

## Topic 12: Dividends and Dividend Policy (Copyright © 2024 Joseph W. Trefzger)

### I. Some Basic Ideas and Definitions

*Dividends* are the portion of a company's net income paid in cash to the common stockholders (and not *retained* for the firm managers' use in buying additional assets). The timing schedule for paying cash to the firm's owners reflects the *dividend policy* management has selected. The decision of whether to pay dividends, and how much to pay, is a judgmental question as much as an analytical question. The dividend situation must be analyzed along with the company's capital structure and capital spending decisions (see part V, Residual Dividend Theory, below).

A corporation paying dividends to its common stockholders can offer various justifications:

*Regular* cash dividends are paid from the firm's net income from operations. A firm is likely to try to maintain this level of dividends in the future. Regular dividends tend to be paid to a company's common stockholders quarterly, with the payments usually spaced three months apart – although Coca Cola has followed the unusual pattern of paying in early April, early July, early October, and mid December.

(While dividends usually occur quarterly, in estimating the value of a company's common stock with the traditional discounted cash flow model we generally group four quarterly payments into an annual total. There is uncertainty in what the dividends will actually be – in predicting dividends to common stockholders we have to first predict what net income will be, and then predict what portion of net income will be paid as dividends and not retained. So we work with a more general annual total, because trying for greater precision with quarterly figures probably is not justified.)

*Special* dividends might be paid when a firm has cash from a source that is not likely to be available in future years. Management might try to communicate to shareholders that this level of extra dividends should not be expected in the future.

*Liquidating* dividends represent a return of the owners' original investment. This type of payment causes the firm's asset base to be smaller than it otherwise would be (when managers feel they do not have good internal investment opportunities).

*Repurchases of stock* can be a substitute for paying dividends. Buying back shares of stock leaves fewer remaining ownership shares to split the residual values, and offers an interesting mix of flexibility and income tax implications for investors.

*Dividend Reinvestment Plans* allow the stockholder to buy additional shares with his dividends instead of taking cash. This arrangement offers convenience and, at least in earlier times, saved on brokerage costs for someone who likes to buy additional shares over time, although brokerage costs do not tend to be an issue today when so many investors can buy and sell shares commission-free. Note that this direct reinvestment does not relieve the stockholder of the need to pay income tax on dividends to which he or she is entitled.

## II. The Paper Chase

Sometimes firms issue new shares of common stock instead of paying cash dividends. This “payment” of a *stock dividend* (perhaps 10% as many shares as the investor currently owns) is sometimes said, by those who support such activity, to compensate the owners with something of value when the firm lacks liquidity to pay cash dividends.

A related activity is the *stock split*, when the firm creates a large number of new shares of common stock. For example, in a “2-for-1” stock split, someone who previously owned 100 shares is declared now to own 200 shares.

The problem with both stock dividends and stock splits (which are sometimes used with common stock, not preferred) is that the company simply creates *new “pieces of paper”* without changing any real values. If someone owns 100 shares (representing a 1% ownership stake in the firm), a 10% stock dividend leaves that individual with 110 shares, or a 2-for-1 split leaves that individual with 200 shares – but still only a 1% claim on the firm’s residual values. So the value of each share should fall to roughly 90% (for the 10% dividend) or half (for the 2-for-1 split) of its pre-dividend or split value. (The U.S. Supreme Court held, in the long ago 1920 case of *Eisner vs. Macomber*, that a “dividend” that was not in the form of cash was not taxable income to the recipient.)

Why do firms issue stock dividends or declare stock splits? Stock dividends are said by some to be a tool for keeping a “growth” stock from rising in price to a level above the “optimal trading” range. (In 2018 a majority of the directors of CBS Broadcasting attempted to create a stock dividend for selected shareholders to dilute the voting power of the Redstone family, which held a large majority of common shares.) Stock dividends also sometimes are said to have actual value *if* the company does not reduce the per-share cash dividend. For example, you own 100 shares and receive \$1 per share (\$100 total) in annual dividends. Then the firm declares a 10% stock dividend, so you now have 110 shares. If the directors maintain the \$1 per share in cash dividends on all the shares, you’ll get \$110 per year in cash dividends in the future – a true financial benefit.

But we might ask whether it would be more efficient simply to increase the per-share dividend on the original number of shares by 10% if the firm can afford to pay a higher

cash dividend total. After all, stock dividends or splits are accompanied by substantial administrative costs.

The conventional explanation for stock splits is to bring the price per share into an “optimal trading” range that investors will find affordable in the traditional 100-share “round lot” trading units. Let’s say XCorp’s common stock has risen in price to \$200 per share. So an investor needs \$20,000 to buy 100 shares – a liquidity problem, if that total is perhaps too costly for many small investors. With a 4-for-1 split, the price will fall initially to roughly \$50 per share (\$5,000 for a round lot). Now more people will find it affordable, and their buying activity might drive the price up to \$51 per share, creating a \$4 profit on each original share (since you now have four times as many shares). That is the conventional explanation often offered.

[If the stock is selling for a price so *low* that the investing public looks unfavorably on it as a low-quality “penny stock,” the firm might bring it into a “respectable” price range with a *reverse split* – e.g., telling each person who owned 100 shares that they now own only 25, thereby quadrupling the price. In a fairly extreme example, Helios & Matheson declared a 1-for-250 reverse split when its common stock had fallen to a fraction of a cent per share in value after its *MoviePass* plan (see unlimited first-run theater movies for \$10 per month) lost almost \$100 million in 2018’s first quarter. This increase in per-share price also is said to have the potential to reduce transaction costs for stock buyers, in that a higher price per share means that a given dollar investment will involve the purchase of fewer shares. But transaction costs have fallen considerably in the era of on-line trading; in fact in 2020 very few investors pay commissions on when they buy or sell shares.]

So is there value in stock splits or dividends? A *cynical* view of the process is that managers like to keep the stock price in an affordable trading range so that the shares are more widely distributed among *small investors* – who will not challenge management’s actions the way a tough mutual fund manager would. (Investors who found a stock too costly to buy directly could send their money to a mutual fund that buys that type of stock.) A less cynical view is that stock splits and stock dividends are valuable not because changing the number of “pieces of paper” is worthwhile, but rather because a stock split or stock dividend conveys company managers’ view that the operations will be profitable enough that increasing the number of shares will still not cause the value per share to fall in absolute terms (though it would seem to have to be less than it would be without the stock split or stock dividend).

If psychology has sometimes argued in favor of splitting a stock, mathematics does not – a split just cuts the same pie into more pieces. In recent years there have been very few stock splits (more than 100 companies split their common stocks in 1997, while in 2020 only three companies did, including Apple’s 4-for-1 split and Tesla’s 5-for-1). One

likely reason experts cite is that firms have not wanted to bear the related administrative costs. Another is that small investors may have become more sophisticated, seeing that a split just creates more “pieces of paper” with no increase in total value. Another, and surely related, factor could be that the old practice of paying a higher commission to buy an “odd lot” number of shares generally no longer applies; a purchase through an on-line trading account typically carries a total commission of \$0 or at most a few dollars no matter how many shares are obtained: 3, 87, or 400 – so an “optimal trading range” may no longer be of importance. Another, and surely related, point is an apparent growing perception that a higher price per share can suggest to some that the company is better managed – why take steps to bring your stock’s price down to \$30 or \$50 per share when shares of one of the corporations the investment markets have admired most in recent decades, Warren Buffet’s Berkshire Hathaway, sell for about \$450,000 each!! Finally, some market watchers think that keeping shares higher in price reduces incentives to engage in rapid “high-frequency” computer-based trading, in which a tiny profit is made on each share bought and instantaneously resold.

### III. Dividend Policy: Theory

Recall how Modigliani and Miller theorized that corporate *capital structure* (the debt/equity mix) would not matter if individual investors could (without transaction costs) create their own most desired debt/equity mixes through “homemade leverage”? They also theorized that, because the value of a firm could be viewed in terms of its basic earning potential and its business risk, corporate *dividend policy* would have no impact on the required return on equity  $k_e$ ; individual investors could (without transaction costs) produce desired cash receipts with “homemade dividends.”

Specifically, an investor could engage in activities – buying shares, selling shares, borrowing money, lending money – that would allow her to replace the company’s planned dividend stream with a stream of cash receipts she would prefer. So the firm’s officers should not waste time and resources deciding what level of dividends to pay.

Let’s say XCorp plans to pay a very small per-share dividend this year and a very large per-share dividend next year. But our investor wants to receive equal amounts of money both years. No problem, in the M&M view: she could sell some shares to generate more cash this year, and then next year collect the high dividend on her smaller remaining number of shares. However, she can *not* provide herself with \$1,000 per share each year forever if the company plans to pay \$1.00 per share each year forever – the two streams have to have equal present values. But in M&M’s world, a tradeoff would be possible.

Example: You own 100 shares of XCorp stock. The firm plans to pay \$1.10 per share in dividends this year and \$.89 per share next year. You would like to have \$100 in each of the two years. So of the \$1.10 per share – \$110 total – received this year, you keep \$100

and lend the other \$10 at a 10% interest rate. Next year you get back  $(\$10 \times 1.10) = \$11$  on the loan; add it to the \$89 in year 2 dividends and you will have \$100 in year 2 also.

#### IV. Dividend Policy: Practice

But in practice we observe that dividend policy *does* seem to matter (as with capital structure, the M&M arguments are based on a simplified theoretical world). Company managers spend *much* time and effort worrying about the dividends they pay to common stockholders. Their job is difficult because we can offer logical arguments in favor of both *higher* and *lower* dividend *payout ratios* (payout ratio is the percentage of net income paid out as dividends, and thus not retained for the company's internal use).

##### A. Arguments in favor of a *low* dividend payout ratio:

- Dividends are taxed (albeit at a fairly low percentage rate) when the stockholder receives them, whereas price increases caused by retaining earnings (which are also taxed at a favorable “capital gains” rate) are not taxed until the stock is sold, so retaining income creates a time value benefit. [Note that smaller companies, in particular, must not retain so much that they become penalized for improperly accumulating earnings to allow their stockholders to avoid income taxes.]
- If the firm pays dividends and then later decides it needs cash, it will have to issue new securities and incur the flotation costs.
- A bond indenture may restrict the payment of dividends so that cash is preserved for the lenders, as through minimum specified liquidity and times-interest-earned ratios (and a preferred stock agreement would typically prevent a company from paying cash dividends to common stockholders until the preferred stockholders had received their dividends for the current year and any prior years that were missed).
- Paying dividends may be perceived by some observers as admitting that the managers can not locate profitable investments for the firm to undertake, and thus are giving cash to the owners to invest more favorably elsewhere.

##### B. Arguments in favor of a *high* dividend payout ratio:

- Some investors prefer dividends for the income, despite the tax that must be paid. [Some market observers see a *clienteles effect*, under which companies whose owners want dividends – perhaps retirees, tax-free charitable trusts, or other corporations (for which 70% of dividends received generally are tax-free) – pay higher dividends, while those whose owners prefer reinvestment – perhaps wealthy individuals – pay lower dividends and retain more income.]
- The “bird-in-hand” argument: dividends received can be spent or invested elsewhere, but earnings retained by management, if ultimately invested unwisely, can actually cause the stock price to *fall*.

What we often see in practice is the payment of dividends at a *stable dollar level* (not based on a stable *payout ratio*, which is the percentage of net income paid out as dividends), rising over time as the firm becomes more profitable. Reasons may include:

- If there really *is* a clientele effect, then the firm's owners may have bought the stock because they liked the historic pattern of dividends – be it high or low – and expected it to continue, so the firm's management should try to meet those expectations (otherwise owners who dislike the new policy must sell their shares and incur transaction costs and, possibly, recognize gains that are immediately taxable – while also possibly driving down the value of the stock in the market).
- Some observers see a different kind of information content in dividends: if managers are willing to part with the cash, they must be confident about the company's future. Under this view, if a long-held payment pattern is broken, it might be seen as *signaling* that the managers are now *worried* about the future.

It does seem that firms are reluctant ever to *reduce* dividends below earlier-year levels (even if they have to *borrow* money to pay the dividends!). Some studies have also shown that the relationship between a given year's dividends and its measured *cash flows* is not likely to be as erratic over time as is the relationship between a given year's dividends and its accrual accounting-based net income.

[Interesting story: when Covid shutdowns slashed air travel the U.S. government gave \$54 billion in financial aid to the airlines, but then prohibited them from paying dividends to common stockholders or buying back shares until fall of 2022. Southwest was the first to reinstate dividends, paying the same amount per share that it had paid before the ban.]

#### V. An Economic Approach: The Residual Dividend Model

Typical corporate practice, then, seems to be (at least in the short run) to set *dividends* at a desired level, and retain what is left. But an *economic* argument can be made that a firm should instead decide what to *retain*, and then pay as dividends whatever may be left over (the *residual*).

Example: the firm's optimal capital structure is believed to be 40% debt, 60% equity. Every new dollar the company raises should be 40¢ debt, 60¢ equity. The managers want to raise \$260,000 to buy new machinery over the next year. So 40% should be borrowed (\$104,000), and 60% should come from the owners (\$156,000).

If the managers think net income – the owners' claim on the company's productivity over the next year – will be \$200,000, then the managers should plan to retain \$156,000 of the \$200,000 and pay the residual of \$44,000 as dividends. Why? They want to keep the 40%/60% capital structure intact, and the cheapest way to get money from owners is to retain some of the owners' earnings while they are under management's control.

If they think net income will be only \$160,000, then under this approach they will plan to retain \$156,000 and pay dividends of only \$4,000. If they think net income will be only \$156,000, then they will plan to retain the whole \$156,000 and pay *no* dividends.

Note that if 60% of money for new assets is to come from the owners, and if net income is expected to be \$200,000, then  $(\$200,000 \div .60) = \$333,333$  is the most the company can spend on new assets before they run out of retained earnings as the source of the owners' money. (That way  $\$333,333 \times .6 = \$200,000$ ; all the income is retained and no dividends are paid. If any greater amount is spent on new assets, the firm must sell new stock – an expensive activity – if it is to keep its capital structure intact.)

Of course, following this *residual dividend policy* could cause a firm's dividend level to vary widely from year to year (unless both its income and its need to spend were very stable from year to year) – an outcome that, as noted above, firms generally seem to try to avoid.

So why do most companies seem to follow a steady-to-rising-dividend payment plan rather than strictly adhering to the economically-appealing residual dividend policy? Recall that specific investors may have preferences for or against getting dividends, and that people seem to attribute some information content to dividend payment patterns, so that the company's managers would not want to confuse or panic investors by changing dividends in some erratic fashion over time. (Some companies' common stocks have fallen sharply in value after dividend cuts, even when company management tried to communicate that the cut was designed to enhance shareholder value with investments in attractive projects.)

It might be reasonable to assume, though, that the company managers would plan to pay dividends over a period of several years at a level that could be expected to approximate an adherence to the residual dividend theory.

## VI. Stock Repurchases

As discussed above, it is hard to generalize about whether it is better for a company's managers to pay cash directly to the common stockholders as dividends, or to provide a different kind of benefit for those equity investors by retaining earnings. In our coverage up to this point we typically talked about reinvesting retained earnings in additional assets so that each owner will have a proportional future claim on the residual values of a larger, stronger organization. But in recent years, many companies have used a third approach to providing returns to their owners: retaining earnings and using them to buy back shares of common stock (“repurchases,” or “buybacks”) in the open market from existing owners.

We theorize that the market price per share of a company's common stock relates directly to expected future earnings per share, or EPS (to the extent that those future earnings per share are expected to be sustainable, or "quality"). If managers retain earnings and use the money to buy new assets, then in future periods EPS should grow because the numerator of the EPS equation

$$\text{EPS} = \frac{\text{Total Annual Net Income}}{\text{Number of Shares of Stock Outstanding}}$$

gets larger because managers have a larger asset base to work with, while the denominator stays the same. If managers instead use earnings that have been retained to repurchase shares of stock from the market, then in future periods EPS should grow because the denominator of the EPS equation gets smaller while the numerator is not affected (though net income could change for reasons unrelated to the earnings retention). With fewer shares outstanding, each remaining share is worth more; buying back shares leaves each share, after the repurchase, with a larger proportional claim on what remains at the "back of the line" each year after all other parties' claims have been satisfied.

Of course, with a smaller equity investment, the company must also become smaller than it would be without the repurchase (though it should be in essentially the same place it would have been if an equal dollar amount of cash dividends had been paid), or else must move to a capital structure with a higher debt ratio, so questions of capital structure and economies of scale come into play. Either way, net income for the owners as a group would be likely to fall, either because of a smaller operation or because greater debt financing would necessitate the payment of more interest to lenders. The important question, therefore, is whether each remaining stockholder is better off after the repurchase than he or she had been before (or would be without the repurchase); *i.e.*, whether the market price for each remaining share rises above what it would be if the repurchase had not been completed.

The share repurchase idea need not be inconsistent with following a residual dividend policy. Indeed, repurchases are said to be able to provide flexibility that allows the firm to keep its cash dividend at a low, stable level over time, while the total value of stock repurchased can vary from year to year to allow the *total* value distributed to the owners to vary with the company's changing net income (or cash flow) and its spending needs.

Repurchases also allow for flexibility at the individual investor level; a stockholder who wants to receive cash and recognize taxable income can choose to sell more shares to the company, while someone who does not want income can choose to remain part of the smaller ownership base and enjoy an untaxed (for the time being) gain in share values. Berkshire Hathaway, the famous multi-division (Burlington Northern Railroad, Duracell Batteries, Fruit of the Loom Underwear, GEICO Insurance, See's Candies among many others) company whose CEO is the legendary investment manager Warren Buffet, does not pay cash dividends to its common stockholders, instead using repurchases to benefit those who remain as owners after repurchases are made.

Yet the justifications sometimes given for repurchasing seem open to question. For example, it is sometimes said that *asymmetric information* allows managers to know



more about the company's fortunes than stockholders do, and that repurchases are valuable in that they convey managers' view that the stock is undervalued. Yet we might ask why, if this action provides valuable information, anyone would sell back their stock once a buyback has been announced (why sell if you know the price is poised to rise?).

And it is said that the stock market reacts negatively if the investing public comes to expect dividends and then dividends are curtailed, whereas buybacks can occur at the company's discretion. Yet if the market comes to expect buybacks, will investors not infer problems from, and react negatively to, reduced buyback activity just as they do to reduced dividends?

Note that it is not unusual for a company to announce an intent to repurchase a large amount of common stock, and then end up not buying back as much as had been planned – perhaps not inconsistent with the idea that people are reluctant to sell after a buyback announcement creates expectations for coming price increases. Buybacks also have been criticized as a too-easy way to increase measured earnings per share (unchanged earnings split over fewer shares) for the benefit of managers whose compensation is based on an EPS metric.

#### VII. A Final Thought

Who decides what dividends will be paid? Answer: the firm's board of directors.

Question: why do our theories about dividends focus on what the firm's *owners* (sometimes a very diverse group) want, rather than on what the directors think would be good – for the stockholders in general, or for themselves? ▪