LO.a: Compare theories of dividend policy and explain implications of each for share value given a description of a corporate dividend action.

1. According to MM, assuming perfect capital market, symmetric information, no taxes and no transaction costs, dividend policy is:
   A. relevant
   B. irrelevant
   C. dependent upon company's investment and financing decisions.

2. "Homemade dividends" refers to a scenario where shareholders who need income:
   A. create their own dividend policy by selling shares to generate cash flow.
   B. demand higher dividends from the company.
   C. put pressure on a company to issue more stock dividends.

3. According to the "bird in the hand" argument, dividends are:
   A. riskier than share repurchases.
   B. riskier than reinvestment of earnings.
   C. less risky than capital gains.

4. Which of the following statement is *least* accurate? If dividends are taxed at a higher rate than capital gains, taxable investors should prefer companies that:
   A. give low dividends and reinvest earnings in profitable projects.
   B. distribute earnings through share repurchases in the absence of growth opportunities.
   C. pay high dividends and have low growth opportunities.

5. If dividends are taxed at a higher rate than capital gains, low dividend payout companies that invest in profitable growth opportunities, would *most likely* have higher share price. This argument is supported by which dividend theory?
   A. The tax argument.
   B. Dividend policy is irrelevant.
   C. Bird in hand argument.

LO.b: Describe types of information (signals) that dividend initiations, increases, decreases, and omissions may convey

6. A large-cap company has decided to decrease its dividends despite declaring year-end profits. The dividend cut follows its announcement regarding investments in profitable future projects. All else equal, such a decision by the company will *most likely* lead to:
   A. an increase in share price because of increased scrutiny by investors.
   B. a decrease in share price because of increased scrutiny by the investors.
   C. a decrease in shareholders' wealth.

7. Which of the following statements is *least likely* correct? A dividend declaration might:
   A. decrease the gap between the market price of a stock and its intrinsic value.
   B. help overcome information asymmetry between investors and the company.
   C. increase information asymmetry between managers and shareholders.

LO.c: Explain how clientele effects and agency issues may affect a company's payout policy.

8. The presence of a group of investors who are drawn to companies because of their specific dividend policies is *best* known as the:
    A. signaling effect of dividends.
    B. clientele effect.
    C. relevance of dividend policy.

9. Company X has a corporate income tax rate of 30%, and 70% of its dividend income received from investments in other companies is exempted from taxes. What is the company's effective tax rate on dividends?
    A. 9%
    B. 21%
    C. 30%

LO.d: Explain factors that affect dividend policy.

10. The factor that *least likely* affects a company's dividend policy is, its:
    A. investment opportunities.
    B. human capital.
    C. flotation costs.

11. Chief financial officers are generally:
    A. unwilling to decrease dividends.
    B. willing to cut dividends if and when needed.
    C. willing to increase dividends when earnings are unusually high in a particular period.

LO.e: Calculate and interpret the effective tax rate on a given currency unit of corporate earnings under double taxation, dividend imputation, and split-rate tax systems.

12. Consider the following information:

Net income before taxes	$100
Corporate tax rate	30%
Net income after tax	$70
Dividend (assuming 100% payout)	$70
Shareholder tax on dividend (at 15%)	$10.50
Net dividend to shareholder	$59.50

Based on the above information the double tax rate on dividend distributions is:
    A. 45.0%.
    B. 59.5%.
    C. 40.5%.

13. Under the dividend imputation tax system, when earnings are distributed to shareholders in the form of dividends, shareholders receive:

A. no credit for taxes paid at the corporate level.
B. 50% credit for taxes paid at the corporate level.
C. credit for taxes the corporation has paid on distributed earnings.

14. Consider the following information regarding dividend imputation tax system:
Marginal tax rate of the shareholder = 45%.

Pretax income	$100
Corporate tax rate (35%)	35
Net income after tax	65
Dividend (100% payout)	65
Shareholder tax on pretax income	45
Less tax credit for corporate payment	35
Tax due from shareholder	10

The effective tax rate on dividend is:
A. 45%.
B. 10%.
C. 35%.

15. The taxation system in which the retained corporate earnings are taxed at a higher rate than the earnings distributed as dividends is known as:
A. tax imputation system.
B. split-rate tax system.
C. double taxation.

16. The following information relates to taxation of dividends under the split-rate tax system.

Pretax dividends	$100
Tax on retained earnings	35%
Tax on dividends	25%
Shareholder tax rate	32%

The effective tax rate on dividend is:
A. 32%.
B. 35%.
C. 49%.

LO.f: Compare stable dividend, constant dividend payout ratio, and residual dividend payout policies, and calculate the dividend under each policy

17. SZL Inc., has maintained a regular dividend of $1.05 for the last five years despite incurring restructuring costs. Given no change in its long term prospects, the dividend policy followed by SZL is *best* known as:
A. constant dividend payout.
B. stable dividend policy.
C. residual dividend policy.

18. Roland Tyres paid $0.60 on earnings of $2.50 last year. The company anticipates earnings of $3.30 this year. It has a 35% target payout ratio and uses a 5-year adjustment period. The expected dividend for the current year is *closest* to:
    A. $0.80.
    B. $0.60.
    C. $0.66.

19. CalMex currently pays 30% of its earnings as cash dividends. This decision was taken by the board of directors three years ago due to high variability in its earnings. The dividend policy *most likely* followed by CalMex is:
    A. constant payout policy.
    B. stable dividend policy.
    C. residual dividend policy.

20. Liz Caybern, a fashion apparel company follows a residual dividend policy. It has $100 million in current earnings, a target capital structure of 20% debt and 80% equity, and a prospective capital expenditure of $80 million. The implied payout ratio is *closest* to:
    A. 64%.
    B. 36%.
    C. 0%.

LO.g: Explain the choice between paying cash dividends and repurchasing shares.

21. If dividends are taxed at a higher rate than capital gains, shareholders of Company X would *most likely* prefer that the company:
    A. pays cash dividends.
    B. repurchase shares.
    C. pays a special cash dividend only.

22. It is expected that senior executives of Arwin Industries will exercise their stock options which will result in the dilution of earnings per share. Arwin wants to offset the dilution effect and increase leverage without issuing new debt. To achieve these objectives, it will *most likely*:
    A. repurchase shares.
    B. pay stock dividends.
    C. pay a special dividend.

LO.h: Describe broad trends in corporate dividend policies.

23. Which of the following statements is *most accurate*?
    A. In developed markets, the fraction of companies paying cash dividend has increased since the 1990s.
    B. More companies in Europe distribute earnings by paying cash dividends than share repurchases.
    C. Dividend payout ratios have increased in most developed markets over time.

LO.i: Calculate and interpret dividend coverage ratios based on 1) net income and 2) free cash flow.

24. All else equal a higher dividend payout ratio means:
    A. lower dividend coverage ratio, and higher risk of a dividend cut.
    B. higher dividend coverage ratio, and higher risk of a dividend cut.
    C. no change in the dividend coverage ratio and lower risk of a dividend cut.

25. If the dividend payout of Company Z is 56%, its dividend coverage ratio is *closest* to:
    A. 56%.
    B. 1.8 x.
    C. 1.5x.

26. Consider the following data of TPX Industries in millions.

Cash flow from operations	$600
FCInv (capital expenditures)	$174
Net borrowing	$380
Dividends paid	$160
Stock repurchases	$730

The FCFE coverage ratio of TPX is *closest* to:
    A. 5.00x
    B. 1.10x
    C. 0.91x

LO.j: Identify characteristics of companies that may not be able to sustain their cash dividend.

27. CSV Papers has a FCFE coverage ratio less than 1. This may be interpreted as:
    A. CSV's liquidity position is increasing.
    B. cash or marketable securities of the company are increasing.
    C. CSV is drawing down its liquidity by paying out more funds to shareholders than it can afford.

Solutions

1. B is correct. According to MM, a company dividend policy should have no impact on its cost of capital or on shareholder wealth, hence dividend policy is irrelevant given perfect capital market assumptions, ignoring taxes or transaction costs and no asymmetric information. Section 2.1.

2. A is correct. Homemade dividend is a concept used by MM in their argument for irrelevance of dividend policy. If a shareholder can do what a company does at no cost, i.e. create dividends by selling his shares, then he can always alter the dividend policy to suit his needs. Section 2.1.

3. C is correct. According to "bird in hand" argument, while assuming perfect capital market conditions, investors prefer dividends to capital gains from reinvesting earnings, because they view dividends to be less risky. Section 2.2.

4. C is correct. If dividends are taxed at a higher rate than capital gains, taxable investors should prefer low dividend payout companies with profitable growth opportunities. Section 2.3.

5. A is correct. In some countries the tax on dividends is higher than the tax on capital gains. In such countries investors will prefer companies that pay low dividends and invest in profitable growth opportunities. Section 2.3.

6. A is correct. If a profitable company with high future cash flows and lucrative opportunities announces a decrease in dividends, this is likely to be perceived as positive information. As the information is absorbed by the market, the share price will most likely rise. Section 2.4.2.

7. C is correct. A dividend declaration conveys information to the market. A dividend declaration can cause a reduction in the gap between the market price and intrinsic value of a stock. It also may reduce the information asymmetry between company management and outsiders. Section 2.4.2.

8. B is correct. Clientele effect refers to the existence of a group of investors attracted to companies because of their specified dividend policies. Section 2.4.1.

9. A is correct. 70% of dividend income is exempted from taxation, the effective tax rate on dividends is $0.30(1.00 - 0.70) = 0.09$. Section 2.4.1.

10. B is correct. Investment opportunities, future volatility of earnings, financial flexibility, taxes, flotation costs and contractual/legal restrictions are the factors that affect dividend policy. Section 3.

11. A is correct. A survey of treasurers and chief financial officers revealed that managers are reluctant when it comes to decreasing dividends and tend to smooth dividends. Section 3.2.

12. C is correct. The double tax rate on dividend distributions = ($30 + $10.50)/100 = 40.5% or ($100 – $59.5)/$100 = 40.5%. Section 3.4.1.

13. C is correct. Under the dividend imputation tax system, shareholders receive a full tax credit known as franking credit for the taxes the corporation has paid on the distributed earnings. Section 3.4.1.

14. A is correct. Under the tax imputation system if the shareholder's marginal tax rate is higher than the company's, the shareholder pays the difference between the two rates. The effective tax rate is then the tax paid at the corporate level plus the difference i.e. 35% + 10% = 45%. Section 3.4.1.

15. B is correct. Under the split-rate tax system, corporate earnings are taxed at a higher rate than the dividends. Earnings distributed as dividends are still taxed twice, but the low tax rate on dividends mitigates that tax deduction. Section 3.4.1.

16. C is correct. Dividends after tax = $100\ (\ 1 - 0.25) = \$75$ After-tax dividend to shareholder $[(1 - 0.32) \times\ 75] = \$51$. Effective tax rate on dividend = $[25\% +\ (75\ \times 0.32)\%] = 49\%$. Section 3.4.1.

17. B is correct. SZL follows a stable dividend policy, by paying regular dividends of $1.05, which are not dependent upon short-term fluctuations in earnings. Section 4.1.

18. C is correct. Using the target payout adjustment model, expected dividend = $Last\ dividend + [Expected\ increase\ in\ earnings\ \times Target\ payout\ ratio\ \times Adjustment\ factor\ ] = \quad \$0.60 +\ [(\$3.3 - \$2.5)\ \times 0.35 \times (1/5)] = \$0.656.$ Section 4.1.1.

19. A is correct. CalMex uses a constant dividend payout ratio policy, according to which a payout ratio is decided by the company and applied to the current earnings. Section 4.1.2.

20. B is correct. The residual dividend policy is based on paying out dividends from internally generated funds after financing the current year's capital expenditures. Liz's current earnings = $100 million. Expected capital expenditure is $80 million. Internal financing from retained earnings according to target capital structure = 80% x 80 = $64 million. Residual cash flow = dividend = $100 - $64 = $36 million. Implied payout ratio = 36/100 = 36%. Section 4.1.3.

21. B is correct. In an environment where dividends are taxed at a higher rate than capital gains, shareholders would prefer share repurchases because they would have a tax advantage over cash dividends. Section 4.2.

22. A is correct. A share repurchase will offset eps dilution and increase the debt ratio. Section 4.2.

23. C is correct. In most developed markets, fraction of companies paying cash dividends has declined but payout ratios have increased over time. Section 4.3.

24. A is correct. A higher dividend payout implies a lower dividend coverage ratio may indicate a higher risk of a dividend cut. Section 5.

25. B is correct. Dividend coverage ratio = Net income/Dividends = inverse of dividend payout ratio = 1/0.56 = 1.786x. Section 5.

26. C is correct. FCFE = CFO – FCInv + Net borrowing = $600 - 174 + 380 = \$806\ mil.$
    FCFE coverage ratio = FCFE/[Div. + Repurchases] = $\frac{806}{[160+730]} = 0.906\times$. Section 5.

27. C is correct. FCFE coverage ratio is defined as FCFE/[Dividends + Share repurchases]. If the ratio is less than 1, the company's liquidity is decreasing as it is paying out more than it can afford. Section 5.

