An introduction to Real Estate

1). Introduction

In this summary we will cover the main aspects of Real Estate investing, one of the main asset class in alternative investment.

2). Introduction to Real Estate

Real estate investing is direct or indirect ownership (equity investing) or other form of investing (debt investing or purchasing MBS) in real estate property such as land or buildings. Key features of real estate can be:

- Total returns driven both by income generation and capital appreciation
- Possibilities of fixed rents can lessen the effect of downturn economic cycle
- Lower correlation with traditional asset classes and diversification benefits
- Potential to provide an inflation hedge

Real estate investing has unique features:

- Basic indivisibility
- No uniqueness: each RE property is different
- Fixed location

This implies that RE can follow micro trend that are not related to the general macro scenario, something much more difficult to find in other asset classes.

2.1). Forms of RE investment

RE investment can be classified along 2 dimensions: debt/equity based and private/public markets.

Forms of RE investing with examples		
	Debt	Equity
Private	• Mortgages • Construction lending	• Direct ownership of real estate
Public	• MBS (residential and commercial)	• Shares in real estate corporations • Shares in REIT

2.2). Real Estate Investment Categories

The majority of real estate may be classified as either commercial or residential. In this summary residential properties are defined narrowly to include only owner occupied, single residences. Residential properties owned with the intention to let, lease, or rent are classified as commercial. Commercial properties include office, retail, industrial, warehouse and hospitality.

- **Residential property**
  Real estate investment takes the form of direct equity investment in a residence with the intent to occupy. Most purchaser cannot finance the entire acquisition with equity, and must borrow funds to make purchases. Financial institutions are main providers of debt financing for home ownership. Home loans may be kept on the originator's balance sheet or securitized and offered to the financial markets. Securitization provides indirect debt investment opportunities in residential properties.

- **Commercial RE**
  Commercial property has traditionally been considered an appropriate direct investment – debt or equity – for investors with long term horizons and limited liquidity needs.

- **REIT investing**
  REITs are listed on stock exchanges and had a market cap of over $1.1 trillion as of 2016. The risk and returns of REIT depend on the type of investment they make.
  - Mortgage REIT: they invest primarily in mortgage and are similar to fixed income investment
  - Equity REIT: invest primarily in residential and/or commercial properties and use leverage, are similar to direct equity investment in real estate.

- **Mortgage-backed securities**

  The MBS structure is based on the securitization process, whereby assets are transferred from the balance sheet of the financial institution to an SPV and then share are issued from this SPV to other investors. Investors are effectively taking on the risk of the loan given by the bank/financial institution.

- **Timberland and farmland**
  Timberland offers an income stream based on the sale of timber products, and it has historically been not highly correlated with traditional asset classes. Moreover it has the feature to be flexible in relation to the economic cycle: when demands goes up harvesting can increase, whereas can be slowed down in crisis time, without any major consequences on the efficiency of the timberland. Farmland on the other hand don't have this privilege, but are very good for hedging against inflation.

2.3). Real estate indexes

Real estate indexes can fall into one of these 3 categories:

- <u>Appraisal index</u>. These indexes use estimate of value (appraisal) as inputs. They rely on comparable sales and cash flow analysis techniques.
- <u>Repeat sales</u>. The changes in property prices with repeat sales are measured and used to construct the index. These indexes suffer from a selection bias, because property sold may not be representative of the entire market.
- <u>REIT indexes</u>. They use the prices of publicly traded shares of REITs to construct the indexes. The more frequently the shares are traded, the more the index is reliable.

2.4). Real Estate valuation

Until a real estate is sold, real estate value can only be estimated: this process is known as appraising the property. The most common techniques for this are: comparable sales, income and cost approach.

- <u>Comparable sales approach</u>. The idea is to determine an approximated value based on recent sales of similar properties. Key characteristics include condition, age, location and size.
- <u>Income approach</u>
  - *Direct capitalization approach.* The idea is to estimate the value of an income producing property based on the level and quality of NOI (net operating income). NOI is similar in

meaning to EBITDA for corporations. The NOI is then divided by the cap rate to estimate the property value; the cap rate is the expected rate of return on a real estate.

    - *Discounted cash flow approach.* Discount future projected cash flows to arrive at a present value of the property. Typically the analysis is divided into 2:
        - Projection of annual cash flows for a finite number of periods
        - Resale or reversion value at the end of the total period. This value is often computed with a direct capitalization approach.
- Cost approach. Estimation of the property value takes into account the market value of the land and the costs of rebuilding using current construction costs and standards.

2.4.1). REIT valuation

REITs are composed of a portfolio of real estate properties and mortgages, and as a result REIT's security valuation depends on the entire pool of assets. The 2 most common approaches are:

- Income based approach. Income based approach for REIT is typically similar to the direct capitalization approach: a measure of income, which is a proxy for cash flow, is capitalized into a market value dividing into by the cap rate. Two common measure of income for funds are:
    - Funds from operations (FFO): net income + Depreciation + gains on capital gains – losses on capital losses
    - Adjusted funds from operations (AFFO): FFO – capex
- Asset based approach. This approach calculates a REIT's NAV. A REIT's NAV is calculated as the estimated market value, based on appraisals, of REIT's total asset minus the value of the liabilities. REIT shares frequently trade at prices that differ from NAV per share.

Reference

Derivatives and Alternative Investments, CFA Level 1 Material