

Question #1 of 50

Question ID: 463533

Which of the following is *least likely* an example of a litigation-related valuation for a private company?

- ☒ A) Lost profits claims.
- ☒ B) Bankruptcy proceeding.
- ☒ C) Divorce settlements.

Explanation

Litigation-related valuations may be required for shareholder suits, damage claims, lost profits claims, or divorce settlements. A bankruptcy proceeding is an example of a transaction-related valuation for a private company.

Question #2 of 50

Question ID: 463552

Which of the following *best* describes projection risk in the estimation of the discount rate for private company valuations?

- ☒ A) Management will always be overly optimistic to increase the acquisition price.
- ☒ B) Projection risk results in higher discount rates.
- ☒ C) If the availability of information from private firms is poor, the uncertainty of projected cash flows may increase.

Explanation

Projection risk refers to the risk of misestimating future cash flows. Given the lower availability of information from private firms, the uncertainty of projected cash flows may increase.

However, management may not be experienced with projections and may underestimate *or* overestimate future prospects. The discount rate would then be decreased *or* increased accordingly. So management is not always overly optimistic and projection risk does not always result in higher discount rates.

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Question ID: 463549

Using the following figures, calculate the value of the equity using the capitalized cash flow method (CCM), assuming the firm will be acquired.

| | |
|---------------------------------|-------------|
| Normalized FCFE in current year | \$3,000,000 |
| Reported FCFE in current year | \$2,400,000 |
| Growth rate of FCFE | 7.0% |
| Equity discount rate | 16.0% |
| WACC | 13.0% |
| Risk-free rate | 3.5% |

| | |
|----------------------|-------------|
| Cost of debt | 10.5% |
| Market value of debt | \$3,000,000 |

The value of the equity is:

- ☐ A) \$28,533,333.
- ☐ B) \$32,666,667.
- ☒ C) \$35,666,667.

Explanation

To arrive at the value of the equity using the CCM, it can be estimated using the free cash flows to equity and the required return on equity (r):

$$\text{value of equity} = \frac{\text{FCFE}_1}{r - g}$$

$$\text{value of equity} = \frac{\$3,000,000 \times (1.07)}{0.16 - 0.07} = \$35,666,667$$

Note that we grow the FCFE at the growth rate because the *current* year FCFE is provided in the problem (not next year's FCFE). We use normalized earnings, not reported earnings, given that normalized earnings are most relevant for the acquirers of the firm. The relevant required return for FCFE is the equity discount rate, not the WACC.

An alternative approach to calculate the value of the equity would be to subtract the market value of the firm's debt from total firm value. However, the FCFF are not provided so a total firm value cannot be calculated.

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Question ID: 463577

Which of the following *best* describes the implementation of private company valuation standards?

- ☐ A) The federal government mandates compliance.
- ☒ B) Compliance is usually at the discretion of the appraiser.
- ☐ C) Industry groups mandate compliance.

Explanation

One of the challenges involved with the implementation of appraisal standards is that compliance is usually at the discretion of the appraiser because most buyers are still unaware of their existence.

Question #5 of 50

Question ID: 463528

An analyst is examining three companies. Given the information below, which of them is *most likely* to be a private firm?

| Firm | Number of Years in Operation | Market Capitalization | Required Return for Common Stock |
|------|------------------------------|-----------------------|----------------------------------|
| A | 12 years | \$1,324.8 million | 14.8% |
| B | 4 years | \$1,313.9 million | 18.3% |
| C | 19 years | \$2,231.0 million | 16.4% |

- ☐ A) Firm A.

- ☐ B) Firm C.
- ☒ C) Firm B.

Explanation

The firm most likely to be a private firm is Firm B. Compared to public firms, private firms are less mature (4 years for Firm B), smaller (market cap of B is \$1,313.9 million), and have higher required returns (required return for B is 18.3%).

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Question ID: 463578

Which of the following *best* describes the guidance on the use of private company valuation standards provided by appraisal organizations?

- ☐ A) **Technical guidance on the use of standards is widespread, as it is provided by both industry and consumer groups.**
- ☐ B) Guidance on the use of standards is not provided.
- ☒ C) Guidance on the use of standards is necessarily limited due to the heterogeneity of valuations.

Explanation

One of the challenges involved with the implementation of appraisal standards is that although the organizations provide technical guidance on the use of their standards, it is necessarily limited due to the heterogeneity of valuations.

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Question ID: 463560

An analyst values a private firm by using price multiples from the sale of whole companies, with adjustments for risk differences. Which of the following best describes the valuation method that the analyst is using?

- ☐ A) **The prior transaction method.**
- ☐ B) The guideline public company method.
- ☒ C) The guideline transactions method.

Explanation

The guideline transactions method (GTM) generates a value estimate based on pricing multiples associated with the acquisition of control of entire companies. The guideline public company method (GPCM) generates an estimate of value based on the multiples from trading activity in the shares of public companies that are similar to the private company in question. The prior transaction method (PTM) uses actual transactions in the stock of the subject private company.

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Question ID: 463532

Which of the following is *least likely* an example of a transaction-related valuation for a private company?

- ☐ A) **Performance-based managerial compensation.**
- ☐ B) Bankruptcy proceeding.

✓ **C)** Financial reporting.

Explanation

Venture capital financing, initial public offering (IPO), bankruptcy proceeding, performance-based managerial compensation, and sale in an acquisition are all examples of transaction-related valuations for a private company.

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Question ID: 472547

Using the following figures, calculate the value of the firm using the excess earnings method (EEM).

| | |
|-------------------------------------|-------------|
| Working capital | \$600,000 |
| Fixed assets | \$2,300,000 |
| Normalized earnings | \$340,000 |
| Required return for working capital | 5% |
| Required return for fixed assets | 13% |
| Growth rate of residual income | 4% |
| Discount rate for intangible assets | 18% |

x **A) \$3,073,199.**

✓ **B) \$2,981,714.**

x **C) \$3,027,111.**

Explanation

The answer is calculated using the following steps.

Step 1: Calculate the required return for working capital and fixed assets.

Given the required returns in percent, the monetary returns are:

Working Capital: $\$600,000 \times 5\% = \$30,000$.

Fixed Assets: $\$2,300,000 \times 13\% = \$299,000$.

Step 2: Calculate the residual income.

After the monetary returns to assets are calculated, the residual income is that which is left over in the normalized earnings:

Residual Income = $\$340,000 - \$30,000 - \$299,000 = \$11,000$.

Step 3: Value the intangible assets.

Using the formula for a growing perpetuity, the discount rate for intangible assets, and the growth rate for residual income:

Value of Intangible Assets = $(\$11,000 \times 1.04) / (0.18 - 0.04) = \$81,714$.

Step 4: Sum the asset values to arrive at the total firm value.

Firm Value = $\$600,000 + \$2,300,000 + \$81,714 = \$2,981,714$.

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Question ID: 463548

The capitalized cash flow method (CCM) used in private firm valuation is *most* appropriate when:

- ✓ **A) stable growth is expected.**
- x B) there are many intangible assets to value.
- x C) earnings are growing quickly in an initial period.

Explanation

The CCM is a growing perpetuity model that assumes stable growth and is in effect a single-stage free cash flow model. It may be suitable when no comparables or projections are available and when stable growth is expected. The excess earnings method (EEM) is useful when there are intangible assets to value. The free cash flow method assumes high growth in an initial period followed by constant growth thereafter.

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Question ID: 463538

An analyst uses investment analysis in an attempt to determine the "true" value of a security, independent of any short-term mispricing. This estimate of asset value is *best* defined as:

- ✓ **A) Intrinsic value**
- x B) Investment value
- x C) Fair market value

Explanation

Intrinsic value is the "true" value derived from investment analysis. Fair market value is used for tax purposes in the United States and based on an arm's length transaction. Investment value, in contrast to the previous definitions that were market based, is the value to a particular buyer. (Study Session 10, LOS 30.a)

Question #12 of 50

Question ID: 463559

An analyst is valuing a private firm on the behalf of a strategic buyer and deflates the average public company multiple by 15% to account for the higher risk of the private firm. Given the following figures, calculate the value of firm equity using the guideline public company method (GPCM).

| | |
|---------------------------------------|--------------|
| Market value of debt | \$4,100,000 |
| Normalized EBITDA | \$42,800,000 |
| Average MVIC/EBITDA multiple | 8.5 |
| Control premium from past transaction | 25% |

The value of the firm's equity is *closest* to:

- x A) \$304,060,000.
- x B) \$382,438,000.
- ✓ **C) \$381,412,500.**

Explanation

The adjustment to the MVIC/EBITDA multiple for the higher risk of the private firm is: $8.5 \times (1 - 0.15) = 7.225$. Given that the buyer is a strategic buyer, a control premium adjustment should be made on the value of equity.

$MVIC = 7.225 \times \$42,800,000 = \$309,230,000$.

Subtracting out the debt results in the equity value (before control premium): $\$309,230,000 - \$4,100,000 = \$305,130,000$.

Equity value after applying control premium = $305,130,000(1.25) = 381,412,500$

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Question ID: 463536

Assume that a property that you are evaluating has a gross annual income equal to \$230,000, and that comparable properties are selling for 10.5 times gross income. The gross income multiplier approach provides a market value for this property that is *closest* to:

☐ A) \$2,587,500.

☐ B) \$2,190,476.

☒ C) \$2,415,000.

Explanation

Gross income multiplier technique: $MV = \text{gross income} \times \text{income multiplier}$.

$MV = \$230,000 \times 10.5 = \$2,415,000$

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Question ID: 463544

An analyst is valuing a small private firm that is still developing and has yet to generate any earnings. Which of the following *best* describes the approach that should be used?

☐ A) Nonoperating assets are not crucial to the firm and should be excluded in any valuation.

☐ B) A market approach based on public comparables would be utilized.

☒ C) An asset-based approach would be used.

Explanation

The valuation approach used will depend on the firm's operations and its lifecycle stage. Early in its life, a firm's future cash flows may be so uncertain that an asset-based approach would be selected. The price multiples from large public firms should not be used for a small private firm when using the market approach. Although a firm's nonoperating assets are not crucial to the firm, they should be included in any valuation.

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Question ID: 463529

An analyst is examining the stock of three companies. Given the information below, which of them is *most likely* to be the stock of a private firm?

| Firm | Restrictions on Sale of | DLOM | Stock Ownership of 5 Largest |
|------|-------------------------|------|------------------------------|
|------|-------------------------|------|------------------------------|

| | Stock? | | Owners |
|---|--------|-----|--------|
| A | Yes | 0% | 28% |
| B | No | 5% | 35% |
| C | Yes | 15% | 64% |

☒ A) Firm B.

☒ B) Firm A.

☒ C) Firm C.

Explanation

The stock most likely to be that of a private firm is Firm C. Compared to public stock, private firm stock often has agreements that prevent shareholders from selling, is less liquid (discounts for lack of marketability (DLOM) of C is 15%), and control is usually concentrated in the hands of a few shareholders (stock ownership of largest owners of Firm C is 64%).

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Question ID: 463556

Using the following information, calculate the WACC using the build-up method, assuming the firm is being acquired.

| | |
|---|-------|
| Income return on bonds | 6.0% |
| Capital return on bonds | 2.0% |
| Long-term Treasury yield | 3.5% |
| Beta | 1.4 |
| Equity risk premium | 6.0% |
| Small stock premium | 4.0% |
| Company-specific risk premium | 3.0% |
| Industry risk-premium | 2.0% |
| Pretax cost of debt | 11.0% |
| Optimal Debt/Total Cap | 20% |
| Current Debt/Total | 7% |
| Debt/Total Cap for public firms in industry | 33% |
| Tax Rate | 30% |

☒ A) 17.7%.

☒ B) 18.5%.

☒ C) 16.3%.

Explanation

Using the build-up method: the risk-free rate, the equity risk premium, the small stock premium, a company-specific risk premium, and an industry risk premium are added together: $3.5\% + 6.0\% + 4.0\% + 3.0\% + 2.0\% = 18.5\%$. Note that the risk-free rate is the Treasury yield, not the returns for bonds in general.

Because the firm is being acquired, we assume the new owners will utilize an optimal capital structure and weights in the WACC calculation. The capital structure for public firms should not be used because public firms have better access to debt financing.

The WACC using the optimal capital structure factors in the debt to total cap, the cost of debt, the tax rate, and the given cost

of equity:

$$[20\% \times 11\% \times (1-30\%)] + [(1-20\%) \times 18.5\%] = 16.3\%.$$

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Question ID: 463576

Which of the following *best* describes the implementation of private company valuation standards?

- ✓ **A) Because most valuation reports are private, it is very difficult for appraisal organizations to ensure compliance to standards.**
- x **B) Appraisers are required to periodically submit their reports for review by the local appraisal board.**
- x **C) Appraisers voluntarily and periodically submit their reports for review by the local appraisal board.**

Explanation

One of the challenges involved with the implementation of appraisal standards is that because most valuation reports are private, it is very difficult for the organizations to ensure compliance to the standards.

Question #18 of 50

Question ID: 463553

Which of the following *best* describes how debt is incorporated into the estimation of the discount rate for private company valuations, relative to that for public firms? In general, the cost of debt:

- x **A) is higher for private firms and debt capacity is the same for both private and public firms.**
- ✓ **B) is higher for private firms and debt capacity is lower for private firms.**
- x **C) and debt capacity is the same for both private and public firms.**

Explanation

A private firm may not be able to obtain as much debt financing as a public firm. The small size of private firms may result in higher operating risk and a higher cost of debt.

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Question ID: 463547

Given the following figures, calculate the FCFF. Assume the earnings and expenses are normalized and that capital expenditures will cover depreciation plus 3 percent of the firm's incremental revenues.

| | |
|---|--------------|
| <i>Current Revenues</i> | \$30,000,000 |
| <i>Revenue growth</i> | 6% |
| <i>Gross profit margin</i> | 20% |
| <i>Depreciation expense as a percent of sales</i> | 1% |
| <i>Working capital as a percent of sales</i> | 15% |
| <i>SG&A expenses</i> | \$3,800,000 |

| | |
|----------|-----|
| Tax rate | 30% |
|----------|-----|

- x A) \$927,400.
 x B) \$1,785,400.
 ✓ C) \$1,245,400.

Explanation

The answer is calculated as follows:

Pro forma Income Statement

| | |
|-------------------------------|--------------|
| Revenues | \$31,800,000 |
| Cost of Goods Sold | \$25,440,000 |
| Gross Profit | \$6,360,000 |
| SG&A Expenses | \$3,800,000 |
| Pro forma EBITDA | \$2,560,000 |
| Depreciation and amortization | \$318,000 |
| Pro forma EBIT | \$2,242,000 |
| Pro forma taxes on EBIT | \$672,600 |
| Operating income after tax | \$1,569,400 |

Adjustments to obtain FCFF

| | |
|-------------------------------------|-------------|
| Plus: Depreciation and amortization | \$318,000 |
| Minus: Capital expenditures | \$372,000 |
| Minus: Increase in working capital | \$270,000 |
| FCFF | \$1,245,400 |

The following provides a line by line explanation for the above calculations.

| <i>Pro forma Income Statement</i> | <i>Explanation</i> |
|------------------------------------|---|
| Revenues | Current revenues times the growth rate: $\$30,000,000 \times (1.06)$ |
| Cost of Goods Sold | Revenues times one minus the gross profit margin: $\$31,800,000 \times (1 - 0.20)$ |
| Gross Profit | Revenues times the gross profit margin: $\$31,800,000 \times 0.20$ |
| SG&A Expenses | Given in the question |
| Pro forma EBITDA | Gross Profit minus SG&A expenses: $\$6,360,000 - \$3,800,000$ |
| Depreciation and amortization | Revenues times the given depreciation expense: $\$31,800,000 \times 0.01$ |
| Pro forma EBIT | EBITDA minus depreciation and amortization: $\$2,560,000 - \$318,000$ |
| Pro forma taxes on EBIT | EBIT times tax rate: $\$2,242,000 \times 0.30$ |
| Operating income after tax | EBIT minus taxes: $\$2,242,000 - \$672,600$ |
| | |
| <i>Adjustments to obtain FCFF</i> | |
| Plus: Depreciation and amort. | Add back noncash charges from above |
| Minus: Capital expenditures | Expenditures cover depreciation and increase with revenues: $\$318,000 + (0.03 \times \$31,800,000 - \$30,000,000)$ |
| Minus: Increase in working capital | The working capital will increase as revenues increase: $(0.15 \times \$31,800,000 - \$30,000,000)$ |

| | |
|------|---|
| FCFF | Operating income net of the adjustments above |
|------|---|

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Question ID: 463565

An analyst calculates a control premium of 15% and discount for lack of marketability (DLOM) of 20%. Which of the following is *closest* to the total discount for valuing minority equity interests in the private firm?

- ☒ A) 35.7%.
- ☒ B) 30.4%.
- ☒ C) 35.0%.

Explanation

The discount for lack of control (DLOC) can be backed out of the control premium.

$$\text{DLOC} = 1 - \left[\frac{1}{1 + \text{Control Premium}} \right]$$

$$\text{DLOC} = 1 - \left[\frac{1}{1 + 0.15} \right] = 13.04\%$$

The total discount also uses the DLOM.

$$\text{Total Discount} = 1 - [(1 - \text{DLOC})(1 - \text{DLOM})]$$

$$\text{Total Discount} = 1 - [(1 - 0.1304)(1 - 0.20)] = 30.4\%$$

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Question ID: 463558

A private pharmaceutical firm is under consideration for acquisition where the financial buyer will pay with equity. Part of the payment to the sellers is based on FDA approval of the firm's drug. If the analyst uses a market approach and comparable data from public firms, which of the following would *most likely* result in a price-multiple that is too high? The comparable data is:

- ☒ A) from transactions where the buyer used cash.
- ☒ B) for transactions where the consideration was non-contingent.
- ☒ C) for strategic buyers.

Explanation

In market approaches, the analyst values the subject private firm using price multiples from previous public and private transactions. A strategic buyer is one who will have synergies with the target whereas a financial buyer does not. A financial transaction typically has a smaller price premium. So in this case, the comparable price-multiple will be too high.

If the acquisition involves the acquirer's stock, the acquirer may be using overvalued shares to buy their target. Using comparables where cash is the consideration would result in lower price multiples.

Contingent consideration is payment to the sellers based on the achievement of specific goals such as FDA approval. Contingent consideration increases the risk to the seller and ceteris paribus, they would demand a higher price. Using comparables where the consideration was non-contingent would result in lower price multiples.

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Question ID: 463539

An appraiser must determine the value of an asset for tax purposes. Which of the following is the *most likely* standard of value the appraiser will use?

- ☐ A) Fair value for financial reporting.
- ☐ B) Market value.
- ☒ C) Fair market value.

Explanation

Fair market value is used for tax purposes in the U.S. and based on an arm's length transaction. Though similar to fair market value, fair value for financial reporting is used for financial not tax reporting. Market value is used in real estate and other real asset appraisals.

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Question ID: 463541

An analyst values a private company using a price multiple based on recent sales of comparable assets. This approach to private company valuation is *best* described as the:

- ☒ A) market approach
- ☐ B) asset-based approach
- ☐ C) income approach

Explanation

Under the market approach, a firm is valued using price multiples based on recent sales of comparable assets. Under the income approach, a firm is valued according to the present value of its expected future income. Under the asset-based approach, the value of a firm is calculated as the firm's assets minus its liabilities. (Study Session 12, LOS 43.d)

Question #24 of 50

Question ID: 463566

Which of the following *best* describes the estimation of discounts for lack of marketability (DLOM) in private company valuations? The primary advantage of using put prices to estimate the DLOM over the other two methods is:

- ☐ A) exchange traded put prices are readily available.
- ☐ B) the Black-Scholes model has been shown to be valid for private firms.
- ☒ C) the volatility of the firm can be incorporated into the analysis.

Explanation

If an interest in a firm cannot be easily sold, a DLOM is applied. The DLOM can be estimated using restricted share versus publicly traded share prices, pre-IPO versus post-IPO prices, and put prices. The advantage of using put prices over the other two DLOM estimation methods is that the estimated risk of the firm can be factored into the option price.

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Question ID: 463562

Which of the following is *most* accurate regarding the asset-based approach? Of the three valuation methods for private firms, it usually:

- ☐ A) is not difficult to apply.
- ☒ B) results in the lowest valuation.
- ☐ C) is the most appropriate for going concerns.

Explanation

The asset-based approach is generally not used for going concerns. Because it is easier to find comparable data at the firm level compared to the asset level, the income and market approaches would be preferred to value going concerns.

Because it is difficult to find data for individual intangible assets and specialized assets, the asset-based approach can be difficult to apply. It generally results in the lowest valuation because the use of a firm's assets in combination usually results in greater value creation than each of its parts individually.

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Question ID: 463530

Which of the following statements *most* accurately describes the difference between private and public firm managers?

- ☒ A) Although managers in a public firm are often paid with incentive compensation, public managers may take a shorter term view than private managers because shareholders often focus on the short-term.
- ☐ B) Because managers in a private firm are concerned with having the firm go public, private managers may take a shorter term view than public managers.
- ☐ C) Because managers in a public firm are often paid with incentive compensation, public managers may take a longer term view than private managers.

Explanation

Although managers in a public firm are often paid with incentive compensation such as options, shareholders often focus on short-term measures such as quarterly earnings and the consistency of such. Management may therefore take a shorter term view than they otherwise would. Private firms should be able to take a longer term view.

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Question ID: 463561

Which of the following statements related to the market approaches to private company valuation is *most accurate*:

- ☐ A) The guideline transactions method (GTM) is based on historical stock sales of the actual subject company.
- ☐ B) The prior transaction method (PTM) is based on price multiples from the sale of whole public and private companies.
- ☒ C) The guideline public company method (GPCM) is based on price multiples from comparable traded firms.

Explanation

The guideline public company method (GPCM) approach to private company valuation uses price multiples from traded public companies with adjustments for risk differences. The guideline transactions method (GTM) uses the price multiples from the sale of whole public and private companies, again with adjustments for risk differences. The prior transaction method (PTM) uses historical stock sales of the subject company; it works best when using recent, arm's-length data of the same motivation. (Study Session 12, LOS 43.i)

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Question ID: 463564

When would the asset-based approach result in a higher valuation than its going concern value, in the case of private company valuation?

- ✓ **A) If the firm has minimal profits and poor prospects.**
- x B) When valuing pharmaceutical firms.
- x C) When valuing biotech firms.

Explanation

If a firm has minimal profits and little hope for better prospects; it might be valued more highly for its liquidation value than as a going concern if another firm can put the assets to better use. Because the asset-based approach values firm equity as the fair value of its assets minus the fair value of its liabilities, it would capture this liquidation value.

Pharmaceutical and biotech firms have a high degree of intangible assets. In these cases, the going concern value is likely to be higher than the value from the asset-based approach.

Question #29 of 50

Question ID: 463543

Which of the following approaches to private company valuation uses discounted cash flow analysis?

- ✓ **A) The income approach.**
- x B) The market approach.
- x C) The asset-based approach.

Explanation

The income approach values a firm as the present value of its future income. The asset-based approach values a firm as its assets minus liabilities. The market approach values a firm using the price-multiples from the sales of comparable assets.

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Question ID: 463563

The asset-based approach values a firm based on:

- ✓ **A) fair values.**
- x B) investment values.
- x C) book values.

Explanation

The asset-based approach values firm equity as the fair value of its assets minus the fair value of its liabilities.

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Question ID: 463551

Which of the following *best* describes the use of size premiums when estimating the discount rate for private company valuations?

- ☐ A) A size premium is subtracted when calculating the discount rate.
- ☐ B) The treatment is similar to that for public firms.
- ☒ C) When using data from comparable public firms, a distress premium may be inadvertently added in.

Explanation

For private company valuations, a size premium is often added in when calculating the discount rate. This is not typically done for public firms. To get the size premium, the appraiser may use data from the smallest cap segment of public equity. This however may include a distress premium that is not applicable to the private firm.

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Question ID: 463567

Assume a minority shareholder holds 10% of a private firm's equity, with the CEO holding the other 90%. Using normalized earnings, the value of the firm's equity is estimated at \$20 million. The CEO refuses to sell the firm and the minority shareholder cannot sell their interest easily. A discount for lack of marketability (DLOM) of 15% will be applied. A discount for lack of control (DLOC) will also be estimated. Using reported earnings instead of normalized earnings provides an estimated firm equity value of \$19 million. Which of the following is *closest* to the value of the minority shareholder's equity interest?

- ☐ A) \$1,900,000.
- ☐ B) \$1,700,000.
- ☒ C) \$1,615,000.

Explanation

Given these figures, the value of the minority shareholder's equity interest is:

| | |
|---|--------------|
| <i>Firm's equity value</i> | \$19,000,000 |
| <i>Minority interest</i> | 10% |
| <i>Value of minority interest without discounts</i> | \$1,900,000 |
| <i>minus DLOC of 0%</i> | 0 |
| <i>Value of interest if marketable</i> | \$1,900,000 |
| <i>minus DLOM of 15%</i> | \$285,000 |
| <i>Value of minority interest</i> | \$1,615,000 |

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Question ID: 463546

Given the following figures, calculate the normalized EBITDA for a financial and strategic buyer.

| | |
|---|-------------|
| Reported EBITDA | \$4,500,000 |
| Current Executive Compensation | \$700,000 |
| Market-Based Executive Compensation | \$620,000 |
| Current SG&A expenses | \$6,300,000 |
| SG&A expenses after synergistic savings | \$5,600,000 |
| Current Lease Rate | \$300,000 |
| Market-Based Lease Rate | \$390,000 |

The normalized EBITDA for each type of buyer is:

Financial Buyer Strategic Buyer

☐ A) \$4,190,000 \$4,890,000

☒ B) \$4,490,000 \$5,190,000

☐ C) \$4,670,000 \$5,370,000

Explanation

Both strategic and financial buyers will attempt to reduce executive compensation to market levels by \$80,000 (\$700,000 – \$620,000). They will also have to pay a higher lease rate of \$90,000 (\$390,000 – \$300,000). So the adjustment for both buyers to generate normalized EBITDA is \$4,500,000 + \$80,000 – \$90,000 = \$4,490,000.

However, only a strategic buyer will be able to realize synergistic savings of \$700,000 (\$6,300,000 – \$5,600,000). So normalized EBITDA for a strategic buyer is \$5,190,000 and for a financial buyer it is \$4,490,000.

Question #34 of 50

Question ID: 463531

A private business is being valued for the purpose of determining the appropriate level of performance-based managerial compensation. This private company valuation would be *best* described as a:

☐ A) Litigation-related valuation

☐ B) Compliance-related valuation

☒ C) Transaction-related valuation

Explanation

Transaction-related valuations may be performed for reasons related to venture capital financing, an IPO, a sale of the firm, bankruptcy, or performance-based managerial compensation. Compliance-related valuations are performed for financial reporting and tax purposes. Litigation-related valuations may be required for shareholder suits, damage claims, lost profits, or divorces. (Study Session 12, LOS 43.b)

Question #35 of 50

Question ID: 463545

Which of the following *best* describes the use of FCFF and FCFE when used in private firm valuation?

- ☐ A) FCFE is usually favored if the firm is going to change its capital structure because the cost of equity is less sensitive to leverage changes than the WACC.
- ☒ B) FCFF is usually favored if the firm is going to change its capital structure because the WACC is less sensitive to leverage changes than the cost of equity.
- ☐ C) FCFE is usually favored if the firm is going to change its capital structure because the equityholders are usually the investors requesting the valuation.

Explanation

Free cash flow to the firm (FCFF) can be used to value the firm as a whole and free cash flow to equity (FCFE) can be used for equity. FCFF is usually favored if the firm is going to significantly change its capital structure. The reason is that the discount rate used for FCFF valuation, the weighted average cost of capital (WACC), is less sensitive to leverage changes than the discount rate used for FCFE valuation, the cost of equity. Thus, the FCFF valuation will not vary as much as the FCFE valuation.

Question #36 of 50

Question ID: 463575

Which of the following statements related to the role of valuation standards in valuing private companies is *most accurate*:

- ☒ A) Business appraisers in the U.S. and most other countries are not required to adhere to government-authorized valuation standards.
- ☐ B) Standards organizations provide technical guidance that ensures homogeneous valuations by those that use their standards.
- ☐ C) No international valuation standards exist; countries generally each have their own standards for valuation.

Explanation

In the United States, the Appraisal Foundation is a congressionally authorized provider of standards, however business appraisers are not required to adhere to the standards. Other challenges involved with valuation standards are: there are many different valuation standards; technical guidance on the use of standards is limited; it is difficult to ensure compliance to the standards; and valuation will depend on the definition of value used. (Study Session 12, LOS 43.I)

Question #37 of 50

Question ID: 463540

Which of the following definitions of value is the value to a particular buyer?

- ☐ A) Market value.
- ☒ B) Investment value.
- ☐ C) Fair market value.

Explanation

Investment value is the value to a particular buyer and may be different for each investor due to different estimates of future cash flows, perceived firm risk, discount rates, financing costs, and synergies with existing assets the buyer holds.

Question #38 of 50

Question ID: 472546

Which of the following definitions of value refers to the value of an asset given a hypothetically complete understanding of the asset's investment characteristics?

- ☐ A) Fair value.
- ☒ B) Intrinsic value.
- ☐ C) Investment value.

Explanation

Intrinsic value is derived from investment analysis and is the "true" value independent of short-term mispricing that may occur. Fair value is a concept used in financial reporting or litigation matters. Investment value is the value to a particular buyer.

Question #39 of 50

Question ID: 463554

Which of the following statements related to the models used to estimate the required rate of return to private company equity is *most accurate*:

- ☐ A) The build-up method begins with betas for comparable public firms and adds risk premiums.
- ☒ B) The expanded CAPM model adds premiums for size and firm-specific risk.
- ☐ C) The CAPM model uses betas estimated from firm returns of other private firms.

Explanation

Expanded CAPM adds premiums for size and firm-specific risk. CAPM may not be appropriate for private firms because beta is usually estimated from public firm returns. The build-up method adds an industry risk and other risk premiums to market rate of return; it is used when betas for comparable public firms are not available. (Study Session 12, LOS 43.h)

Questions #40-45 of 50

Paul Smith is an analyst performing valuations for Lumber Limited. Smith has been given a project to value Timber Industries, a firm that Lumber Limited is considering acquiring. Smith is aware that a number of characteristics distinguish private and public companies, and that these characteristics must be considered during his process of valuing Timber Industries. A number of issues complicate Smith's valuation: Timber Industries pays its CEO well below a market-based compensation figure, leases a warehouse at an above-market rate, and owns a vacant office building that is not needed for core operations. Smith is also aware that discounts and premiums based on control and marketability must be considered in his valuation of Timber Industries.

Question #40 of 50

Question ID: 463569

Compared to a public company, it is *most likely* that as a private company Timber Industries will have greater:

- ☐ A) focus on the short-term.
- ☐ B) quality and depth of management.

- ✓ **C)** concerns related to taxes.

Explanation

Private firms may be more concerned with taxes than public firms due to the impact of taxes on private equity owners/managers. Private firms are likely to have lower quality and depth of management, as private firms are likely to be smaller and thus may not be able to attract as many qualified applicants as public firms. Private firms are more likely to focus on the long-term than public companies, since in most private firms, external shareholders have less influence and the firm is able to take a longer-term perspective. (Study Session 12, LOS 39.a)

Question #41 of 50

Question ID: 463570

Which of the following is the *most accurate* statement related to estimating the discount rate for Smith's valuation of Timber Industries:

- ☐ **A) It is more straightforward to estimate the discount rate for early stage firm than a mature firm like Timber Industries.**
- ✓ **B) Timber Industries should be valued using the WACC for Timber Industries, not the WACC of the acquirer Lumber Limited.**
- ☐ **C) As a private firm, Timber Industries can more easily obtain cheap debt financing than a public firm.**

Explanation

When acquiring a private firm, some acquirers will incorrectly use their own (lower) cost of capital, rather than the higher rate appropriate for the target, and arrive at a value for the target company that is too high. A private firm may have less access to debt financing than a public firm. It is particularly difficult to estimate the discount rate for firms in an early stage of development. (Study Session 12, LOS 39.g)

Question #42 of 50

Question ID: 463571

One valuation method that Smith is considering for Timber Industries involves using a growing perpetuity formula to estimate the value of intangible assets, and then adding this value to the values of working capital and fixed assets. This method is *most accurately* described as the:

- ☐ **A) capitalized cash flow method.**
- ✓ **B) excess earnings method.**
- ☐ **C) free cash flow method.**

Explanation

The excess earnings method values tangible and intangible assets separately; this method is useful for small firms and when there are intangible assets to value. In the free cash flow method, a firm is valued by discounting a series of discrete cash flows plus a terminal value. In the capitalized cash flow method, a firm is valued by discounting a single cash flow by the capitalization rate. (Study Session 12, LOS 39.f)

Question #43 of 50

Question ID: 463572

The asset-based approach to private company valuation that Smith is considering for Timber Industries is *most likely* to be appropriate in the case of a:

- ☐ A) firm with strong profits and growth potential.
- ☐ B) mature company with many intangible assets.
- ☒ C) finance firm such as a bank.

Explanation

The asset-based approach is usually not used for most going concerns, but is appropriate for troubled firms, finance firms, investment companies, firms with few intangible assets, and natural resource firms. It values equity as the asset value of a firm minus the debt value of the firm. (Study Session 12, LOS 39.j)

Question #44 of 50

Question ID: 463573

In order to estimate normalized earnings for Timber Industries, which of the follow items is *most likely* to require Smith to make an upward adjustment to SG&A? The fact that Timber Industries:

- ☐ A) leases a warehouse at an above-market rate.
- ☒ B) pays its CEO well below a market-based compensation figure.
- ☐ C) owns a vacant office building that is not needed for core operations.

Explanation

Normalized earnings should be calculated by adjusting SG&A as follows: 1) Because the market rate of the CEO's compensation is higher, SG&A expenses should be increased to reflect a normalized compensation expense. 2) Because the market lease rate is lower, SG&A expenses should be lowered to reflect a normalized lease rate. 3) Because the office building is non-core, SG&A expenses should be reduced accordingly (as should depreciation expense). (Study Session 12, LOS 39.e)

Question #45 of 50

Question ID: 463574

Which of the following statements related to discounts and premiums to benchmark for Smith's private company valuation of Timber Industries is *most accurate*:

- ☐ A) A discount for lack of control should be applied when the comparable company values are for public shares, and the target company valuation is for a controlling interest.
- ☒ B) A discount for lack of marketability should be applied when the comparables are based on public shares, and the interest in the target company is a minority interest in a private firm.
- ☐ C) A control premium should be added when the comparable values are for the sale of an entire company, and the valuation is being done for a minority interest in the target company.

Explanation

Discounts for lack of marketability are applied when the comparables are based on highly marketable securities, such as public shares, and the interest in the target company is less marketable, as in the case of a minority interest in a private firm. A discount for lack of control is applied when the comparable values are for the sale of an entire company, and the valuation is being done for a minority interest in the target company. A control premium is added when the comparable company values are for public shares or other minority interests, and the target company valuation is for a controlling interest. (Study Session 12, LOS 39.k)

Question #46 of 50

Question ID: 463557

Which of the following *best* describes the build-up method used for the estimation of the discount rate in private company valuations?

- ✓ **A) It is useful when there are no comparable public firms.**
- x **B) An industry risk premium is not included because it is captured in the equity risk premium.**
- x **C) Because it is not used in the calculation, beta is assumed to be zero.**

Explanation

If it is not possible to find comparable public firms with which to estimate beta by, the build-up method can be used for a private firm. It is similar to the expanded CAPM except that beta is not used. Implicitly, beta is assumed to be one. Both industry risk premiums and equity risk premiums are used. The risk-free rate, the equity risk premium, the small stock premium, a company-specific risk premium, and an industry risk premium are added together in the build-up method.

Question #47 of 50

Question ID: 463542

An analyst is valuing a firm's equity using the price-to-book-value ratio of similar firms. Which of the following is the *most likely* valuation approach the analyst will use?

- x **A) The income approach.**
- ✓ **B) The market approach.**
- x **C) The asset-based approach.**

Explanation

The market approach values a firm using the price-multiples such as the price-to-book-value ratio and price-earnings ratio of comparable assets. The income approach values a firm as the present value of its future income. The asset-based approach values a firm as its assets minus liabilities.

Question #48 of 50

Question ID: 463534

Which of the following is *least likely* an example of a compliance-related valuation for a private company?

- ✓ **A) Bankruptcy proceeding.**
- x **B) Tax purposes.**
- x **C) Financial reporting.**

Explanation

A bankruptcy proceeding is an example of a transaction-related valuation for a private company.

Question #49 of 50

Question ID: 463535

Assume that a property has a gross annual income equal to \$150,000, and that comparable properties have a gross income multiplier equal to 11.25. The gross income multiplier approach provides a market value for this property that is *closest* to:

- ✓ **A) \$1,687,500.**
- x B) \$1,333,333.
- x C) \$1,625,000.

Explanation

Gross income multiplier technique: $MV = \text{gross income} \times \text{income multiplier}$.

$$MV = \$150,000 \times 11.25 = \$1,687,500$$

Question #50 of 50

Question ID: 463555

Using the following information, calculate the required return on equity using the expanded CAPM.

| | |
|--|-------|
| <i>Income return on bonds</i> | 6.0% |
| <i>Capital return on bonds</i> | 2.0% |
| <i>Long-term Treasury yield</i> | 3.5% |
| <i>Beta</i> | 1.4 |
| <i>Equity risk premium</i> | 6.0% |
| <i>Small stock premium</i> | 4.0% |
| <i>Company-specific risk premium</i> | 3.0% |
| <i>Industry risk-premium</i> | 2.0% |
| <i>Pretax cost of debt</i> | 11.0% |
| <i>Optimal Debt/Total Cap</i> | 16% |
| <i>Current Debt/Total</i> | 7% |
| <i>Debt/Total Cap for public firms in industry</i> | 33% |
| <i>Tax Rate</i> | 30% |

- x **A) 15.9%.**
- ✓ **B) 18.9%.**
- x C) 11.9%.

Explanation

The required return on equity using the CAPM is: $3.5\% + 1.4(6\%) = 11.9\%$.

Note that the risk-free rate is the Treasury yield, not the returns for bonds in general.

Using the expanded CAPM, a small stock premium and company-specific risk premium are added: $11.9\% + 4\% + 3\% = 18.9\%$.