Question 1
L2R40TB-AC035-1512
LOS: LOS-9110
Lesson Reference: Lesson 2: Valuation
Difficulty: medium

An analyst determines that Real Estate Capital Trust has 65,000 shares outstanding; she compiles the following financial information and uses relative valuation based on a P/AFFO multiple of 17.3x to calculate the Trust's per share value. She believes, however, that the value per share should be closer to $91.

Estimated cash NOI	$500,000
Funds from operations (FFO)	450,000
Cash and equivalents	325,000
Accounts receivable	215,000
Debt and other liabilities	2,250,000
Non-cash rents	45,000
Recurring maintenance capex	75,000

The *most likely* reason the analyst suggests an alternate per share value is because she expects:

- (selected) higher growth in FFO.
- increased volatility in FFO.
- required returns to increase because of tighter access to capital.

Rationale
✔ **higher growth in FFO.**

The value per share is:

FFO	$450,000
Less: Non-cash rents	45,000
Less: Maintenance capex	75,000
AFFO	330,000
Shares outstanding	65,000
AFFO per share	5.077
Multiple	17.3x
Value per share	$87.83

The analyst determines a value per share of $87.83 but she believes the share per value is closer to $91, thus she believes the relative value based on the P/AFFO multiple is undervalued. The three value drivers for relative multiples are: expectations for growth; risk in the cash flows of the underlying asset; and risk related to capital structure and access to capital. A higher multiple may be warranted if the expectation for growth is higher and the expectation for risk is lower. The second and third choices both indicate expectations for higher risk which would lead the analyst to estimate a lower multiple.

Rationale

increased volatility in FFO.

The value per share is:

FFO	$450,000
Less: Non-cash rents	45,000
Less: Maintenance capex	75,000
AFFO	330,000
Shares outstanding	65,000
AFFO per share	5.077
Multiple	17.3x
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Rationale

required returns to increase because of tighter access to capital.

The value per share is:

FFO	$450,000
Less: Non-cash rents	45,000
Less: Maintenance capex	75,000
AFFO	330,000
Shares outstanding	65,000
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Question 2
L2R40TB-AC013-1512
LOS: LOS-9100
Lesson Reference: Lesson 2: Valuation
Difficulty: medium
Which of the following would *most likely* concern an investor comparing properties using the price-to-funds from operations (P/FFO) multiple?

- (selected) Property condition.
- Remaining book life.
- Potential capital gains.

Rationale
Property condition.
FFO does not include a deduction for capital expenditures necessary to maintain the property's ability to generate the same level of income. Properties in disrepair will likely need significant future maintenance that could decrease cash flows to the investor. The AFFO measure deducts recurring maintenance expense.

Rationale
Remaining book life.
FFO does not include a deduction for capital expenditures necessary to maintain the property's ability to generate the same level of income. Properties in disrepair will likely need significant future maintenance that could decrease cash flows to the investor. The AFFO measure deducts recurring maintenance expense.

Rationale
Potential capital gains.
FFO does not include a deduction for capital expenditures necessary to maintain the property's ability to generate the same level of income. Properties in disrepair will likely need significant future maintenance that could decrease cash flows to the investor. The AFFO measure deducts recurring maintenance expense.

Question 3
L2AI-TB0006-1412
LOS: LOS-9040
Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities
Difficulty: medium
Which of the following statements regarding publicly traded real estate securities is most accurate?

- ○ Both REITs and REOC usually benefit from reductions in corporation taxation.
- ◉ REITs usually benefit from reductions in corporate taxation; REOCs usually do not.
- ○ REOCs usually benefit from reductions in corporate taxation; REITs usually do not.

Rationale

This Answer is Correct

Real estate investment trusts' tax advantage is a result of being allowed to deduct dividends paid from taxable income. This, alongside minimum payout levels, essentially makes REITs exempt from corporate income tax. Real estate operating companies are ordinary taxable real estate ownership companies.

Question 4
L2R40TB-AC017-1512
LOS: LOS-9050
Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities
Difficulty: medium
An advisor meets with three of his clients individually; they each express their investing preferences. The advisor summarizes his notes: Investor A seeks operating flexibility and limited liability; Investor B seeks stables returns, high payout ratios, and a high degree of liquidity; and Investor C wants income growth potential, and is less concerned with short-term liquidity needs. Which of the following is the *most appropriate* match given each investor's preferences?

- ○ Investor A; Real estate investment trust (REIT).
- ○ Investor B; Real estate operating company (REOC).
- ◉ Investor C; Direct investment in income-producing property.

Rationale
✗ Investor A; Real estate investment trust (REIT).
An advantage of a direct investment in an income-producing property is income growth potential. REITs (in the U.S.) must distribute 90 percent of their income as dividends, so growth is limited. An advantage of REOCs is their operating flexibility. REOCs are not constrained by REIT dividend requirements (as well as other requirements) and typically reinvest in property acquisition and development. Direct investments are not as liquid as pubic investments. Investor A should be matched with a REOC and Investor B should be matched with a REIT.

Rationale
✗ Investor B; Real estate operating company (REOC).
An advantage of a direct investment in an income-producing property is income growth potential. REITs (in the U.S.) must distribute 90 percent of their income as dividends, so growth is limited. An advantage of REOCs is their operating flexibility. REOCs are not constrained by REIT dividend requirements (as well as other requirements) and typically reinvest in property acquisition and development. Direct investments are not as liquid as pubic investments. Investor A should be matched with a REOC and Investor B should be matched with a REIT.

Rationale
✓ Investor C; Direct investment in income-producing property.
An advantage of a direct investment in an income-producing property is income growth potential. REITs (in the U.S.) must distribute 90 percent of their income as dividends, so growth is limited. An advantage of REOCs is their operating flexibility. REOCs are not constrained by REIT dividend requirements (as well as other requirements) and typically reinvest in property acquisition and development. Direct investments are not as liquid as

pubic investments. Investor A should be matched with a REOC and Investor B should be matched with a REIT.

Question 5
L2R40TB-AC024-1512
LOS: LOS-9060
Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities
Difficulty: medium
Trends in housing sales will *most likely* affect demand for:

- ○ office space in a downtown area.
- ◉ storage space in a mini-warehouse park.
- ○ manufacturing space in an industrial park.

Rationale
✗ **office space in a downtown area.**
Demand for mini-warehouse (i.e., personal storage) space will generally be determined by the type and size of housing (apartment vs single-family) as well as by the seasonal and cyclical moving patterns. As people move, demand for temporary storage may increase.

Rationale
✓ **storage space in a mini-warehouse park.**
Demand for mini-warehouse (i.e., personal storage) space will generally be determined by the type and size of housing (apartment vs single-family) as well as by the seasonal and cyclical moving patterns. As people move, demand for temporary storage may increase.

Rationale
✗ **manufacturing space in an industrial park.**
Demand for mini-warehouse (i.e., personal storage) space will generally be determined by the type and size of housing (apartment vs single-family) as well as by the seasonal and cyclical moving patterns. As people move, demand for temporary storage may increase.

Question 6
L2R40TB-AC032-1512
LOS: LOS-9100
Lesson Reference: Lesson 2: Valuation
Difficulty: medium
Which of the following approaches to valuation is *least likely* to suffer from an inaccurate estimate of the capitalization rate?

- Net asset value (NAV) using appraisals.
- Market (relative) valuation using P/AFFO.
- Discounted cash flow (DCF) valuation using NOI.

Rationale

Net asset value (NAV) using appraisals.

Of these approaches, relative valuation using P/AFFO is the only method unlikely to use capitalization rates. Although NAV may use appraisals rather than NOI divided by a cap rate, the appraisal itself may be made using an income method.

Rationale

Market (relative) valuation using P/AFFO.

Of these approaches, relative valuation using P/AFFO is the only method unlikely to use capitalization rates. Although NAV may use appraisals rather than NOI divided by a cap rate, the appraisal itself may be made using an income method.

Rationale

Discounted cash flow (DCF) valuation using NOI.

Of these approaches, relative valuation using P/AFFO is the only method unlikely to use capitalization rates. Although NAV may use appraisals rather than NOI divided by a cap rate, the appraisal itself may be made using an income method.

Question 7

L2AI-TBX103-1502

LOS: LOS-9090

Lesson Reference: Lesson 2: Valuation

Difficulty: easy

When valuing REITs, funds from operations (FFO) is *best* defined as:

- (selected) Net operating income – G&A expenses – Interest expense.
- Net Income + Noncash charges.
- Net income + Noncash charges – Gains(losses) from property disposals – Noncash rent – Maintenance capex – Leasing costs.

Rationale

This Answer is Correct

Answer B is incorrect because it fails to subtract gains(losses) from property disposals. Answer C defines adjusted funds from operations (AFFO).

Question 8
L2R40TB-AC027-1512
LOS: LOS-9100
Lesson Reference: Lesson 2: Valuation
Difficulty: medium
Which of the following asset valuation methods provides the *best* valuation for real estate investment trusts?

- Book value.
- Market value.
- Net asset value.

Rationale
Book value.
While market value provides the best valuation method for underlying assets, REITs often have a high percentage of assets secured by debt which must be considered in valuing the trust. Book value will not adequately reflect management contributions to value, and real estate investments typically appreciate rather than depreciate as would be considered by book value.

Rationale
Market value.
While market value provides the best valuation method for underlying assets, REITs often have a high percentage of assets secured by debt which must be considered in valuing the trust. Book value will not adequately reflect management contributions to value, and real estate investments typically appreciate rather than depreciate as would be considered by book value.

Rationale
Net asset value.
While market value provides the best valuation method for underlying assets, REITs often have a high percentage of assets secured by debt which must be considered in valuing the trust. Book value will not adequately reflect management contributions to value, and real estate investments typically appreciate rather than depreciate as would be considered by book value.

Question 9
L2EQ-PQ3912-1410
LOS: LOS-9070
Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities
Difficulty: medium
The properties held by which of the following types of REITs are *most likely* structured as gross leases?

- ○ Healthcare REITs
- ○ Industrial REITs
- ● Storage REITs

Rationale

This Answer is Correct

Storage REITs typically lease out space under gross leases on a monthly basis. Healthcare and industrial REITs typically lease out space under net leases.

Question 10
L2R40TB-AC030-1512
LOS: LOS-9090
Lesson Reference: Lesson 2: Valuation
Difficulty: medium
In a relative valuation context for publicly traded shares, price-to-adjusted funds from operations (P/AFFO) could *best* be related to the:

- price-to-earnings multiple (P/E).
- price-to-cash flow multiple (P/FCF).
- price-to-EBITDA multiple (P/EBITDA).

Rationale
price-to-earnings multiple (P/E).
Adjusted funds from operations is closer to free cash flow than EBITDA because it deducts capex and non-cash rent. Net income (as in the P/E ratio) serves as one starting point for the FFO calculation, and AFFO gets closer to FCF because it subtracts non-cash rent and maintenance capex.

Rationale
price-to-cash flow multiple (P/FCF).
Adjusted funds from operations is closer to free cash flow than EBITDA because it deducts capex and non-cash rent. Net income (as in the P/E ratio) serves as one starting point for the FFO calculation, and AFFO gets closer to FCF because it subtracts non-cash rent and maintenance capex.

Rationale
price-to-EBITDA multiple (P/EBITDA).
Adjusted funds from operations is closer to free cash flow than EBITDA because it deducts capex and non-cash rent. Net income (as in the P/E ratio) serves as one starting point for the FFO calculation, and AFFO gets closer to FCF because it subtracts non-cash rent and maintenance capex.

Question 11
L2R40TB-AC019-1512
LOS: LOS-9050
Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities
Difficulty: medium
Which of the following will *most likely* be a disadvantage for owners of shares in publicly traded real estate operating companies compared to ownership of a private equity investment?

- ○ Initial investment.
- ◉ Deductions for losses.
- ○ Personal liability for lawsuits.

Rationale
✖ **Initial investment.**
Private equity investors can deduct losses from the property against personal income where REOC (and REIT) shares are similar to owning stocks in a company in which losses may reduce share value of the REOC or REIT, but individual losses are not passed on to the owner. Choices A and C are advantages of publicly traded real estate investing.

Rationale
✔ **Deductions for losses.**
Private equity investors can deduct losses from the property against personal income where REOC (and REIT) shares are similar to owning stocks in a company in which losses may reduce share value of the REOC or REIT, but individual losses are not passed on to the owner. Choices A and C are advantages of publicly traded real estate investing.

Rationale
✖ **Personal liability for lawsuits.**
Private equity investors can deduct losses from the property against personal income where REOC (and REIT) shares are similar to owning stocks in a company in which losses may reduce share value of the REOC or REIT, but individual losses are not passed on to the owner. Choices A and C are advantages of publicly traded real estate investing.

Question 12
L2R40TB-AC029-1512
LOS: LOS-9080
Lesson Reference: Lesson 2: Valuation
Difficulty: medium

An analyst compiles the following information for a real estate investment trust:

Net operating income	$98.0 million
Market capitalization rate	6.25%
Market value of debt outstanding	$315.0 million
Shares outstanding	100.0 million
Book value of properties	$958.0 million
Book value per share (BVPS)	$7.25

The analyst will calculate the REIT's NAVPS *closest to*:

- ○ $9.58
- ◉ $12.53
- ○ $15.68

Rationale

✖ **$9.58**

Net asset value per share (NAVPS) is:

Net operating income	$98,000,000
Market capitalization rate	6.25%
Value of properties	1,568,000,000
Less: Market value of debt	315,000,000
NAV	1,253,000,000
Shares outstanding	$100,000,000
NAVPS	$12.53

The first choice is the book value of the properties divided by the number of shares outstanding; this does not reflect the market value of the properties (NOI capitalized at 6.25%) or the reduction of debt. The third choice does not deduct debt at market value from the market value of the properties (NOI capitalized at 6.5%) before dividing by the number of shares outstanding.

Rationale

$12.53

Net asset value per share (NAVPS) is:

Net operating income	$98,000,000
Market capitalization rate	6.25%
Value of properties	1,568,000,000
Less: Market value of debt	315,000,000
NAV	1,253,000,000
Shares outstanding	$100,000,000
NAVPS	$12.53

The first choice is the book value of the properties divided by the number of shares outstanding; this does not reflect the market value of the properties (NOI capitalized at 6.25%) or the reduction of debt. The third choice does not deduct debt at market value from the market value of the properties (NOI capitalized at 6.5%) before dividing by the number of shares outstanding.

Rationale

$15.68

Net asset value per share (NAVPS) is:

Net operating income	$98,000,000
Market capitalization rate	6.25%
Value of properties	1,568,000,000
Less: Market value of debt	315,000,000
NAV	1,253,000,000
Shares outstanding	$100,000,000
NAVPS	$12.53

The first choice is the book value of the properties divided by the number of shares outstanding; this does not reflect the market value of the properties (NOI capitalized at 6.25%) or the reduction of debt. The third choice does not deduct debt at market value from the market value of the properties (NOI capitalized at 6.5%) before dividing by the number of shares outstanding.

Question 13
L2R40TB-AC026-1512
LOS: LOS-9060
Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities
Difficulty: medium
A tenant will *most likely* pay a minimum amount plus a percentage of sales over some threshold if they lease space in a:

- multi-tenant office building.
- community shopping center.
- large, multi-tenant outlet mall.

Rationale

multi-tenant office building.

Tenants in regional malls and larger shopping centers, often with anchor retailers, will be more likely to pay a percentage of sales than in other types of property. Community shopping centers, generally open-air centers with “big-box” stores, have non-participatory leases with periodic increases. Office properties tend to have fixed leases (based on psf) with periodic increases and some portion of expenses to be shared.

Rationale

community shopping center.

Tenants in regional malls and larger shopping centers, often with anchor retailers, will be more likely to pay a percentage of sales than in other types of property. Community shopping centers, generally open-air centers with “big-box” stores, have non-participatory leases with periodic increases. Office properties tend to have fixed leases (based on psf) with periodic increases and some portion of expenses to be shared.

Rationale

large, multi-tenant outlet mall.

Tenants in regional malls and larger shopping centers, often with anchor retailers, will be more likely to pay a percentage of sales than in other types of property. Community shopping centers, generally open-air centers with “big-box” stores, have non-participatory leases with periodic increases. Office properties tend to have fixed leases (based on psf) with periodic increases and some portion of expenses to be shared.

Question 14
L2R40TB-AC022-1512
LOS: LOS-9060
Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities
Difficulty: medium
Which of the following *best* describes the due diligence issue in which a public equity real estate investment leases the majority of space in an office complex to a single tenant?

- Lease terms.
- Market rent analysis.
- Tenant concentration.

Rationale
Lease terms.
Tenant concentration occurs when most of the leased space is concentrated in a few or even a single tenant. Losing a tenant that rents a high percentage of leased space results in a significant risk to lease income.

Rationale
Market rent analysis.
Tenant concentration occurs when most of the leased space is concentrated in a few or even a single tenant. Losing a tenant that rents a high percentage of leased space results in a significant risk to lease income.

Rationale
Tenant concentration.
Tenant concentration occurs when most of the leased space is concentrated in a few or even a single tenant. Losing a tenant that rents a high percentage of leased space results in a significant risk to lease income.

Question 15
L2R40TB-AC020-1512
LOS: LOS-9060
Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities
Difficulty: medium
A private equity investor acting as an owner-operator will be *least concerned* with which of the following due diligence considerations as compared to an investor in public equity real estate?

- Lease terms.
- Management skills.
- Tenant concentration.

Rationale
Lease terms.
A private investor, acting as an owner-operator, will be familiar with their own management skills or those of their employees. Investments in public companies are generally a minority position in which the investor places trust in professional management. Lease terms and tenant concentration are due diligence considerations for both types of investors.

Rationale
Management skills.
A private investor, acting as an owner-operator, will be familiar with their own management skills or those of their employees. Investments in public companies are generally a minority position in which the investor places trust in professional management. Lease terms and tenant concentration are due diligence considerations for both types of investors.

Rationale
Tenant concentration.
A private investor, acting as an owner-operator, will be familiar with their own management skills or those of their employees. Investments in public companies are generally a minority position in which the investor places trust in professional management. Lease terms and tenant concentration are due diligence considerations for both types of investors.

Question 16
L2R40TB-AC031-1512
LOS: LOS-9090
Lesson Reference: Lesson 2: Valuation
Difficulty: medium
Which of the following *best* represents “cash available for distribution to shareholders”?

- ○ Net operating income (NOI).
- ○ Funds from operations (FFO).
- ◉ Adjusted funds from operations (AFFO).

Rationale
✖ **Net operating income (NOI).**
AFFO is also called “cash available for distribution” or “CAD.”

Rationale
✖ **Funds from operations (FFO).**
AFFO is also called “cash available for distribution” or “CAD.”

Rationale
✔ **Adjusted funds from operations (AFFO).**
AFFO is also called “cash available for distribution” or “CAD.”

Question 17
L2EQ-PQ3907-1410
LOS: LOS-9060
Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities
Difficulty: medium
Which of the following is *least likely* an investment characteristic of REITs?

- ○ High income distributions
- ○ Relatively low volatility of reported income
- ◉ Less frequent secondary offerings compared with industrial companies

Rationale

This Answer is Correct

Due to their high income distribution requirement (to maintain their tax-exempt status), REITs are not able to retain earnings to finance growth. Therefore, they tend to rely on new equity issues to finance property acquisitions.

Question 18
L2EQ-PQ3911-1410
LOS: LOS-9060
Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities
Difficulty: medium
The primary driver of value for all types of REITs is *most likely*:

- ○ Population growth
- ○ Retail sales growth
- ◉ Economic growth

Rationale
This Answer is Correct
Growth in the overall economy or national GDP is the largest driver of economic value for all REIT types.

Question 19
L2R40TB-AC008-1512
LOS: LOS-9050
Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities
Difficulty: medium
Which of the following ownership options for real estate will *most likely* have the greatest liquidity?

- (selected) REITs.
- REOCs.
- Direct investment.

Rationale

✔ **REITs.**

REITs tend to have the greatest liquidity. REOCs may invest in less liquid types of property and be of interest to fewer investors. Direct investment by individual property owners may involve a unique property that will require significant time to market, negotiate, provide due diligence, find financing for and bring to closing.

Rationale

✘ **REOCs.**

REITs tend to have the greatest liquidity. REOCs may invest in less liquid types of property and be of interest to fewer investors. Direct investment by individual property owners may involve a unique property that will require significant time to market, negotiate, provide due diligence, find financing for and bring to closing.

Rationale

✘ **Direct investment.**

REITs tend to have the greatest liquidity. REOCs may invest in less liquid types of property and be of interest to fewer investors. Direct investment by individual property owners may involve a unique property that will require significant time to market, negotiate, provide due diligence, find financing for and bring to closing.

Question 20
L2R40TB-AC018-1512
LOS: LOS-9050
Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities
Difficulty: medium
Which of the following investments *best* meets the following criteria: low investment contributions, limited liability, and high liquidity?

- ○ Private equity real estate.
- ○ Private investments in mortgage debt.
- ● Publicly traded real estate investment trusts.

Rationale
❌ **Private equity real estate.**
Publicly traded REITs have the advantage of issuing shares that cost less than the investment required in even a small property. REITs also provide limited liability and high liquidity compared to private investments.

Rationale
❌ **Private investments in mortgage debt.**
Publicly traded REITs have the advantage of issuing shares that cost less than the investment required in even a small property. REITs also provide limited liability and high liquidity compared to private investments.

Rationale
✅ **Publicly traded real estate investment trusts.**
Publicly traded REITs have the advantage of issuing shares that cost less than the investment required in even a small property. REITs also provide limited liability and high liquidity compared to private investments.

Question 21
L2EQ-PQ3915-1410
LOS: LOS-9080
Lesson Reference: Lesson 2: Valuation
Difficulty: medium
Which of the following is *least likely* regarding the calculation of net asset value for a REIT?

- (selected) Deferred tax liabilities are included in total liabilities.
- Noncash rents are deducted from current period NOI.
- Goodwill is not included in total assets.

Rationale
This Answer is Correct
Deferred tax assets, deferred tax liabilities, goodwill, and deferred financing expenses are not included in the computation of net asset value.

Question 22
L2R40TB-AC021-1512
LOS: LOS-9060
Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities
Difficulty: medium
An analyst following a hotel REIT would be *least concerned* with which of the following metrics?

- ○ RevPAR.
- ○ Forward bookings.
- ◉ Retail sales growth.

Rationale
✗ **RevPAR.**
The hotel industry is highly cyclical and cash flows can be volatile. Two important measures for hotel REIT analysts are: RevPAR, which is revenue per available room and forward bookings, which looks at trends in reservations typically by category. Growth in retail sales is not a primary economic driver for hotel properties.

Rationale
✗ **Forward bookings.**
The hotel industry is highly cyclical and cash flows can be volatile. Two important measures for hotel REIT analysts are: RevPAR, which is revenue per available room and forward bookings, which looks at trends in reservations typically by category. Growth in retail sales is not a primary economic driver for hotel properties.

Rationale
✓ **Retail sales growth.**
The hotel industry is highly cyclical and cash flows can be volatile. Two important measures for hotel REIT analysts are: RevPAR, which is revenue per available room and forward bookings, which looks at trends in reservations typically by category. Growth in retail sales is not a primary economic driver for hotel properties.

Question 23
L2R40TB-AC012-1512
LOS: LOS-9090
Lesson Reference: Lesson 2: Valuation
Difficulty: medium

An analyst compiles the following information for a real estate investment trust (REIT):

Non-cash rent	$360,000
Depreciation	900,000
Recurring maintenance capex	720,000
Lease commissions	36,000
Adjusted funds from operations	4,317,000
AFFO per share	$4.32

The analyst will calculate the REIT's funds from operations (FFO) per-share *closest to*:

- $6.33
- $5.44
- $3.20

Rationale

$6.33

Per-share FFO is:

	Adjusted Funds from operations	$4,317,000
Plus:	Non-cash rent	360,000
Plus:	Recurring maintenance capex	720,000
Plus:	Leasing commissions	36,000
	Funds from operations (FFO)	$5,433,000
	Shares outstanding (approx.)	1,000,000 (4,317,000 / 4.32)

FFO per share $5.43

The difference between FFO and AFFO is non-cash rent, recurring maintenance capex, and leasing commissions. The first choice incorrectly added depreciation in determining FFO. The third choice deducted instead of added the adjustments between FFO and AFFO.

Rationale

$5.44

Per-share FFO is:

	Adjusted Funds from operations	$4,317,000
Plus:	Non-cash rent	360,000
Plus:	Recurring maintenance capex	720,000
Plus:	Leasing commissions	36,000
	Funds from operations (FFO)	$5,433,000
	Shares outstanding (approx.)	1,000,000 (4,317,000 / 4.32)
FFO per share $5.43		

The difference between FFO and AFFO is non-cash rent, recurring maintenance capex, and leasing commissions. The first choice incorrectly added depreciation in determining FFO. The third choice deducted instead of added the adjustments between FFO and AFFO.

Rationale

✖ **$3.20**

Per-share FFO is:

	Adjusted Funds from operations	$4,317,000
Plus:	Non-cash rent	360,000
Plus:	Recurring maintenance capex	720,000
Plus:	Leasing commissions	36,000
	Funds from operations (FFO)	$5,433,000
	Shares outstanding (approx.)	1,000,000 (4,317,000 / 4.32)
FFO per share $5.43		

The difference between FFO and AFFO is non-cash rent, recurring maintenance capex, and leasing commissions. The first choice incorrectly added depreciation in determining FFO. The third choice deducted instead of added the adjustments between FFO and AFFO.

Question 24
L2R40TB-AC033-1512
LOS: LOS-9110
Lesson Reference: Lesson 2: Valuation
Difficulty: medium

An analyst applies an average P/AFFO multiple of 16.67x to the adjusted funds from operations (AFFO) for Wilburn REITrust, a publicly traded real estate investment trust. The trust has 1,250,000 shares outstanding. Financial information for the Trust is:

Net operating income	$35,000,000
General and administrative expense	1,350,000
Leasing commissions	350,000
Interest expense	13,250,000
Deferred taxes	400,000
Non-cash rent	235,000
Recurring maintenance capex	1,400,000

Based on this information, the analyst estimates the value per share of the Trust *closest to*:

- $240
- $246
- $272

Rationale

$240

The steps are: calculate AFFO, divide by the number of shares to find the AFFO per share, and apply the P/AFFO multiple to find the value per share:

	NOI	$35,000,000
Less:	General and administrative expense	1,350,000
Less:	Interest expense	13,250,000
	FFO	20,400,000
Less:	Non-cash rent	235,000
Less:	Leasing commissions	350,000
Less:	Recurring maintenance capex	1,400,000
	AFFO	$18,415,000
	# shares outstanding	1,250,000
	AFFO per share	$14.73
	P/AFFO multiple	16.67x
	Value per share	$245.58

Deferred taxes are not considered because the calculation started from NOI rather than net income. Choice A incorrectly deducts deferred taxes. Choice C incorrectly uses FFO instead of AFFO.

Rationale

✅ **$246**

The steps are: calculate AFFO, divide by the number of shares to find the AFFO per share, and apply the P/AFFO multiple to find the value per share:

NOI	$35,000,000
Less: General and administrative expense	1,350,000
Less: Interest expense	13,250,000
FFO	20,400,000
Less: Non-cash rent	235,000
Less: Leasing commissions	350,000
Less: Recurring maintenance capex	1,400,000
AFFO	$18,415,000
# shares outstanding	1,250,000
AFFO per share	$14.73
P/AFFO multiple	16.67x
Value per share	$245.58

Deferred taxes are not considered because the calculation started from NOI rather than net income. Choice A incorrectly deducts deferred taxes. Choice C incorrectly uses FFO instead of AFFO.

Rationale

❌ **$272**

The steps are: calculate AFFO, divide by the number of shares to find the AFFO per share, and apply the P/AFFO multiple to find the value per share:

NOI	$35,000,000
Less: General and administrative expense	1,350,000
Less: Interest expense	13,250,000
FFO	20,400,000
Less: Non-cash rent	235,000

Less: Leasing commissions	350,000
Less: Recurring maintenance capex	1,400,000
AFFO	$18,415,000
# shares outstanding	1,250,000
AFFO per share	$14.73
P/AFFO multiple	16.67x
Value per share	$245.58

Deferred taxes are not considered because the calculation started from NOI rather than net income. Choice A incorrectly deducts deferred taxes. Choice C incorrectly uses FFO instead of AFFO.

Question 25
L2R40TB-AC016-1512
LOS: LOS-9040
Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities
Difficulty: medium
A financial advisor searches for a high-yield investment with excellent liquidity for a client who would meet the requirements to be considered a qualified investor. The client indicates that risk commensurate with an equity security would be acceptable as long as the asset has high liquidity. The advisor would *most likely* recommend:

- (selected) publicly traded equity REITs.
- publicly traded equity REOCs.
- residential mortgage-backed securities (RMBS).

Rationale

✔ **publicly traded equity REITs.**

All these investments could be considered liquid because they are traded in public markets. REOCs, however, generally return less income to investors and have a smaller market than REITs, and RMBS will have a lower yield.

Rationale

✘ **publicly traded equity REOCs.**

All these investments could be considered liquid because they are traded in public markets. REOCs, however, generally return less income to investors and have a smaller market than REITs, and RMBS will have a lower yield.

Rationale

✘ **residential mortgage-backed securities (RMBS).**

All these investments could be considered liquid because they are traded in public markets. REOCs, however, generally return less income to investors and have a smaller market than REITs, and RMBS will have a lower yield.

Question 26
L2AI-TB0007-1412
LOS: LOS-9050
Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities
Difficulty: medium
Which of the following is most likely to be an advantage of private direct property ownership vehicles over publicly traded real estate securities like REITs and REOCs?

- (selected) The ability to pass on tax losses to investors.
- The avoidance of double taxation.
- Increased liquidity.

Rationale

This Answer is Correct

A disadvantage of publicly traded real estate vehicles like REITs and REOCs versus private direct ownership vehicles like limited partnerships is that publicly traded equity securities cannot pass on tax losses to investors like private investment vehicles can. Answer B is incorrect since the lack of corporate taxes inside a REIT means that investors in REITs can often avoid double taxation at both the corporate and investment income levels. This is not usually the case for private real estate investment vehicles. Answer C is incorrect since publicly traded real estate will provide more liquidity than private vehicles.

Question 27

L2EQ-PQ3910-1410

LOS: LOS-9070

Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities

Difficulty: medium

Which of the following types of REITs tends to be *less* cyclical than other RIETs?

- ○ Retail REITs
- ○ Office REITs
- ◉ Industrial REITs

Rationale

This Answer is Correct

Industrial REITs tend to be relatively less cyclical because of their longer lease terms, shorter time to construct, and the ability to build and prelease.

Question 28
L2R40TB-AC034-1512
LOS: LOS-9110
Lesson Reference: Lesson 2: Valuation
Difficulty: medium

An analyst determines that Real Estate Capital Trust has 65,000 shares outstanding and an assumed capitalization rate of 6.5%. She compiles the following financial information:

Estimated cash NOI	$500,000
Funds from operations (FFO)	450,000
Cash and equivalents	325,000
Accounts receivable	215,000
Debt and other liabilities	2,250,000
Non-cash rents	45,000
Recurring maintenance capex	75,000

Based on this information, the analyst calculates net asset value per share (NAVPS) *closest to*:

- $84
- $92
- $127

Rationale

$84

NAVPS is:

Estimated cash NOI	$500,000
Capitalization rate	0.065
Operating real estate value	$7,692,307.69
Plus: Cash and equivalents	325,000
Plus: Accounts receivable	215,000
Less: Debt and other liabilities	(2,250,000)
NAV	$5,982,307.69
Shares outstanding	65,000
NAVPS	$92.04

The first choice does not add the other assets of cash and accounts receivables. The third choice correctly adds the other assets but calculates NAVPS without deducting debt and other liabilities.

Rationale

✅ **$92**

NAVPS is:

Estimated cash NOI	$500,000
Capitalization rate	0.065
Operating real estate value	$7,692,307.69
Plus: Cash and equivalents	325,000
Plus: Accounts receivable	215,000
Less: Debt and other liabilities	(2,250,000)
NAV	$5,982,307.69
Shares outstanding	65,000
NAVPS	$92.04

The first choice does not add the other assets of cash and accounts receivables. The third choice correctly adds the other assets but calculates NAVPS without deducting debt and other liabilities.

Rationale

❌ **$127**

NAVPS is:

Estimated cash NOI	$500,000
Capitalization rate	0.065
Operating real estate value	$7,692,307.69
Plus: Cash and equivalents	325,000
Plus: Accounts receivable	215,000
Less: Debt and other liabilities	(2,250,000)
NAV	$5,982,307.69
Shares outstanding	65,000
NAVPS	$92.04

The first choice does not add the other assets of cash and accounts receivables. The third choice correctly adds the other assets but calculates NAVPS without deducting debt and other liabilities.

Question 29
L2R40TB-AC023-1512
LOS: LOS-9070
Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities
Difficulty: medium
An investor states her preference to invest in a REIT that tends to be recession proof and positively impacted by a growing population. She believes the economy is not rebounding quickly. Her advisor is *most likely* to recommend a(n):

- hotel REIT.
- office REIT.
- health care REIT.

Rationale
hotel REIT.
Health care real estate investment trusts tend to be recession proof and the demand for health care increases with population growth. Office properties are highly sensitive to job creation and hotel properties are highly cyclical. Both office and hotel properties are not significantly impacted by trends in population growth; given the choices, a health care REIT is the best option.

Rationale
office REIT.
Health care real estate investment trusts tend to be recession proof and the demand for health care increases with population growth. Office properties are highly sensitive to job creation and hotel properties are highly cyclical. Both office and hotel properties are not significantly impacted by trends in population growth; given the choices, a health care REIT is the best option.

Rationale
health care REIT.
Health care real estate investment trusts tend to be recession proof and the demand for health care increases with population growth. Office properties are highly sensitive to job creation and hotel properties are highly cyclical. Both office and hotel properties are not significantly impacted by trends in population growth; given the choices, a health care REIT is the best option.

Question 30
L2R40TB-AC036-1512
LOS: LOS-9100
Lesson Reference: Lesson 2: Valuation
Difficulty: medium
An analyst uses a two-stage dividend discount model to value the shares of Western Properties REIT. In reviewing the pertinent value drivers for the valuation, he is comfortable with the short- and long-term growth forecasts. He is concerned, however, that the ratio of debt to total equity is too high. The impact on his valuation model *most likely* is:

- a higher discount rate applied only to stage two cash flows.
- a higher discount rate applied to all cash flows.
- a lower discount rate applied to all cash flows.

Rationale

a higher discount rate applied only to stage two cash flows.

A higher debt to equity ratio indicates an increased use of leverage which can increase risk and thus increase the required rate of return. The higher required rate of return would be applied to all cash flows.

Rationale

a higher discount rate applied to all cash flows.

A higher debt to equity ratio indicates an increased use of leverage which can increase risk and thus increase the required rate of return. The higher required rate of return would be applied to all cash flows.

Rationale

a lower discount rate applied to all cash flows.

A higher debt to equity ratio indicates an increased use of leverage which can increase risk and thus increase the required rate of return. The higher required rate of return would be applied to all cash flows.

Question 31
L2EQ-PQ3909-1410
LOS: LOS-9050
Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities
Difficulty: medium
Which of the following is *least likely* an advantage of investing in public real estate securities over private real estate assets?

- ○ Limited liability
- ○ Diversification
- ● Structural conflicts

Rationale

This Answer is Correct

The structure of REITs can lead to conflicts of interest between the partnership and shareholders. For private real estate investments, the investor can manage the property herself.

Question 32
L2R40TB-ITEMSET-AC004-1512
LOS: LOS-9050
LOS: LOS-9090
LOS: LOS-9110
Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities
Difficulty: N/A

Use the following information to answer the next 3 questions:

Helmutt Adler, VP of Marketing at Verity Asset Management, has been searching for a diversification tool that can help him gain new high-value institutional clients, many of which are non-taxable accounts. In a discussion with the chief investment officer, Sean Halperin, he remarks, “Institutional investors have been ambivalent about real estate investments because they perform like equity sector funds rather than as a separate asset class.” Adler hopes to form a division that will market funds of CMBS, equity real estate investment trusts (REITs) and real estate operating companies (REOCs).

Halperin makes the following statements:

> **Statement 1**: “Real estate operating companies have greater potential for higher returns than real estate investment trusts because they can be more opportunistic.”
> **Statement 2**: “A real estate investment trust can reinvest up to 25 percent of its property income without jeopardizing its tax status.”
> **Statement 3**: “An investor can receive the same advantages of liquidity, limited liability and high payout ratios with either a REIT or a REOC.”

When they begin to discuss details of how REITs and REOCs are evaluated, Halperin calls Assistant Vice President for Real Estate Analysis, Clarence Okafor, into the meeting. Okafor makes a brief presentation of the following performance measures used in analyzing REITs and REOCs:

> **Measure 1**: Net operating income (NOI)
> **Measure 2**: Funds from operations (FFO)
> **Measure 3**: Adjusted funds from operations (AFFO)

Adler asks Okafor, “Which measure is most like free cash flow to equity, which we're used to working with in equity valuation?”

He then asks Halperin and Okafor to further explain the value drivers for the various valuation methodologies, in particular those based on dividends. Okafor presents Exhibit 1; he points at the table and asks, “Let's assume your investor has a required rate of return of 9%; which REIT do you think might result in the highest value based on a multi-stage dividend discount model?”

Exhibit 1: Statistics for Comparable REITs

	REIT 1	REIT 2	REIT 3

	REIT 1	REIT 2	REIT 3
Expected annual dividend (next year)	2.80	3.00	3.10
Dividend growth (year one)	5.0%	5.0%	5.0%
Dividend growth (year two and beyond)	4.5%	3.0%	3.5%

i.

Which of Halperin's statements to Adler is *most correct*?

- [x] Statement 1.
- [ ] Statement 2.
- [ ] Statement 3.

Rationale

This Answer is Correct

Real estate operating companies (REOCs) have greater operating flexibility. The requirements are not as strict as REITs, thus they can be more opportunistic in property acquisition and development giving them a potential for higher returns. REIT payout is usually closer to 90–95 percent of income, so reinvestment would be 5-10 percent. Liquidity and limited liability are similar advantages of REITs and REOCs, but stable, high dividend payouts are an advantage of REITs over REOCs.

Rationale

This Answer is Correct

Real estate operating companies (REOCs) have greater operating flexibility. The requirements are not as strict as REITs, thus they can be more opportunistic in property acquisition and development giving them a potential for higher returns. REIT payout is usually closer to 90–95 percent of income, so reinvestment would be 5-10 percent. Liquidity and limited liability are similar advantages of REITs and REOCs, but stable, high dividend payouts are an advantage of REITs over REOCs.

Rationale

This Answer is Correct

Real estate operating companies (REOCs) have greater operating flexibility. The requirements are not as strict as REITs, thus they can be more opportunistic in property acquisition and development giving them a potential for higher returns. REIT payout is usually closer to 90–95 percent of income, so reinvestment would be 5-10 percent. Liquidity and limited liability are similar advantages of REITs and REOCs, but stable, high dividend payouts are an advantage of REITs over REOCs.

ii.

Which of Okafor's performance measures is *most like* free cash flow to equity (FCFE)?

- ◯ Measure 1.
- ◯ Measure 2.
- ◉ Measure 3.

Rationale

This Answer is Incorrect

AFFO is closest to FCFE because it is closest to the cash amount that common shareholders could potentially receive in dividends and share buy-backs. Adding net new debt would make AFFO even closer to FCFE.

Rationale

This Answer is Incorrect

AFFO is closest to FCFE because it is closest to the cash amount that common shareholders could potentially receive in dividends and share buy-backs. Adding net new debt would make AFFO even closer to FCFE.

Rationale

This Answer is Incorrect

AFFO is closest to FCFE because it is closest to the cash amount that common shareholders could potentially receive in dividends and share buy-backs. Adding net new debt would make AFFO even closer to FCFE.

iii.

Which REIT did Adler *most likely* choose?

- ◉ REIT 1.
- ◯ REIT 2.
- ◯ REIT 3.

Rationale

This Answer is Incorrect

Even though REIT 1 has the lowest year one dividend, it has the highest growth rate into perpetuity. In a multi-stage dividend discount model the greatest portion of value comes from the last stage which is discounted by the required rate of return less the terminal growth rate. Adler could have mistakenly picked out REIT 3 since the year one dividends were fairly similar and year one growth rates were the same.

	REIT 1	REIT 2	REIT 3
Expected annual dividend (next year)	2.80	3.00	3.10
Dividend growth (year one)	5.0%	5.0%	5.0%

	REIT 1	REIT 2	REIT 3
Dividend growth (year two and beyond)	4.5%	3.0%	3.5%
Rate applied to discount year 2 dividend	**4.5%**	**6.0%**	**5.5%**

The present value calculation for each is:

REIT 1: $\$2.80/1.09 + 2.94/\ (1.09^2) + [(\$3.07\ /\ (0.09 – 0.045))/(1.09^2) = \$62.51$
REIT 2: $\$3.00/1.09 + 3.15/\ (1.09^2) + [(\$3.24\ /\ (0.09 – 0.030))/(1.09^2) = \$50.92$
REIT 3: $\$3.10/1.09 + 3.26/\ (1.09^2) + [(\$3.37\ /\ (0.09 – 0.035))/(1.09^2) = \$57.14$

Rationale

This Answer is Incorrect

Even though REIT 1 has the lowest year one dividend, it has the highest growth rate into perpetuity. In a multi-stage dividend discount model the greatest portion of value comes from the last stage which is discounted by the required rate of return less the terminal growth rate. Adler could have mistakenly picked out REIT 3 since the year one dividends were fairly similar and year one growth rates were the same.

	REIT 1	REIT 2	REIT 3
Expected annual dividend (next year)	2.80	3.00	3.10
Dividend growth (year one)	5.0%	5.0%	5.0%
Dividend growth (year two and beyond)	4.5%	3.0%	3.5%
Rate applied to discount year 2 dividend	**4.5%**	**6.0%**	**5.5%**

The present value calculation for each is:

REIT 1: $\$2.80/1.09 + 2.94/\ (1.09^2) + [(\$3.07\ /\ (0.09 – 0.045))/(1.09^2) = \$62.51$
REIT 2: $\$3.00/1.09 + 3.15/\ (1.09^2) + [(\$3.24\ /\ (0.09 – 0.030))/(1.09^2) = \$50.92$
REIT 3: $\$3.10/1.09 + 3.26/\ (1.09^2) + [(\$3.37\ /\ (0.09 – 0.035))/(1.09^2) = \$57.14$

Rationale

This Answer is Incorrect

Even though REIT 1 has the lowest year one dividend, it has the highest growth rate into perpetuity. In a multi-stage dividend discount model the greatest portion of value comes from the last stage which is discounted by the required rate of return less the terminal growth rate. Adler could have mistakenly picked out REIT 3 since the year one dividends were fairly similar and year one growth rates were the same.

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Rate applied to discount year 2 dividend	**4.5%**	**6.0%**	**5.5%**

The present value calculation for each is:

REIT 1: \$2.80/1.09 + 2.94/ (1.09^2) + [(\$3.07 / (0.09 – 0.045))/(1.09^2) = \$62.51
REIT 2: \$3.00/1.09 + 3.15/ (1.09^2) + [(\$3.24 / (0.09 – 0.030))/(1.09^2) = \$50.92
REIT 3: \$3.10/1.09 + 3.26/ (1.09^2) + [(\$3.37 / (0.09 – 0.035))/(1.09^2) = \$57.14

Question 33
L2R40TB-AC025-1512
LOS: LOS-9060
Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities
Difficulty: medium
Which of the following property types will *most likely* be leased on a net rather than gross lease?

- (selected) Industrial.
- Multi-family.
- Mini-warehouse.

Rationale
Industrial. (correct)
Industrial property typically rents on a net lease; the other property types usually rent on a gross basis.

Rationale
Multi-family. (incorrect)
Industrial property typically rents on a net lease; the other property types usually rent on a gross basis.

Rationale
Mini-warehouse. (incorrect)
Industrial property typically rents on a net lease; the other property types usually rent on a gross basis.

Question 34
L2R40TB-ITEMSET-AC001-1512
LOS: LOS-9050
LOS: LOS-9070
LOS: LOS-9110
Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities
Difficulty: N/A

Use the following information to answer the next 3 questions:

Edward Deming, a financial advisor, is working with a new client, Cecile Markowitz. A representative of Balfour Capital recently presented Deming the potential diversification benefits of investing in real estate securities. Balfour Capital has three companies: Balfour Real Estate Investment Trust (REIT), Balfour Commercial Mortgage-backed Securities (CMBS), and Balfour Real Estate Operating Company (REOC).

Deming discovers in his initial telephone screening with Markowitz that she is concerned about investments in assisted living center operations because of trends in decreased government funding in healthcare. Additionally, she wants to avoid highly cyclical markets. During their meeting, Markowitz expresses an interest in an investment that takes maximum advantage of tax laws protecting income. She further indicates that she seeks diversification, with a stable, high dividend yield in order for her to scale back her primary work for which she receives a high wage. Her current portfolio is primarily debt.

Markowitz asks for validation that the various investments have been correctly valued by the market. Deming suggests three valuation approaches he commonly uses:

> **Method 1**: Discounting NOI or dividends
> **Method 2**: Net asset value (NAV) plus adjustments
> **Method 3**: Relative valuation using FFO

During his presentation, Deming explains that the current capitalization rate for similar investments is approximately 7.5 percent and performs several calculations based on his information.

Exhibit 1: Balfour REIT (000s of currency units except per share data)

Net operating income	425,000
General and administrative expense	27,975
Depreciation	125,000
Property taxes	6,400
Gain on the sale of property	3,750
Net interest expense	115,375
Weighted avg. shares outstanding	154,675
P/FFO based on year-end share prices	13.75x

i.

The Balfour company that will *best* meet Markowitz's investment criteria is:

- ○ CMBS.
- ○ REOC.
- ● REIT.

Rationale

This Answer is Correct

A real estate investment trust (REIT) passes through income without the burden of corporate income taxes, provided it continues to meet the requirements for tax-favored status. CMBS will typically not provide as high a yield as REIT dividends because it is essentially a debt security with commensurately less risk. She also has primarily a debt-based portfolio, so CMBS would not provide the diversification benefits of REITs, which have low correlation with both debt and equity securities.

Rationale

This Answer is Correct

A real estate investment trust (REIT) passes through income without the burden of corporate income taxes, provided it continues to meet the requirements for tax-favored status. CMBS will typically not provide as high a yield as REIT dividends because it is essentially a debt security with commensurately less risk. She also has primarily a debt-based portfolio, so CMBS would not provide the diversification benefits of REITs, which have low correlation with both debt and equity securities.

Rationale

This Answer is Correct

A real estate investment trust (REIT) passes through income without the burden of corporate income taxes, provided it continues to meet the requirements for tax-favored status. CMBS will typically not provide as high a yield as REIT dividends because it is essentially a debt security with commensurately less risk. She also has primarily a debt-based portfolio, so CMBS would not provide the diversification benefits of REITs, which have low correlation with both debt and equity securities.

ii.

Markowitz will *most likely* prefer to invest in an equity REIT specializing in:

- ○ hotels.
- ○ nursing homes.
- ● industrial properties.

Rationale

This Answer is Incorrect

Markowitz expressed concern about decreased government funding in healthcare, which could negatively impact healthcare REITS. Hotel properties are highly cyclical, another characteristic Markowitz seeks to avoid. Industrial properties tend to be less cyclical and often have longer lease terms since the facilities are often build to suit.

Rationale

This Answer is Incorrect

Markowitz expressed concern about decreased government funding in healthcare, which could negatively impact healthcare REITS. Hotel properties are highly cyclical, another characteristic Markowitz seeks to avoid. Industrial properties tend to be less cyclical and often have longer lease terms since the facilities are often build to suit.

Rationale

This Answer is Incorrect

Markowitz expressed concern about decreased government funding in healthcare, which could negatively impact healthcare REITS. Hotel properties are highly cyclical, another characteristic Markowitz seeks to avoid. Industrial properties tend to be less cyclical and often have longer lease terms since the facilities are often build to suit.

iii.

Based on Exhibit 1 and using Method 3, Deming will calculate a per share value (in currency units) for Balfour REIT *closest to*:

- (selected) 25
- 28
- 36

Rationale

This Answer is Incorrect

The value using FFO and the relevant market multiple is:

NOI	425,000	
Less: General and admin	27,975	
Less: Interest expense	115,375	
FFO	281,650	
Shares outstanding	154,675	
FFO/share	1.82	
P/FFO		13.75×
Justified price	25.04	

Choice B incorrectly only deducts interest expense from NOI in the calculation of FFO. Choice C incorrectly adds depreciation and ta25.04xes and deducts the gain on the property sale. This would be (almost) appropriate if the starting point was net income available to common (not NOI) and the property taxes were total deferred taxes.

Rationale

This Answer is Incorrect

The value using FFO and the relevant market multiple is:

NOI	425,000	
Less: General and admin	27,975	
Less: Interest expense	115,375	
FFO	281,650	
Shares outstanding	154,675	
FFO/share	1.82	
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Justified price	25.04	

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Rationale

This Answer is Incorrect

The value using FFO and the relevant market multiple is:

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P/FFO		13.75×
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Question 35
L2R40TB-AC015-1512
LOS: LOS-9110
Lesson Reference: Lesson 2: Valuation
Difficulty: medium

An analyst for N Partners is considering investment in one of three REITs that have similar returns on reinvested cash flows.

	P/NAV	P/AFFO	AFFO Payout	AFFO Growth
REIT A	97%	12.3x	65%	3.8%
REIT B	101%	12.9x	78%	3.3%
REIT C	98%	12.7x	85%	3.5%

All else being equal, which of the REITs will the analyst *most likely* recommend for investment?

- REIT A.
- REIT B.
- REIT C.

Rationale

REIT A.

One of the first places to check is the return on equity implied by the AFFO growth rate (*g*) and payout ratio (PR). Recalling that the formula for sustainable growth using net income ROE and assuming AFFO as a substitute for net income:

$$g = \mathrm{ROE}\,(1 - \mathrm{PR})$$

The implied returns can then be calculated for each of the REITs:

	AFFO Payout	AFFO Growth	Implied Return
REIT A	65%	3.8%	11%
REIT B	78%	3.3%	15%
REIT C	85%	3.5%	23%

REIT C has by far the highest implied return (i.e., growth rate per unit of reinvestment) given fairly similar AFFO growth rates. It also has a moderate price per unit of AFFO and sells at a slight discount to NAV.

Rationale

REIT B.

One of the first places to check is the return on equity implied by the AFFO growth rate (*g*) and payout ratio (PR). Recalling that the formula for sustainable growth using net income ROE and assuming AFFO as a substitute for net income:

$$g = \mathrm{ROE}\,(1 - \mathrm{PR})$$

The implied returns can then be calculated for each of the REITs:

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Rationale

REIT C.

One of the first places to check is the return on equity implied by the AFFO growth rate (*g*) and payout ratio (PR). Recalling that the formula for sustainable growth using net income ROE and assuming AFFO as a substitute for net income:

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Question 36
L2R40TB-AC007-1512
LOS: LOS-9040
Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities
Difficulty: medium
Which of the following would *most likely* be holdings of a real estate operating company (REOC) rather than a real estate investment trust (REIT)?

- ○ Multi-family properties.
- ○ Multi-tenant office space.
- ● Timberland held for eventual resale.

Rationale
✗ **Multi-family properties.**
REITs achieve their special advantages primarily by deriving a high percentage of income from income-producing real estate-related sources. An investment in timberland would be unlikely to produce income for a long time, thus making this the most likely holding for a REOC. REOCs have more operating flexibility than REITs and are thus more likely to take advantage of development opportunities.

Rationale
✗ **Multi-tenant office space.**
REITs achieve their special advantages primarily by deriving a high percentage of income from income-producing real estate-related sources. An investment in timberland would be unlikely to produce income for a long time, thus making this the most likely holding for a REOC. REOCs have more operating flexibility than REITs and are thus more likely to take advantage of development opportunities.

Rationale
✓ **Timberland held for eventual resale.**
REITs achieve their special advantages primarily by deriving a high percentage of income from income-producing real estate-related sources. An investment in timberland would be unlikely to produce income for a long time, thus making this the most likely holding for a REOC. REOCs have more operating flexibility than REITs and are thus more likely to take advantage of development opportunities.

Question 37
L2R40TB-AC011-1512
LOS: LOS-9080
Lesson Reference: Lesson 2: Valuation
Difficulty: medium

An analyst compiles the following information for a real estate investment trust (REIT):

Net operating income	$125.0 million
Market capitalization rate	6.5%
Market value of debt outstanding	$515.0 million
Shares outstanding	110.0 million
Book value of properties	$1,250.0 million
Book value per share (BVPS)	$5.25

The analyst will calculate the REIT's NAVPS *closest to*:

- $11.36
- $12.80
- $17.48

Rationale

$11.36

Net asset value per share is:

Net operating income	$125,000,000
Market capitalization rate	6.5%
Value of properties	1,923,076,923
Less: Market value of debt	515,000,000
NAV	1,408,076,923
Shares outstanding	110,000,000
NAVPS	$12.80

Choice A incorrectly divides the book value of the properties by the number of shares outstanding; this does not reflect the market value of the properties based on the market cap of 6.5% or the reduction of debt. Choice C does not deduct debt from the market value of the properties (NOI capitalized at 6.5%) before dividing by the number of shares outstanding to determine NAVPS.

Rationale

$12.80

Net asset value per share is:

Net operating income	$125,000,000
Market capitalization rate	6.5%
Value of properties	1,923,076,923
Less: Market value of debt	515,000,000
NAV	1,408,076,923
Shares outstanding	110,000,000
NAVPS	$12.80

Choice A incorrectly divides the book value of the properties by the number of shares outstanding; this does not reflect the market value of the properties based on the market cap of 6.5% or the reduction of debt. Choice C does not deduct debt from the market value of the properties (NOI capitalized at 6.5%) before dividing by the number of shares outstanding to determine NAVPS.

Rationale

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NAV	1,408,076,923
Shares outstanding	110,000,000
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Choice A incorrectly divides the book value of the properties by the number of shares outstanding; this does not reflect the market value of the properties based on the market cap of 6.5% or the reduction of debt. Choice C does not deduct debt from the market value of the properties (NOI capitalized at 6.5%) before dividing by the number of shares outstanding to determine NAVPS.

Question 38
L2AI-TBB205-1412
LOS: LOS-9080
Lesson Reference: Lesson 2: Valuation
Difficulty: medium

An analyst collects the following financial information regarding a REIT:

Last 12 months' real estate NOI	$450,000
Noncash rents	$50,000
Next 12 months' growth in NOI	$10,000
Cap rate	5%
Cash and cash equivalents	$100,000
Land held for development	$150,000
Accounts receivable	$10,000
Prepaid assets	$5,000
Total debt	$3,000,000
Other liabilities	$105,000
Shares outstanding	45,230

According to the NAVPS approach, the fair value of the REIT is closest to:

- $114.1.
- $118.5. (selected)
- $140.6.

Rationale

This Answer is Correct

Next year's cash NOI projection is $450,000 – $50,000 + $10,000 = $410,000.

Using a cap rate of 5% yields an operating asset value of $410,000 / 0.05 = $8.2 million.

Adding the other assets and subtracting the liabilities gives a total net asset value of:

$8,200,000 +$100,000 + $150,000 + $10,000 + $5,000 - $3,000,000 – $105,000 = $5,360,000.

Hence, the NAV per share is $5,360,000/45,230 = $118.51.

Question 39

L2EQ-PQ3908-1410

LOS: LOS-9050

Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities

Difficulty: medium

Which of the following is *most likely* an advantage of investing in REOCs as opposed to REITs?

- ○ Earnings predictability
- ○ High dividend yields
- ◉ Operating flexibility

Rationale

This Answer is Correct

REOCs are free to invest in any kind of real estate so they can devote more resources to activities such as property development. They can also retain more of their income than REITs and take on greater financial leverage.

Question 40
L2R40TB-AC028-1512
LOS: LOS-9080
Lesson Reference: Lesson 2: Valuation
Difficulty: medium
The value of a public equity real estate entity with share price lower than net asset value per share (NAVPS) will *most likely* be considered:

- overvalued.
- fairly valued.
- undervalued.

Rationale
overvalued.
When public share price falls below NAVPS, the entity is valued lower than the sum of its underlying assets less liabilities. This would be considered undervaluation of the entity.

Rationale
fairly valued.
When public share price falls below NAVPS, the entity is valued lower than the sum of its underlying assets less liabilities. This would be considered undervaluation of the entity.

Rationale
undervalued.
When public share price falls below NAVPS, the entity is valued lower than the sum of its underlying assets less liabilities. This would be considered undervaluation of the entity.

Question 41

L2R40TB-AC010-1512

LOS: LOS-9060

Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities

Difficulty: medium

Which of the following types of commercial property is *most likely* to be affected by availability of single-family housing in the area?

- ○ Retail.
- ○ Office.
- ● Multi-family.

Rationale

✖ **Retail.**

Single-family housing competes directly with multi-family housing for tenants.

Rationale

✖ **Office.**

Single-family housing competes directly with multi-family housing for tenants.

Rationale

✔ **Multi-family.**

Single-family housing competes directly with multi-family housing for tenants.

Question 42
L2R40TB-AC014-1512
LOS: LOS-9110
Lesson Reference: Lesson 2: Valuation
Difficulty: medium
REIT XYZ's expected dividend next year is $5.00. The anticipated growth rate in year two and three is 4%, after which growth is expected to drop to 3% into perpetuity. Max Sells, CFA, values REIT XYZ using a two-stage dividend discount model and applies a discount rate of 8.5%. The value per share that Sells calculates is *closest to*:

- $65
- $86
- $93

Rationale

$65

The analyst will use a two-step dividend discount model to value the shares.

		Step One		Step Two	
Periods	1	2	3	4	Total
Dividends per share	$5.00	$5.20	$5.41	$5.57	
Value at the end of period 3			$101.28*		
Present value discounted at 8.5%	$4.61	$4.42	$83.52		$92.55

In years two and three the dividend increases 4%, and in year four it increases 3%. The end of period three value* is calculated as: $5.57/(.085 – .03); this is the year four dividend capitalized at a terminal growth rate of 5.5%, which is the discount rate less the growth rate into perpetuity. Choice A incorrectly calculates the value at the end of period 3 using 8.5% not 5.5%. Choice B incorrectly discounts the value at the end of period three by four periods, not three periods.

Rationale

$86

The analyst will use a two-step dividend discount model to value the shares.

		Step One		Step Two	
Periods	1	2	3	4	Total
Dividends per share	$5.00	$5.20	$5.41	$5.57	
Value at the end of period 3			$101.28*		
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Rationale

✅ **$93**

The analyst will use a two-step dividend discount model to value the shares.

		Step One		Step Two	
Periods	1	2	3	4	Total
Dividends per share	$5.00	$5.20	$5.41	$5.57	
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Question 43
L2R40TB-AC009-1512
LOS: LOS-9050
Lesson Reference: Lesson 1: Types of Publicly Traded Real Estate Securities
Difficulty: medium
An investor desiring exposure to real estate and to maximize control over when capital gains occur on investments would *most likely* choose:

- REITs.
- REOCs.
- direct investment.

Rationale
REITs.
A direct investment in real estate maximizes the investor's control over all aspects of the investment.

Rationale
REOCs.
A direct investment in real estate maximizes the investor's control over all aspects of the investment.

Rationale
direct investment.
A direct investment in real estate maximizes the investor's control over all aspects of the investment.