

## CHAPTER 13

### CONCEPT REVIEW QUESTIONS

1. What policies and payments comprise a firm's "dividend policy"? Why is determining dividend policy more difficult today than in decades past?

A firm's *dividend policy* refers to its choice of whether to pay out cash to shareholders, in what fashion, and in what amount. The most obvious and important aspect of this policy is the firm's decision whether to pay a cash dividend, how large the cash dividend should be, and how frequently it should be distributed. In a broader sense, dividend policy also encompasses decisions such as whether to distribute cash to investors via share repurchases or specially designated dividends rather than regular dividends, and whether to rely on stock rather than cash distributions. Non-traditional forms of dividend payments, especially share repurchases are much more commonly used today, and so the dividend decision is much more complex and difficult than in the past. Also, there are many more important categories of shareholders who must be satisfied today—especially institutional investors—whereas managers once merely had to satisfy individual stockholders.

2. What do you think the typical stock market reaction is to the announcement that a firm will increase its dividend payment? Why?

An increase in the dividend payout is considered to be good news. The firm is demonstrating that it not only has positive cash flows, but these cash flows are increasing enough to justify a higher payout to shareholders. The firm "proves" its cash flow by paying out some of that cash to its shareholders. Higher dividends may signal permanent higher earnings for the firm

3. Why should we expect a firm's stock price to decline by approximately the amount of the dividend payment on the ex-dividend date?

The firm has removed an amount of cash equal to the amount of the dividend from the firm. Its total assets have declined, so its market capitalization and, in turn, the stock price should decline by this amount as well.

4. How do average dividend payout ratios for companies headquartered in English common-law countries compare with those of companies headquartered in civil law countries? What explains this difference?

With the exception of the U.S.-based companies, firms headquartered in English common law countries (Britain, Canada, Australia, New Zealand, etc) tend to pay out significantly higher fractions of their earnings as dividends than do companies headquartered in civil law countries. The "Law and Finance" explanation for this is that common law provides much greater protection to small investors than does civil law, and thus shareholders are able to demand higher dividend payments in common law countries. Firms in civil law countries do not face such effective demand from shareholders and are more able to ignore their preferences for higher dividends.

5. If high-dividend stocks offer a higher expected (and required) return than low-dividend stocks, due to the higher personal taxes levied on the former, why don't corporations simply reduce dividend payments and thus lower their cost of capital?

If the cause and effect were this simple – and this was the only factor – then firms could reduce dividend payments to lower their cost of capital. In reality, the relationship is more complex. First, using return on equity  $\times$  retention ratio as an approximation of growth, lower dividend payouts means higher retention and higher growth. A higher growth means a higher, not a lower cost of capital. If firms reduced their dividend they would need positive net present value projects to invest in to satisfy investors. If they took the reduced dividend and invested in

treasury securities (negative net present value investment for the corporation), then shareholders would sell their shares and invest in a value-maximizing firm

6. Which industries are characterized by relatively high dividend payout ratios? Are these same industry patterns observed in other industrialized countries? What explains these industry patterns?

Utilities, transportation companies, financial institutions and companies involved in heavy manufacturing firms tend to have high leverage and high dividend payouts in all countries, while service firms, high-technology companies and firms with highly variable earnings (e.g., mining) tend to have little or no debt and have low dividend payout ratios. This pattern of dividend payouts is explained by the same factors that influence capital structure decisions: regulated companies and firms with stable cash flows and stable asset bases tend to have high leverage and high payouts. Companies operating in a volatile industry or which must make ongoing and high-risk discretionary investments in new technologies have little or no debt and low dividend payouts.

7. What is the basis of the argument that transactions costs provide a reason for firms to pay dividends, and how has the steep decline in transactions costs in recent years affected this argument?

You could look at companies with high payout ratios, and look at how much external financing they raised, along with the flotation costs of that financing. You would look to see if firms with higher dividend payouts had more or less external financing. Was it lower cost debt financing or higher cost equity financing? If a company's transactions costs for external financing were higher than average, did they have a lower than average payout ratio to minimize their need for external financing?

8. What does it mean to say that dividends are “irrelevant” in a world without taxes or other market frictions?

Dividend “irrelevance” means that a firm’s decision whether or not to pay a cash dividend cannot impact the value of that firm’s stock in a world without market frictions. Investors can create their own “dividends” (cash income) by selling shares, so they find no benefit in receiving dividends. Likewise the firm can either pay or retain cash, but if it pays dividends out the firm must sell new shares to make up the cash flow difference. Ultimately, the company’s stock price will be based on the stream of profits generated by the firm’s existing assets and its new investments, not on how it finances itself (through retention or new share issuance).

9. Managers of slow-growing, but profitable, firms (i.e., tobacco companies) *should* pay out these high earnings as dividends. What can they choose to do instead?

If managers of profitable companies kept their earnings instead of paying them out as dividends, they might invest in negative net present value projects. If they are in a low growth industry, and do not have good uses for their earnings, they might be tempted to increase the size of the company by buying other companies. If there are no particular synergies – benefits of the two companies being together rather than operating separately – then the acquisition is not value increasing and should not be done.

10. How do Miller and Modigliani (M&M) arrive at their conclusion that dividend policy is irrelevant in a world of frictionless capital markets? Why is the assumption of fixed investment policy crucial to this conclusion?

They show that shareholders of a non-dividend-paying firm can duplicate any given pattern of dividend payments made by a company by simply by selling off a fraction of their holdings each period. If one company pays dividends and another comparable firm retains its earnings, then the dividend-paying firm must issue new stock equal to the amount of the dividend in order to continue being truly

comparable to the retention firm. Unless one maintains the assumption of equal investment amounts each period, the retention firm will grow steadily larger than the dividend-paying firm over time. These firms are only comparable if they invest the same amount each period, which means that dividend-paying companies must make up the money distributed by selling new shares. Over time the total market value of the firms will stay the same, but an investor's holding in the dividend firm will be steadily reduced as new shares are sold each period. An investor in the retention firm will see his or her fractional ownership remain the same over time, but the market value will grow by the amount of the investment (plus any positive NPV) each period.

11. During the late 1960s, the top marginal personal income tax rate on dividends, received by British investors, reached 98 percent, yet dividend payouts actually *increased*. How can you justify this empirical fact?

These punitive tax rates lead investors to “de-capitalize” the corporate sector by paying out large amounts of cash dividends each period, even if these payments were highly taxed. This was better than allowing their capital to remain trapped in corporations, where it would be heavily taxed each period.

12. In what way can managers use dividends to convey pertinent information about their firms in a world of informational asymmetry? Why would a manager choose to convey information via a dividend policy? Does empirical evidence support or refute the informational role of dividends?

Cash dividend payments have an inherent credibility that words do not have. Therefore, investors will be more willing to believe managers who say that their firms have great prospects when the managers back these statements up with high cash dividend payments than when the managers use words alone. In the language of accounting, dividends have “cash validity.” There is some empirical support for the informational role of dividend payments, but it is far from overwhelming. In fact, recent research suggests that dividend payments may convey more

information about the past (we are increasing dividends because we had a profitable quarter) rather than the future.

13. Why is it difficult for a firm with weaker cash flows to mimic a dividend increase undertaken by a firm with stronger cash flows?

A firm with weaker cash flows may temporarily be able to mimic a dividend increase undertaken by a firm with stronger cash flows, but in the long run its lesser cash position would catch up with it. If it is not generating sufficient internal funds to pay dividends, it will have to raise money by issuing new debt or equity. If it has weak cash flows, lenders will be reluctant to lend more money. If it has weak cash flows, its stock price may be depressed, making the issuance of new equity costly.

14. According to the residual theory of dividends, how does a firm set its dividend? With which dividend policy is this theory most compatible? Does it appear to be empirically validated?

According to the residual theory of dividends, the actual dividend amount paid out by a firm to shareholders each quarter would be the amount of cash “left over” after the firm’s fixed payments had been paid in full and the firm had financed new investments as desired from retained earnings. Dividends would then truly be a residual, what remains after all fixed charges and positive-NPV investments had been funded, and as such would be highly variable amounts from one quarter to the next. Contrary to this theory’s predictions, cash dividend payments are extremely stable from quarter to quarter, so the theory is empirically refuted.