

Real Estate Finance Introduction to Commercial Real Estate Class 6 – March 26, 2014

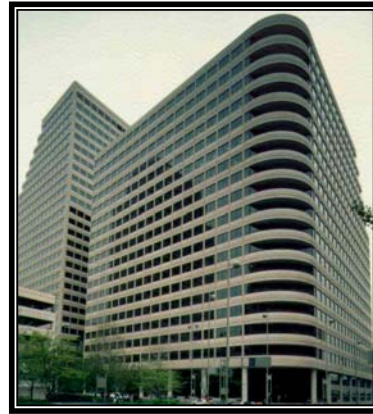
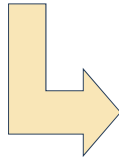


WORKSHOP OBJECTIVES

- Learn why individuals and companies invest in real estate
- Learn all the different real estate asset class types
- Learn all the investment strategies and potential risks and opportunities associated with each approach
- Learn the three approaches to value
- Learn the components of a capital stack



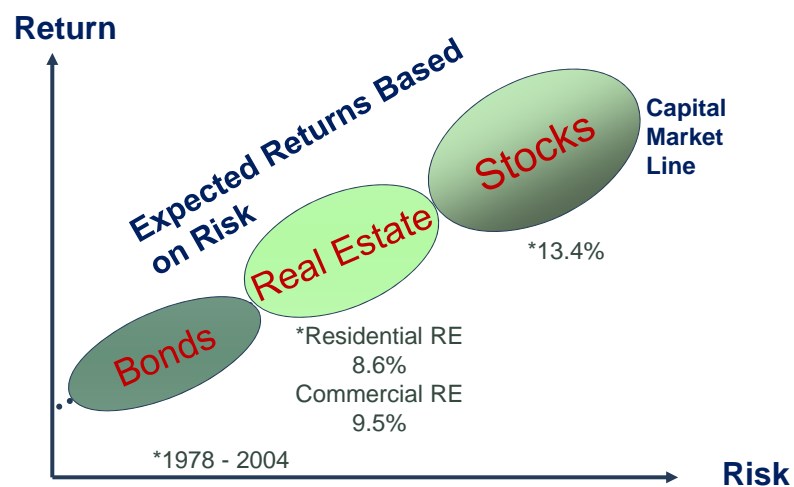
WHY DO PEOPLE INVEST IN REAL ESTATE?



Conversion of “financial capital” into “physical capital”



THEORY AND REALITY

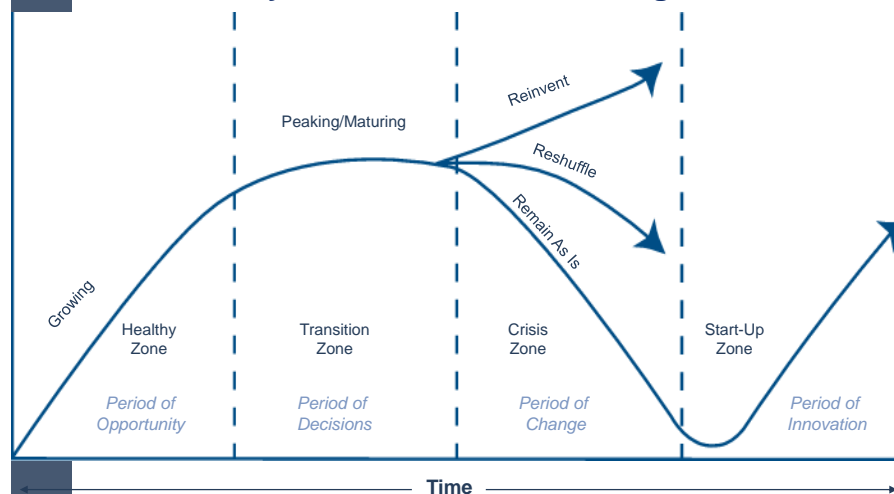


REAL ESTATE: A UNIQUE ASSET CLASS

- Heterogeneous
- Immobile
- Geographic segmentation
- Product type segmentation
- Limited liquidity
- Imperfect market information



Economic Cycles & Investment Timing



NAME THE REAL ESTATE ASSET CLASS TYPES

Office	Motel
Industrial	Recreational
Retail	Religious
Flex	Medical
Multifamily	Self Storage
Residential	Governmental
Hotel	Land
	Parking



ASSET CHARACTERISTICS, FEATURES & USERS



MAJOR ASSET CLASSES

Office





Retail



Multi Family



Industrial




APARTMENTS

Garden Apartments

- Low density
- Access to open space
- Larger units
- Surface parking

• Mid-Rise/High-Rise

- Higher density
- Access to urban amenities
- Smaller units
- Structured parking







RETAIL

- **Single Tenant**
Stand alone building
- **Unanchored Strip Retail**
Small shop space
- **Neighborhood Centers**
Necessity retail
- **Community Centers**
Necessity retail + hard/soft goods
- **Lifestyle Centers**
Open-air, upscale retail
- **Power Centers**
Multiple "category killers"
- **Regional Malls**
Department store anchors







OFFICE

CBD Office
Centralized location

- Office Parks
Suburban location
- Medical Office
Specialized use
- Flex Office
Combination office/warehouse












INDUSTRIAL

Manufacturing
Often owner occupied
Specialized facilities

- **Light Manufacturing/Assembly**
Often owner occupied
Configuration varies
- **Distribution**
Interstate or airport proximity
Ceiling heights/dock doors

HOTEL/MOTEL

- Full Service
- Limited Service
- Extended Stay
- Motel
- Resort
- Unflagged

RECREATIONAL PARKING








ECONOMIC BASE THEORY

- Identifies the drivers of economic growth in an area. The key indicator is employment used for real estate investment research identifies expanding companies with a need for additional labor and use of space.
- Short coming is there is not always a direct proportion to increases in revenues or goods and increase labor.



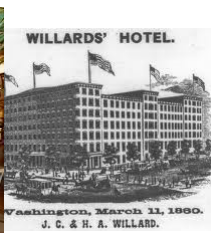
INVESTMENT STRATEGIES

- Core Properties
- Core Properties with "Value Add"
- Property Sector Investing
- Contrarian Investing
- Marketing Timing
- Growth Investing
- Value Investing
- Strategy as to Size of Property
- Strategy as to Tenants
- Arbitrage Investing



INVESTMENT STRATEGIES cont.

- Turnaround Special Situation
- Opportunistic Investing
- Investing in “Trophy” or “Blue Chip” Properties
- Development



INVESTMENT STRATEGIES

Core:

Class A Assets
Primary Markets
High Occupancy
Stable Cash Flow
Low Leverage

Core-Plus:

Class A assets
Primary Markets
Some vacancy
Potential to increase cash flow
Low/moderate leverage

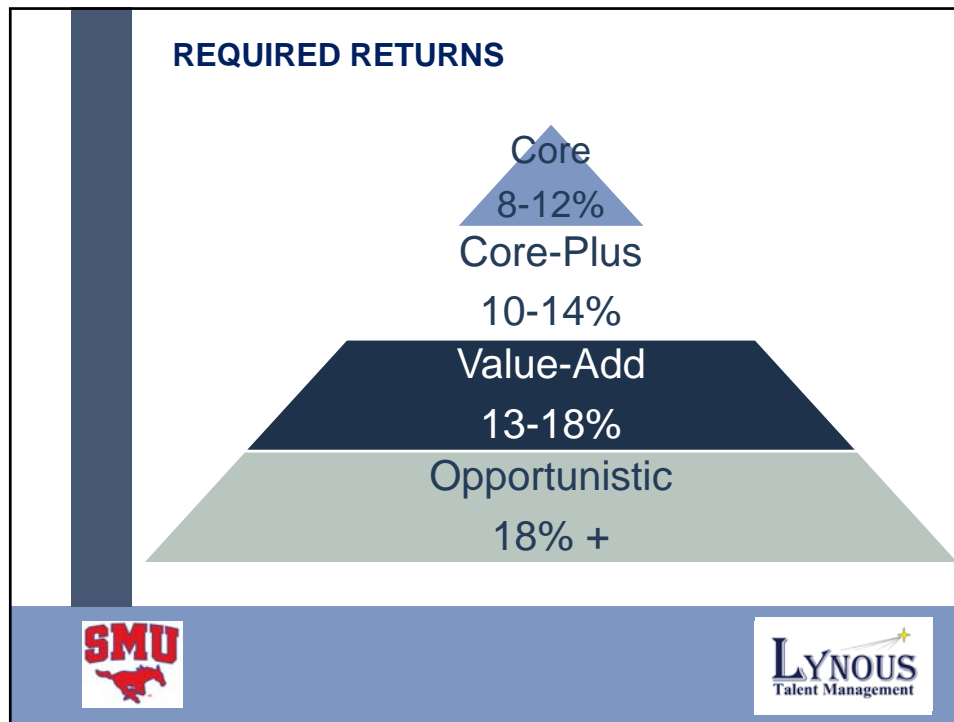
Value-Add:

Class A and B assets
Primary/secondary markets
High Vacancy/obsolescence
Potential to increase cash flow
Moderate/high leverage

Opportunistic:

Class A, B, or C assets
Secondary/tertiary markets
Redevelopment/repositioning
Dramatic increase in cash flow
High leverage





RELATIONSHIP BETWEEN RISKS & RETURNS

- Investment risk results from cash flow uncertainty:
 - Construction Costs
 - Regulatory Costs
 - Closing Costs
 - Market Fluctuations
 - Operating Expenses
 - Capital Expenses
 - Competition

An oval-shaped photograph showing a residential development with several houses and a green lawn in the foreground.

SMU



LYNOUS
Talent Management

OPPORTUNITIES

- Economic Growth
- Rental Growth
- Operating Cost Management



REAL ESTATE VALUATION



MARKET VALUE

Market Value is the most probable price given the following conditions:

- Buyer and seller are typically motivated
- Parties are well informed/well advised and acting in their best interest
- Reasonable time in the market
- Payment in cash or its equivalent
- Traditional financing



MARKET VALUE vs. ASSESSED VALUE

Market Value

What the market is willing to pay



Assessed Value

A value determined by the tax assessors office in which to base the real estate taxes.

In general this value tends to be lower than market value.



APPRAISAL REPORT REQUIREMENTS

The appraisal process is performed by appraisers and others seeking to establish value

- Physical and legal identification
- Identify property rights to be valued
- Specify the purpose of the appraisal
- Specify effective date of value estimate
- Gather and analyze market data
- Apply techniques to estimate value



APPRAISAL REPORT

The Three Required Approaches To Value

1. Cost Approach
2. Sales Comparison Approach
3. Income Capitalization Approach



COST APPROACH

1. Estimate the construction cost if new
2. Account for physical deterioration, functional obsolescence, and/or external obsolescence
3. Add land cost
4. The rationale is that no informed buyer would pay more for a property than it would cost to build a new one. This assumes, of course, that they took the time to construct a new asset into account, and the relative risks of ground up development.
5. The cost approach is often used for real estate assets that do not have an efficient market for tenants to lease space. A common example would be heavy manufacturing facilities; there is not a deep or broad market in automobile manufacturing facilities.



SALES COMPARISON APPROACH

- Use data from recently sold “comparable” properties to derive a “subject” market value
 - Adjust comparable sales prices for feature, age, and size differences, etc.
 - Lump sum adjustments and square foot adjustments
 - Bracket subject one slightly bigger and one slightly smaller
 - Determine value of feature by finding a comparable with feature and one without
- Examples:
- Pool
 - Golf Course Lot
- Subjective process



SALES COMPARISON APPROACH

Functional Obsolescence

A reduction in the usefulness or desirability of an object because of an outdated design feature, usually one that cannot be easily changed.

Super Adequacy

Simply put is an “over improvement” in a property which supersedes the neighborhood norm.



2. INCOME APPROACH



Schedule Of Prospective Cash Flow
In Inflated Dollars for the Fiscal Year Beginning 1/1/2007

For the Years Ending	Year 1 Dec-2007	Year 2 Dec-2008	Year 3 Dec-2009	Year 4 Dec-2010	Year 5 Dec-2011	Year 6 Dec-2012	Year 7 Dec-2013	Year 8 Dec-2014	Year 9 Dec-2015	Year 10 Dec-2016	Year 11 Dec-2017
Potential Gross Revenue											
Base Rental Revenue	\$2,047,920	\$2,092,986	\$2,017,279	\$2,041,727	\$2,061,018	\$2,118,531	\$2,120,471	\$2,132,293	\$2,214,392	\$2,259,352	\$2,315,681
Absorption & Turnover Vacancy	(36,356)		(310,203)	(40,969)	(34,214)	(38,313)	(8,687)	(56,661)	(46,115)	(49,155)	(18,896)
Base Rent Abatements	(81,655)	(15,476)	(6,500)	(6,750)	(7,000)	(7,250)	(7,500)				
Scheduled Base Rental Revenue	1,929,909	2,077,509	1,700,576	1,994,008	2,019,804	2,072,968	2,104,284	2,075,632	2,168,277	2,210,197	2,296,785
Base Rental Step Revenue	13,420	42,377	73,326	98,465	75,946	13,709	8,479	10,083	1,250	7,000	12,750
CPI & Other Adjustment Revenue				6,236	22,584	41,086	66,103	75,153	66,396	79,166	86,317
Expense Reimbursement Revenue	171,780	183,441	80,254	64,558	73,001	71,396	80,593	74,196	73,874	80,217	82,808
Overtime HVAC	20,600	21,424	22,281	23,172	24,099	25,063	26,066	27,108	28,193	29,320	30,493
Parking Revenue	131,564	139,128	137,119	172,402	179,888	186,820	196,980	200,420	209,325	217,290	228,906
Total Potential Gross Revenue	2,267,273	2,463,879	2,013,556	2,358,841	2,395,322	2,411,042	2,482,505	2,462,592	2,547,315	2,623,190	2,737,859
General Vacancy	(194,007)	(246,388)		(199,012)	(208,740)	(206,623)	(240,432)	(195,264)	(213,228)	(218,080)	(256,780)
Collection Loss	(22,673)	(24,639)	(20,136)	(23,588)	(23,953)	(24,110)	(24,825)	(24,626)	(25,473)	(26,232)	(27,379)
Effective Gross Revenue	2,050,593	2,192,852	1,993,420	2,136,241	2,162,629	2,180,309	2,217,248	2,242,702	2,308,614	2,378,878	2,453,700
Operating Expenses											
Common Area Maintenance	343,106	359,582	350,252	385,830	401,822	417,784	436,838	450,890	469,554	488,110	510,194
Real Estate Taxes	153,000	156,060	159,181	162,365	165,612	168,924	172,303	175,749	179,264	182,849	186,506
Administrative & General	25,750	26,780	27,851	28,965	30,124	31,329	32,582	33,885	35,241	36,650	38,116
Insurance	53,653	55,799	58,031	60,352	62,766	65,277	67,888	70,603	73,427	76,365	79,419
Property Management Fees	61,518	65,786	59,803	64,087	64,879	65,409	66,517	67,281	69,258	71,366	73,611
Total Operating Expenses	637,027	664,007	655,118	701,599	725,203	748,723	776,128	798,208	826,744	855,340	887,846
Net Operating Income	1,413,566	1,528,846	1,338,302	1,434,642	1,437,426	1,431,586	1,441,120	1,444,494	1,481,870	1,523,538	1,565,854
Leasing & Capital Costs											
Tenant Improvements	47,876		405,680	215,200	64,852	54,548	68,678	88,669	74,576	71,121	56,937
Leasing Commissions	46,860		130,735	68,485	66,715	57,542	32,465	97,992	84,790	70,561	55,272
Structural Reserves	14,119	14,684	15,271	15,882	16,517	17,178	17,865	18,580	19,323	20,096	20,900
Capital Improvements					75,000						
Total Leasing & Capital Costs	108,855	14,684	551,686	299,567	223,084	129,268	119,008	205,241	178,689	161,778	133,109
Escrow Distributions											
Structural Reserves					75,000						
Total Escrow Distributions					75,000						
Cash Flow Before Debt Service	1,304,711	1,514,161	786,616	1,135,075	1,289,342	1,302,318	1,322,112	1,239,253	1,303,181	1,361,760	1,432,745
Debt Service											
Interest Payments	862,955	841,976	819,255	794,648	768,000	739,139	707,883	674,032	637,372	597,670	
Principal Payments	252,766	273,745	296,466	321,073	347,722	376,582	407,838	441,689	478,349	518,051	
Origination Points & Fees											
Total Debt Service	1,115,721	1,115,721	1,115,721	1,115,721	1,115,722	1,115,721	1,115,721	1,115,721	1,115,721	1,115,721	
Cash Flow After Debt Service	\$188,990	\$398,440	(\$329,105)	\$19,354	\$173,620	\$186,597	\$206,391	\$123,532	\$187,460	\$246,039	\$1,432,745
But Before Taxes											

Note: The percent of cash flow line items have not reached user specified tolerance.

INCOME APPROACH

This method is used for income producing properties

There are three methods for the income approach.

1. Direct Capitalization Method
2. Discount Present Value Method
3. Gross Income Multipliers ("GIM")



1ST INCOME METHOD



NET OPERATING INCOME

<u>Income/Expense Item</u>	<u>Symbol</u>
Potential Gross Income	(PGI)
- vacancy and collection losses	(VCL)
= Effective Gross Income	(EGI)
- <u>Operating Expenses</u>	(OE)
= Net Operating Income	(NOI)



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Value with IRV

Income ÷
Rate =
Value

*Assuming
a Cap
Rate of
7%*

\$989,887
.07
Equals
\$14,141,242

VERY NICE OFFICE BUILDING STABILIZED PRO FORMA (73,399 SF)		
Revenue	Total	Per SF
Gross Potential Rent	\$1,064,286	\$14.50
Other Income	5,400	0.07
Expense Recoveries	858,124	11.69
Potential Gross Income	1,927,810	26.26
Less: Vacancy and Credit Loss Allowance (4%)	(77,112)	(1.05)
Total Effective Gross Income	1,850,698	25.21
Less: Expenses		
Janitorial	75,000	1.02
Repairs and Maintenance	51,630	0.70
Security	8,060	0.11
Landscaping	28,280	0.39
Utilities (excluding electricity)	18,000	0.25
Electricity	210,000	2.86
Administration	13,000	0.18
Management (3%)	55,521	0.76
Insurance	16,320	0.22
Taxes	380,000	5.18
Non-Recoverables	5,000	0.07
Total Expenses	860,811	11.73
Net Operating Income	\$989,887	\$13.49



What is a CAP rate?

A **cap rate** is defined as any income rate used to convert a single year's income into a total property value.

While there are numerous methods to estimate a cap rate

- the most prevalent and generally the most supportable method to estimate a cap rate is from the sale of a comparable property: this process is defined as Direct Capitalization, as seen in the formula below:



	NOI	\$800,000
÷	Sale Price	\$10,000,000
=	Cap Rate	8.0%

**Income ÷ Value =
Rate**



Direct Capitalization with IRV

PRACTICE PROBLEM:

An office building located in Louisville, KY had an NOI (net operating income) of \$560,862 and the local appraiser suggested a cap rate of 7.5%. What is the value of the office building using the direct valuation approach?



Answer is...



\$7,478,160



INCOME APPROACH – Direct Capitalization Rate

1st Income Method: Capitalization Rate

$$\text{Value} = \frac{\text{NOI}}{\text{R}}$$

Net Operating Income
Capitalization Rate

Example: Recent similar property sales

$$\text{Rate} = \frac{\text{NOI}}{\text{Value}}$$

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Sales Price	\$368,500	\$425,000	\$310,000	\$500,000
NOI	\$50,000	\$56,100	\$42,700	\$68,600
R	13.57%	13.20%	13.77%	13.72%



INCOME APPROACH – Direct Capitalization Rate

If the subject NOI = \$58,000, the value estimate could be

$$\frac{\$58,000}{.1377} < V < \frac{\$58,000}{.1320}$$

$$\$421,205 < V < \$439,394$$

Care must be taken when determining the Cap Rate



INCOME APPROACH – Discounted Present Value

2nd Income Method: Discounted Present Value

Compute the present value of future cash flows

- Forecast NOI
- Choose holding period
- Select discount rate based on risk and return of comparable investments (r)
- Determine reversion value of property



INCOME APPROACH – Discounted Present Value

Estimating reversion value

Method 2: Direct Capitalization Estimate R_T from sales data

- 5 year holding period for a new property
- In general, as properties age, they become less able to produce income relative to their younger peers. As a result, the cap rate should be higher for older properties.
- What are current cap rates for 5 year old property?
- Use this as the terminal cap rate.

Method 3: Estimate resale value from expected changes in property value



INCOME APPROACH – Discounted Present Value

Example:

A property has a projected year 1 NOI of \$200,000. NOI is projected to grow by 4% per year for the following 2 years, then by 2% per year for the subsequent 2 years at a 1% constant rate afterward. Given a required return of 13%, what is the value of the property?

$$\begin{aligned} \text{NOI}_1 &= \$200,000 \\ \text{NOI}_2 &= \$208,000 \\ \text{NOI}_3 &= \$216,320 \\ \text{NOI}_4 &= \$220,646 \\ \text{NOI}_5 &= \$225,059 \\ \text{Constant 1\% growth begins} \end{aligned}$$

$$\text{Terminal Value}_5 = \frac{\text{NOI}_6}{r - g} = \frac{\$227,310}{.13 - .01}$$

$$\text{Value} = \$1,894,250$$



INCOME APPROACH – G.I.M.

▪3rd Income Method: Gross Income Multiplier (“GIM”)

$$\text{GIM} = \frac{\text{Sales Price}}{\text{Gross Income}}$$

- Then apply GIM to the subject property

Example: Recent sales of similar property

	<u>1</u>	<u>2</u>	<u>3</u>
Sales Price	\$600,000	\$750,000	\$450,000
Gross Income	\$100,000	\$128,000	\$74,000
GIM	6x	5.86x	6.08x



INCOME APPROACH – G.I.M.

Selecting the GIM from the comparables is an education opinion

- Which is most similar to the subject?
- How should they be weighted?

Example:

If 6x is determined to be the GIM and the subject has
gross income = \$120,000

$$\text{Value Estimate} = 6 \times \$120,000 = \$720,000$$



RECONCILIATION OF VALUE

Sales Comparison	\$185,000
Cost Approach	\$189,000
Income Approach	\$184,000

FINAL VALUE?



CAPITAL STACK

Traditional

Equity	25%
<hr/>	
First Mortgage	75%

Modern

Equity	5%
Preferred Equity	5%
Sub Mezzanine Loan	10%
Sen. Mezzanine Loan	10%
Sub. B-Note	10%
Sen. B-Note	10%
<hr/>	
Senior Debt	50%



REAL ESTATE CAPITAL MARKETS

PUBLIC DEBT

Mortgage REITs
Conduit Lenders

PUBLIC EQUITY

Equity REITs
REOCs



PRIVATE DEBT

Commercial Banks
Life Insurance Co.
Pension Funds
Mezzanine Lenders
Hedge Funds

PRIVATE EQUITY

Individuals/JVs
Pension Funds
Foreign Investors
Life Insurance Companies



INDUSTRY ASSOCIATIONS – Partial Listing

Appraisal Institute – www.appraisalinstitute.org
 American Hotel & Lodging Association www.ahla.com
 BOMA (Building Owners Management Association) www.boma.org
 CCIM (Certified Commercial Investment Manager) www.ccim.org
 CORENET (Corporate Real Estate) www.corenetglobal.org
 CREW (Commercial Real Estate Women) www.crewnetwork.org
 Hotel Association www.hftp.org
 ICSC (International Council of Shopping Centers) www.icsc.org
 IFMA (International of Facilities Management Association) www.ifma.org
 IREM (Institute of Real Estate Managers) www.irem.org



INDUSTRY ASSOCIATIONS – Partial Listing

NAA (Nat'l Apartment Association) www.naahq.org
 NAHB (Nat'l Association of Home Builders) www.nahb.org
 NAIOP (Nat'l Association of Industrial Office Properties) www.naiop.org
 NAR (Nat'l Association of Realtors) www.realtor.org
 NMHC (Nat'l Multifamily Housing Council) www.nmhc.org
 Mortgage Bankers Association www.mbaa.org
 ULI (Urban Land Institute) www.uli.org

Note: Typically each of these organizations have a local (in major metropolitan areas) or state chapter.

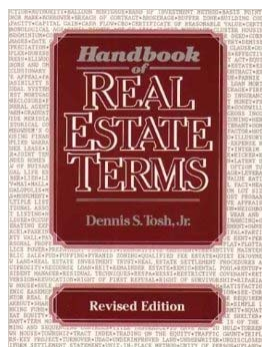


ACRONYMS

ADR – Average Daily Rate (hotels)	NOI – Net Operating Income
ADS – Annual Debt Service	NPV – Net Present Value
APR – Annual Percentage Rate	MIRR – Modified Internal Rate of Return
ARM – Adjustable Rate Mortgage	p.s.f. – price per square foot
CAM – Common Area Maintenance	PUD – Planned Unit Development
CPM – Constant Payment Mortgage	PV – Present Value
CPM – Certified Property Manager	REIT – Real Estate Investment Trust
CAP Rate – Capitalization Rate	REO – Real Estate Owned (by lender or govt. agency or insurer)
CMBS – Commercial Mortgage Back Securities	RESPA – Real Estate Settlement Procedures Act
DCF – Discount Cash Flow	s.f. – square feet
DSC – Debt Service Coverage	VA – Veterans Administration
DSCR – Debt Service Coverage Ratio	
FAR – Floor Area Ratio	
FHA – Federal Housing Administration	
FHLMC – Federal Home Loan Mortgage Corporation known as Freddie Mac	
FNMA – Federal National Mortgage Association commonly known as Fannie Mae	
IRR – Internal Rate of Return	
LTV – Loan to Value	



BOOK OF REAL ESTATE TERMS



\$14.90

AMAZON: http://www.amazon.com/Handbook-Real-Estate-Terms-Revised/dp/0133760707/ref=sr_1_sc_1?s=books&ie=UTF8&qid=1379473325&sr=1-1-spell&keywords=Handbook+of+Real+Estate+Terms+by+Dennis+Tosch



GLOSSARY OF TERMS

CCIM Glossary of Terms

[http://www.realtor.org/ncommsrc.nsf/files/commercial%20real%20estate%20glossary.pdf/\\$file/commercial%20real%20estate%20glossary.pdf](http://www.realtor.org/ncommsrc.nsf/files/commercial%20real%20estate%20glossary.pdf/$file/commercial%20real%20estate%20glossary.pdf)

