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Catering driven substitution in corporate payouts

Manoj Kulchania *

College of Business Administration, Marquette University, Milwaukee, WI 53201, USA

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ABSTRACT

This paper investigates catering as a motivation for substitution between share repurchases and dividend payments. I hypothesize that firms cater to investor demand by repurchasing shares when investors place a premium on the stock price of firms that repurchase shares, and by paying dividends when investors place a higher value on dividend-paying firms. I propose a proxy to measure the relative preference for repurchases over dividends—the difference premium. Results show that the decision to repurchase shares or to pay dividends depends on this premium. Firms channel higher fractions of the additional payout dollars toward share repurchases when this premium is high. The market reaction to dividend changes is more favorable when firms act in accordance with the catering hypothesis. Overall, I find that catering plays a role in the substitution between repurchases and dividends.

1. Introduction

Miller and Modigliani (1961) demonstrated that in a world with perfectly efficient and frictionless capital markets, payout policy is irrelevant. In such a world, rational investors do not have any preference for dividends over capital gains. However, subsequent literature has suggested that factors such as taxes, institutional ownership constraints, transaction costs, and the time horizons of investors might affect investor preferences (e.g., Allen et al., 2000; Black and Scholes, 1974; Graham and Kumar, 2006). Baker and Wurgler (2004a) relax the assumption of perfectly efficient capital markets in the Miller and Modigliani model to propose a catering theory of dividends.

Baker and Wurgler (2004a, 2004b) find that the managerial decision to pay dividends is driven by investor demand for dividend-paying firms. When investors value dividends, they assign a higher valuation to firms that pay dividends. Managers see this valuation difference and initiate dividends to capture the "premium." Baker and Wurgler calculate their main proxy, the value-weighted dividend premium, as the difference in the logarithm of the value-weighted market-to-book ratio (M/B) of dividend payers and non-payers. Li and Lie (2005) extend the Baker and Wurgler study to show that dividend catering works not only for initiation of dividends, but also for increases and decreases in the level of dividend payments. Li and Lie also find that the capital markets reward managers for paying attention to the investor demand for dividends. A different line of literature documents the changing nature of firms that pay dividends (e.g., Fama and French, 2001) and the increasing importance of repurchases in corporate payout policy (e.g., Skinner, 2008). Grullon and Michaely (2002) show that US firms finance their share repurchases with funds that otherwise would have been used to increase dividends. The authors offer the tax-advantaged status

* Tel.: +1 414 288 1442; fax: +1 414 288 5756.
E-mail address: manoj.kulchania@marquette.edu.

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of repurchases and a rule change[1] by the US Securities and Exchange Commission (SEC) as reasons contributing to the *substitution* of dividend payments with share repurchases. Brown et al. (2007) find evidence supporting a move from repurchases to dividends, specifically in response to a change in tax rates in 2003. I propose catering as a motivation for the observed *substitution*.

In this paper, I present a catering view of the payout decision. I posit that the choice between repurchases and dividends is a rational managerial response to changing valuations assigned to firms that repurchase shares versus those that pay dividends. Some investors, driven by their time-varying demands, may prefer to hold shares of firms that are repurchasing shares over those that are paying dividends. This demand drives apart the valuations of firms that follow different payout methods, within the limits of arbitrage. Managers rationally cater to this investor demand by repurchasing shares (paying dividends) when investors assign higher valuation to repurchasing (dividend-paying) firms. Baker and Wurgler (2004a) present a catering theory of dividends using similar arguments. They, however, do not discuss share repurchases. I extend the Baker and Wurgler dividend catering theory to share repurchases, while considering the demand for repurchasing and dividend-paying firms together.

Researchers have documented evidence of catering in other corporate decisions. For example, Baker et al. (2009) show evidence of catering in nominal share prices; Aghion and Stein (2008) find that managers choose between sales growth and profit margins; and Polk and Sapienza (2009) show that mispricing can be driven by levels of investment. To test the catering hypothesis in payout policy, I first calculate the yearly M/B of firms for each year in the period 1971–2010. I then find the yearly difference in the logarithm of the value-weighted M/B of repurchasing and non-repurchasing firms. I use this measure as a proxy for the excess valuation that the market assigns to firms that repurchase shares, i.e., the "repurchase premium."[2] This proxy is constructed to give a measure comparable to the Baker and Wurgler (2004a) (value-weighted) dividend premium. To capture the relative preference for repurchases over dividends, I define the "difference premium" as the difference between my repurchase premium and the Baker and Wurgler dividend premium. Intuition suggests that firms will find repurchasing shares more attractive, relative to paying dividends, when this difference premium is positive.

I consider the variation in the difference premium proxy over time. Using logit analysis, I find that firms are more likely to repurchase shares (pay dividends) when the difference premium is positive (negative). Hence, the decision to pay dividends or to repurchase shares is based on the relative values of the dividend and the repurchase premium. This finding supports Grullon and Michaely's (2002) substitution hypothesis. If catering explains the observed substitution between repurchases and dividends, then managers must consider both premiums and decide to substitute one form of payout for the other based on the relative magnitudes of the two premiums. My results hold after controlling for taxes, the 1982 SEC rule change, risk measures (Hoberg and Prabhala, 2009), unobserved firm fixed effects, and other usual firm proxies (e.g., size, capital structure, cash holdings, etc.).

My paper makes several additional contributions to the literature. First, I find that the difference premium explains the residual "propensity to repurchase" after accounting for time-varying firm characteristics, including investment opportunities, profitability, and firm size, using the Fama and French (2001) methodology. The Baker and Wurgler dividend premium cannot account for this repurchasing decision after controlling for risk characteristics (as explained in Hoberg and Prabhala (2009)[3]), but the difference premium can.

Second, I find that the repurchase premium is negatively correlated with the Baker and Wurgler dividend premium (correlation coefficient of −0.124), reflecting the competing attractiveness of repurchases and dividends. The dividend premium alone, in the presence of control variables for risk, cannot capture the attractiveness of repurchases to dividend payers. This relative attractiveness ties together the dividend and the repurchase premiums and highlights that the dividend premium by itself cannot entirely explain share-repurchasing activity.

Third, I find that firms switch from paying dividends to repurchasing shares when the difference premium is positive. I use the Lintner (1956) dividend model to predict the expected dividend behaviors of firms that repurchase shares and pay dividends, and find a negative relation between dividend forecast errors and the difference premium. In other words, firms pay less than the expected dividend when the repurchase premium is higher than the dividend premium. I also look at changes in total payout and investigate how additional payout dollars are distributed between share repurchases and dividend payments. I find that firms are more likely to channel any increases in total payout toward share repurchases when the difference premium is positive, in line with catering-based substitution. I also look at the investor reaction to announcements of dividend changes and investigate if this reaction is driven by catering. I find that investors react more favorably to announcements of a dividend increase by non-repurchasing firms when firms act in accordance with the predictions of the catering hypothesis. Conversely, when the changes in the difference premium predict that firms should decrease dividends and repurchase shares, and firms follow suit, investors greet these announcements less unfavorably. All of these results confirm that catering plays a role in substitution between dividends and share repurchases.

[1] The US Securities and Exchange Commission (SEC) Rule 10b-18 provides a voluntary "safe harbor" from liability for manipulation under Sections 9(a)(2) and 10(b) of the Securities Exchange Act of 1934 (Exchange Act), and Rule 10b-5 under the Exchange Act, when an issuer or its affiliated purchaser bids for or purchases shares of the issuer's common stock in accordance with the Rule 10b-18's manner, timing, price, and volume conditions. These conditions are: (1) on any one day, firms may not purchase more than 25% of the average daily volume of their own shares during the prior four weeks; (2) firms may not purchase their own shares at the opening and closing one-half hours of trading; (3) firms may not purchase their own shares at a price higher than the last independent bid, or the last reported sale price; and (4) all purchases on a single day must be executed through the same brokerage firm. This rule was adopted in November 1982 and caused an increase in the number of open market repurchase programs adopted (see Grullon and Michaely, 2002; Ikenberry et al., 1995; etc.).

[2] Contrary to some previous mentions in the literature (Peyer and Vermaelen, 2005), the term "repurchase premium" here does not signify the premium that firms have to pay to buy back their own shares (e.g., greenmail).

[3] Hoberg and Prabhala (2009) observe that measures of idiosyncratic and systematic risk are key determinants in the "propensity to pay dividends." They show that the catering explanation of dividend payment loses explanatory power when they control for firm-level risk. However, my results in favor of catering-based substitution between repurchases and dividends hold after controlling for the Hoberg and Prabhala risk variables.