



# CHAPTER 15

## Investment Real Estate



# Real Estate Investment Terminology

## Calculate:

**Before Tax Cash Flow**  
(Cash throw off)

Potential **Gross Income**  
- **Vacancy & Collections**  
Effective **Gross Income**  
- **Operating Expenses**  
**Net Operating Income**  
- **Annual Debt Service**  
**Before Tax Cash Flow**

**Before tax cash flow:** Pre-tax measurement of cash generated by the property



# Real Estate Investment Terminology

## After Tax Cash Flow:

Cash return after paying expenses, debt service and income taxes

## Calculate:

After Tax Cash Flow

- Potential **G**ross **I**ncome
- **V**acancy & **C**ollections

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- Effective **G**ross **I**ncome
- **O**perating **E**xpenses

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- Net **O**perating **I**ncome
- **A**nnual **D**ebt **S**ervice

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- B**efore **T**ax **C**ash **F**low
- **I**ncome **T**axes

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- A**fter **T**ax **C**ash **F**low



# Real Estate Investment Terminology

**Capital Gain or Loss:** Profit or gain that will be subject to tax after selling the property

## **Step 1**

Property Adjusted Basis

$$\begin{array}{r} \text{Property Acquisition Cost} \\ + \text{Capital Improvements} \\ \hline \text{Property Adjusted Basis} \end{array}$$

## **Step 2**

Calculate Capital Gain or Loss

$$\begin{array}{r} \text{Property Sales Price less expenses} \\ - \text{Property Adjusted Basis} \\ \hline \text{Capital Gain or Loss on Sale} \end{array}$$

## Tax Shelter

- Deductions exceed taxable income

## Sound tax shelter provides:

- Property appreciation
- Negative taxable income
- Positive cash throw off

# Real Estate Investment Terminology



# Real Estate Investment Terminology

Income tax formula:

## Step 1

NOI	Net Operating Income
+ RES	+ Reserves
- TD	- Tax Depreciation
- MI	- Mortgage Interest
<hr/>	<hr/>
TI	Taxable Income

## Step 2

TI	Taxable Income
x TR	x Investor Tax Rate
<hr/>	<hr/>
IT	Income Tax

\*Note: If taxable income is negative a tax shelter has been created

A close-up photograph of a banknote's security pattern, showing a complex, wavy, and textured design in shades of green and black. The pattern consists of concentric, overlapping lines that create a sense of depth and movement.

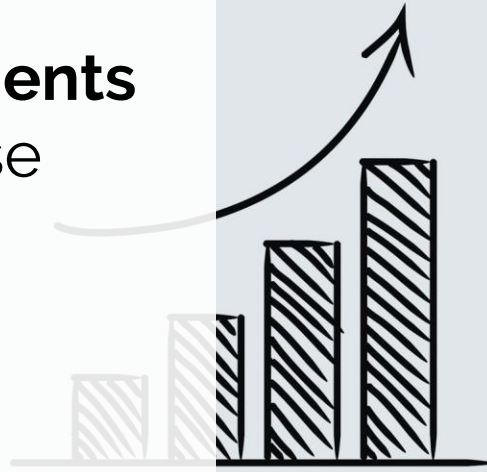
# **Real Estate Investment Terminology**

## **Risk in real estate investments**

- Substantial risk
- Projected income may fall short
- Management intensive
- Selling may take substantial time
- Affects marketability
- Real estate investments are illiquid

## Risk in real estate investments

- **Static risk** – can purchase insurance coverage
- Fire
- Theft
- Storm
- Flood
- Liability
- **Dynamic risk** – unable to purchase insurance coverage
- Changes in the economy
- Technology
- Inflation, etc.



# Real Estate Investment Risk

### Business Company

123 commentat ipsum vel  
Fringilla nisl. Fusce. 00229  
Tel: 123-456-789-0  
Fax: 123-456-789-1

Date: xxxxxxxx  
Invoice No: 0000001  
Customer ID: 223

Bill to: Curabitur suscipit, LTD  
456 Pellentesque Aliquet  
2W st., S.U.O. 9999  
987-654-321

No.	Description	Quantity	Amount
1234	Id rutrum	2	248.53
2567	Sed interdum odio	5	855.75
0034	Pellentesque	8	594.67
0400	Maecenas molestie	3	492.74
4729	Integer varius nisi	4	356.40
4930	Integer varius nisi	7	400.00
4893	Quisque luctus turpis	3	456.00

Comment	Subtotal	Amount
	4500.45	
	Tax Rate	8.78%
	Tax	740.67
	Other	-
	TOTAL Due	\$241.12



# Real Estate Investment Risk



## Risk in real estate investments

- **Marketability**
  - Ability to sell asset for market value
- **Liquidity**
  - Ability to sell asset for the amount paid

- **Interest rate risk**
  - Rates increase – property value decreases
  - Rates decrease – property value increases
- **Regulatory Risk**
  - Legislative changes



# Real Estate Investment Risk

# Real Estate Investment Risk



## Risk in real estate investments

- **Operating business risk**
  - Income is less than expected
  - Expenses may be higher than expected
  - High risk for apartment building
  - Not high risk for vacant land



# Real Estate Investment Risk

## Risk in real estate investments

- **Purchasing power risk**
  - Inflation may affect property value

## Advantages of real estate investments

- High rate of return
- Tax advantages
- Hedge against inflation
  - Real estate investments typically outpace inflation
- Leverage
- Equity buildup (mortgage paydown)

A man with short dark hair, wearing a dark suit, light blue shirt, and striped tie, is leaning against a wall made of horizontal wooden planks. He is smiling slightly and looking towards the camera. The background is a warm, textured wooden wall.

# Characteristics of Real Estate Investments



# Characteristics of Real Estate Investments

## Disadvantages of real estate investments

- **Illiquidity**
- **Substantial risks**
- **Local** – affected by local market
  - Environmental
  - Government restrictions
  - Supply and demand
  - Employment
- **Property management**
  - Requires time, effort, expense
  - Expensive to hire property manager

## **Residential property**

- Large and small investors can participate
- Location, location, location
- Transportation availability

# **Types of Investment Property**





# Types of Investment Property

## **Commercial, Hotels and retail sales**

- Close to residential areas
- Accessible transportation
- Adequate parking

## **Regional shopping centers**

- Need adequate transportation
- Surrounding land values increase
- Direct competition from other retailers draws customers





## **Industrial property**

- Manufacturing, processing, assembly, warehousing & distribution centers
- Basic activity – products are exported outside community



# **Types of Investment Property**

## **Office property**

- Professions – accounting firms, lawyers locate on main arteries
- Doctor offices – near hospitals

## **Office building investment attraction**

- Tax benefits
- Stability of income
- Long-term leases
- Expenses, taxes, insurance may be passed on to tenants



# **Types of Investment Property**

An aerial photograph of a residential development. The image shows several large, multi-story houses with swimming pools, surrounded by lush greenery and a golf course. The houses are arranged in a cluster, with some featuring large patios and outdoor areas. The overall scene is a well-maintained, upscale residential area.

# Types of Investment Property

## Recreation properties

- Golf courses
- Tennis facilities
- Ocean front or lakefront properties
- Many are rental properties
- Vacation homes, etc.



## **Leases and Lease Terminology**

### **Lessor**

- Landlord

### **Lessee**

- Tenant
- Leases for more than one year must be in writing and signed to be enforceable

## Types of leases

- **Flat lease**
  - Equal rental amounts
  - Monthly
  - Quarterly
  - Annually
- **Graduated lease**
  - Fixed rental for initial term
  - Predetermined increases
  - Specified time



# Leases and Lease Terminology



# Leases and Lease Terminology

## Types of leases

- **Gross lease**
  - Flat lease
  - Tenant pays fixed rent
  - Landlord pays taxes, insurance & maintenance
  - Example – single family residential lease
  - This lease benefits the tenant (lessee)

# Leases and Lease Terminology

## Types of leases

- **Ground lease**

- Lessee receives use, possession and occupancy of vacant land
- Usually triple net lease
  - Tenant pays, real estate taxes, (net), insurance (net, net) & maintenance (net, net, net) or triple net lease
  - Landlord receives “net” amount
  - Tenant builds on land
  - Usually for 50, 75 or 99 years





# Leases and Lease Terminology

## Types of leases

- **Index lease**
  - Rent adjusts according to a published index
- **Net Lease**
  - Tenant uses, possesses and occupies the property
  - Tenant pays real estate taxes, insurance and maintenance
  - The landlord receives a “net” amount
  - Used for office, commercial, major retail stores, etc.
  - This lease benefits the lessor (landlord)



# Real Estate Investment Terminology

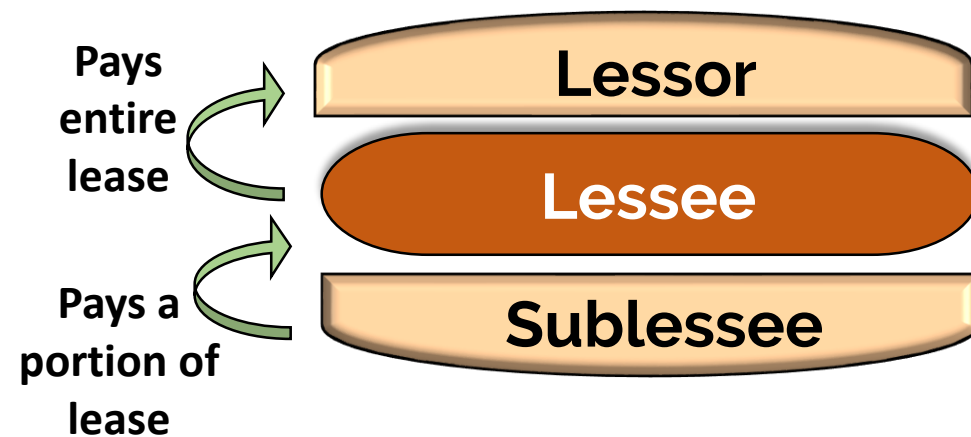
## Types of leases

- **Proprietary lease**

- Lease between owner and lessee (purchaser)
- Example: cooperative ownership

- **Sandwich lease**

- Original lessee sublets to another party
- Sublessee pays rent to original tenant
- Original tenant pays rent to lessor
- If sublessee fails to pay -
- Original lessee must pay
- Original tenant is “sandwiched” between
- The lessor and sublessee



## Types of leases

- **Percentage lease**

- Includes floor or minimum fixed rent
- Tenant pays a percentage of sales over a predetermined amount
- Common for large retail stores, supermarkets
- Landlord is guaranteed minimum base income
- As sales increase, landlord shares in profits
- Tenant has lower fixed rent during slow periods



# Leases and Lease Terminology



# Leases and Lease Terminology

## Rent Determination

- Area
  - Gross leasable area
    - Total space including common areas (restrooms, hallways, elevators, storage areas)
  - Net leaseable area
    - Total usable space excluding common areas

## Determination of Base Rent Charge

- **Common area maintenance fees (CAM)**
  - Fee charged for maintenance of:
    - Sidewalks
    - Elevators
    - Walkways
  - Usually collected in flat fee amounts



# Leases and Lease Terminology



# Leases and Lease Terminology

## Rent Concessions

- **Rent reduction to induce a new tenant to sign lease**
- Includes:
  - Free rent in exchange for a long-term lease
  - Build outs (customizing space)



# Leases and Lease Terminology

## Expense stops

- Set for landlord or tenant
- Responsible for expenses up to a certain amount

## Pass-throughs

- Expense passed on to tenant
  - (taxes, insurance, maint.)

## Pro rata expenses

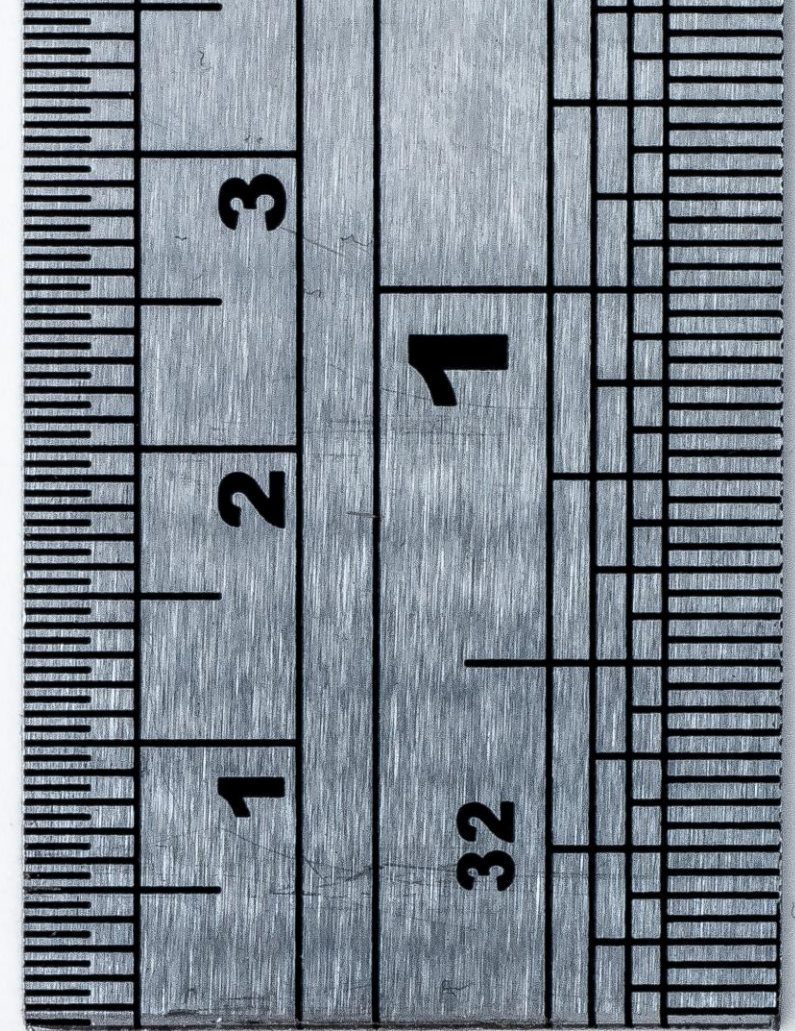
- Based on total building space or occupied space

## Tenant improvement allowances

- Landlord pays expense for tenant to alter space for their needs

## Options

- Renewal option
- Landlord or tenant may renew at end of term
- Tenant has right to expand when additional floor space becomes available



# Leases and Lease Terminology



# Mortgages

## Higher interest rates than residential

- Shorter loan term
- Higher risk

## Leverage

- **Positive leverage**

- Rate of return on investment is greater than the interest paid for borrowed funds

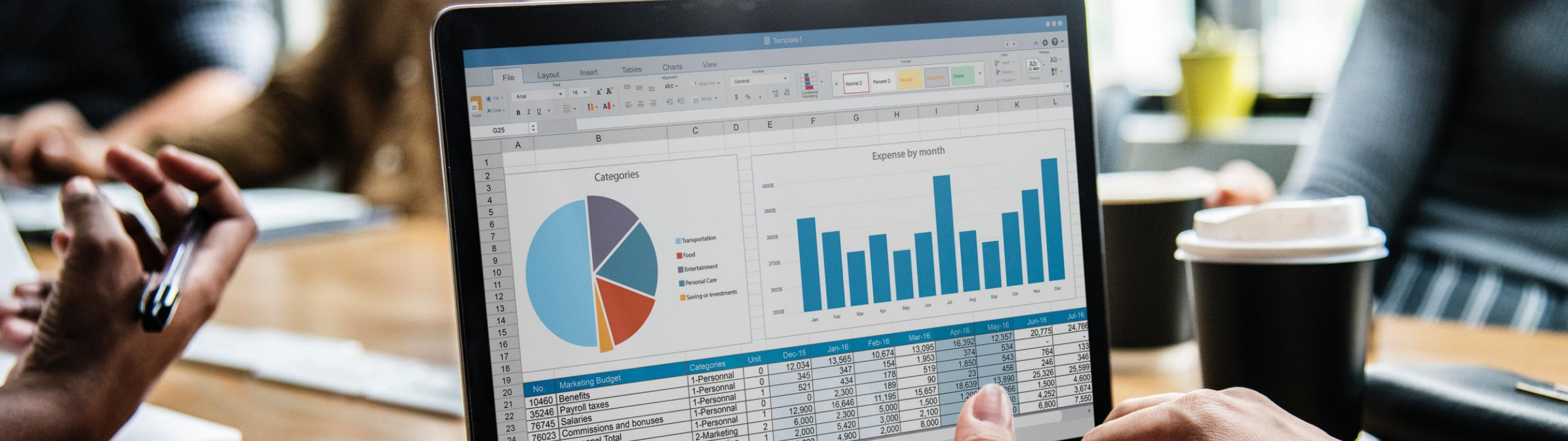
- **Negative leverage**

- Rate of return on investment is less than the interest paid on borrowed funds

- **Neutral leverage**

- Rate of return on investment is equal to the interest paid on borrowed funds





# Interest Calculations

Formula

$$I = P \times R \times T$$

\$\$ (loan) % (years)

# Basic Investment Analysis Terminology

Potential <b>G</b> ross <b>I</b> ncome	<b>PGI</b>	(or GI)
<b>V</b> acancy and <b>C</b> ollection loss allowance	- <b>V&amp;C</b>	(% or \$)
<b>O</b> ther <b>I</b> ncome	+ <b>OI</b>	
<b>E</b> ffective <b>G</b> ross <b>I</b> ncome	<hr/> <b>EGI</b>	
<b>O</b> perating <b>E</b> xpenses	- <b>OE</b>	
<b>N</b> et <b>O</b> perating	<hr/> <b>NOI</b>	
<b>A</b> nnual <b>D</b> ebt <b>S</b> ervice	- <b>ADS</b>	
<b>B</b> efore <b>T</b> ax <b>C</b> ash <b>F</b> low	<hr/> <b>BTCF</b>	
<b>I</b> ncome <b>T</b> axes	- <b>TX</b>	
<b>A</b> fter <b>T</b> ax <b>C</b> ash <b>F</b> low	<hr/> <b>ATCF</b>	

## Fixed Expenses

- Property Taxes
- Hazard Insurance

## Variable Expenses

- Maintenance
- Utilities
- Management fees

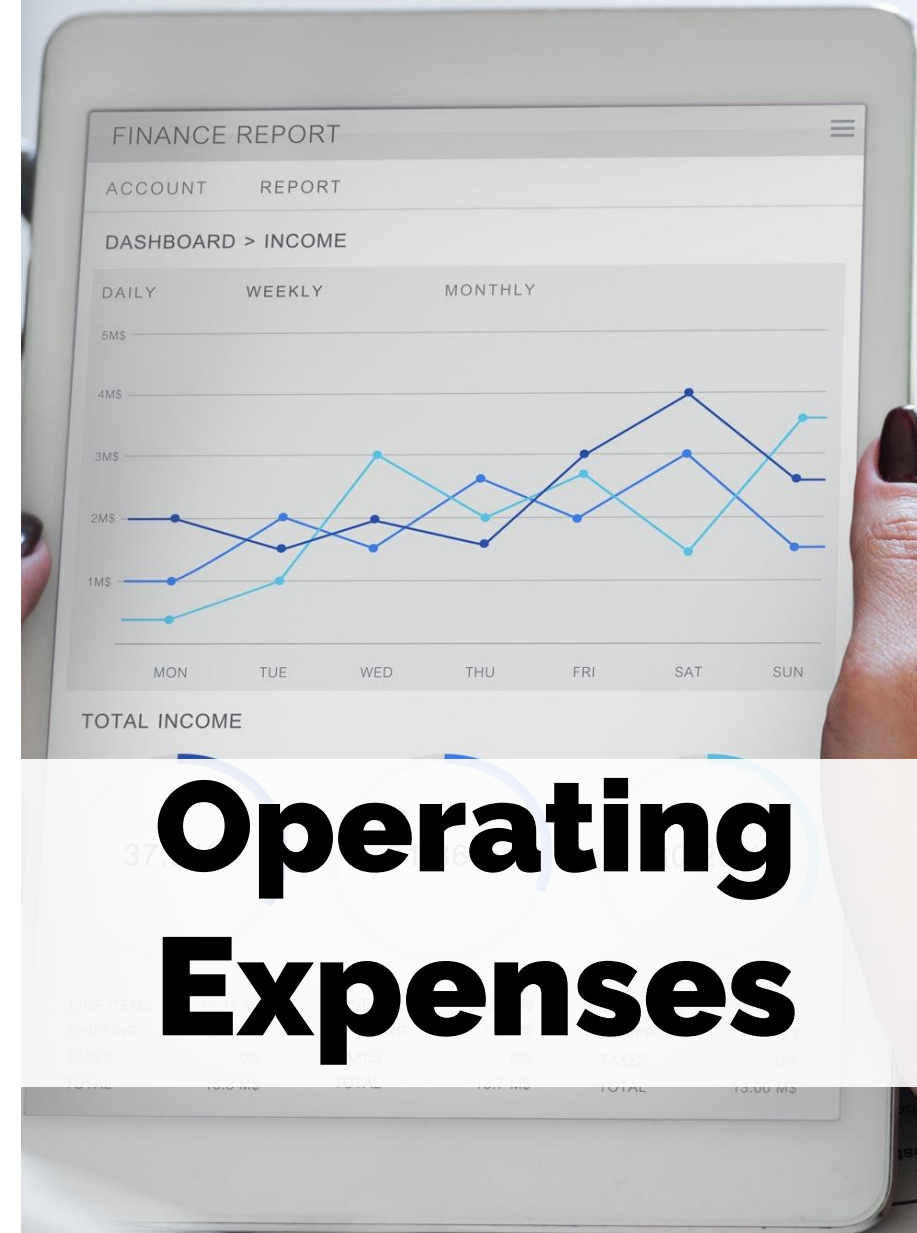
## Reserve for Replacements

- Noncash expense
- Use in the future to replace worn out components

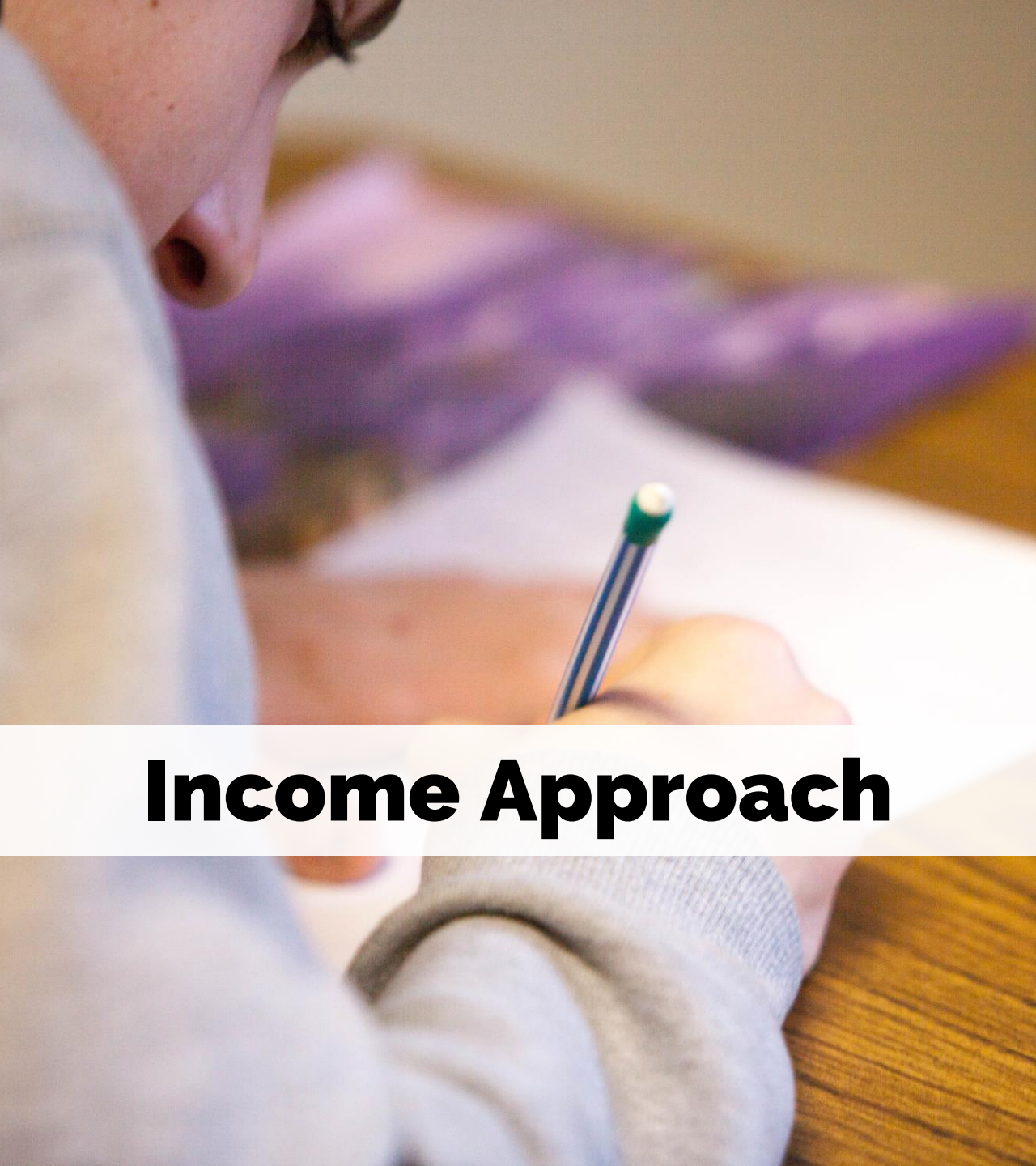
FE

VE

R



**Operating Expenses**



# Income Approach



**Overall Capitalization Rate (OAR)** - average rate of return received on similar properties

$$\frac{I}{R \times V}$$





# Debt Service

## Not an operating expense

- Varies from investor to investor
- Not an expense of the property:
  - Unique to each investor

## Tax depreciation

- Also varies from investor to investor
- Dependent on sale price



# Loan to Value Ratio



## Loan Value

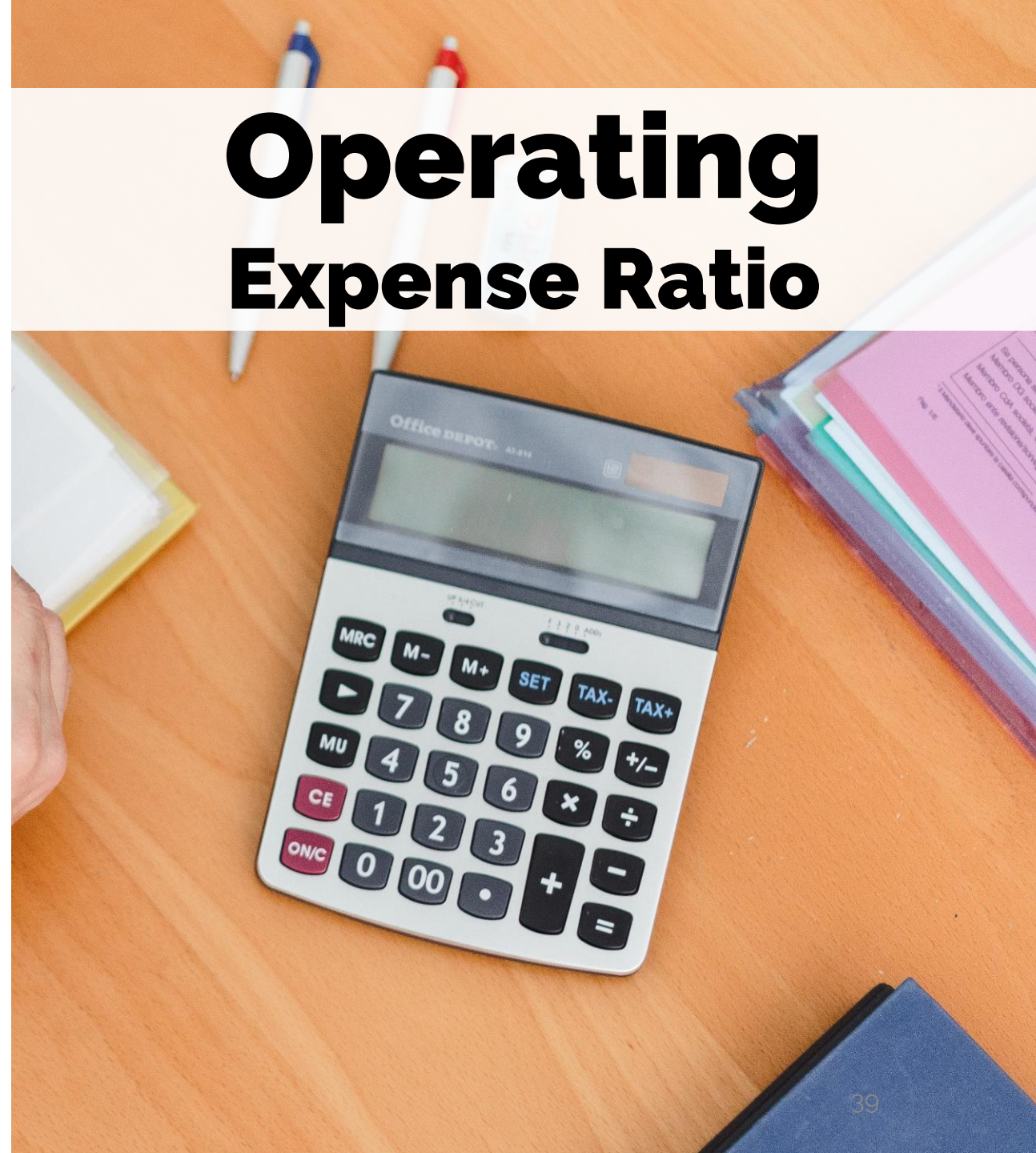
Shows the % of value the lender agrees to lend



Operating Expenses  
Effective Gross Income

Provides for comparison with similar properties

# Operating Expense Ratio





# Financial and Investment Ratios

Cash breakeven ratio:

$$\frac{\text{Operating Expenses} - \text{Reserves} + \text{Debt Service}}{\text{PGI}}$$

- Occupancy level to meet cash requirements

Equity dividend ratio:

- Cash on cash return

$$\frac{\text{BTCF}}{\text{Equity}}$$



# Federal Income Tax

## Calculate Taxable Income:

**NOI**

- + **Reserves**
- **Depreciation**
- **Mortgage Interest**

**Taxable Income**

**Potential Gross Income**

- **Vacancy & Collections**

**Effective Gross Income**

- **Operating Expenses**

**Net Operating Income**

- **Annual Debt Service**

**Before Tax Cash Flow**

- **Income Taxes**

**After Tax Cash Flow**





# Risk Analysis

## Major risk ratios

- Debt service coverage ratio
- Cash breakeven ratio

## Sensitivity analysis

- Best case, worst case and most likely case scenarios

# Investment Analysis Ratios

## Debt-Service Coverage Ratio

$$\frac{\text{Net Operating Income}}{\text{Debt Service}}$$

## Cash Break-Even Ratio

$$\frac{\text{Operating Expenses} - \text{Reserves} + \text{Annual Debt Service}}{\text{Potential Gross Income}}$$

## Equity Dividend Rate

$$\frac{\text{BTCF}}{\text{Equity (Down Payment)}}$$

# COMPARATIVE FINANCIALS

Price: \$475,000

Loan: \$356,250 @ 8% - 25 years

Equity: \$118,750 (25% dwn pmnt)

	Capitalization Rate (cash)	Equity Dividend Rate (loan)	Cash Break-Even	Debt Service Coverage Ratio
PGI	\$84,000	\$84,000		
-VAC	-5,040	-5,040		
+OI	<u>+1,500</u>	<u>1,500</u>		
EGI	80,460	80,460		
-OE	<u>-28,161</u>	<u>-28,161</u>		
NOI	<u>52,299</u>	<u>52,299</u>		
-DS		<u>-32,995</u>		
BTCF		<u>19,304</u>		
	I / RV 52,299 / 475,000 11%	BTCF / Equity 19,304 / 118,750 16.30%	-28,161 – 3,218 (Reserves)  <u>+32,995</u>  57,938 Expenses / PGI 57,938 / 84,000 69%	52,299 / 140% (max allowable)  \$37,356  52,299 = 140%  <u>52,299</u> / <u>140%</u> = <u>140%</u>  NOI / DS 52,299 / 32,995 159% (Actual)



# Coffee Break

15 Minutes