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: Pretax 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 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
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

Property Acquisition Cost
+ Capital Improvements

Step 2
Calculate Capital Gain or Loss

Property Sales Price less expenses
- Property Adjusted Basis

Capital Gain or Loss on Sale
Tax Shelter

• Deductions exceed taxable income

Sound tax shelter provides:

• Property appreciation
• Negative taxable income
• Positive cash throw off
Real Estate Investment Terminology

Income tax formula:

**Step 1**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
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<tbody>
<tr>
<td>NOI</td>
<td>Net Operating Income</td>
</tr>
<tr>
<td>+ RES</td>
<td>+ Reserves</td>
</tr>
<tr>
<td>- TD</td>
<td>- Tax Depreciation</td>
</tr>
<tr>
<td>- MI</td>
<td>- Mortgage Interest</td>
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<tr>
<td>TI</td>
<td>Taxable Income</td>
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</tbody>
</table>

**Step 2**

\[
\text{TI} \times \frac{\text{TR}}{\text{IT}} \times \text{Investor Tax Rate} = \text{Income Tax}
\]

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

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

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)
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

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
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
Recreation properties

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

Types of Investment Property
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
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)
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
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

Leases and Lease Terminology
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

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
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

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

- $I$ = Interest
- $P$ = Principal (loan)
- $R$ = Rate (%)
- $T$ = Time (years)
Basic Investment Analysis Terminology

- **Potential Gross Income (PGI)**
- **Vacancy and Collection loss allowance (V&C)**
- **Other Income (OI)**
- **Effective Gross Income (EGI)**
- **Operating Expenses (OE)**
- **Net Operating Income (NOI)**
- **Annual Debt Service (ADS)**
- **Before Tax Cash Flow (BTCF)**
- **Income Taxes (TX)**
- **After Tax Cash Flow (ATCF)**

\[ \text{PGI} (\text{or GI}) = \text{EGI} = \frac{\text{IO}}{\text{(\% or \$)}} \]

\[ \text{NOI} = \frac{\text{EGI}}{\text{OE}} \]

\[ \text{BTCF} = \frac{\text{NOI}}{\text{ADS}} \]

\[ \text{ATCF} = \frac{\text{BTCF}}{\text{TX}} \]
**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
Overall Capitalization Rate (OAR) - average rate of return received on similar properties

Income Approach

\[
\frac{1}{R \times V}
\]
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

Debt Service
Loan to Value Ratio

Shows the % of value the lender agrees to lend
Operating Expense Ratio

Operating Expenses
Effective Gross Income

Provides for comparison with similar properties
Cash breakeven ratio:

Operating Expenses - Reserves + Debt Service

- Occupancy level to meet cash requirements

Equity dividend ratio:
- Cash on cash return

\[
\frac{BTCF}{Equity}
\]
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

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<tr>
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<th>Loan: $356,250 @ 8% - 25 years</th>
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<td>52,299 / 140%</td>
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<td>52,299 / 32,995 159% (Actual)</td>
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Coffee Break
15 Minutes