Dividend Policy

Li-Ion was formed 5 years ago to exploit a new process for manufacturing lithium ion batteries. One advantage of the new process was that it required relatively little capital in comparison with the typical battery company, so the founders have been able to avoid issuing new stock, and thus they own all of the shares. However, Li-Ion has now reached the stage in which outside equity capital is necessary if the firm is to achieve its growth targets yet still maintain its target capital structure of 60% equity and 40% debt. Therefore, Li-Ion’s management has decided to take the company public. Until now, the founders have paid themselves reasonable salaries but routinely reinvested all after-tax earnings in the firm, so dividend policy has not been an issue. However, before talking with potential outside investors, they must decide on a dividend policy.

Assume that you were recently hired by Arthur Adamson & Company (AA), a national consulting firm, which has been asked to help Li-Ion prepare for its public offering. Martha Millon, the senior AA consultant in your group, has asked you to make a presentation to Li-Ion in which you review the theory of dividend policy and discuss the following questions.

1) What is meant by the term “dividend policy”?

Dividend policy is defined as the firm’s policy with regard to paying out earnings as dividends versus retaining them for reinvestment in the firm. Dividend policy really involves three key issues: (1) How much should be distributed? (2) Should the distribution be as cash dividends, or should the cash be passed on to shareholders by buying back some of the stock they hold? (3) How stable should the distribution be, that is, should the funds paid out from year to year be stable and dependable, which stockholders would probably prefer, or be allowed to vary with the firm’s cash flows and investment requirements, which would probably be better from the firm’s standpoint?

2) Explain briefly the dividend irrelevance theory that was put forward by Modigliani and Miller. What were the key assumptions underlying their theory?

Dividend irrelevance refers to the theory that investors are indifferent between dividends and capital gains, making dividend policy irrelevant with regard to its effect on the value of the firm.

The dividend irrelevance theory was proposed by MM, but they had to make some very restrictive assumptions to “prove” it. These assumptions include, among other things, that no taxes are paid on dividends, that stocks can be bought and sold with no transactions costs, and that everyone—investors and managers alike—has the same information regarding firms’ future earnings. MM argued that paying out a dollar per share of dividends reduces the growth rate in earnings and dividends, because new stock will have to be sold to replace the capital paid out as dividends. Under their assumptions, a dollar of dividends will reduce the stock price by exactly $1. Therefore,
according to MM, stockholders should be indifferent between dividends and capital gains.

3) Discuss why some investors may prefer high-dividend-paying stocks, while other investors prefer stocks that pay low or nonexistent dividends.

Investors might prefer dividends to capital gains because they may regard dividends as less risky than potential future capital gains. If this were so, then investors would value high-payout firms more highly—that is, a high-payout stock would have a high price.

Investors might prefer low-payout firms or capital gains to dividends because they may want to avoid transactions costs—that is, having to reinvest the dividends and incurring brokerage costs, not to mention taxes. The maximum tax rate on dividends is the same as it is for capital gains; however, taxes on dividends are due in the year they are received, while taxes on capital gains are due whenever the stock is sold. In addition, if an investor holds a stock until his/her death, the beneficiaries can use the date of the death as the cost-basis date and escape all previously accrued capital gains.

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

1. It has long been recognized that the announcement of a dividend increase often results in an increase in the stock price, while an announcement of a dividend cut typically causes the stock price to fall. One could argue that this observation supports the premise that investors prefer dividends to capital gains. However, MM argued that dividend announcements are signals through which management conveys information to investors. Information asymmetries exist—managers know more about their firms’ prospects than do investors. Further, managers tend to raise dividends only when they believe that future earnings can comfortably support a higher dividend level, and they cut dividends only as a last resort. Therefore, (1) a larger-than-normal dividend increase “signals” that management believes the future is bright, (2) a smaller-than-expected increase, or a dividend cut, is a negative signal, and (3) if dividends are increased by a “normal” amount, this is a neutral signal.

2. Different groups, or clienteles, of stockholders prefer different dividend payout policies. For example, many retirees, pension funds, and university endowment funds are in a low (or zero) tax bracket, and they have a need for current cash income. Therefore, this group of stockholders might prefer high-payout stocks. These investors could, of course, sell some of their stock, but this would be inconvenient, transactions costs would be incurred, and the sale might have to be made in a down market. Conversely, investors in their peak earnings years who are in high-tax brackets and who have no need for current cash income should prefer low-payout stocks.

3. Clienteles do exist, but the real question is whether there are more members of one clientele than another, which would affect what a change in its dividend
policy would do to the demand for the firm’s stock. There are also costs (taxes and brokerage) to stockholders who would be forced to switch from one stock to another if a firm changes its dividend policy. Therefore, we cannot say whether a dividend policy change to appeal to one particular clientele or another would lower or raise a firm’s cost of equity. MM argued that one clientele is as good as another, so in their view the existence of clienteles does not imply that one dividend policy is better than another. Still, no one has offered convincing proof that firms can disregard clientele effects. We know that stockholder shifts will occur if dividend policy is changed, and since such shifts result in transactions costs and capital gains taxes, dividend policy changes should not be taken lightly. Further, dividend policy should be changed slowly, rather than abruptly, in order to give stockholders time to adjust.

5) Assume that Li-lon has an $800,000 capital budget planned for the coming year. You have determined that its present capital structure (60% equity and 40% debt) is optimal, and its net income is forecasted at $600,000. Use the residual dividend model approach to determine Li-lon’s total dollar dividend and payout ratio. In the process, explain what the residual dividend model is. Then, explain what would happen if net income were forecasted at $400,000, or at $800,000.

We make the following points:

1. Given the optimal capital budget and the target capital structure, we must now determine the amount of equity needed to finance the projects. Of the $800,000 required for the capital budget, 0.6($800,000) = $480,000 must be raised as equity and 0.4($800,000) = $320,000 must be raised as debt if we are to maintain the optimal capital structure:

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2. If a residual exists—that is, if net income exceeds the amount of equity the company needs—then it should pay the residual amount out in dividends. Since $600,000 of earnings is available, and only $480,000 is needed, the residual is $600,000 – $480,000 = $120,000, so this is the amount that should be paid out as dividends. Thus, the payout ratio would be $120,000/$600,000 = 0.20 = 20%.

3. If only $400,000 of earnings were available, the firm would still need $480,000 of equity. It should then retain all of its earnings and also sell $80,000 of new stock. The residual policy would call for a zero dividend payment.

4. If $800,000 of earnings were available, the dividend would be increased to $800,000 – $480,000 = $320,000, and the payout ratio would rise to $320,000/$800,000 = 40%.
6) In general terms, how would a change in investment opportunities affect the payout ratio under the residual payment policy?

A change in investment opportunities would lead to an increase (if investment opportunities were good) or a decrease (if investment opportunities were not good) in the amount of equity needed. If investment opportunities were good then the residual amount would be smaller than if investment opportunities were bad.

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

The primary advantage of the residual policy is that under it the firm makes maximum use of lower-cost retained earnings, thus minimizing flotation costs and hence the cost of capital. Also, whatever negative signals are associated with stock issues would be avoided.

However, if it were applied exactly, the residual model would result in dividend payments that fluctuated significantly from year to year as capital requirements and internal cash flows fluctuated. This would (1) send investors conflicting signals over time regarding the firm’s future prospects, and (2) since no specific clientele would be attracted to the firm, it would be an “orphan.” These signaling and clientele effects would lead to a higher required return on equity that would more than offset the effects of lower flotation costs. Because of these factors, few if any publicly-owned firms follow the residual model on a year-to-year basis.

Even though the residual approach is not used to set the annual dividend, it is used when firms establish their long-run dividend policy. If “normalized” cost of capital and investment opportunity conditions suggest that in a “normal” year the company should pay out about 60% of its earnings, this fact will be noted and used to help determine the firm’s long-run dividend policy.

8) What is a dividend reinvestment plan (DRIP), and how does it work?

Under a dividend reinvestment plan (DRIP), shareholders have the option of automatically reinvesting their dividends in shares of the firm’s common stock. In an open market purchase plan, a trustee pools all the dividends to be reinvested and then buys shares on the open market. Shareholders use the DRIP for three reasons: (1) brokerage costs are reduced by the volume purchases, (2) the DRIP is a convenient way to invest excess funds, and (3) the company generally pays all administrative costs associated with the operation.

In a new stock plan, the firm issues new stock to the DRIP members in lieu of cash dividends. No fees are charged, and many companies even offer the stock at a 5% discount from the market price on the dividend date on the grounds that the firm avoids flotation costs that would otherwise be incurred. Only firms that need new equity capital use new stock plans, while firms with no need for new stock use an open market purchase plan.
9) Describe the series of steps that most firms take in setting dividend policy in practice.

Firms establish dividend policy within the framework of their overall financial plans. The steps in setting policy are listed below:

1. The firm forecasts its annual capital budget and its annual sales, along with its working capital needs, for a relatively long-term planning horizon, often 5 years.

2. The target capital structure, presumably the one that minimizes the WACC while retaining sufficient reserve borrowing capacity to provide “financing flexibility,” will also be established.

3. With its capital structure and investment requirements in mind, the firm can estimate the approximate amount of debt and equity financing required during each year over the planning horizon.

4. A long-term target payout ratio is then determined, based on the residual model concept. Because of flotation costs and potential negative signaling, the firm will not want to issue common stock unless this is absolutely necessary. At the same time, due to the clientele effect, the firm will move cautiously from its past dividend policy, if a new policy appears to be warranted, and it will move toward any new policy gradually rather than in one giant step.

5. An actual dollar dividend, say $2 per year, will be decided upon. The size of this dividend will reflect (1) the long-run target payout ratio and (2) the probability that the dividend, once set, will have to be lowered, or, worse yet, omitted. If there is a great deal of uncertainty about cash flows and capital needs, then a relatively low initial dollar dividend will be set, for this will minimize the probability that the firm will have to either reduce the dividend or sell new common stock. The firm will run its corporate planning model so that management can see what is likely to happen with different initial dividends and projected growth rates under different economic scenarios.

10) What are stock repurchases? Discuss the advantages and disadvantages of a firm’s repurchasing its own shares.

A firm may distribute cash to stockholders by repurchasing its own stock rather than paying out cash dividends. Stock repurchases can be used (1) somewhat routinely as an alternative to regular dividends, (2) to dispose of excess (nonrecurring) cash that came from asset sales or from temporarily high earnings, and (3) in connection with a capital structure change in which debt is sold and the proceeds are used to buy back and retire shares.

Advantages of repurchases:

1. A repurchase announcement may be viewed as a positive signal that management believes the shares are undervalued.
2. Stockholders have a choice—if they want cash, they can tender their shares, receive the cash, and pay the taxes, or they can keep their shares and avoid taxes. On the other hand, one must accept a cash dividend and pay taxes on it.

3. If the company raises the dividend to dispose of excess cash, this higher dividend must be maintained to avoid adverse stock price reactions. A stock repurchase, on the other hand, does not obligate management to future repurchases.

4. Repurchased stock, called treasury stock, can be used later in mergers, when employees exercise stock options, when convertible bonds are converted, and when warrants are exercised. Treasury stock can also be resold in the open market if the firm needs cash. Repurchases can remove a large block of stock that is “overhanging” the market and keeping the price per share down.

5. Repurchases can be varied from year to year without giving off adverse signals, while dividends may not.

6. Repurchases can be used to produce large-scale changes in capital structure.

Disadvantages of repurchases:

1. A repurchase could lower the stock’s price if it is taken as a signal that the firm has relatively few good investment opportunities. On the other hand, though, a repurchase can signal stockholders that managers are not engaged in “empire building,” where they invest funds in low-return projects.

2. If the IRS establishes that the repurchase was primarily to avoid taxes on dividends, then penalties could be imposed. Such actions have been brought against closely-held firms, but to our knowledge charges have never been brought against publicly-held firms.

3. Selling shareholders may not be fully informed about the repurchase; hence, they may make an uninformed decision and may later sue the company. To avoid this, firms generally announce repurchase programs in advance.

4. The firm may bid the stock price up and end up paying too high a price for the shares. In this situation, the selling shareholders would gain at the expense of the remaining shareholders. This could occur if a tender offer were made and the price was set too high, or if the repurchase was made in the open market and buying pressure drove the price above its equilibrium level.

11) What are stock dividends and stock splits? What are the advantages and disadvantages of stock dividends and stock splits?

When it uses a stock dividend, a firm issues new shares in lieu of paying a cash dividend. For example, in a 5% stock dividend, the holder of 100 shares would receive an additional 5 shares. In a stock split, the number of shares outstanding is increased (or decreased in a reverse split) in an action unrelated to a dividend payment. For example,
in a 2-for-1 split, the number of shares outstanding is doubled. A 100% stock dividend and a 2-for-1 stock split would produce the same effect, but there would be differences in the accounting treatments of the two actions.

Both stock dividends and stock splits increase the number of shares outstanding and, in effect, cut the pie into more, but smaller, pieces. If the dividend or split does not occur at the same time as some other event that would alter perceptions about future cash flows, such as an announcement of higher earnings, then one would expect the price of the stock to adjust such that each investor’s wealth remains unchanged. For example, a 2-for-1 split of a stock selling for $50 would result in the stock price being halved, to $25.

It is hard to come up with a convincing rationale for small stock dividends, like 5% or 10%. No economic value is being created or distributed, yet stockholders have to bear the administrative costs of the distribution. Further, it is inconvenient to own an odd number of shares as may result after a small stock dividend. Thus, most companies today avoid small stock dividends.

On the other hand, there is a good reason for stock splits or large stock dividends. Specifically, there is a widespread belief that an optimal price range exists for stocks. The argument goes as follows: if a stock sells for about $20-$80, then it can be purchased in round lots, hence at reduced commissions, by most investors. A higher price would put round lots out of the price range of many small investors, while a stock price lower than about $20 would convey the image of a stock that is doing poorly. Thus, most firms try to keep their stock prices within the $20 to $80 range. If the company prospers, it will split its stock occasionally to hold the price down. (Also, companies that are doing poorly occasionally use reverse splits to raise their price.) Many companies do operate outside the $20 to $80 range, but most stay within it.

Another factor that may influence stock splits and dividends is the belief that they signal management’s belief that the future is bright. If a firm’s management would be inclined to split the stock or pay a stock dividend only if it anticipated improvements in earnings and dividends, then a split/dividend action could provide a positive signal and thus boost the stock price. However, if earnings and cash dividends did not subsequently rise, the price of the stock would fall back to its old level, or even lower, because managers would lose credibility.

Interestingly, one of the most astute investors of the 20th Century, Warren Buffett, chairman of Berkshire-Hathaway, has never split his firm’s stock. Berkshire currently (2/25/09) sells for $79,000 per share, and its performance over the years has been absolutely spectacular. It may be that Berkshire’s market value would be higher if it had a 1,580:1 stock split, or it may be that the conventional wisdom is wrong.

Let’s work Problems 15-2, 3, 4, 7, 8 pages 505 & 506