

Imperfect Information, Dividend Policy, and “the Bird in the Hand” Fallacy

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A considerable amount of financial economic research is built on the notion that company-specific information is costless and equally available to all market participants, both those inside and outside the firm. But this condition is rarely met in practice because outside investors typically have imperfect information about the firm’s current and future status. This study was among the first to use signaling theory to describe how managers can convey information to investors in a credible manner. Specifically, Bhattacharya demonstrates the conditions under which dividends can be used to signal future profitability and why investors might prefer to receive these payments.

A long-standing debate in the academic literature has centered on why corporations pay dividends. At one extreme, in their seminal analysis of the topic, Modigliani and Miller argue that dividends are irrelevant because investors can generate their own cash-flow streams by selling a portion of their share holdings. On the other hand, the so-called bird-in-the-hand argument holds that shareholders prefer dividends over capital gains for consumptive and risk-hedging reasons. In this study, Bhattacharya develops a model in which dividends serve as a signal of the “insider’s” anticipation of the firm’s future performance, thereby providing a new rationale for the existence of these cash emissions.

The author makes several critical assumptions in constructing his model. First and foremost, he posits that investors are imperfectly informed and have planning horizons that are shorter than the life

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of the firm. In his analysis, Bhattacharya allows for the possibility that investors have both single-period and multiperiod horizons. Second, he assumes that investors are taxed on dividend income at a higher rate than on capital gains. Finally, he adopts a framework in which the informational signal must be costly to be effective, which is known as a dissipative signal. Dividend payments, because of disadvantageous tax treatment and the fact that they constrain the company's ability to reinvest past profits to generate future profits, satisfy this restriction.

From this foundation, Bhattacharya creates a model for the discounted expected value derived by stockholders from a particular level of dividend payments. The model depends on four distinct factors: the after-tax proportion of the current dividend received by the shareholder, the liquidation value of the share holding based on a stream of future dividend payments set at the current level, the benefits of reinvesting any excess cash flows (i.e., cash generated by the firm but not paid out in dividends) in the firm, and the expense of having to maintain the present dividend level in the face of an operating cash-flow shortfall. This last factor, along with the incremental tax burden imposed on investors, creates the cost necessary to make dividend payments a viable signal of managers' expectations of future economic conditions.

When this model of expected value is interpreted as the shareholders' objective function, the study's primary results are achieved by solving for the level of dividend payments that maximizes the goal. By doing this analysis first for a one-period investment horizon, the author is able to reach various conclusions from the resulting "comparative statics." Chiefly, he demonstrates that the market-signaling value of the dividend payments survives in equilibrium only if the expectations about future cash flows that are being signaled are ultimately fulfilled. That is, the liquidating share value implied by the dividend payments must be the true value of the firm's future cash flows. Additionally, he shows that the optimal value for the dividend payment declines with increases in the tax rate and the prevailing interest rate in the market.

In an effort to make the analysis more realistic, Bhattacharya expands his model to allow for the possibility that shareholders make multiperiod investments. The major result that he is able to derive from this extension is that the shorter an investor's time horizon, the greater the urgency to receive wealth in a consumable form and thus the greater the equilibrium dividend payout ratio. He observes that this result has the same ultimate impact as the traditional bird-in-the-hand argument, but it arrives at that conclusion for a vastly different reason. He also demonstrates that lengthening the planning horizon reduces the importance of the end-of-period liquidating share value in the objective function relative to the intrahorizon cash flows.

The author concludes the study by conceding several limitations of the model. First, he notes that in a multiperiod setting, allowing shareholders to have different planning horizons results in a failure to reach investor unanimity regarding corporate decision rules. Second, the objective function he uses depends critically on the existence of interperiod consumption-loan markets and the assumption of risk neutrality among investors. Finally, restrictions are placed on the use of corporate debt and the price at which asset sales are allowed to take place in the secondary market. He suggests that the basic intuition provided by his analysis should carry over to more elaborate models.

POLICY ISSUES

The Social Costs of Some Recent Derivatives Disasters

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Miller takes a careful look at some recent derivatives disasters and attempts to measure the resulting social costs from these disasters. He measures the potential benefits from increasing derivatives regulation by estimating the costs that could have been avoided had the regulations been in place.

Miller focuses on several well-known derivatives disasters—Procter & Gamble, Metallgesellschaft AG (MG), Orange County, and Barings—and evaluates the related social costs. First, he notes the importance of distinguishing between the private loss of a counterparty and the aggregate social loss. Derivatives, by their very design, have two sides that always exactly offset each other. If one party wins, then, by design, the other party loses. Hence, wealth transfer takes place between counterparties, but no aggregate loss of social wealth is associated with the transaction.

Similarly, a bond market crash also involves only wealth transfers between creditors and issuers. For example, the losses incurred by Orange County, California, resulted in gains to the issuers, such as the Home Loan Bank Board, the Federal National Mortgage Administration, and the U.S. Treasury. Effectively, the taxpayers of Orange County transferred wealth to U.S. taxpayers. The aggregate social cost of such a transfer was negligible.

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