
Chapter 15 Taxes and dividends

Dividend policy describes the policy of an organization about the distribution of cash to its shareholders. The *Miller-Modigliani dividend irrelevancy theorem* holds that dividend policy is irrelevant, when there are no taxes and transaction costs.

When investment choices and leverage ratios are constant, the only alternative to paying a dividend is for the organization to use the funds to repurchase shares. The MM dividend irrelevancy theorem does not say that the choice between paying dividends and retaining the earnings to either pay off debt or to fund new investments is a matter of indifference.

It just holds that, when there are no taxes and transaction costs, the way in which the earnings are distributed to shareholders, does not affect shareholders.

The MM dividend irrelevancy theorem

Suppose:

1. there are no tax considerations
2. the investment, financing, and operating policies of the organization are held fixed

Then the choice between paying dividends or repurchasing shares does not matter to shareholders.

The *dividend payout ratio* is the ratio of dividend per share to the earnings of the share.

The *dividend yield*, is the ratio of the dividend per share to the price per share.

The dividend choice is closely related to the capital structure choice and is strongly influenced by market frictions like taxes and transaction costs.

Think about the choice between paying out earnings to shareholders versus retaining the earnings for investment.

Suppose:

- There are no tax considerations
- There are no transaction costs
- The choice between paying a dividend and retaining the earnings for reinvestment within the organization does not convey any information to shareholders

Then a dividend payout will either enlarge or decrease organization value, depending on whether there are positive net present value investments that could be funded by retaining the money within the organization. If there are no positive NPV investments, the money should be paid out.

The *classical tax system* is used in the United States. Dividends are taxed as ordinary income and capital gains are usually taxed at a lower rate than ordinary income.

This system efficiently double taxes corporate profits. Under the classical system, the cost of funding investments through retained earnings is lower than the cost of funding investment by issuing new equity.

In the US a repurchase of shares is favoured over dividends by taxes. The gain associated with a share repurchase over a cash dividend depends on:

1. The difference between the capital gains rate and the tax rate on ordinary income
2. The tax basis of the shares – that is, the price at which the shares were purchased.
3. The timing of the sale of the shares (if soon, the gain is less, but if too soon, the gain may not qualify for the long-term capital gains rate).

Miller and Scholes (1978) claimed that individual shareholders should be indifferent between repurchases and dividends because they can avoid the tax on dividends. Their dividend tax avoidance scheme is quite simple: an individual borrows money and invests in tax-deferred insurance annuities. The interest on the loan is tax deductible and can offset the taxable dividend income but not the individual's labour income.

However, the tax on the insurance annuity can be deferred indefinitely. In reality, individual shareholders rarely avoid the dividend tax in this way.

Different organizations have several dividend payout ratios that appeal to different *shareholder clienteles*. This means that there are different groups of shareholders with different favourences for receiving different income.

Organizations that pay no dividends probably attract individual shareholders in high tax brackets while organizations that pay large dividends probably catch the attention of tax-exempt institutions, individual shareholders in low marginal tax brackets, and corporations attracted by the dividend tax feverous.

Organizations do not appear to vary their dividends in order to satisfy the demands of different tax clienteles. Stocks with higher dividend yields should offer higher expected returns than similar stocks with lower dividend yields. Organizations with higher dividend yields, but equivalent cash flows, should then have lower values, reflecting the higher discount rates that apply to their cash flows.

There are two approaches to evaluate the effect of dividend yield on expected stock returns:

- Measures of stock returns around the date that the stock trades ex-dividend. Elton and Gruber (1970) examined the price movements around the ex-dividend dates of listed stocks. They interpreted the differential price drop on the ex-dividend dates as evidence of the shareholder clientele effect. Because the marginal shareholder in a stock with a high dividend yield is likely to have a low marginal tax rate, the after-tax value of the dividend should be relatively close to the amount of the payout. However, the marginal buyer of a stock with a low dividend yield is likely to have a high marginal tax rate and thus will place a lower value on the dividends.
- Measures of how dividend yield affects expected returns cross sectional. Stocks with high dividend yields are basically different from stocks with low dividend yields in terms of their characteristics and their risk profiles. Therefore, it is nearly impossible to assess whether the relation between dividend yield and expected returns is due to taxes or risk.

Shareholders favour retained earnings over a cash dividend if expected returns, adjusted for their premiums due to risk, satisfy:

$$(1 - T_c) X \text{ (pre-tax return within the corporation)} > \text{(after personal tax return outside the corporation)}$$

When this equation does not hold, shareholders favour the cash dividend.

Tax-exempt and tax-paying shareholders agree about which projects an organization should fund from external equity issues but may disagree about which projects should be financed from retained earnings.

In particular:

- tax-exempt shareholders require the same expected return for internally financed projects as they do for externally financed projects.
- tax-paying shareholders favour that organizations use lower required rates of return for internally financed projects if the alternative is paying taxable dividends or repurchasing their shares.

The hurdle rate required by the organization with cash on hand should be lower than the hurdle rate required of a corporation that must raise equity to fund the investment. However, an organization with cash should not adopt projects with very negative NPVs.

The combination of the corporate tax deductibility of interest payments and the personal taxes on dividends (and share repurchases) entails that:

- the U.S. tax code favours debt financing over financing investments by issuing equity
- For taxable shareholders, the tax favourous for debt over internally generated equity is fewer than the tax favourous for debt over newly issued equity. Indeed, individual shareholders with sufficiently high personal tax rates have a tax favourous for financing new investment with retained earnings, rather than paying out the earnings and financing new investment with debt.