




Question #1 of 66

Question ID: 1210119

An argument for using the residual income (RI) valuation approach is that residual income valuation:

- A) encourages company managers to maximize ROI. 
- B) reduces the problem of terminal value dominating total value. 
- C) facilitates comparisons between divisions. 

Explanation

Terminal value does not dominate total present value as is the case in dividend and free cash flow valuation models. Both remaining responses are arguments against using the RI approach.

(Study Session 11, Module 30.5, LOS 30.i)




Related Material

[SchweserNotes - Book 3](#)

Question #2 of 66

Question ID: 1210132

Midland Semiconductor has a book value of \$10.50 per share. The company's return on equity is 20%, and its required return on equity is 17%. The dividend payout ratio is 30%. The current share price is \$21.00 per share. The shares (relative to a single-stage residual income model) are *most likely*:

- A) undervalued. 
- B) overvalued. 
- C) correctly valued. 

Explanation

$g = \text{retention ratio} \times \text{ROE} = (0.7) \times 0.20 = 0.14$ or 14%

$$V_0 = \$10.50 + \left(\frac{0.20 - 0.17}{0.17 - 0.14} \times \$10.50 \right) = \$21.00$$

(Study Session 11, Module 30.5, LOS 30.I)

Related Material




[SchweserNotes - Book 3](#)

Question #3 of 66

Question ID: 1210090

The residual income approach is appropriate when:

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- A) a firm does not pay dividends or the payments are too volatile to be sufficiently predictable. 
- B) the clean surplus accounting relation is violated significantly. 
- C) a firm pays high dividends that are quite stable. 

Explanation

The residual income approach is appropriate when a firm does not pay dividends or the payments are too volatile to be sufficiently predictable. It is not appropriate when the clean surplus accounting relation is violated significantly. A firm that pays high dividends that are quite stable is also a poor candidate for the approach.

(Study Session 11, Module 30.1, LOS 30.b)

Related Material

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Question #4 of 66

Question ID: 1210094

Red Shoes's recent financial statements reported a book value of \$11.00 per share; its required rate of return is 9%. Analyst Tony Giancola, CFA, wants to calculate the company's intrinsic value using a multistage residual income with a high-growth RI for the next 5 years. Giancola creates the following estimates:

- PV of interim high-growth RI for the next 5 years is \$ 2.90
- At the end of year 5, the PV of continuing RI is \$7.00
- Estimated Book Value in 5 years is \$14.00

Which of the following is *closest to* the current intrinsic value of Red Shoes?

- A) \$18.45. 
- B) \$9.90. 
- C) \$20.90. 

Explanation

Applying the multistage residual income model:

$$\begin{aligned} V_0 &= B_0 + \text{PV of interim high-growth RI} + \text{PV of continuing RI} \\ &= 11.00 + 2.90 + [(7.00) / (1.09)^5] = \$18.45 \end{aligned}$$

(Study Session 11, Module 30.2, LOS 30.c)

Related Material

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Sue Clifton, CFA, is a senior portfolio manager at Lewiston Investments, a small research firm. Clifton has been assigned to help new hire Ralph Rawls get acclimated to his new job as a stock analyst. She discovers early on that Rawls is not too familiar with residual income valuation, a tool for determining economic profitability.

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Clifton explains the basics of the residual-income model and the clean surplus relationship that underpins the system. Clifton then offers Rawls some reasons why residual income is useful:

Reason 1:	"Residual-income valuation works even when cash flows are volatile or negative."
Reason 2:	"Terminal value, the most uncertain aspect of dividend discount models, is less important in residual-income valuation."
Reason 3:	"The models depend on data that is easy to obtain and requires minimal modification."
Reason 4:	"All residual-income models are dependent on assumptions about earnings growth."

Clifton explains to Rawls that analysts use assumptions to make the residual-income models easier to interpret. She goes on to identify four commonly used assumptions: Residual income can be expected to:

- disappear immediately
- decline gradually as return on equity (ROE) declines
- stay at the same level indefinitely
- decline to the market average

After her initial review of residual income, Clifton gives Rawls a test. The answers depend on the use of the following information about CR Industries in Year X (in \$ millions):

Invested capital	\$225
Market capitalization	\$231
Debt	\$130
Sales	\$90
Cost of goods sold (COGS)	\$26
Selling, general & administrative (SG&A) expense	\$10
Depreciation and amortization expense	\$25
Interest expense	\$6.5
Dividend expense	\$6
Tax rate	40.0%
Pretax cost of equity	11.4%
Pretax cost of debt	5.00%

Question #5 - 10 of 66

Question ID: 1210068

When a company's ROE is the same as the return required by the market, the stock's justified market value is *closest* to the:

- A)** book value.
- B)** book value plus residual income.

C) actual market value plus residual income.



Explanation

When ROE is equal to the required return on equity, the justified market value of a share of stock is equal to its book value. In this case, there is no residual income.

(Study Session 11, Module 30.1, LOS 30.a)

Related Material

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Question #6 - 10 of 66

Question ID: 1210069

Which of the following assumptions is not commonly used to simplify the calculation of residual income? Continuing residual income is expected to:

A) decline to the market average.



B) decline gradually as ROE declines.



C) disappear immediately.



Explanation

A common assumption involves residual income declining to an average level consistent with a mature industry. This assumption makes sense, considering that we generally calculate residual income for an individual company, and the company's industry average is quite possibly the best benchmark for its future income-generation potential. The market average is not generally used as a proxy. Both remaining assumptions are commonly used.

(Study Session 11, Module 30.1, LOS 30.a)

Related Material

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Question #7 - 10 of 66

Question ID: 1210070

Which of the following regarding the statements Clifton made about the usefulness of residual-income valuation is *most* accurate? Clifton is correct in regard to:

A) Reasons 1 and 2, but incorrect in regard to Reasons 3 and 4.



B) Reasons 1, 2, and 4, but incorrect in regard to Reason 3.



C) Reason 4, but incorrect in regard to Reasons 1, 2 and 3.



Explanation

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Clifton's Reasons 1 and 2 are correct. Residual-income models work when cash flows are volatile or negative and are not dominated by terminal value calculations.

Clifton's Reason 3 is incorrect. Residual-income models use accounting data that is easy to find, but often requires numerous adjustments.

Reason 4 is also incorrect. General residual-income models make no assumptions in regard to future earnings growth. They can be modified to include growth if the dividend rate and the growth rate are assumed to be constant.

(Study Session 11, Module 30.1, LOS 30.a)

Related Material

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Question #8 - 10 of 66

Question ID: 1210071

Which of the following scenarios represents a violation of the clean surplus relationship?

- A) The market value of securities held for sale changes. ✓
- B) A company stops paying dividends suddenly. ✗
- C) Unusual charges against income are not charged against equity. ✗

Explanation

The clean surplus relationship holds that ending book value equals the beginning book value plus earnings minus dividends, excluding ownership transactions. The relationship is violated when charges skip the income statement and go directly to equity. Changes in the market value of debt and equity classified as available for sale can affect equity without affecting earnings. Unusual charges should not be included in residual-value calculations because they are not expected to recur. Charges that do not affect equity will not violate the relationship. Cessation of dividends also does not violate the relationship.

(Study Session 11, Module 30.1, LOS 30.a)

Related Material

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Question #9 - 10 of 66

Question ID: 1210072

The residual income of CR Industries is *closest* to:

- A) -\$12.15 million. ✗
- B) \$2.67 million. ✓
- C) -\$1.83 million. ✗

Explanation

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Residual income = net income – equity charge.

Net income = (sales – COGS – SG&A expense – depreciation and amortization expense – interest expense) × (1 – tax rate) = \$13.5 million.

Equity charge = equity × cost of equity.

(total capital - debt) × cost of equity = \$95 million × 11.4% = \$10.83 million.

Residual income = \$13.5 million – \$10.83 million = \$2.67 million.

(Study Session 11, Module 30.1, LOS 30.a)

Related Material

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Question #10 - 10 of 66

Question ID: 1210073

The economic value added (EVA) of CR Industries is *closest* to:

A) –\$4.53 million.



B) \$2.67 million.



C) –\$8.13 million.



Explanation

EVA = NOPAT – (WACC × invested capital).

NOPAT = (sales – COGS – SG&A expense – depreciation and amortization expense) × (1 – tax rate) = \$17.40 million.

To calculate the weighted average cost of capital (WACC), start by determining the percentage of equity and debt. \$130 million in debt represented 57.78% of total capital. The remaining 42.22% is the equity portion. Don't forget to adjust the cost of debt for taxes.

$$WACC = 57.78\% \times (5\% \times [1 - 40\%]) + (42.22\% \times 11.4\%) = 6.55\%.$$

$$EVA = \$17.40 \text{ million} - (\$225 \text{ million} \times 6.55\%) = \$2.67 \text{ million}.$$

Note that in this problem residual income and EVA are the same. This is true in a "perfect world" but you should not assume this will always be true on exam problems.

(Study Session 11, Module 30.1, LOS 30.a)

Related Material

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Question #11 of 66

Question ID: 1210126

Which of the following characteristics of a company would make it unsuitable for residual income valuation analysis?

A) Free cash flows are negative and likely to remain so for some time.

B) Book-value estimates are not reliable.

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C) The forecast of terminal value is not reliable.



Explanation

Residual income models can handle negative free cash flows and poor forecasts for terminal value. However, poor book-value estimates render the statistic less useful.

(Study Session 11, Module 30.5, LOS 30.j)

Related Material

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Question #12 of 66

Question ID: 1210091

Which of the following is the *most* appropriate tool to measure managerial effectiveness, goodwill impairment, and equity value?

A) Free cash flow to the firm.



B) Residual income.



C) Gordon growth model.



Explanation

Residual income is commonly used to measure managerial effectiveness, goodwill impairment and equity value. The Gordon Growth Model (GGM) would not be appropriate in instances where the underlying assumptions (such as stable growth in perpetuity) do not apply. Free cash flow to the firm and price to sales would often not be appropriate tools to measure goodwill impairment.

(Study Session 11, Module 30.1, LOS 30.b)

Related Material

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Question #13 of 66

Question ID: 1210099

Among the various price multiples, the residual income model is *most closely* linked to which of the following?

A) Price to earnings (P/E).



B) Price to book value (P/B).



C) Price to free cash flow (P/FCF).



Explanation

The residual income model is most closely linked to P/B because justified P/B is directly linked to expected residual future income.

(Study Session 11, Module 30.2, LOS 30.e)

Related Material

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Question #14 of 66

Question ID: 1210122

The residual income approach is appropriate when:

- A) a firm pays high dividends that are quite stable. ✗
- B) expected free cash flows are negative for the foreseeable future. ✓
- C) the clean surplus accounting relation is violated significantly. ✗

Explanation

The residual income approach is appropriate when expected free cash flows are negative for the foreseeable future. It is not appropriate when the clean surplus accounting relation is violated significantly. A firm that pays high dividends that are quite stable is also a poor candidate for the approach.

(Study Session 11, Module 30.5, LOS 30.j)

Related Material

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Question #15 of 66

Question ID: 1210102

Midland Semiconductor has a book value of \$10.50 per share. The company's return on equity is 20%, and its required return on equity is 17%. The dividend payout ratio is 30%. What is the value of the shares using a single-stage residual income model?

- A) \$10.50. ✗
- B) \$21.00. ✓
- C) \$31.50. ✗

Explanation

$g = \text{retention ratio} \times \text{ROE} = (1 - 0.30) \times 0.20 = 0.14$ or 14%

$$V_0 = \$10.50 + \left(\frac{0.20 - 0.17}{0.17 - 0.14} \times \$10.50 \right) = \$21.00$$

(Study Session 11, Module 30.3, LOS 30.f)

Related Material

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Question #16 of 66


Question ID: 1210118

An argument against using the residual income (RI) valuation approach is that:

- A) terminal value does not dominate total present value as is the case in dividend and free cash flow valuation models. ✗

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B) the models rely on accounting data that can be manipulated by management. 

C) the models focus on economic rather than just on accounting profitability. 

Explanation

An argument against using the RI approach is that the models rely on accounting data that can be manipulated by management. Both remaining responses are arguments in favor of the approach.

(Study Session 11, Module 30.5, LOS 30.i)


Related Material

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Question #17 of 66

Question ID: 1210083

Residual income is defined as:

A) net income less a charge that measures stockholders' opportunity cost in generating that income. 

B) net income less a charge for capital investment. 

C) operating income plus depreciation and amortization. 

Explanation

Residual income is defined as net income less a charge that measures stockholders' opportunity cost in generating that income.

(Study Session 11, Module 30.1, LOS 30.a)

Related Material


[SchweserNotes - Book 3](#)


Question #18 of 66

Question ID: 1210121

Which of the following statements *least* accurately explains the relationship between the residual income (RI) model, the dividend discount model (DDM), and free cash flow to equity (FCFE):

A) FCFE models use historical cash flows. 

B) RI models use an equity value from the balance sheet plus the present value of expected future residual income. 

C) All the models discount future cash flows or income at the required rate of return. 

Explanation

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In theory, the same value or total present value should be derived using expected dividends, expected FCFE, or book value plus expected residual income if the underlying assumptions are the same. However, the recognition of value is different because FCFE and DDM models forecast future cash flows, while residual income models start with a balance sheet measure of equity and add the present value of expected future residual income. A residual income model can be used along with other models to assess the consistency of results.

(Study Session 11, Module 30.5, LOS 30.i)

Related Material

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Question #19 of 66

Question ID: 1210106

An analyst is considering the purchase of Rylinks, Inc., which has a price to book value (P/B) ratio of 6.00. Return on equity (ROE) is expected to be 13%, current book value per share is \$13.00, and the cost of equity is 11%. What growth rate is implied by the current P/B rate?

A) 0.40%.



B) 10.60%.



C) 11.00%.



Explanation

The P/B ratio of 6.00 and the current book value per share of \$13.00 imply a current market price of \$78.00. This implies a growth rate of:

$$g = r - \{[B_0(ROE - r)] / [V_0 - B_0]\} = 0.11 - \{[13.00(0.13 - 0.11)] / [78.00 - 13.00]\} = 0.1060 = 10.60\%.$$

Note that the reading in the curriculum does not provide this expression directly.

(Study Session 11, Module 30.3, LOS 30.g)

Related Material

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Question #20 of 66

Question ID: 1210125

An argument for using the residual income (RI) valuation approach is that residual income valuation:

A) encourages company managers to maximize ROI.



B) reduces the problem of terminal value dominating total value.



C) facilitates comparisons between divisions.



Explanation

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Terminal value does not dominate total present value as is the case in dividend and free cash flow valuation models. Both remaining responses are arguments against using the RI approach.

(Study Session 11, Module 30.5, LOS 30.j)

Related Material

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Question #21 of 66

Question ID: 1210107

An investor is considering the purchase of Microscopics, which has a price to book value (P/B) ratio of 4.00. Return on equity (ROE) is expected to be 12%, current book value per share is \$12.00, and the cost of equity is 10%. What growth rate is implied by the current P/B rate?

A) 10.00%.



B) 9.33%.



C) 0.67%.



Explanation

The P/B ratio of 4.00 and the current book value per share of \$12.00 imply a current market price of \$48.00. This implies a growth rate of:

$$g = r - \{B_0(ROE - r)\} / \{V_0 - B_0\} = 0.10 - \{12.00(0.12 - 0.10)\} / \{48.00 - 12.00\} = 0.0933 = 9.33\%.$$

Note that the reading in the curriculum does not provide this expression directly.

(Study Session 11, Module 30.3, LOS 30.g)

Related Material

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Question #22 of 66

Question ID: 1210085

Market value added is calculated as:

A) market value of the company minus a charge for equity capital.



B) net operating profit after taxes minus a charge for total capital.



C) market value of the company minus total capital.



Explanation

Market value added is the market value of the company minus total capital. It is used to measure the effect on value of management's decisions since the firm's inception.

(Study Session 11, Module 30.1, LOS 30.a)

Related Material

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Question #23 of 66

Question ID: 1210128

Analyst Brett Melton, CFA, is looking at two companies. Happy Cow Dairies has volatile cash flows, and its free cash flow is often negative. The company pays no dividends. Glitter and Gold, a maker of girls' clothing, has a fairly steady stream of earnings and cash flows but takes a lot of charges against equity. Is the residual income model suitable for valuing the two companies?

- | | <u>Happy Cow Dairies</u> | <u>Glitter and Gold</u> | |
|--------|--------------------------|-------------------------|---|
| A) No | No | | ✗ |
| B) No | Yes | | ✗ |
| C) Yes | No | | ✓ |

Explanation

Residual income models work for companies with no dividends and volatile or negative cash flows. They do not work, however, when the clean surplus relation does not hold, as is the case when companies take charges against equity.

(Study Session 11, Module 30.5, LOS 30.j)

Related Material

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Question #24 of 66

Question ID: 1210131

Reported accounting data are *most likely* to bias an estimate of residual income when:

- A) standards allow charges directly to stockholders' equity while bypassing the income statement. ✓
- B) standards allow charges directly to stockholders' equity that are also reflected on the income statement. ✗
- C) the clean surplus relation holds. ✗

Explanation

Bias is likely when standards allow charges directly to stockholders' equity while bypassing the income statement. Both remaining responses are consistent with the use of data that will not introduce a bias.

(Study Session 11, Module 30.5, LOS 30.k)

Related Material

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Question #25 of 66

Question ID: 1210124

An argument for using the residual income (RI) valuation approach is that:

- A) the clean surplus relation fails to hold. ✗
- B) the models focus on economic rather than just on accounting profitability. ✓
- C) the models rely on accounting data that can be manipulated by management. ✗

Explanation

The models focus on economic rather than just on accounting profitability. Both remaining responses are arguments against using the RI approach.

(Study Session 11, Module 30.5, LOS 30.j)

Related Material

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Question #26 of 66

Question ID: 1210133

An analyst uses the financial statements of Advanced Instruments to generate the following estimates:

- Book Value per share = 4.00
- Retention ratio = 75%
- ROE = 17%

If the required rate of return is 15%, and the current share price is \$7.56 per share, the stock (using a single-stage residual income model) is *most likely*:

- A) overvalued. ✗
- B) correctly valued. ✓
- C) undervalued. ✗

Explanation

$g = \text{retention ratio} \times \text{ROE} = (0.75) \times 0.17 = 0.1275$ or 12.75%

$$V_0 = \$4.00 + \left(\frac{0.17 - 0.15}{0.15 - 0.1275} \times \$4.00 \right) = \$7.56$$

(Study Session 11, Module 30.5, LOS 30.l)

Related Material

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Question #27 of 66

Question ID: 1210111

Continuing residual income is defined as the:

- A) residual income that forces the net present value to zero. ✗

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B) permanent as opposed to the transitory part of residual income.



C) residual income that is expected beyond the initial forecast time horizon.



Explanation

Continuing residual income is defined as the residual income that is expected beyond the initial forecast time horizon. It comes into play when RI is forecast for a defined time horizon and a terminal value based on continuing RI is estimated at the end of that time frame.

(Study Session 11, Module 30.4, LOS 30.h)

Related Material

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Question #28 of 66

Question ID: 1210101

In a single-stage residual income model for a firm with return on equity (ROE) greater than the required rate of return, which statement is *least* accurate?

A) Market value will be greater than book value.



B) Free cash flow to equity will be positive.



C) The justified price-to-book value (P/B) ratio will be greater than one.



Explanation

In a single-stage residual income model with ROE greater than the required rate of return, justified P/B will be greater than one and market value will be greater than book. There is no clear relationship with free cash flow to equity.

(Study Session 11, Module 30.3, LOS 30.e)

Related Material

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Question #29 of 66

Question ID: 1210110

The present value of Raver Industries' projected residual income (RI) for the next five years is £60 per share. Beyond that time horizon, a key analyst projects that the firm will sustain a RI of £11 per share, which is the RI for year 5. Given a cost of equity of 12%, what is the terminal value of the stock as of year 5?

A) £500.00.



B) £91.67.



C) £560.00.



Explanation

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The stock's terminal value as of year 5 is:

$$TV = 11.00 / 0.12 = 91.67$$

(Study Session 11, Module 30.4, LOS 30.h)

Related Material

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Question #30 of 66

Question ID: 1210081

Cognitive Products (CP) designs decision-making software. The book value of its assets is \$3.2 billion, which is financed with \$2.0 billion in equity and \$1.2 billion in debt. Its before-tax cost of debt is 6.5%, while its relevant tax rate is 34%. CP has a cost of equity of 12.46%. Its abbreviated income statement is:

Earnings before interest and taxes (EBIT)	\$213,000,000
Interest expense	(30,000,000)
Pretax income	183,000,000
Income tax expense	(62,220,000)
Net income	\$120,780,000

The residual income (RI) for CP is *closest* to:

A) – \$128,420,000.



B) – \$128,471,000.



C) – \$128,369,000.



Explanation

The dollar-based equity charge is:

$$\text{equity charge} = \text{equity capital} \times \text{cost of equity} = \$2.0 \text{ billion} \times 0.1246 = \$249,200,000.$$

RI is calculated as:

Net Income	\$120,780,000
(Less) Equity charge	(249,200,000)
RI	–\$128,420,000

(Study Session 11, Module 30.1, LOS 30.a)

Related Material




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Question #31 of 66

Question ID: 1210116

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A use of the residual income (RI) valuation approach is:

- A) deferring value more than in competing valuation approaches. 
- B) providing more reliable estimates of terminal value. 
- C) providing a check of consistency between competing approaches like free cash flow of equity (FCFE) and dividend discount model (DDM). 

Explanation

A RI model can be used along with other models to assess the consistency of results. FCFE and DDM models forecast future cash flows while RI models start with a balance sheet measure of equity and add the present value of expected future RI.

(Study Session 11, Module 30.5, LOS 30.i)

Related Material

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Question #32 of 66

Question ID: 1210088

Travel Advisors has earnings before interest and taxes (EBIT) of \$200 million, interest expense of \$83 million, taxes of \$46.8 million, and total debt of \$125 million. It is also financed with total equity of \$850 million, which has a required rate of return of 12%. What is Travel Advisors' residual income?

- A) A profit of \$70.2 million. 
- B) A profit of \$31.8 million. 
- C) A loss of \$31.8 million. 

Explanation

Net income = $200,000,000 - 83,000,000 - 46,800,000 = \$70,200,000$. The equity capital charge is $850,000,000 \times 0.12 = \$102,000,000$. Thus, residual income = $70,200,000 - 102,000,000 = -\$31,800,000$.

(Study Session 11, Module 30.1, LOS 30.a)




Related Material

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Question #33 of 66

Question ID: 1210100

Assuming that the growth rate is less than the required rate of return (r), a decrease in initial book value will cause value in a residual income (RI) model to:

- A) decrease. 
- B) there is insufficient information to determine the effect on RI. 
- C) increase. 

Explanation

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A decrease (increase) in initial book value decreases (increases) value. This is revealed by the RI valuation expression:

$$V_0 = B_0 + [(ROE - r) / (r - g)]B_0$$

(Study Session 11, Module 30.2, LOS 30.e)

Related Material

[SchweserNotes - Book 3](#)

Question #34 of 66

Question ID: 1210120

Which description of the relationship among residual income, dividend discount (DDM) and free cash flow to equity (FCFE) models is *least* accurate?

- A) The different models should result in different intrinsic values because of the theoretical differences in the models. ✓
- B) Residual income differs from DDM and FCFE in that it discounts income rather than cash. ✗
- C) Residual income differs from DDM and FCFE in that residual income starts with book value. ✗

Explanation

The three models should all produce the same intrinsic value as long as the underlying assumptions are the same. The differences in intrinsic values arise from difficulty in estimating the inputs, not from theoretical differences in the models. Since they should produce the same results, they can be used to assess consistency. Residual income differs from DDM and FCFE in the use of accounting assumptions, including book value and discounting income.

(Study Session 11, Module 30.5, LOS 30.i)

Related Material

[SchweserNotes - Book 3](#)

Question #35 of 66

Question ID: 1210127

The residual income approach is NOT appropriate when:

- A) a firm does not pay dividends or the stream of payments is too volatile to be sufficiently predictable. ✗
- B) the clean surplus accounting relation is violated significantly. ✓
- C) expected free cash flows are negative for the foreseeable future. ✗

Explanation

The residual income approach is not appropriate when the clean surplus accounting relation is violated significantly. Both remaining responses describe circumstances in which the approach is appropriate.

(Study Session 11, Module 30.5, LOS 30.j)

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Related Material

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Question #36 of 66

Question ID: 1210097

Assuming that the growth rate is less than the required rate of return (r), an increase in return on equity (ROE) will cause value in a residual income (RI) model to:

- A) there is insufficient information to derive the effects of increasing ROE on RI. ✗
- B) increase if ROE is greater than the required rate of return. ✓
- C) decrease if ROE is greater than the required rate of return. ✗

Explanation

An increase (decrease) in ROE increases (decreases) value if the ROE exceeds the required rate of return. This is revealed by the RI valuation expression:

$$V_0 = B_0 + [(ROE - r) / (r - g)]B_0$$

(Study Session 11, Module 30.2, LOS 30.d)

Related Material

[SchweserNotes - Book 3](#)

Question #37 of 66

Question ID: 1210112

The present value of Forman Electronics' projected residual income (RI) for the next five years is £80 per share. Beyond that time horizon a key analyst projects that the firm will sustain a RI of £17 per share, which is the RI for year 5. Given a cost of equity of 13%, what is the terminal value of the stock as of year 5?

- A) £500.00. ✗
- B) £130.77. ✓
- C) £19.96. ✗

Explanation

The stock's terminal value as of year 5 is:

$$TV = 17.00 / 0.13 = 130.77$$

(Study Session 11, Module 30.4, LOS 30.h)

Related Material

[SchweserNotes - Book 3](#)

Question #38 of 66

Question ID: 1210104

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Big Sky Ranches reported the following for the end of its fiscal year:

- Revenues = \$40.8 million.
- Pretax income = \$8.6 million.
- (beginning-of-the year) Assets = \$53.2 million.
- (beginning-of-the year) Liabilities = \$27.8 million.
- Dividends per share = \$0.35.
- Shares outstanding = 8 million.
- Tax rate = 35%.

The beta for Big Sky Ranches is 1.2, the current risk-free rate is 4.5%, and the expected return on the market is 12.5%. What is the value of the shares using a single-stage residual income model?

A) \$23.23.



B) \$11.28.



C) \$8.10.



Explanation

After tax earnings = Pretax earnings \times (1 - T) = 8.6 million \times (1 - 0.35) = \$5.59 million

EPS = After tax earnings/shares outstanding = \$5.59 million / 8 million = \$0.70

Retention ratio = (0.70 - 0.35) / 0.70 = 0.50 or 50%

Beginning Equity = Assets - liabilities = \$53.2 million - \$27.8 million = \$25.4 million

Book value per share₀ = Total equity/shares outstanding = \$25.4 million / 8 million = \$3.18

ROE = \$0.70 / \$3.18 = 0.22 or 22%

g = retention ratio \times ROE = (0.50) \times 0.22 = 0.11 or 11.00%

Expected return = 0.045 + [0.125 - 0.045]1.2 = 0.1410 or 14.10%

$$V_0 = \$3.18 + \left(\frac{0.22 - 0.141}{0.141 - 0.11} \times \$3.18 \right) = \$11.28$$

(Study Session 11, Module 30.3, LOS 30.f)

Related Material

SchweserNotes - Book 3

Professor Cliff Webley made the following statements in his asset-valuation class:

- Statement 1: "Residual income approaches generally model ROE as approaching zero over time."
- Statement 2: "If actual return on equity equals required return on equity, the residual income model sets the company's proper market value equal to its book value."
- Statement 3: "Using consistent assumptions, the single-stage residual income model should give you the same valuation as the Gordon Growth Dividend-discount model."

Which of Webley's statements is *least* accurate?

A) Statement 2.



B) Statement 1.



C) Statement 3.



Explanation

In a competitive market, ROE has been found to decline over time -- not to zero but to the cost of equity. Thus, residual income approaches often model ROE fading toward the cost of equity. As ROE approaches the cost of equity, residual income approaches zero. The other two statements are accurate.

(Study Session 11, Module 30.2, LOS 30.d)

Related Material

[SchweserNotes - Book 3](#)

Question #40 of 66

Question ID: 1210087

SmallCo has the following characteristics:

- Long-term debt = \$55 million
- Equity = \$45 million
- WACC = 11%
- EBIT = \$10 million
- Marginal tax rate = 30%

SmallCo's economic value added is *closest* to:

A) -\$1 million.



B) -\$4 million.



C) +\$1 million.



Explanation

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Economic value added (EVA) measures the value added for shareholders by management during a given year. A company must produce EVA in order to increase its market value. EVA is calculated as:

$$\begin{aligned} & \text{EBIT}(1 - t) - \$\text{WACC} \\ & 10(1 - 0.30) - 0.11(55 + 45) \\ & 7 - 11 \\ & -4 \end{aligned}$$

(Study Session 11, Module 30.1, LOS 30.a)

Related Material

[SchweserNotes - Book 3](#)

Question #41 of 66

Question ID: 1210095

Krieger String & Twine expects to generate a return on equity (ROE) of 13.6% in each of the next five years. The required ROE is 8.7%. Current book value is \$12.40 per share and the firm pays no dividends. Krieger previously assumed residual income falls to zero immediately after five years, but has now decided to recalculate its estimated value using a persistence factor of 35%. The difference between the new valuation and the old one is *closest to*:

- A) \$0.16 per share.
- B) \$0.32 per share.
- C) \$0.64 per share.



Explanation

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To answer this question, we need to establish the residual values using the following equations:

$$\text{Earnings} = \text{prior year book value} \times \text{ROE}$$

$$\text{Equity charge} = \text{prior year book value} \times \text{required ROE}$$

$$\text{Residual income} = \text{earnings} - \text{equity charge}$$

Here is a table containing the relevant values.

Year	Earnings (ROE = 13.60%)	Book Value	Equity Charge (Required ROE = 8.70%)	Residual Income	PV of Residual Income
0		\$12.40			
1	\$1.69	\$14.09	\$1.08	\$0.61	\$0.56
2	\$1.92	\$16.00	\$1.23	\$0.69	\$0.58
3	\$2.18	\$18.18	\$1.39	\$0.78	\$0.61
4	\$2.47	\$20.65	\$1.58	\$0.89	\$0.64
5	\$2.81	\$23.46	\$1.80	\$1.01	\$0.67

Company value = \$12.40 + the sum of the residual incomes

Assuming residual value drops to zero after year five, the company is valued at \$15.46 per share.

Now, we modify the model to reflect the persistence factor of 35%. The only value that persistence factor effects is the terminal value. Instead of discounting the Year 5 residual income by $1 + \text{required ROE}$, we discount it by $1 + \text{required ROE} - \text{persistence factor}$. The new values are as follows:

	Book Value	Year 1	Year 2	Year 3	Year 4
Value	\$12.40	\$0.56	\$0.58	\$0.61	\$1.62

$$\text{Year 4 CF} = \text{Residual income in year 4} + \text{PV Continuing residual income} = 0.89 + 1.37 = 2.26$$

$$\text{PV of continuing residual income (T=4)} = \text{RI}(\text{year 5}) / (1 + r - w) = 1.01 / (1 + 0.087 - 0.35) = 1.37$$

$$\text{PV(T=0) of 2.26(T=4)} = 1.62$$

For a total value of \$15.78 per share, or \$0.32 higher than the original value.

(Study Session 11, Module 30.2, LOS 30.c)

Related Material

[SchweserNotes - Book 3](#)

Question #42 of 66

Question ID: 1210089

A residual income model would be *least appropriate* as a tool to measure which of the following?

A) Economic income.

B) Operating leverage.



C) Goodwill impairment.



Explanation

Operating leverage is not measured directly by residual income models, although operating leverage may have an effect on the residual income measured. Residual income models are intended as a measure of economic income, and are often used to measure goodwill impairment.

(Study Session 11, Module 30.1, LOS 30.b)

Related Material

[SchweserNotes - Book 3](#)

Question #43 of 66

Question ID: 1210103

Advanced Instruments reported the following for the end of its fiscal year:

- Revenues = \$50.3 million.
- Assets = \$33.8 million.
- Liabilities = \$13.8 million.
- Earnings per share = \$0.68.
- Dividends per share = \$0.17.
- Shares outstanding = 5 million.
- Tax rate = 40%.

If the required rate of return is 15%, what is the value of the shares using a single-stage residual income model?

A) \$6.01.



B) \$4.78.



C) \$7.56.



Explanation

Retention ratio = $(0.68 - 0.17) / 0.68 = 0.75$ or 75%

Equity = Assets - liabilities = \$33.8 million - \$13.8 million = \$20 million

Book value per share = Total equity / shares outstanding = \$20 million / 5 million = \$4.00

ROE = $\$0.68 / \$4.00 = 0.17$ or 17%

$g = \text{retention ratio} \times \text{ROE} = (0.75) \times 0.17 = 0.1275$ or 12.75%

$$V_0 = \$4.00 + \left(\frac{0.17 - 0.15}{0.15 - 0.1275} \times \$4.00 \right) = \$7.56$$

(Study Session 11, Module 30.3, LOS 30.f)

Related Material




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Question #44 of 66

Question ID: 1210096

The single-stage residual income model values a company at:

- A) book value times a factor determined by the discount rate. 
- B) book value plus the present value of the firm's expected economic profits. 
- C) book value plus the terminal value discounted at the weighted average cost of capital. 

Explanation

The single-stage residual income model values a company at book value plus the present value of the firm's economic profits, or the additional value generated by the firm's ability to produce returns higher than the cost of equity.

(Study Session 11, Module 30.2, LOS 30.d)




Related Material

[SchweserNotes - Book 3](#)

Question #45 of 66

Question ID: 1210117

An argument for using the residual income (RI) valuation approach is that:

- A) the models rely on accounting data that can be manipulated by management. 
- B) the models focus on economic rather than just on accounting profitability. 
- C) the clean surplus relation fails to hold. 

Explanation

The models focus on economic rather than just on accounting profitability. Both remaining responses are arguments against using the RI approach.

(Study Session 11, Module 30.5, LOS 30.i)




Related Material

[SchweserNotes - Book 3](#)

Question #46 of 66

Question ID: 1210109

A common assumption regarding continuing residual income (RI) is that RI:

- A) manifests a generally increasing trend indefinitely. 
- B) declines to zero as return on equity (ROE) drops to the cost of equity over time. 
- C) falls to the average industry level. 

Explanation

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It is common to assume that RI declines to zero as ROE drops to the cost of equity over time. Other assumptions analysts may make include RI continues indefinitely at a positive level or RI reflects a decline in ROE to a long-run average level.

(Study Session 11, Module 30.4, LOS 30.h)




Related Material

[SchweserNotes - Book 3](#)

Question #47 of 66

Question ID: 1210115

Which statement *best* describes the relationship between the residual income model and the free cash flow to equity model?

- A) They both discount a future stream of cash flows. 
- B) They do not rely on accounting assumptions. 
- C) Intrinsic value calculated by both should be the same if the assumptions are the same. 

Explanation

Theoretically the intrinsic value calculated by both should be the same, but since they use different approaches the values are often different in practice. Residual income relies on book value and discounts income, not cash flow.

(Study Session 11, Module 30.5, LOS 30.i)




Related Material

[SchweserNotes - Book 3](#)

Question #48 of 66

Question ID: 1210123

An argument against using the residual income (RI) valuation approach is that:

- A) the models focus on economic rather than just on accounting profitability. 
- B) terminal value does not dominate total present value as is the case in dividend and free cash flow valuation models. 
- C) the models rely on accounting data that can be manipulated by management. 

Explanation

An argument against using the RI approach is that the models rely on accounting data that can be manipulated by management. Both remaining responses are arguments in favor of the approach.

(Study Session 11, Module 30.5, LOS 30.j)

Related Material




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Question #49 of 66

Question ID: 1210084

A common adjustment in calculating economic value added (EVA®) is to:

- A) capitalize and amortize research and development expenses. 
- B) add back deferred taxes. 
- C) treat capital leases as operating leases. 

Explanation

It is common to capitalize and amortize research and development (R&D) expenses and add R&D expenses back to earnings. Deferred taxes are eliminated to pick up only cash taxes. Operating leases are treated as capital leases.

(Study Session 11, Module 30.1, LOS 30.a)




Related Material

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Question #50 of 66

Question ID: 1210092

Creative Gardening is expected to have a return on equity (ROE) of 13% for the next five years and slightly lower thereafter. Its current book value per share as of the *beginning* of year 1 (i.e., the end of year 0) is \$7.50 per share and its required rate of return is 10%. The premium over book value at the end of five years is expected to be 30%. All earnings are reinvested. The sum of the present values of the residual income estimates over the next five years is \$1.10. The projected ending book value in year 5 is \$13.83. What is the value of Creative Gardening using these inputs?

- A) \$11.18. 
- B) \$13.83. 
- C) \$8.60. 

Explanation

Applying the finite horizon residual income valuation model:

$$\begin{aligned} V_0 &= B_0 + \text{sum of discounted RIs} + \text{discounted premium} \\ &= 7.50 + 1.10 + [(0.30)(13.83)/(1.10)^5] = \$11.18 \end{aligned}$$

(Study Session 11, Module 30.2, LOS 30.c)

Related Material

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Question #51 of 66

Question ID: 1210113

If a multistage residual income model incorporates a persistence factor of zero, the analyst is *most likely* assuming that residual income will:

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A) decline to zero over time.



B) persist at the current level forever.



C) fall to zero immediately.



Explanation

A persistence factor of zero is used when residual income is expected to drop immediately to zero. A persistence factor of one is used when residual income is expected to persist at the current level forever. A persistence factor between zero and one is used when residual income is expected to decline over time.

(Study Session 11, Module 30.4, LOS 30.h)

Related Material

[SchweserNotes - Book 3](#)

Question #52 of 66

Question ID: 1210129

In general, firms making aggressive accounting decisions will report book values that are:

A) consistent with fair market value.



B) higher.



C) lower.



Explanation

In general, firms making aggressive (conservative) accounting decisions will report higher (lower) book values and lower (higher) future earnings.

(Study Session 11, Module 30.5, LOS 30.k)

Related Material

[SchweserNotes - Book 3](#)

Question #53 of 66

Question ID: 1210105

An investor is considering the purchase of Robust Econometrics, Inc., which has a price-to-book (P/B) value ratio of 4.50. Return on equity (ROE) is expected to be 14%, the current book value per share (BVPS) is \$22.50, and the cost of equity is 12%. The growth rate implied by the current P/B ratio is *closest* to:

A) 12.57%.



B) 8.00%.



C) 11.43%.



Explanation

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The P/B ratio of 4.50 and the current BVPS of Sf22.50 imply a market price of Sf101.25(4.5 × 22.5). This implies a growth rate of:

$$g = r - \frac{B_0 \times (ROE - r)}{V_0 - B_0} = 0.12 - \frac{\text{Sf } 22.50 \times (0.14 - 0.12)}{\text{Sf } 101.25 - \text{Sf } 22.50} = 0.1143 = 11.43\%$$

(Study Session 11, Module 30.3, LOS 30.g)

Related Material

SchweserNotes - Book 3

Question #54 of 66

Question ID: 1210134

Big Sky Ranches reported the following for the end of its fiscal year:

Book Value = \$3.18

ROE = 22%

Retention Ratio = 50%

Required Return = 14.1%

The current share price is \$11.28 per share. The shares (relative to a single-stage residual income model) are *most likely*:

A) undervalued.



B) overvalued.



C) correctly valued.



Explanation

$g = \text{retention ratio} \times \text{ROE} = (0.50) \times 0.22 = 0.11$ or 11.00%

$$V_0 = \$3.18 + \left(\frac{0.22 - 0.141}{0.141 - 0.11} \times \$3.18 \right) = \$11.28$$

(Study Session 11, Module 30.5, LOS 30.I)

Related Material

SchweserNotes - Book 3

Question #55 of 66

Question ID: 1210093

Brown Manufacturing's recent financial statements reported a book value of \$9.50 per share; its required rate of return is 10%. Analyst Tony Giancola, CFA, wants to calculate the company's intrinsic value using a multistage residual income with a high-growth RI for the next 5 years. Giancola creates the following estimates:

PV of interim high-growth RI for the next 5 years is \$3.10

At the end of year 5, the PV of continuing RI is \$10.00

Estimated Book Value in 5 years is \$25.00

Which of the following is *closest* to the current intrinsic value of Brown Manufacturing?

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A) \$18.81.



B) \$13.10.



C) \$22.60.



Explanation

Applying the multistage residual income model:

$$V_0 = B_0 + \text{PV of interim high-growth RI} + \text{PV of continuing RI}$$

$$= 9.50 + 3.10 + [(10.00) / (1.10)^5] = \$18.81$$

(Study Session 11, Module 30.2, LOS 30.c)

Related Material

SchweserNotes - Book 3

Geremiah Analytics provides litigation consulting services to the intellectual property industry. They specialize in patent infringement liability and software valuation. Mariah Hofstedt, CFO of Geremiah, projects that the firm will earn \$3 million pre-tax income this year. Additional selected financial data on Geremiah are presented below.

Table 1: Selected Financial Data for Geremiah Analytics

Total assets	\$40 million
Debt/assets	60%
Average coupon on debt	8%
Cost of equity	12%
Tax rate	40%

Hofstedt has not been happy with the firm's financial performance. She would like to increase return on equity (ROE) and improve revenue growth, and is considering various ways to deploy Geremiah's cash flow in order to meet these two goals. One possibility is using some of Geremiah's cash flow to make a strategic acquisition.

Hofstedt has been looking at a smaller boutique firm, Logiciels LaMarre, which provides consulting services to the software industry. Hofstedt and a Geremiah Analytics valuation team have performed a preliminary valuation on Logiciels LaMarre using a free cash flow to equity (FCFE) model. However, Theodore LaMarre, CEO of Logiciels LaMarre, is not pleased with the resultant valuation that Geremiah has placed on his firm.

Rather than argue about the inputs of the free cash flow (FCF) model, LaMarre takes the position that FCFE is an inappropriate model for valuing Logiciels LaMarre. He cites the firm's rapid growth and resultant need for capital investment as reasons that valuing the firm on projections of FCFE is not reliable.

LaMarre wants Geremiah to value Logiciels LaMarre using the residual income approach. LaMarre tells Hofstedt, "Valuation with residual income models is less sensitive to forecast error than valuation with FCFE models because residual income valuations rely on current book value."

Hofstedt feels substantial disagreement with LaMarre's approach on a variety of grounds. She views his arguments as negotiating ploys to raise the acquisition price of his firm, and does not agree with his assessment of the FCF valuation her team has developed. On a theoretical basis, Hofstedt considers the

residual income approach an inappropriate tool for valuing a firm like Logiciels LaMarre. Hofstedt tells LaMarre, "It's not appropriate to use a residual income model to value Logiciels LaMarre because the impact of your currency translation gains and losses in shareholder equity causes the clean surplus accounting relation to be violated."

LaMarre ignores her concern and persists in his argument. He asserts, "The fact that our terminal value can be calculated with a high degree of certainty makes the use of a residual value model more appropriate than use of a FCFE model." Hofstedt counters that the residual income approach is not in LaMarre's interest. She points out, "Value tends to be recognized later in a residual income approach than in a FCFE approach."

There is, however, one point on which LaMarre and Hofstedt agree. They both recognize that competitive forces in the industry will drive the current high ROE of Logiciels LaMarre down to the cost of equity capital over time. Hofstedt concludes, "Given the assumption of a decline in ROE, we should use a persistence factor between zero and one." LaMarre disagrees, saying, "The assumption about ROE means that the present value of the continuing residual income at Logiciels LaMarre is the current residual income divided by the cost of equity capital."

Question #56 - 61 of 66

Question ID: 1210075

Regarding their statements about the impact of the clean surplus accounting relation and terminal value on when it is appropriate to use a residual income model, who is correct?

	LaMarre	Hofstedt	
A)	Incorrect	Correct	✓
B)	Correct	Correct	✗
C)	Correct	Incorrect	✗

Explanation

LaMarre is incorrect because residual income models are appropriate when terminal value is highly uncertain. Hofstedt is correct that a residual income approach is not appropriate if the clean surplus accounting relation is violated, for example by currency translation gains and losses going straight into equity.

(Study Session 11, Module 30.1, LOS 30.a)

Related Material

SchweserNotes - Book 3

Question #57 - 61 of 66

Question ID: 1210076

A higher dividend payout ratio and higher ROE would *most likely* have what impact on Logiciels LaMarre's persistence factor?

	ROE	Dividend payout ratio	
A)	Lower	Higher	✗

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- | | | |
|-----------|-------|--|
| B) Lower | Lower | |
| C) Higher | Lower | |

Explanation

A higher persistence factor is associated with a low dividend payout ratio, and vice versa. A high return on equity is associated with a lower persistence factor.

(Study Session 11, Module 30.1, LOS 30.a)

Related Material

SchweserNotes - Book 3

Question #58 - 61 of 66

Question ID: 1210077

Regarding their statements about the forecast error in residual income models and when they recognize value, who is correct?

- | | LaMarre | Hofstedt | |
|--------------|-----------|----------|--|
| A) Correct | Incorrect | | |
| B) Correct | Correct | | |
| C) Incorrect | Incorrect | | |

Explanation

LaMarre is correct that residual income models are less subject to forecast error than FCFE models because a large portion of intrinsic value in a residual income model is current book value. Hofstedt is incorrect because residual income models tend to recognize value earlier, not later, than other present value based approaches.

(Study Session 11, Module 30.1, LOS 30.a)

Related Material

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Question #59 - 61 of 66

Question ID: 1210078

Which of the following is *least likely* to characterize the difference between a residual income model and a FCFE model?

- | | |
|---|--|
| A) Terminal value represents a higher proportion of intrinsic value in a residual income model than in a dividend discount model (DDM). | |
| B) A residual income model is applicable to a firm that does not have FCF. | |
| C) Inputs to a residual income model are more easily manipulated by management. | |

Explanation

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Terminal value represents a lower, not higher, proportion of intrinsic value in a residual income model than in other present value based approaches. A residual income model is applicable to a firm that does not have FCF and relies on accounting data that is generally easily found. However, the accounting data used in a residual income model are more easily manipulated by management than cash flow data.

(Study Session 11, Module 30.1, LOS 30.a)

Related Material

SchweserNotes - Book 3

Question #60 - 61 of 66

Question ID: 1210079

The residual income of Geremiah Analytics is *closest* to:

- A) -\$120,000.
- B) \$120,000.
- C) \$1,080,000.00



Explanation

Geremiah's after-tax income is $(\$3 \times (1 - 0.40)) = \1.8 million. They have $(\$40 \times 0.60) = \24 million in debt and $(\$40 \times (1 - 0.60)) = \16 million in equity. Their equity charge is $(\$16 \times 0.12) = \1.92 million. Their residual income is $(\$1.8 - \$1.92) = -\$0.12$ million, or -\$120,000.

(Study Session 11, Module 30.1, LOS 30.a)

Related Material

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Question #61 - 61 of 66

Question ID: 1210080

Regarding their statements about ROE and residual income, who is correct?

- | | LaMarre | Hofstedt | |
|----|-----------|-----------|--|
| A) | Correct | Incorrect | |
| B) | Correct | Correct | |
| C) | Incorrect | Correct | |

Explanation

LaMarre is incorrect because the present value of the continuing residual income for a firm is equal to the current value divided by the return on equity when residual income continues indefinitely, which is not the case if ROE declines to the return on equity capital. Hofstedt is correct that ROE declining to the cost of equity capital implies a decline in residual income and thus a persistence factor between zero and one.

(Study Session 11, Module 30.1, LOS 30.a)

Related Material

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Question #62 of 66

Question ID: 1210114

The present value of GB Industries' projected residual income (RI) for the next five years is 70 per share. Beyond that time horizon, a key analyst projects that the firm will sustain a RI of 15 per share, which is the RI for year 5. Given a cost of equity of 12%, what is the terminal value of the stock as of year 5?

- A) £500.00.
- B) £560.00.
- C) £125.00.

**Explanation**

The stock's terminal value as of year 5 is:

$$TV = 15.00/0.12 = 125.00$$

(Study Session 11, Module 30.4, LOS 30.h)

Related Material

SchweserNotes - Book 3

Question #63 of 66

Question ID: 1210130

In general, firms making aggressive accounting decisions will report *future* earnings that are:

- A) higher.
- B) inflation-adjusted.
- C) lower.

**Explanation**

In general, firms making aggressive (conservative) accounting decisions will report higher (lower) book values and lower (higher) *future* earnings.

Firms may adopt aggressive accounting practices that overstate the value of earnings by, for example, accelerating revenues to the current period or deferring expenses to a later period. Current earnings will be higher, but *future* earnings will be lower.

(Study Session 11, Module 30.5, LOS 30.k)

Related Material

SchweserNotes - Book 3

Question #64 of 66

Question ID: 1210108

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An analyst is considering the purchase of Delphos Machinery, which has a price-to-book value (P/B) ratio of 8.00. Return on equity (ROE) is expected to be 14%, current book value per share is \$12.00, and the cost of equity is 11%. What growth rate is implied by the current P/B rate?

A) 10.57%.



B) 8.43%.



C) 11.00%.



Explanation

The P/B ratio of 8.00 and the current book value per share of \$12.00 imply a current market price of \$96.00. This implies a growth rate of:

$$g = r - [B_0(ROE - r)] / (V_0 - B_0) = 0.11 - [12.00(0.14 - 0.11)] / (96.00 - 12.00) = 0.1057 = 10.57\%$$

(Note: the curriculum does not provide this expression directly.)

(Study Session 11, Module 30.3, LOS 30.g)

Related Material

SchweserNotes - Book 3

Question #65 of 66

Question ID: 1210082

Travel Advisors has earnings before interest and taxes (EBIT) of \$200 million, interest expense of \$83 million, taxes of \$46.8 million, and total debt of \$125 million. It is also financed with total equity of \$650 million, which has a required rate of return of 12 percent. What is Travel Advisors' residual income? A:

A) loss of \$7.8 million.



B) profit of \$70.2 million.



C) loss of \$70.2 million.



Explanation

Net income = 200,000,000 – 83,000,000 – 46,800,000 = \$70,200,000. The equity capital charge is 650,000,000 × 0.12 = \$78,000,000. Thus, residual income = 70,200,000 – 78,000,000 = – \$7,800,000.

(Study Session 11, Module 30.1, LOS 30.a)

Related Material

SchweserNotes - Book 3

Question #66 of 66

Question ID: 1210086

Economic value added (EVA®) is calculated as net operating profit after taxes minus:

A) a charge for equity capital.



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B) capital expenditures.



C) a charge for total capital.



Explanation

$EVA = NOPAT - (C\% \times TC)$, where NOPAT is a firm's net operating profit after taxes, C% is the cost of capital, and TC is total capital.

(Study Session 11, Module 30.1, LOS 30.a)

Related Material

SchweserNotes - Book 3