

## CE class

Small Mixed Use and Residential Investment  
Appraisal Appeal  
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## Introduction

Small Mixed Use and Residential Investment Properties  
1 – 4 units  
Financing – residential loan – including FHA and VA  
Commercial loan – 5 or more units  
Higher down payment than residential loan  
Higher interest rate than residential loan  
Possibly a shorter loan term than residential loan

## Mixed Use

### Mixed Use Investment Properties

Typically, commercial use on lower floor(s) and residential on upper floors  
For example, retail use on first and two apartments on 2<sup>nd</sup> and 3<sup>rd</sup> floors  
Definitions will vary depending on your jurisdiction  
For example, in Philadelphia a mixed use property is up to 4 commercial units and up to 4 residential units - for a possible total of 8 units.

## Other combinations

### Mixed Use Investment Properties

Can also be a combination of commercial uses  
Industrial / Office  
Retail / Office  
Retail / Industrial  
Retail / Office / Apartments

## Income Approach

Potential Gross Income (PGI)  
Market (Economic) Rent  
100% Occupied  
Annual Basis  
Subtract Vacancy and Collection Loss  
Add Miscellaneous Income  
Effective Gross Income (EGI)  
Subtract Operating Expenses  
Net Operating Income (NOI)  
Divide NOI by capitalization rate to estimate value  
PAV, p.318

## Income Approach

Potential Gross Income (PGI)  
4 units x \$1,000/mo. = \$4,000 x \$12,000 = \$48,000  
Subtract Vacancy & Collection Loss \$48,000 x 5% = \$2,400  
\$48,000 - \$2,400 = \$45,600  
Add Miscellaneous Income \$45,600 + \$1,200 = \$46,800  
Effective Gross Income (EGI)  
Subtract Operating Expenses \$46,800 X 30% = \$14,040  
\$46,800 - \$14,040 = \$32,760  
Net Operating Income  
Divide NOI by capitalization rate to estimate value  
\$32,760 / 9% = \$364,000

## Important consideration

An important consideration is looking at the real estate through the eyes of an investor.

Look at what factors are important to an investor when they are looking at purchasing real estate.

## Investment considerations

Safety  
Liquidity  
Size of investment  
Use as collateral  
Time  
Management  
Appreciation  
Income Tax Advantages  
Leverage  
PAV, p. 304 - 305

## Why invest in real estate?

### Pros

Make money – income and appreciation  
Tax benefits – depreciation, capital tax gain, Section 1031 exchange  
Leverage  
Inflation hedge

### Cons

Risk  
Management  
Upkeep  
Liquidity

## Investor Yield Requirements

Safe rate – with the most safety and least risk  
Risk rate – the risk assumed by the investor  
Rate for liquidity – real estate is an illiquid asset  
Rate for management of the investment – compensate for time and cost involved  
PAV, p. 305 - 306

## Investor Goals

Normal goals of an investor

A return on the investment

A return of the investment

When looking at income, consider the

Quantity

Quality

Duration

of the income stream

PAV p. 339

## Types of Leases

Month-to-month

Short term lease – usually for a period of less than 5 years

Long term lease – more than 5 years

Percentage lease – minimum base rent plus an overage rental amount

Graduated lease – Stated rent with rent change during the lease

\$1,000 per month increasing \$25 each year

Index lease – annual rent increase or decrease tied to

Consumer Price Index (CPI) or another economic indicator

Renewal lease – provides for one or more extensions – 5 year

lease with single or multiple 5 year renewal options

PAV p. 320

## Comparing Lease Factors

Effective date of lease  
Location of property  
Physical characteristics of property  
Terms of the lease  
These will help determine the comparability of the rental properties.  
PAV p. 320

## Comparison Guidelines 1

Date of lease  
Name of Owner (Landlord or Lessor)  
Name of Tenant (Lessee)  
Reference  
Legal Description  
Lease Term  
Amount of Rent  
Owner's Responsibility  
Tenant's Responsibility  
PAV, p. 320 - 322

## Comparison Guidelines 2

Taxes  
Right to Sublease or Assign  
Option to Renew  
Tenant Improvements  
Security  
Termination  
Special Provisions  
PAV, p. 320 - 322

## Lease types

Gross lease – residential lease – tenant pays one amount to landlord, landlord pays all maintenance, utilities, insurance, and taxes  
Net lease – tenant pays rent and property taxes  
Net, net lease – tenant pays rent, property taxes, and insurance  
Net, net, net (NNN) or triple net lease or absolute net– tenant pays rent and all property expenses except debt service  
PAV, p. 322

## Sales Comparison Approach

Also known as site market approach  
Define the appraisal problem  
Collect and analyze the data  
Select appropriate units of comparison  
Make reasonable adjustments based on the market  
Apply the data to the subject of the appraisal  
PAV, p. 203 - 204

## Sales Comparison Approach

Sequence of adjustments  
Financing  
Changing market conditions  
Location  
Physical characteristics  
PAV, p. 212 - 213

## Cost Approach

Estimate the land (site) value as if vacant and available for development to its highest and best use  
 Estimate the total cost new of the improvements as of the appraisal date  
 Estimate the total amount of depreciation from all causes  
     Physical depreciation  
     Functional obsolescence  
     External (economic) obsolescence  
 Subtract depreciation from total cost new to arrive at depreciated cost of improvements  
 Add site value to the depreciated cost of the primary improvements to arrive at estimate/opinion of value  
 PAV, p. 230

## Income Approach

Potential Gross Income (PGI)  
     Market (Economic) Rent  
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 PAV, p.318

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 Divide NOI by capitalization rate to estimate value  
   \$32,760 / 9% = \$364,000

## IRV

Income = Value x Rate   \$364,000 x 9% = \$32,760  
 Rate = Income / Value   \$32,760 / \$364,000 = 9% or .09  
 Value = Income / Rate   \$32,760 / 9% or .09 = \$364,000

Income  
 -----  
 Rate   |   Value

## If you change rate...

Value = Income / Rate   \$32,760 / 9% or .09 = \$364,000  
 Increase rate to 10%   \$32,760 / 10% or .10 = \$327,600  
 If you increase the capitalization rate, the value will decrease.  
 Decrease rate to 8%    \$32,760 / 8% or .08 = \$409,500  
 If you decrease the capitalization rate, the value will increase.

Income  
 -----  
 Rate   |   Value

## VIF

Value = Income x Factor   \$100,000 x 10 = \$1,000,000  
 Income = Value / Factor   \$1,000,000 / 10 = \$100,000  
 Factor = Value / Income   \$1,000,000 / \$100,000 = 10

Value  
 -----  
 Income   |   Factor

## Income Approach

The fundamental principle on which the income approach is based is the principle of anticipation.

This looks at the present worth of the future benefit of owning this property.

What is an investor willing to pay today for the benefits (income) they will receive in the future?

An investor is looking for a return on and a return of their money.

PAV, p.303,339

## Additional Principles of Value

Substitution

Competition

Balance

Supply and Demand

Change

PAV, p. 34 - 40

## LTV

LTV is the loan to value ratio.

LTV = Loan Amount divided by the purchase price or appraisal value, whichever is less.

Example - \$80,000 loan with a market value of \$100,000

$\$80,000 / \$100,000 = 80\%$

PAV, p. 34 - 40

## Debt Service

Mortgage Payment

The amount of money to pay back the borrowed capital (the money the bank lent you) and interest (what the bank charges you for the use of the money).

## GRM and GIM

Gross Rent Multiplier (GRM)

Residential

Sale Price / Gross Monthly Rent = Gross Rent Multiplier

$\$200,000 / \$1,400 = 142.86$

Gross Rent Monthly Multiplier (GRMM)

Gross Income Multiplier (GIM)

Commercial

Sales Price / Gross Annual Rent = Gross Income Multiplier

$\$1,000,000 / \$100,000 = 10$

Gross Rent Multiplier (GRM)

PAV, p.323

## GRM and GIM examples

1. If the sales price of a residential property is \$150,000, and the monthly rent is \$1,200, what is the Gross Rent Multiplier (GRM)?

Sales Price / Monthly Rent = Gross Rent Multiplier

$\$150,000 / \$1,200 = 125 \text{ GRM}$

## GRM and GIM examples

2. If the sales price of a commercial property is \$800,000, and the annual rent is \$96,000, what is the Gross Income Multiplier (GIM)?

Sales Price / Annual Rent = Gross Income Multiplier

$$\$800,000 / \$96,000 = 8.33 \text{ GIM}$$

## Percentage Rent example

A retail store leases a 50,000 sf location for \$15/sf. The lease states that the overage rent is 1% of any sales over \$3,000,000. The store had \$4,000,000 in sales last year. What is the total rent?

## Percentage Rent example

Base Rent + Overage Rent = Total Rent  
Base Rent = 50,000 sf x \$15/sf = \$750,000  
Amount of sales over threshold amount  
\$4,000,000 - \$3,000,000 = \$1,000,000  
Overage Rent  
\$1,000,000 x 1% or .01 = \$10,000  
Base Rent + Overage Rent = Total Rent  
\$750,000 + \$10,000 = \$760,000

## Percentage Rent Problem 1

A retail store leases a 15,000 sf location for \$8/sf. The lease states that the overage rent is 2% of any sales over \$1,000,000. The store had \$3,000,000 in sales last year. What is the total rent? Including the overage rent, what is the rent per sf?

## Problem 1

Base Rent + Overage Rent = Total Rent  
Base Rent = 15,000 sf x \$8/sf = \$120,000  
Amount of sales over threshold amount  
\$3,000,000 - \$1,000,000 = \$2,000,000  
Overage Rent  
\$2,000,000 x 2% or .02 = \$40,000  
Base Rent + Overage Rent = Total Rent  
\$120,000 + \$40,000 = \$160,000  
Including the overage rent, the rent per sf is:  
\$160,000 / 15,000 sf = \$10.67/sf

## Percentage Rent Problem 2

A hardware store leases a 50,000 sf location for \$4/sf. The lease states that the overage rent is 2% of any sales over \$1,000,000. The store had \$4,200,000 in sales last year. What is the total rent? Including the overage rent, what is the rent per sf?

## Problem 2

Base Rent + Overage Rent = Total Rent  
Base Rent = 50,000 sf x \$4/sf = \$200,000  
Amount of sales over threshold amount  
\$4,200,000 - \$1,000,000 = \$3,200,000  
Overage Rent  
\$3,200,000 x 2% or .02 = \$64,000  
Base Rent + Overage Rent = Total Rent  
\$200,000 + \$64,000 = \$264,000  
Including the overage rent, the rent per sf is:  
\$264,000 / 50,000 sf = \$5.28/sf

## Percentage Rent Problem 3

A hardware store leases a 70,000 sf location for \$4/sf. The lease states that the overage rent is 1% of any sales over \$1,000,000. The total rent paid last year was \$300,000. What were the total sales?

## Problem 3

Base Rent + Overage Rent = Total Rent  
Base Rent = 70,000 sf x \$4/sf = \$280,000  
Total Rent - Base Rent = Overage Rent  
\$300,000 - \$280,000 = \$20,000  
Overage Rent / Overage Percentage = Amount of Overage Sales  
\$20,000 / 1% or 0.01 = \$2,000,000  
Threshold Amount + Overage Sales = Total Sales  
\$1,000,000 + \$2,000,000 = \$3,000,000

## Expenses

### Fixed

- Owner has no control over expenses
- Insurance and real estate taxes

### Operating

- Expenses on the property that are not paid for by the tenant
- Can include management, major maintenance and personal liability insurance

### Reserves for replacement

- Short lived components of the property that require replacement
- Roof, appliances, carpeting, painting, air conditioning units, heating units, hot water heaters and others

## Improper Expenses

- Real estate taxes
- Depreciation
- Mortgage payments
- Mortgage interest
- Income taxes (payroll taxes are allowed)
- Capital improvements
- Owners business expense

## The IRV Equation

Income = Rate x Value

Rate = Income / Value

Value = Income / Rate

## Selection of Rates

A small change in the capitalization rate can cause a large change in thousands of dollars in the value estimate

If the capitalization rate is increased, the value will decrease

If the capitalization rate is decreased, the value will increase

## Income

A property is valued at \$800,000, and the capitalization rate is 8%, what is the income for the property?

Income = Rate x Value

Income = 8% or .08 x \$800,000 = \$64,000

## Rate

A property has a net operating income of \$60,000, and the value is \$800,000, what is the capitalization rate?

Rate = Income / Value

Rate = \$60,000 / \$800,000 = 7.5% or .075

## Value

A property has a net operating income of \$63,000 with a capitalization rate of 9%, what is the value?

Value = Income / Rate

Value = \$63,000 / 9% or .09 = \$700,000

## Income Approach Methods

Some of the methods used in the income approach

- Comparable Properties
- Mortgage Equity Band of Investment
- Building and Land Band of Investment
- Gross Rent Multiplier
- Discounted Cash Flow
- Net Income Ratio
- Debt Coverage Ratio
- PAV, p. 347

## Comparable Properties

Compare properties with similar characteristics

- Land to Building Ratio
- Operating Expense Ratio
- Remaining Economic Life

## Rental Units of Comparison

These will vary based on the property type

Rent per unit

Rent per room

Rent per space

Rent per square foot

For example, apartments could be based on per unit, per room, or per square foot

## GLA and NLA

Gross Leasable Area

Includes all of the leasable space including hallways, lobby, and elevators (common areas) of the building

Net Leasable Area

For example, in an office building, this would include the space leased just for the individual office, and would not include any of the common areas

## Effective Tax Rate - ETR

Effective Tax Rate (ETR) = Assessment Rate x Tax Rate

Assessment Rate (AR) = Effective Tax Rate / Tax Rate

Tax Rate (TR) = Effective Tax Rate / Assessment Rate

$$\frac{\text{ETR}}{\text{AR} \quad | \quad \text{TR}}$$

## Tax Rate

1 mill = \$0.001

30 mills = \$0.030

If Bucks County tax rate is 29.65 mills, Lower Makefield Township is 24.993 mills, and Pennsbury School District is 204.003 mills, the total tax rate is:

$29.65 + 24.993 + 204.003 = 258.646$  mills or

$\$0.02965 + \$0.024993 + \$0.204003 = \$0.258646$

If the CLR (common level ratio) is 5.86%, the ETR is:

$\text{ETR} = \text{AR} \times \text{TR} = 0.0586 \times \$0.258646 = 0.0151567$  or 1.51567%

## Using ETR

If you have a property with a market value of \$200,000, and an effective tax rate (ETR) of 0.015, what are the annual taxes?

Market Value X ETR = Annual Taxes

$\$200,000 \times 0.015$  or 1.5% = \$3,000

## MET

Mortgage Equity Band of Investment

The three bands are:

Mortgage

Equity

Tax

Mortgage (M) = LTV x Mortgage Constant

Equity (E) = Down Payment % x Equity Return

Tax (T) = Assessment Rate x Tax Rate

$M + E + T = \text{Capitalization Rate}$

## MET example 1

80% LTV, 20 year mortgage at 6%, 8% equity yield, assessment rate is 75%, and millage rate is 20 mills  
 Mortgage (M) = LTV x Mortgage Constant  
 $M = .80 \times .0859717 = .06878$   
 Equity (E) = Down Payment % x Equity Return  
 $E = .20 \times .08 = .016$   
 Tax (T) = Assessment Rate x Tax Rate  
 $T = .75 \times .020 = .015$   
 M + E + T = Capitalization Rate  
 $.06878 + .016 + .015 = .09978$   
 If the net operating income is \$15,260:  
 Value = Income / Rate =  $\$15,260 / .09978 = \$152,936$  or  $\$153,000$

## MET example 2

80% LTV, 25 year mortgage at 4.5%, 10% equity yield, assessment rate is 90%, and millage rate is 14.78 mills – NOI is \$60,000  
 Mortgage (M) = LTV x Mortgage Constant  
 $M = .80 \times .0666999 = .05336$   
 Equity (E) = Down Payment % x Equity Return  
 $E = .20 \times .10 = .02$   
 Tax (T) = Assessment Rate x Tax Rate  
 $T = .90 \times .01478 = .0133$   
 M + E + T = Capitalization Rate  
 $.05336 + .02 + .0133 = .08666$   
 If the net operating income is \$60,000:  
 Value = Income / Rate =  $\$60,000 / .08666 = \$692,361$  or  $\$682,400$

## Mixed Use Example

You have a mixed use property with 1,000 sf of retail space on the first floor, 1,000 sf of office space on the second floor, a two bedroom apartment on the third floor, and a one bedroom apartment on the fourth floor.  
 The retail space rents for \$25/sf per year, the office space rents for \$15/sf per year, the two bedroom apartment rents for \$1,100 per month, and the one bedroom apartment rents for \$900 per month.  
 All of the rents are market rents.

## Mixed Use Example

Potential Gross Income (PGI)

Retail – 1,000 sf x \$25/sf = \$25,000  
 Office – 1,000 sf x \$15/sf = \$15,000  
 Two bedroom - \$1,100 x 12 = \$13,200  
 One bedroom - \$900 x 12 = \$10,800  
 $\$25,000 + \$15,000 + \$13,200 + \$10,800 = \$64,000$

## Mixed Use Example

Potential Gross Income (PGI)  
 \$64,000  
 Subtract Vacancy and Rent (Collection) Loss  
 $\$64,000 \times 5\% = \$3,200$      $\$64,000 - \$3,200 = \$60,800$   
 Effective Gross Income (EGI)  
 Subtract Operating Expenses  
 $\$60,800 \times 40\% = \$24,320$      $\$60,800 - \$24,320 = \$36,480$   
 Net Operating Income  
 Divide NOI by capitalization rate to estimate value. With 10% cap:  
 $\$36,480 / 10\%$  or  $.10 = \$364,800$

## GRM example

Property	Sales Price	Monthly Rent	GRM
A	\$200,000	\$1,400	142.86
B	\$205,000	\$1,500	136.67
C	\$190,000	\$1,350	140.74
D	\$195,000	\$1,375	141.82
E	\$192,500	\$1,375	140

An appropriate GRM may be 140.  
 Subject will rent for \$1,500 per month.

Monthly Rent x GRM = Estimated Value  
 $\$1,500 \times 140 = \$210,000$

## Appeals

Are your property characteristics correct?

Reconciliation

Read appraisal report (if provided)

Comparables

Capitalization rate – loaded or unloaded

Interest rate

Equity rate of return

Subject lease information

Calculations

Extraordinary assumptions

Hypothetical condition

## Appeals

Preparation

Thank the board/panel for their time

Have your most important points ready

Know your comparables and their characteristics

Be prepared for questions – board/panel, attorney, appraiser, owner

Do not be stressed out

Check for updated information and changes

Build relationships and ask for help on difficult properties or if you need additional comparables

Understand what we do and our role is important

## References

Property Assessment Valuation (PAV), 3<sup>rd</sup> edition, Garth E. Thimgan, Editor, International Association of Assessing Officers, Kansas City, Missouri, 2010

APENDIUM: A Compendium of Property Assessment Knowledge Body of Knowledge (BOK), Knowledge Area 4: Appraising Property, First Edition, IAAO Publications, Kansas City, Missouri, 2018

The Appraisal of Real Estate, 15<sup>th</sup> edition, Appraisal Institute, Chicago, Illinois, 2020

## Any questions?

Thank you for your time and attention today!

Enjoy the conference and safe travels home.

Happy Mother's Day, and wishing everyone a happy, healthy, safe and fun summer!