions to originate timely strategies for their dividend policies and provide some critical financial guidance to maximize the firms' shareholder value.

- High-growth lodging firms (*small-size companies*), early in their life cycles, should have very low payout ratios due to the uncertainty in earnings, volatility in expected future cash flows, unstable profit margins, and high potential of facing financial constraints (*i.e., lower credit ratings*). They are also very active in capitalizing on favorable financial investment opportunities for future expansion and growth. As they mature, they should start returning more of the cash back to equity holders causing payout ratios to increase. This strategy will generally work quite beneficially for those firms since their stock prices are somewhat undervalued at the early stage in their life cycles. If those firms choose to pay out less, they will not only push up the share prices but also reduce the risk of any possible drastic reductions in dividend payments in the future.
- If free cash flows are not distributed to equity holders in the form of dividends, lodging firms should put the accumulated excess cash into share repurchases or reinvest them to avoid potential losses and to minimize downside risks. This approach is critical during sluggish firm growth period and/or macroeconomic downturns since the cost of issuing new stock, cost of debt financing, and thus, cost of capital become very expensive during those periods. Also, tax factors could be attributed to firms' willingness to use share repurchases instead of higher cash disbursements. Share repurchases are clearly more tax efficient than dividends. Higher dividend payouts as an alternative to share repurchases to repatriate excess cash flow mean extra taxation (*double taxation*) for the equity holders who are in the high tax brackets. Hence, stock repurchases will protect and benefit those equity holders. Stock prices will generally tumble when firms buyback equities. This situation will not be economically practical for both

firms and equity investors and there might be unintended negative consequences between the executives and the major shareholders. It is advised for managers to provide more information to the shareholders during this transition to mitigate shareholders' concerns about share repurchases versus dividend distributions. Improved financial disclosures, better dissemination of information, and enhanced corporate governance practices about the dividend policies will be very useful actions to reduce potential conflicts between managers and stock holders. This action will also help managers establish healthy relationships with their equity holders in regard to future growth and firm value.

- Executives of small and mid-size lodging firms should be careful about equity reinvestments. Although equity reinvestments will help strengthen those firms' asset balance and provide the capital they need for expansion, it might put a temporary burden to shareholders' value since the existing capital is retained rather than distributed. Therefore, this might create problems in maximizing shareholders' value since they are not receiving dividends.
- It is derived from the findings that lodging firms can pay out more by either utilizing their existing cash balance or issuing new stocks and/or bonds when there is a rebound in the economic conditions (*larger earnings condition, higher liquidity, etc.*) and when there is an improvement in their D/E ratio (*higher leftover equity for dividends after meeting all operating and expansion expenses*). This is crucial for lodging firms to signal stable dividend policy and steady flows of income to the potential investors in the market. Bottom line, managers of those firms need to strike a balance between share repurchases and dividend payouts. Repurchases support stock prices when there is a "sell-off" in the capital markets. Dividend payouts are the mechanisms to avert uncertainty about the firms' financial structure and shareholders' value. If firms pay too much dividends, it creates a cash shortfall that leads to new stock issuances and cost of capital constraints. If firms drastically reduce the amount they pay out, markets will negatively react to dividend cuts (*i.e., sharp decline in stock prices*) and those firms become less attractive to the potential investors. Either lodging firms have less internally-generated cash flows for dividend distributions or they have too much cash on hand to return to their equity holders, they have to find an optimal point among share repurchases, dividend payments, and retained earnings to add value to the firm and to create long-term growth for the firm.

Future Research Directions

There is a scope for further development of the current content of this study. An inclusion of heterogeneously sorted lodging firm portfolios based on different firm sizes (*i.e.*, *high growth*, *small growth*, *mid-size*, *etc.*) across the entire lodging industry may well carry substantial improvements for future analysis. This work could also be extended to produce meaningful comparisons among firms' dividend policies and earnings. Additionally, the economic significance of taxes on dividends can be examined to better understand the dividend puzzle for the shareholders. Parallel to this, another worthwhile extension might pay attention to test the specific effects of dividend proxies on stock prices. In this vein, possible research might aim to test the effects of price swings before and after the ex-dividend date on equity returns. Although there are possible further researches as indicated, results provided an extensive economic outlook of lodging firms' dividend policies.

Annex 1

Theoretical Underpinnings on Corporate Dividend Policy

Miller and Modigliani's (1961) dividend-irrelevance theory and clientele effect argument, Gordon's (1963) and Lintner's (1962) bird-in-the-hand theory, Litzenberger and Ramaswamy's (1979) tax preference theory, and Spence's (1973) signaling models have been the building blocks of corporate dividend policy and its underlying dynamics for decades.

Dividends have long been a discussion for advocates since early seminal works. Substantial discrepancies in understanding this phenomenon were centered upon several aspects of the tradeoff variables that comprise dividend payouts and their metrics along with their effects on the ups and downs in stock prices (i.e., Michaely et al., 1995; Kennedy, 2003; Amidu and Abor, 2006; Abor and Bokpin, 2010; Aivazian and Booth, 2003). Another economically essential topic that correlates with dividend policy is stock repurchases. Over time, repurchases are increasingly linked to earnings suggesting that regular dividend payments are substituted. Regardless of the size, amount, and payout ratio, firms continue to pay dividends. However, regular dividend payments have become a less critical to firms since repurchases increasingly absorb the variations in earnings, especially after the recent economic downturn in 2008 (i.e., Skinner, 2008; Jacob and Jacob, 2013; Jiang et al., 2013).

Other arguments and research clustered mostly around the underlying causes of dividend puzzle, dividend payout decisions, and the influence of dividend tradeoff variables on equity returns in hospitality literature (i.e., Kim and Jang, 2010; Canina et al., 2001; Sheel and Zhong, 2005; Kim and Gu, 2009). Even with solid inferences, those works are still free of benchmarking dividend payouts versus cash returned as a percentage of FCFE, and the growth forecast of FCFE driven by specific valuation parameters, such as equity reinvestment rate.

Methodological Procedures

Data and Sample:

Estimations for dividend policy include a fifteen-year window from 2000 to 2014. The lodging portfolio is sorted with comparable lodging firms in order to better observe and understand the dividend puzzle of a highly-levered industry. Individual firm observations are utilized from Damadoran Online Data Source, which is compiled from Morningstar, Bloomberg, and Capital IQ fillings.¹⁵ For the estimations of historical dividend proxy variables, the firm data

¹⁵ Dr. Aswath Damadoran's archived datasets is available at: <http://people.stern.nyu.edu/adamodar/>

points are cumulated annually. Dividend tradeoff parameters (*i.e.*, *net capital expenditures*) and dividend proxies (*i.e.*, *augmented dividend payout ratio*) are quantified to discuss the differences between actual dividend distributions and potential cash availability for dividends. Fifteen-year annual firm records were specifically taken into consideration so that the estimations will produce economically significant outcomes. Additionally, an individual firm must have been listed in the dataset for at least two years to be included in the final sample in order to mitigate any data selection biases (Fama and French, 1993). Table 3 lists the number of lodging firms assessed for each year and it reports cumulated aggregate characteristics of the lodging portfolio in detail.

Table 3.
Cumulated Characteristics of the Lodging Portfolio

<i>Years</i>	<i>Portfolio Dynamics</i>		
	<i>#of Firms</i>	<i>Market Cap</i>	<i>Institutional Holdings</i>
2000	54	\$54,704.00	37.78%
2001	85	\$125,080.00	36.98%
2002	95	\$122,128.00	27.80%
2003	80	\$85,707.00	44.06%
2004	77	\$248,831.00	32.87%
2005	76	\$123,611.00	32.67%
2006	84	\$191,301.00	44.25%
2007	74	\$173,232.00	42.53%
2008	67	\$41,112.00	45.06%
2009	74	\$78,701.00	39.77%
2010	51	\$129,022.00	46.90%
2011	51	\$112,884.00	49.80%
2012	57	\$128,237.00	48.15%
2013	89	\$250,311.75	41.26%
2014	80	\$251,850.44	44.39%
<i>Mean:</i>	73	\$141,114.15	40.95%
<i>Median:</i>	76	\$125,080.00	42.53%
<i>Max.:</i>	95	\$251,850.44	49.80%
<i>Min.:</i>	51	\$41,112.00	27.80%
<i>Spread:</i>	44	\$210,738.44	22.00%

Notes: Portfolio dynamics are calculated using cumulated values for each year. Market cap demonstrates the estimated value of equity in millions (\$US). The cumulated values are obtained by multiplying the #of shares outstanding by the share price. Institutional holdings reflect the #of shares held by mutual funds, pension funds, and trusts as a percent of total stock outstanding.

Derivation of Dividend Policy Proxy Variables:

Equity holders usually invest in stocks that have high growth and return potential. Sentimentally, equity holders lean more towards adding stocks with high dividend yields and payouts to their portfolios since those stocks are subject to less price volatility. Also, those investors tend to follow a public notion that growing dividend payouts lead to a higher growth than market median (Barreda and Kizildag, 2015; Amidu and Abor, 2006; Baker and Wurgler, 2004). It is therefore worth assessing lodging firms' historical dividend payment structures.

The amount of dividends is discretionary, so is its payout proportion. From a management perspective, dividend conservatism emanates primarily from the market's asymmetric reaction to dividend ups and downs (Brav et al., 2005; Dennis and Osobov, 2008). Investors pick companies based on their dividend policies (*i.e., financial growth, equity reinvestment, company credit profile, etc.*). For the past few years, many companies have started to view share repurchases as an alternative to dividend payments since they are more flexible and beneficial to them. Firms recently use stock repurchases in an attempt to time the market and to reduce the cash balance (Blouin, 2011; Skinner, 2008; Damadoran, 2008). Due to this shift in firms' dividend policy, the basic dividend payout proxy has become less meaningful to both firms and investors. As suggested by Damadoran (2008), one way to adapt to the shift in cash disbursements is to switch to an augmented payout ratio so that the proportion of dividends payments and inversely, the amount retained in the firm will be adjusted to stock repurchases. The augmented dividend payout ratio is estimated as follows;

$$\text{Augmented Dividend Payout} = [(\text{Dividend Amount} + \text{Stock Buybacks}) / \text{Net Income}] \quad (1)$$

Corporations also adjust their dividend policies to dividend yield percentages because equity investors' choices deviate from high-yield dividends to low-yield dividends. In other words, firms increase (decrease) their share price by increasing (decreasing) their payout ratio not only to satisfy their investors but also to optimize the yield they receive from their stock holdings (Black and Scholes, 1974). Hence, annualized dividend yield is expressed as:

$$\text{Annualized Dividend Yield} = (\text{Annualized Dividend per Share} / \text{Closing Stock Price}) \quad (2)$$

Dividends are called "sticky" by many advocates because most of the time, dividends are unlikely to reflect actual FCFE structure. Thus, the reliability of the valuation based on dividend

payouts only produces tangled outcomes for the investors (i.e., Hand and Landsman et al., 2005; Ohlson, 2001; Rees, 1997). Even though dividend payments signal public information about firms' earnings and profitability potential, investors care more about how much could have been actually returned to them from the available FCFE. Hence, allowing for the effect of cash flows on the net capital expenditures, changes in working capital, and net changes in debt, FCFE is calculated as follows;

$$FCFE = [Net\ Income - (Capital\ Expenditures - Depreciation) - (\Delta\ Working\ Capital) + (New\ Debt\ Issued - Debt\ Repayments)] \quad (3)$$

Assuming the proportion of net capital expenditures and changes in working capital are financed by a constant book value of debt and equity mix (δ)¹⁶, the effect of cash flows to equity is written as;

$$Equity\ Cash\ Flows\ Associated\ with\ Capital\ Expenditure\ Needs = - (Capital\ Expenditures - Depreciation)(1 - \delta) \quad (4)$$

Simplifying equation #4,

$$Equity\ Cash\ Flows\ Associated\ with\ Capital\ Expenditure\ Needs = - (\Delta\ Working\ Capital)(1 - \delta) \quad (5)$$

FCFE after meeting the capital expenditure and working capital is then,

$$FCFE = \{Net\ Income - [(Capital\ Expenditures - Depreciation)(1 - \delta)] - [(\Delta\ Working\ Capital)(1 - \delta)]\} \quad (6)$$

Cash distributions as a percentage of FCFE is an important dividend proxy that shows the total cash returned to equity holders from the available free cash flow. Thus, it is quantified as;

$$Cash\ distributed\ as\ \%\ of\ FCFE = [(Ordinary\ Dividends + Equity\ Repurchases) / FCFE] \quad (7)$$

It is imperative for a dividend-paying company to provide estimations for the potential future residual cash disbursements to its equity holders. First off, the percent of net income is assumed to be invested back into the firm in FCFE growth estimation;

¹⁶ Partial or full netting the old debt (*debt repayment*) is usually financed with the new debt issuances by the firms to supply cash inflow to firms' equity holders. Thus, this relaxes to assume fixed mix of debt and equity so that the cash flow effects of deviant debt levels can easily be measured (DeAngelo and DeAngelo, 2007; Damadoran, 2008).

$$\text{Equity Reinvestment Rate} = \{[I - (\text{Net Capital Expenditures} + \Delta \text{ Working Capital} - \text{Net Debt Issuances})] / \text{Net Income}\} \quad (8)$$

Second, return on equity must factor non-cash investments in assuming no excess cash left in the firm,

$$\text{Non-cash ROE} = [(\text{Net Income} - \text{After Tax Income from Cash and Marketable Securities}) / (\text{Book Value of Equity} - \text{Cash and Marketable Securities})] \quad (9)$$

Finally, deriving the expected growth in FCFE based on fifteen-year moving averages,

$$\text{Expected Growth in FCFE} = \text{Equity Reinvestment Rate} * \text{Non-cash ROE} \quad (10)$$

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