Dividend Policy

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Abstract: Dividend policy is concerned with financial policies regarding paying cash dividend in the present or paying an increased dividend at a later stage. Whether to issue dividends, and what amount, is determined mainly on the basis of the company's unappropriated profit (excess cash) and influenced by the company's long-term earning power. When cash surplus exists and is not needed by the firm, then management is expected to pay out some or all of those surplus earnings in the form of cash dividends or to repurchase the company's stock through a share buyback program.

If there are no NPV positive opportunities, i.e. projects where returns exceed the hurdle rate, and excess cash surplus is not needed, then – finance theory suggests – management should return some or all of the excess cash to shareholders as dividends. This is the general case, however there are exceptions. For example, shareholders of a "growth stock", expect that the company will, almost by definition, retain most of the excess earnings so as to fund future growth internally. By withholding current dividend payments to shareholders, managers of growth companies are hoping that dividend payments will be increased proportionality higher in the future, to offset the retainment of current earnings and the internal financing of present investment projects.

Management must also choose the form of the dividend distribution, generally as cash dividends or via a share buyback. Various factors may be taken into consideration: where shareholders must pay tax on dividends, firms may elect to retain earnings or to perform a stock buyback, in both cases increasing the value of shares outstanding. Alternatively, some companies will pay "dividends" from stock rather than in cash; see Corporate action. Financial theory suggests that the dividend policy should be set based upon the type of company and what management determines is the best use of those dividend resources for the firm to its shareholders. As a general rule, shareholders of growth companies would prefer managers to have a share buyback program, whereas shareholders of value or secondary stocks would prefer the management of these companies to payout surplus earnings in the form of cash dividends..

Keyword: Dividend policy , management , earning power , finance theory .

INTRODUCTION:
Concept
Coming up with a dividend policy is challenging for the directors and financial manager a company, because different investors have different views on present cash dividends and future capital gains. Another confusion that pops up is regarding the extent of effect of dividends on the share price. Due to this controversial nature of a dividend policy it is often called the dividend puzzle.

Various models have been developed to help firms analyse and evaluate the perfect dividend policy. There is no agreement between these schools of thought over the relationship between dividends and the value of the share or the wealth of the shareholders in other words.

One school consists of people like James E. Walter and Myron J. Gordon (see Gordon model), who believe that current cash dividends are less risky than future capital gains. Thus, they say that investors prefer those firms which pay regular dividends and such dividends affect the market price of the share. Another school linked to Modigliani and Miller holds that investors don't really choose between future gains and cash dividends. [1]

Relevance of dividend policy

Dividends paid by the firms are viewed positively both by the investors and the firms. The firms which do not pay dividends are rated in oppositely by investors thus affecting the share price. The people who support relevance of dividends clearly state that regular dividends reduce uncertainty of the shareholders i.e. the earnings of the firm is discounted at a lower rate, ke thereby increasing the market value. However, its exactly opposite in the case of increased uncertainty due to non-payment of dividends.

Two important models supporting dividend relevance are given by Walter and Gordon.

Walter's model
Walter's model shows the relevance of dividend policy and its bearing on the value of the share.

<====Assumptions of the Walter model====

1.Retained earnings are the only source of financing investments in the firm, there is no external finance involved.

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2.The cost of capital, k e and the rate of return on investment, r are constant i.e. even if new investments decisions are taken, the risks of the business remains same.
3.The firm's life is endless i.e. there is no closing down.

Basically, the firm's decision to give or not give out dividends depends on whether it has enough opportunities to invest the retain earnings i.e. a strong relationship between investment and dividend decisions is considered.

MODEL DESCRIPTION

Dividends paid to the shareholders are reinvested by the shareholder further, to get higher returns. This is referred to as the opportunity cost of the firm or the cost of capital, ke for the firm. Another situation where the firms do not pay out dividends, is when they invest the profits or retained earnings in profitable opportunities to earn returns on such investments. This rate of return r, for the firm must at least be equal to ke. If this happens then the returns of the firm is equal to the earnings of the shareholders if the dividends were paid. Thus, it's clear that if r, is more than the cost of capital ke, then the returns from investments is more than returns shareholders receive from further investments.

Walter's model says that if r<ke then the firm should distribute the profits in the form of dividends to give the shareholders higher returns. However, if r>ke then the investment opportunities reap better returns for the firm and thus, the firm should invest the retained earnings. The relationship between r and k are extremely important to determine the dividend policy. It decides whether the firm should have zero payout or 100% payout.

In a nutshell :

If r>ke, the firm should have zero payout and make investments.
If r<ke, the firm should have 100% payouts and no investment of retained earnings.
If r=ke, the firm is indifferent between dividends and investments.

MATHEMATICAL REPRESENTATION

Walter has given a mathematical model for the above made statements :

$$P = \frac{D}{k_e} + \frac{(r/k_e)(E - D)}{k_e}$$

where,

P = Market price of the share
D = Dividend per share
r = Rate of return on the firm's investments
ke = Cost of equity
E = Earnings per share'

The market price of the share consists of the sum total of:
the present value of an infinite stream of dividends
the present value of an infinite stream of returns on investments made from retained earnings.

Therefore, the market value of a share is the result of expected dividends and capital gains according to Walter.

Criticism

Although the model provides a simple framework to explain the relationship between the market value of the share and the dividend policy, it has some unrealistic assumptions.
1.The assumption of no external financing apart from retained earnings, for the firm make further investments is not really followed in the real world.
2.The constant r and ke are seldom found in real life, because as and when a firm invests more the business risks change.

Myron J. Gordon has also supported dividend relevance and believes in regular dividends affecting the share price of the firm.[2]

The Assumptions of the Gordon model

Gordon's assumptions are similar to the ones given by Walter. However, there are two additional assumptions proposed by him :
1.The product of retention ratio b and the rate of return r gives us the growth rate of the firm g.
2.The cost of capital ke, is not only constant but greater than the growth rate i.e. ke>g.

MODEL DESCRIPTION

Investor's are risk averse and believe that incomes from dividends are certain rather than incomes from future capital gains, therefore they predict future capital gains to be risky propositions. They discount the future capital gains at a higher rate than the firm's earnings thereby, evaluating a higher value of the share. In short, when retention rate increases, they require a higher discounting rate. Gordon has given a model similar to Walter's where he has given a mathematical formula to determine price of the share.

MATHEMATICAL REPRESENTATION

The market prices of the share is calculated as follows:

$$P = \frac{E(1 - b)}{k_e - br}$$

where,
P = Market price of the share
E = Earnings per share
b = Retention ratio (1 - payout ratio)
r = Rate of return on the firm's investments
ke = Cost of equity
br = Growth rate of the firm (g)

Therefore the model shows a relationship between the payout ratio, rate of return, cost of capital and the market price of the share.

CONCLUSIONS ON THE WALTER AND GORDON MODEL

Gordon's ideas were similar to Walter's and therefore, the criticisms are also similar. Both of them clearly

state the relationship between dividend policies and market value of the firm.

Irrelevance of dividend policy

Capital structure substitution theory & dividends

The capital structure substitution theory (CSS)[3] describes the relationship between earnings, stock price and capital structure of public companies. The theory is based on one simple hypothesis: company managements manipulate capital structure such that earnings-per-share (EPS) are maximized. The resulting dynamic debt-equity target explains why some companies use dividends and others do not. When redistributing cash to shareholders, company managements can typically choose between dividends and share repurchases. But as dividends are in most cases taxed higher than capital gains, investors are expected to prefer capital gains. However, the CSS theory shows that for some companies share repurchases lead to a reduction in EPS. These companies typically prefer dividends over share repurchases.

From the CSS theory it can be derived that debt-free companies should prefer repurchases whereas companies with a debt-equity ratio larger than

$$\frac{D}{E_q} > \frac{1 - T_C}{1 - T_D} - 1$$

should prefer dividends as a means to distribute cash to shareholders, where

D is the company's total long term debt
E_q is the company's total equity
T_C is the tax rate on capital gains
T_D is the tax rate on dividends

Low valued, high leverage companies with limited investment opportunities and a high profitability use dividends as the preferred means to distribute cash to shareholders, as is documented by empirical research.[4]

CONCLUSION

The CSS theory provides more guidance on dividend policy to company managements than the Walter model and the Gordon model. It also reverses the traditional order of cause and effect by implying that company valuation ratios drive dividend policy, and not vice-versa. The CSS theory does not have 'invisible' or 'hidden' parameters such as the equity risk premium, the discount rate, the expected growth rate or expected inflation. As a consequence the theory can be tested in an unambiguous way.

Franco Modigliani

MERTON MILLER

The Modigliani and Miller school of thought believes that investors do not state any preference between current dividends and capital gains. They say that dividend policy is irrelevant and is not deterministic of the market value. Therefore, the shareholders are indifferent between the two types of dividends. All they want are high returns either in the form of dividends or in the form of re-investment of retained earnings by the firm. There are two conditions discussed in relation to this approach :

decisions regarding financing and investments are made and do not change with respect to the amounts of dividends received.

when an investor buys and sells shares without facing any transaction costs and firms issue shares without facing any

floatation cost, it is termed as a perfect capital market.[5]

Two important theories discussed relating to the irrelevance approach, the residuals theory and the Modigliani and Miller approach.

RESIDUALS THEORY OF DIVIDENDS

One of the assumptions of this theory is that external financing to re-invest is either not available, or that it is too costly to invest in any profitable opportunity. If the firm has good investment opportunity available then, they'll invest the retained earnings and reduce the dividends or give no dividends at all. If no such opportunity exists, the firm will pay out dividends.

If a firm has to issue securities to finance an investment, the existence of floatation costs needs a larger amount of securities to be issued. Therefore, the pay out of dividends depend on whether any profits are left after the financing of proposed investments as floatation costs increases the amount of profits used. Deciding how much dividends to be paid is not the concern here, in fact the firm has to decide how much profits to be retained and the rest can then be distributed as dividends. This is the theory of Residuals, where dividends are residuals from the profits after serving proposed investments. [6]

This residual decision is distributed in three steps:
evaluating the available investment opportunities to determine capital expenditures.
evaluating the amount of equity finance that would be needed for the investment, basically having an optimum finance mix.
cost of retained earnings<cost of new equity capital, thus the retained profits are used to finance investments. If there is a surplus after the financing then there is distribution of dividends.

EXTENSION OF THE THEORY
The dividend policy strongly depends on two things:
investment opportunities available to the company
amount of internally retained and generated funds which lead to dividend distribution if all possible investments have been financed.

The dividend policy of such a kind is a passive one, and doesn't influence market price. the dividends also fluctuate every year because of different investment opportunities every year. However, it doesn't really affect the shareholders as they get compensated in the form of future capital gains.

CONCLUSION
The firm paying out dividends is obviously generating incomes for an investor, however even if the firm takes some investment opportunity then the incomes of the investors rise at a later stage due to this profitable investment. Modigliani-Miller theorem

Main article: Modigliani–Miller theorem
The Modigliani–Miller theorem states that the division of retained earnings between new investment and dividends do not influence the value of the firm. It is the investment pattern and consequently the earnings of the firm which affect the share price or the value of the firm.[7]

ASSUMPTIONS OF THE MM THEOREM
The MM approach has taken into consideration the following assumptions:
1. There is a rational behavior by the investors and there exists perfect capital markets.
2. Investors have free information available for them.
3. No time lag and transaction costs exist.
4. Securities can be split into any parts i.e. they are divisible
5. No taxes and floatation costs.
6. The investment decisions are taken firmly and the profits are therefore known with certainty. The dividend policy does not affect these decisions.

MODEL DESCRIPTION
The dividend irrelevancy in this model exists because shareholders are indifferent between paying out dividends and investing retained earnings in new opportunities. The firm finances opportunities either through retained earnings or by issuing new shares to raise capital. The amount used up in paying out dividends is replaced by the new capital raised through issuing shares. This will affect the value of the firm in an opposite way. The increase in the value because of the dividends will be offset by the decrease in the value for new capital raising.

SEE ALSO
Clientele effect
External links
Dividend Policy by Alex Tajirian
Corporate Dividend Policy by Henry Servaes (London Business School) and Peter Tufano (Harvard Business School)

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