

Dividends, Share Repurchases, and the Substitution Hypothesis

Gustavo Grullon and Roni Michaely

Journal of Finance

vol. 57, no. 4 (August 2002):1649–84

Cash dividends and stock repurchases are two major forms of payout to stockholders. They influence stock prices and returns and thus decisions for investing and trading in stocks. The authors analyze the behavior of U.S. corporations that paid dividends and repurchased shares in the 1972–2000 period. They address the relative merits of dividends and repurchases from the corporation's point of view, the substitutability between the two forms of payout, and the differences in their tax treatment from the investor's perspective. Their findings are of interest to corporate financial officers, equity analysts, and portfolio managers.

A significant shift has occurred in the behavior of U.S. corporations in making cash distributions (quarterly dividends versus stock repurchases) to stockholders. The authors investigate the reasons for this shift in U.S. corporations' payout policies. They also analyze the data to determine whether corporations use stock repurchases as a substitute for cash dividends. More importantly, they explore the question: Why did corporations neglect to repurchase more intensely before the mid-1980s, when the tax benefits of capital gains were much higher? In addition, the authors investigate the effect of share repurchases on investors' reactions to dividend decrease announcements and the effect of taxes on the market reaction to share repurchase announcements.

The data for the study come from the industrial Compustat files. The sample includes those corporations whose required data were available for the entire study period (1972–2000). The final sample consists of 15,843 corporations and an overall total of 134,646 corporation-year observations. For assessing the shifts in payout

Gustavo Grullon is at Rice University. Roni Michaely is at Cornell University. The summary was prepared by Chenchuramaiah T. Bathala, CFA, Cleveland State University.

policies and estimating transition probabilities, the authors place the sample corporations into four categories: (1) $\text{Div} = 0$ and $\text{Repo} = 0$, (2) $\text{Div} > 0$ and $\text{Repo} = 0$, (3) $\text{Div} = 0$ and $\text{Repo} > 0$, and (4) $\text{Div} > 0$ and $\text{Repo} > 0$. For testing whether share repurchases and cash dividends are substitutes for each other, the authors examine the relationship between dividend forecast errors and share repurchase yields. They use such statistical techniques as tests of mean differences between groups and regression analysis to make inferences from the data. The major findings are as follows.

For the study period, the dividend payout ratios declined, but the overall payout ratios (dividends and share repurchases combined) stayed relatively constant because the corporations that repurchased shares increased from 31 percent in 1972 to 80 percent in 2000. During that period, the dollars spent on share repurchases grew at a compounded annual growth rate of 19 percent compared with 8.5 percent for the dollars paid out as cash dividends. Furthermore, the number of corporations that initiated a buyback program increased from 26.6 percent in 1972 to 84.2 percent in 2000. The authors also find that corporations substituted share repurchases for dividends. This conclusion was inferred from the finding that the market reaction in response to dividend decrease announcements was significantly less negative for repurchasing corporations than for nonrepurchasing corporations.

Despite a decline in the tax benefits associated with capital gains, share repurchases have increased substantially during the post-1986 Tax Reform Act (TRA) period. During the 1972–79 period, as much as 23 percent of corporations that initiated cash payouts did so with cash dividends; this proportion fell to only 2.4 percent during the 1992–2000 period. Contrary to this result, the number of corporations that initiated cash payouts with share repurchases rose from 14.33 percent during the 1970s to 29.62 percent during the 1990s. The authors' explanation is that the corporations were "simply wrong" in shunning repurchases before the mid-1980s or they did not want to risk violating the antimanipulative provisions of the Securities Exchange Act of 1934. Notably, repurchasing activity increased after the adoption of Rule 10b-18 in 1982, which provided a safe harbor to corporations repurchasing their own stock. Statistical analysis using

pre- versus post-period comparisons and time-series regressions confirm this observation. In regard to the differential taxes between dividends and capital gains, the authors also find that market reaction to share repurchases was more positive during the pre-TRA period than during the post-TRA period.

What corporation characteristics cause differentiation in payout policies? The data reveal that dividend-paying corporations ($Div > 0$) are much larger, are more profitable, and have less-volatile returns on assets than corporations that do not pay dividends ($Div = 0$). Repurchasing corporations are younger and experience a higher earnings volatility than dividend-paying corporations. Interestingly, corporations that pay dividends and repurchase shares have earnings volatility equal to 3.4 percent and account for 87.9 percent of the aggregate amount of share repurchases. In contrast, corporations that only repurchase shares have earnings volatility equal to 7.5 percent and represent only 12.1 percent of the repurchase activity. This finding supports the view that corporations use share repurchases to pay out extraordinary transitory earnings and use dividends to pay out permanent earnings.

The authors' findings have important implications for stock valuation and investment management. Because dividends and share repurchases are shown to be substitutes for each other and because U.S. corporations are relying more on share repurchases now than in the past, stock valuation tools (e.g., dividend discount models) should appropriately consider the total payout rather than dividend payout alone.

Keywords: Corporate Finance: long- and short-term financing decisions