Real Estate Investments

Section A: Overview of Types of Real Estate Investment

1. INTRODUCTION AND BASIC FORMS OF REAL ESTATE INVESTMENT

- **Real estate characteristics:**
  - Stable income
  - Inflation protection
  - Low correlation with bonds & stocks
  - Offer diversification benefits
- **Private Real-estate Investments** are suitable for investors with long-term investment horizons and who have the ability to accept relatively lower liquidity.
- **Securitized real estate ownership -** investment in
  - Real estate investment trust (REIT)
  - Real estate operating company (REOC)
  - Mortgage-backed security (MBS)

1.1 REAL ESTATE MARKET SIZE

- Total market size of real estate is higher compared to debt and equity.
- Within real estate residential real estate is the largest segment

1.2 REAL ESTATE INVESTMENT BASIC FORMS

Real estate can be classified based on:
- Property type (residential or non-residential – owner occupied or for rent):
- Capital position (debt or equity):
- Investment vehicle (private investment or public investment).

1.3 Characteristics

i. Unique asset and fixed location:
ii. High unit value:
iii. Management intensive:
iv. High transaction costs:
v. Depreciation:
vi. Need for debt capital: (require large amounts to invest)
vii. Illiquidity:
viii. Price determination: (based on estimates or appraisals)

1.4 Risk Factors

Property Demand & Supply

- Business conditions
- Demographics
- Excess supply

Valuation

- Cost and availability of capital
- Availability of information
- Lack of liquidity
- Rising interest rates

Property Operations

- Management
- Lease provisions
- Leverage
- Environmental conditions
- Obsolescence
- Recent (COVID-19) & ongoing market disruptions
- Natural disasters

2. ECONOMIC VALUE DRIVERS, ROLE IN PORTFOLIO, AND RISK/RETURN OF REAL ESTATE INVESTMENTS RELATIVE TO STOCKS AND BONDS

2.1 Economic Drivers

- Economic growth
- Employment growth rate and job creation:
- Retail sales growth rate
- Demographic Trends and Population growth
- New space & construction time period:
- Supply and demand imbalance
- Real estate quality characteristics

2.2 Role of Real Estate in an Investment Portfolio

Benefits:

- Current income
- Price appreciation
- Retail sales growth rate
- Inflation hedge
- Diversification
- Tax benefits

2.3 Real Estate Risk & Return Relative to Stocks & Bonds

Real estate as an asset class has exhibited:

- have features of both bonds & stocks.
- ↑ return and ↑ risk compared to Investment-grade bonds.
- ↓ return and ↓ risk compared to a diversified portfolio of stocks.

2.4 Classifications

Two property types are:

A. Residential properties

i. single family
ii. multi-family

B. Non-residential properties

i. *Commercial*
- Multi-family
- Office
- Industrial & warehouse
- Retail
- Hospitality
- Other specialty types

ii. *Farmland*
iii. *timberland*

2.5 Investment Characteristics by Property Type

2.5.1 Common types of leases

1) Net lease: Tenant pays operating expenses
2) Gross lease: Owner pays operating expenses
3) Triple-net lease (or NNN lease): Tenants pay their share of the following operating expenses:

i. Common area maintenance (CAM) & repair expenses
ii. Property taxes
iii. Building Insurance costs

4) Sale-leaseback: Owner sells the property to an investor & signs a long-term lease contract to buy back the same property from the investor.

2.5.2 Office

- They include single and multi-tenant office buildings that serve the needs of a specific tenant.
- Demand depends on the economy.

2.5.3 Industrial & warehouse

Special purpose properties used for light or heavy manufacturing and the associated warehouse space.

2.5.4 Retail

- Retail properties include small stores, large shopping centers with several stores, large department stores etc.
- Demand depends on the economy.

2.5.5 Multi-Family

- The demand for multi-family space largely depends on population growth, population demographics.
- They are differentiated based on location & shape of structure

3. CONSIDERATIONS IN ANALYSIS AND DUE DILIGENCE

Due diligence process includes:

- Market review:
- Lease and Rent Review:
- Costs of re-leasing space:
- Reviewing ownership history
- Reviewing agreements
- Verifying compliance with regulations.

4. INDEXES

4.1 Appraisal-Based Indexes

- Appraisal based indices combine valuation information from individual properties & provide a measure of market movement.
- The return for all the properties is calculated as:

$$Return = \frac{NOI - Capex + (ending\ MV - Beg.MV)}{Beg.MV}$$

- These individual property returns are then value weighted to get the return for all properties in the index.
- Such index allows us to compare the performance of RE with other asset classes.

4.2 Transaction-Based Indexes

- Such index is possible by companies that collect information on enough transactions to create an index based only on transactions.
- Problem ⇒ same property may not sell very frequently.
- To develop an index, some econometric technique is applied on different properties selling every quarter.
- More sales, the more reliable is the index.
- Hedonic index ⇒ control for differences in the characteristics of the property.
- Such indices require sufficient amount of data.

4.3 Advantages & Disadvantages of Appraisal-Based & Transaction-Based Indexes

Disadvantage of ***appraisal-based index.***

- Appraisals lag in case of sudden shifts in the market.
- Index with appraisal lag is more of an issue when compared with other publicly traded asset classes.
- Appraisal lag tends to smooth the index.
- Two general ways of adjusting the appraisal lag.
  - Unsmooth the appraisal-based index.
  - Use a transaction-based index.

Disadvantage of ***transaction-based index.***

- Can be noisy.
- Statistical techniques are used to control the noise, can be challenging.

4.4 Real Estate Security Indexes

Numerous index providers, exchanges and organizations produce real estate equity and debt indexes.

Section A: Investment in Real Estate Through Private Vehicles

5. INTRODUCTION TO VALUATION APPROACHES

Three different approaches to estimate real estate value are as follows:
1) Income approach
2) Cost approach
3) Sales comparison approach

5.1 Highest and Best Use

- **Value after construction** = Cost to construct a building + Profit to the developer
- **Implied land value** = Value after construction – Cost to construct a building

6. THE INCOME APPROACH TO VALUATION: DISCOUNT RATES AND THE DIRECT CAPITALIZATION OF NOI AND DCF METHOD

7. THE DCF METHOD, THE RELATIONSHIP BETWEEN DISCOUNT RATE AND CAP RATE, AND THE TERMINAL CAPITALIZATION RATE

NOI in RE property context is similar to EBITDA in a financial reporting context.

Income Approaches

Direct Capitalization Method

- Uses a growth implicit cap rate.
- Implicit assumption ⟹ 1st year NOI is representative of what the typical 1st year NOI would be for similar properties.

DCF Method

- It applies an explicit growth rate to construct an NOI stream from which a PV can be derived.
- The discount rate should reflect the risk characteristics of the property.
- NOI = income from property – operating expenses (property tax, insurance, maintenance, utilities & repairs).
- NOI is a before-tax unleveraged (before deducting financing cost & federal income tax) measure of income.

The Direct Capitalization

The Capitalization Rate and the Discount

- Discount rate ⇒ R_f + risk premium specific to investment.
- Cap rate ⇒ it is calculated using the current NOI hence it is lower than discount rate.
- Discount rate is applied to current & future NOI.
- When income & value are growing at a constant compound growth rate:

$$Cap\ rate = Discount\ rate - Growth\ rate$$

Defining the Capitalization

- $Cap\ rate = \frac{NOI}{Value}$
- Going-in cap rate ⇒ rate based on the 1st year of ownership when the investor is going into the deal.
- $Value = \frac{NOI}{Cap\ rate}$
- If the sale price for a comparable company is a good indication of the value of the subject company:
- $Cap\ rate = \frac{NOI}{Sale\ price\ of\ comparables}$
- This cap rate is called all risk yield (ARY).

Stabilized NOI

Cap rate must be applied to stabilize NOI otherwise the implicit assumption that the 1st year NOI is representative of what the typical 1st year NOI would be for similar properties may violated.

Other Forms of the Income

- Gross income multiplier ⇒ ratio of sale price to the gross income expected from the property in the 1st year after sale.
- Problem ⇒ it does not consider vacancy rates & operating expenses.
- Gross rent multiplier is also considered a form of direct capitalization but less

The Discounted Cash Flow (DCF)

The Relationship between Discount Rate and

- Cap rate = DR – growth rate (if same change in income & value for a property).
- When the NOI is growing, price will be ↑ & cap rate will be↓.
- If growth rate is constant:

$$V = NOI/(r-g)$$

- If NOI growth rate is not constant, project each period NOI, & discount it back to arrive at a value for the property.

The Terminal Capitalization

- With DCF method, estimated TV is an important input.
- Terminal cap rate ⇒ it is used to estimate the TV.
- TV ⇒ PV of income to be received by the next investor.
- Estimating the TV & selecting a terminal cap rate is challenging.
- Terminal cap rate may differ from going-in cap rate.

8. PRIVATE MARKET REAL ESTATE DEBT

- Investors who do use debt financing will normally expect to earn a higher rate of return on their equity investment (positive financing leverage).
- By borrowing money, the investor is taking on more risk in anticipation of higher return on equity.
- Maximum amount of debt is usually limited by either the ratio of loan to the appraised value or DSCR.
- $DSCR = \frac{NOI}{Debt\ Service}$
- Debt service includes both interest & principal payments on mortgage.

Section C: Investment in Real Estate Through Publicly Traded Securities

9. Types of Publicly Traded Real Estate Securities

- **REITs:** REITs represent shares of publicly-traded companies that buy and sell real estate.
- **Equity REITs** are tax-advantaged entities that generally hold, own, operate, manage and develop *income-producing* real estate property.
- **Mortgage REITs** finance real estate investments by making mortgage loans to real estate owners or invest in existing mortgages or mortgage-backed securities.

Advantages of publicly traded equity real estate securities

Both REITs and REOCs *relative to private real estate investments*:

i. Liquidity
ii. Transparency
iii. Diversification
iv. High-quality portfolios
v. Active professional management
vi. High, stable income
vii. Tax efficiency:

REITs Disadvantage:

- Lack of retained earnings
- Only hold one type of assets
- Need to access capital markets to fund growth

10 VALUATION: NET ASSET VALUE APPROACH

- NAVPS ⇒ a fundamental benchmark of the value of a REIT or REOC.
- Discount (premium) in REIT share price from NAVPS = indication of potential undervaluation (indication of +ve future events).

10.1 Accounting for Investment Properties

- Fair value-based accounting valuation is relevant for asset-based valuation.
- IFRS:
  - Investments property ⇒ property that is owned or leased under a capital lease for the purpose of earning rentals or capital appreciation or both.
  - Companies are allowed to value investment properties using either a cost or fair value model & it appears as a separate line item on the B.S.
  - Company must make additional disclosures about how it determines fair value.
- U.S.GAAP:
  - No specific definition of investment property.
  - Most RE companies use historical cost method, which does not represent economic values of assets & liabilities.

10.2 Net Asset Value Per Share: Calculation

- NAVPS ⇒ diff. b/w MV of RE Company's assets & its liabilities divided by no. of shares outstanding.
- In valuing REITs' or REOCs' portfolios, analysts will use appraised value or NOI.
- Goodwill, deferred financing expenses & deferred tax assets will be excluded to arrive at a "hard" economic value for total assets.
- Liabilities adjustment ⇒ replace face value of debt with MV of debt & remove deferred tax liabilities.
- $NAV = \frac{Revised\ Net\ Worth}{No.of\ Shares\ Outstanding}$

10.3 Net Asset Value Per Share: Application

- The NAV approach is most often used by sector focused RE investors.
- Value-oriented investors tend to focus on NAV when stocks are trading at significant discounts.
- NAV analysis is important when there is significant LBO activity.

10.3.1 Important Consideration in a NAV-Based Approach to Valuing REITs

- Important considerations:
  - Examine how NAVs are calculated.
    - Cap rate approach.
    - Applying value per square foot.
    - Using appraised values.
  - NAV reflects the value of a REIT's asset to a private market buyer, which may not be the same as value assigned by a private equity investor.
  - NAV implicitly treats a company as an individual asset or static pool of assets (not consistent with going concern assumption).
  - When property markets become illiquid & few transactions are observable, NAV estimate will be quite subjective.

10.3.2 Further Observations on NAV

- Rationale for REITs or REOCs trading at premiums to underlying NAVPS.
  - Lower required return rate (↑ value) in the public market than the private market for RE assets.
  - Above avg management team in public market leads to better investment decisions.

11. VALUATION: RELATIVE VALUE (PRICE MULTIPLE) APPROACH

$P/_{FFO}$, $P/_{AFFO}$, $\frac{EV}{EBITDA}$ Multiples are used for valuing shares of REITS & REOCs.

11.1 Relative Value Approach to Valuing REIT Stocks

- $P/_{FFO}$, $P/_{AFFO}$ Multiples allow investors to quickly ascertain the value of a given REITs shares compared with other REIT shares or with its historical levels.
- Main drivers behind the multiples of most REITs & REOCs:
  - Growth expectation in FF0/AFF0 ⇒ ↑ the expected growth, ↑the multiple.
  - Risk of underlying RE.
  - Risk associated with company's capital structures & access to capital.

11.2 Funds from Operations and Adjusted Funds from Operations

FFO:

- Accounting NI excluding depreciation, deferred tax & gain/loss from sales of property & debt restructuring.
- Depreciation is excluded because investors believe that RE maintains its value to a greater extent, often appreciating in value.
- Deferred tax liability may not be paid for many years.
- G/L & debt restructuring are excluded because they don't represent sustainable income.
- EBITDA = NOI – general & admin expenses.
- FFO = EBITDA – interest exp.

AFFO:

- Also know as funds available for distribution.
- AFFO ⇒ FFO adjusted to remove any non-cash rent & to subtract maintenance-type capex & leasing cost.
- Straight-line rent ⇒ avg. contractual rent over a lease term.
- Non cash rent ⇒ diff. b/w straight-line rent & cash rent paid during the period.
- Purpose of adjustment ⇒ to obtain more tangible, cash-focused measure of sustainable economic income.
- AFFO is superior to FFO because it takes into account the capex.

11.3 P/FFO and P/AFFO Multiples: Advantages and Drawbacks

Benefits

1. These multiples are widely accepted in evaluating shares across global stock markets & industries.
2. Portfolio manager can put the valuation of REITs & REOCs into context with other investment alternatives
3. Data for these multiples is readily available.
4. Multiples can be used in conjunction with growth & leverage level to deepen the relative analysis.

Drawbacks

1. May not capture the intrinsic value of all RE assets held by REIT or REOC.
2. P/FFO does not adjust for the impact of recurring capex.
3. Wide variations in estimates & assumptions are incorporated into the calculation of AFFO.
4. Increased level of one-time items (e.g. gains & accounting charges) make P/FFO & P/AFFO more difficult to compute & compare b/w companies.