**Portfolio Project O1**

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This paper heavily focuses on dividends. Distribution policies, stock repurchases and dividend theories such as the irrelevance, dividend preference and the bird-in-hand theory will be discussed. Furthermore, the clientele effect, dividend signaling hypothesis and their effects on dividend policy will be covered. Finally, a case study with IWT will be used to determine payout ratios and dividends per share when various net incomes are forecasted.

**What is meant by the term "distribution policy"? How have dividend payouts versus stock repurchases changed over time?**

Distribution policy refers to how cash flow is distributed to shareholders of a company. Depending upon shareholder preferences, directors can use distribution policy to adjust a firm’s capital structure and alter yields relative to capital appreciation (Harms).

The goal of the distribution policy would ideally be to balance current dividends and future growth while maximizing the stock price. Distributions can be distributed as cash dividends or stock repurchases, but if cash dividends is an approach a company is taken, this distribution should remain fairly stable on a quarterly and yearly basis to maintain shareholder confidence in the company.

Over time, dividend payouts have become less common than stock repurchases though there are still many companies that offer cash dividends. With that in mind, most are well-established companies.

**The terms "irrelevance," "dividend preference, or bird-in-the-hand," and "tax effect" have been used to describe three major theories regarding the way dividend payouts affect a firm's value. Explain what these terms mean, and briefly describe each theory**

There are three common dividend theories – the Miller and Modigliani dividend irrelevance theory, the bird-in-the-hand theory and the tax-preference theory.

As the name implies, the irrelevance dividend theory states that dividends have no effect on a firm’s value whatsoever. Rather, a firm’s value is dependent upon its income produced by the assets which it possesses.

The bird-in-the hand theory argues nearly the opposite of the irrelevance theory. The theory is that capital gains on the stock market are never a sure thing and are fraught with risk, so there is appeal and safety to be found in companies which have consistently offered a quarterly dividend.

The final theory, the tax-preference theory points out that dividends are taxed at a higher rate than capital gains. In order for a company with a dividend to be worth it, the returns would have to be comparatively higher pre-tax. Effectively, because of the relatively high taxes on dividends, investors are more likely to seek companies that aren’t so focused on dividends, though they may still consider them if the reward is great enough.

**What do the three theories indicate regarding the actions management should take with respect to dividend payouts?**

The irrelevance dividend theory clearly asserts that dividends have no effect on a firm’s value. With that in mind, management would not offer a dividend if they give credence to the irrelevance dividend theory.

The bird-in-the-hand theory on the other hand would support dividend payouts as they are of lower risk than capital gains. Management would offer a healthy dividend if they supported the bird-in-the-hand theory.

While proponents of the tax-preference theory acknowledge that dividends affect a stock’s price and investor interest, the fact that they are taxed higher than capital gains would mean that investors don’t consider it too high of a priority. With that in mind, management may consider a dividend, but it wouldn’t be a huge focus.

**What results have empirical studies of the dividend theories produced? How does all this affect what we can tell managers about dividend payouts?**

The empirical studies don’t really seem to support large dividends. Investors prefer to avoid excessive taxation and this certainly plays a role in the dividend policy that companies choose to pursue. As mentioned previously in the tax-preference theory, investors only really consider dividends if they’re extremely high and/or that the actual stocks themselves need to have higher pre-tax returns. As such, I would advise managers to steer away from dividends which has seem to be the norm as of more recently anyway.

**Discuss (1) the clientele effect, (2) the information content, or signaling, hypothesis, and (3) their effects on dividend policy**

The clientele effect theorizes that a change in a company’s dividend policy may cause a loss of some clientele, but will also attract new clientele who like the new dividend policy (Dividend Policy, 2020).

The information content, or dividend signaling hypothesis, suggests that a company’s announcement of dividend change is an indicator of future prospects (Chen, 2019). This would probably lead a company to want to increase dividend yields over time as it signals strength in the company to investors.

**Assume that IWT has a $112.5 million capital budget planned for the coming year. You have determined its present capital structure (80% equity and 20% debt) is optimal, and its net income is forecasted at $140 million. Use the residual distribution model approach to determine IWT's total dollar distribution. Assume for now that the distribution is in the form of a dividend. IWT has 100 million shares. What is the forecasted dividend payout ratio? What is the forecasted dividend per share?**

In order to maintain the current and optimal capital structure, $90 million must be raised as equity ($112.5 \* .8) and $22.5 million must be raised as debt ($112.5 \* 0.2). $140 million - $90 million = $50 million. The payout ratio would then be $50/$140 🡪 35.7% payout ratio. The dividend per share would be calculated by taking $50 million and dividing it by the 100 million shares to get $0.50

**What would happen to the payout ratio and DPS if net income were forecasted to decrease to $90 million?**

If the net income decreased to 90 million, the payout ratio and dividend per share would both be 0.

**What would happen to the payout ratio and DPS if net income were forecasted to increase to $160 million?**

$160 - $90 ($$$ to be raised as equity) = $70 million. The payout ratio would then be $70/$160 🡪 43.8% payout ratio and dividend per share would be $70 million divided by 100 million shares for $0.70.

**In general terms, how would a change in investment opportunities affect the payout ratio under the residual payment policy?**

An increase in investment opportunities results in a higher payout ratio whereas a decrease in investment opportunities would result in a lower payout ratio.

**What are the advantages and disadvantages of the residual policy? (Hint: Don't neglect signaling and clientele effects.**

The residual dividend policy means that companies only offer dividends from any remaining earnings generated after paying for capital expenditures (Chen, 2019). This means minimized flotation costs and cost of capital; however, it would also most likely result in wildly varying dividend payouts as it’s very rare for a company to have an extremely consistent capital structure quarter after quarter and year after year. This would probably send a mixed signal for those who believe the dividend signaling hypothesis holds true and it may also be tough to maintain consistent clientele as frequent dividend changes will appeal to and turn off different individuals.

**Describe the procedures a company follows when it makes a distribution through dividend payments.**

First, the board declares a quarterly dividend per share to holders and a record date. The dividend then goes with the stock. In order to get the dividend, a person must hold the stock at least one business date before the record date. This is known as the ex-dividend date (Ex-Dividend Dates, 2020). Typically, a check is then mailed to stockholders a few days after the ex-dividend date (Beers, 2020).

**What is a stock repurchase? Describe the procedures a company follows when it makes a distribution through a stock repurchase.**

With a stock repurchase, a firm repurchases its own stock. First, the company announces its intent to purchase its own stock during a specific period. From there, they then either purchase through the open market with a trustee, from shareholders who wish to sell or from a large investor.

**Discuss the advantages and disadvantages of a firm's repurchasing its own shares.**

Many people believe that a company repurchasing its own stock is a sign that the company believes its shares are undervalued and it doesn’t leave the expectation that dividends do, where dividend payouts must remain high in order to inspire confidence in the company. Repurchases can also be helpful to current owners of the stock as the number of shares publicly available after the repurchase has now decreased. For the company itself, this is also sometimes a way to avoid taxes, though the IRS can penalize them for such a thing.

Some people may see a stock repurchase as a sign that a company doesn’t feel like it has many investment opportunities with its current capital, and often, shareholders aren’t very aware of a company repurchasing stocks, even if it was announced.

**Suppose IWT has decided to distribute $50 million, which it presently is holding in very liquid short-term investments. IWT's value of operations is estimated to be about $1,937.5 million. IWT has $387.5 million in debt (it has no preferred stock). As mentioned previously, IWT has 100 million shares of stock outstanding.**

**Assume that IWT has not yet made the distribution. What is IWT's intrinsic value of equity? What is its intrinsic per share stock price?**

|  |  |
| --- | --- |
| **Value of Operations** | **$1,937.50 (Million)** |
| **Value of Non-Operating Assets** | **50.00 (Million)** |
| **Total Intrinsic Value** | **$1987.50 (Million)** |
| **Debt** | **387.50 (Million)** |
| **Intrinsic Value of Equity** | **$1600.00 (Million)** |
| **Number of Shares** | **100.00 (Million)** |
| **Intrinsic per share Stock Price** | **$16.00** |

**Now suppose that IWT has just made the $50 million distribution in the form of dividends. What is IWT's intrinsic value of equity? What is its intrinsic per share stock price?**

|  |  |
| --- | --- |
| **Value of Operations** | **$1,937.50 (Million)** |
| **Value of Non-Operating Assets** | **00.00 (Million)** |
| **Total Intrinsic Value** | **$1937.50 (Million)** |
| **Debt** | **387.50 (Million)** |
| **Intrinsic Value of Equity** | **$1550.00 (Million)** |
| **Number of Shares** | **100.00 (Million)** |
| **Intrinsic per share Stock Price** | **$15.50** |

**Suppose instead that IWT has just made the $50 million distribution in the form of a stock repurchase. Now what is IWT's intrinsic value of equity? How many shares did IWT repurchase? How many shares remained outstanding after the repurchase? What is its intrinsic per share stock price after the repurchase.**

|  |  |
| --- | --- |
| **Value of Operations** | **$1,937.50 (Million)** |
| **Value of Non-Operating Assets** | **50.00 (Million)** |
| **Total Intrinsic Value** | **$1987.50 (Million)** |
| **Debt** | **387.50 (Million)** |
| **Intrinsic Value of Equity** | **$1600.00 (Million)** |
| **Number of Shares** | **96.875 (Million)** |
| **Intrinsic per share Stock Price** | **$16.00** |

Number of shares = 100 – ($50/$16) 🡪 96.875

**Conclusion**

As mentioned in the introduction, distribution policies, stock repurchases and the dividend theories were covered, specifically the irrelevance, dividend preference and the bird-in-hand theory. The clientele effect, dividend signaling hypothesis and their effects on dividend policy also were discussed. Several problems also covered IWT’s intrinsic value of equity, intrinsic per share stock price when various distribution policies were followed.

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