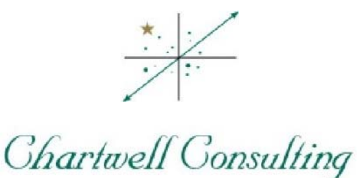
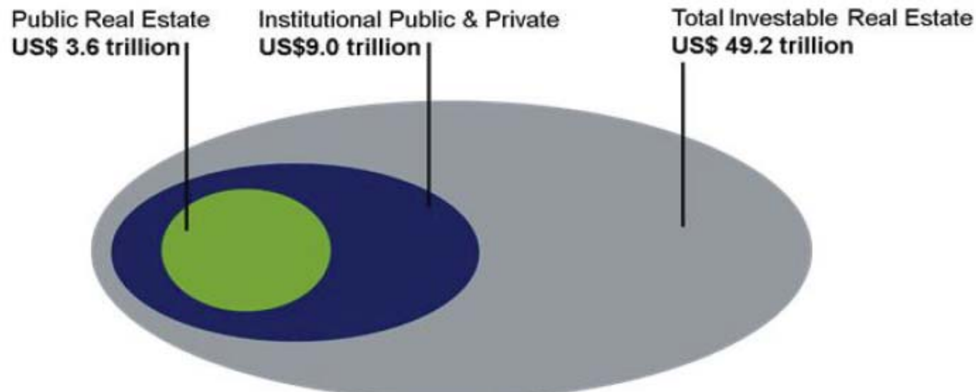
Understanding Real Estate

June 23, 2016

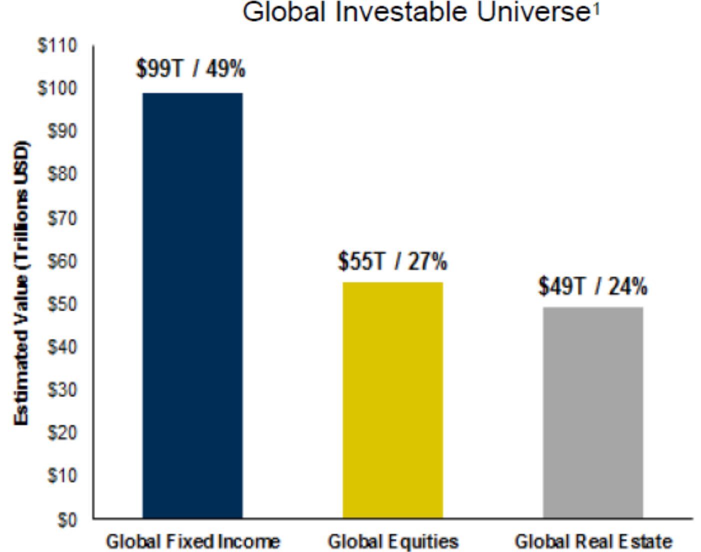


A Bird's Eye View

Taking an aerial view of the real estate landscape, LaSalle approximates that the total investable global real estate market is approximately $49 trillion[1]. Of this, over 90% ($45.6 trillion) represents private real estate (direct ownership of property), and less than 10% ($3.6 trillion) represents public real estate (owned shares of a publicly traded real estate company- REIT or REOC). Within this universe, about $9 trillion represents both private and public real estate owned by *institutional investors*.



If we add up all of the investable assets around the globe (sum of all equity, fixed income, and real estate) we come up with an approximate value of global investable assets equal to $203 trillion. As illustrated in the bar chart on the right, global real estate assets make up 24% of this entire universe, global equity assets make up 27% of this universe, and global fixed income assets make up 49%. It is worthy to note how the global real estate market is almost just as large as the global equity market!



1 The global real estate market remains difficult to quantify despite improved data and availability of data year after year due to heterogeneous assets, diverse ownership, multiple data sources, and differing definitions. LaSalle has studied different techniques for estimating the size of the real estate market for over 15 years. The range of existing estimates in published reports is wide, ranging from $217 trillion at the high end to narrower estimates of $15 trillion or less.

Breaking it Down: Categories of Real Estate Investment

Commercial vs. Residential

The real estate market can be broadly broken down into two main *categories*: commercial and residential. Residential real estate is property purchased for personal use, most often to provide housing for families. Commercial real estate, on the other hand, is property that is bought and used solely for business purposes. Examples include malls, office buildings, restaurants, gas stations, convenience stores, apartment buildings, etc. An investor will typically purchase the property and then lease it out to businesses or individuals interested in renting the space for their own needs. This makes them *income-producing* properties since the owner collects rent payments from the tenants occupying the building.

Private vs. Public

Investable real estate can be broadly broken down into two main *markets*: private and public. In the private market, investors directly purchase real estate property to own and operate, or choose to hire a property manager to operate it for them. Investors may receive income in the form of rent payments and experience capital appreciation/depreciation of the property's perceived value in the market. Very few individuals or entities have the capacity to purchase a large property, or portfolio of multiple properties, so they team up with other like-minded investors to own property in a partnership. This is how almost all commercial investable real estate is held: privately, in partnership with others, who share in the receipts, costs, and capital returns. In practice, the partnership structures can get a bit complex, but they all boil down to this concept.

If one is not interested in being a direct property owner, an alternative is to invest in the public real estate market by purchasing shares or units in a publicly traded real estate company, such as a REIT (**R**eal **E**state **I**nvestment **T**rust) or a REOC (**R**eal **E**state **O**perating **C**ompany). When buying real estate securities, one is investing in a company that owns a diversified portfolio of commercial real estate properties and manages them on behalf of its shareholders. The exposure to the real estate market is indirect, because the real estate is not directly owned by the investor, but is owned by the REIT. Instead, investors are part owners of the property via owning shares of stock in the REIT, exactly like owning shares of common stock.

A REIT has two unique features: its primary business is managing a group of income-producing properties, and it must distribute at least 90% of its net profits as dividends. By adopting REIT status, the company does not have to pay corporate income taxes. Dividends are paid as a means of providing shareholders with their portion of the rent payments received from the tenants of the properties owned in the underlying portfolio. REITs can behave very similarly to other equities in the stock market, especially those paying relatively high, steady dividends.

Price appreciation/depreciation in the underlying market value of the properties is reflected in the REIT's share/unit price. Just like a stock, these shares will trade in the market at a premium or discount relative to the underlying net asset value (NAV) at any given time. When this happens, the market is assigning a value to the stock that is different from the true underlying market value of the real estate properties in the portfolio.

The market value versus net asset value discrepancy is typically driven by investor sentiment and behavioral finance factors that stem from prevailing market conditions.

Debt vs. Equity

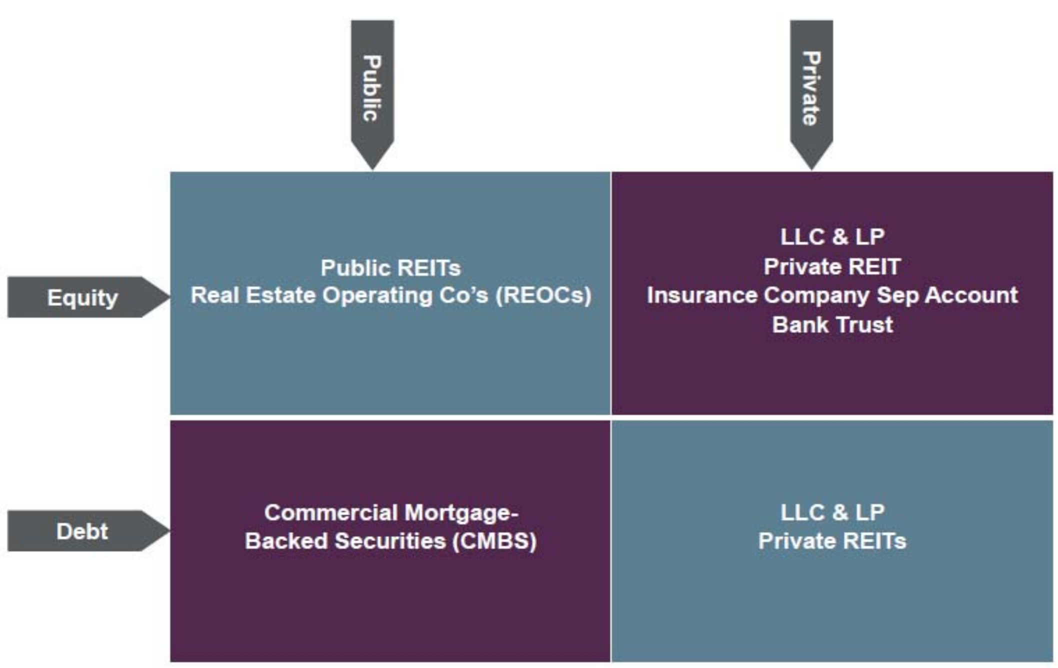
In addition to choosing a market, one must also choose whether to invest in real estate debt or equity. When investing in real estate debt, one is essentially lending money to a purchaser of real estate in the form of a mortgage. Similar to bonds, investors are compensated by receiving periodic interest payments from the borrower over time until the end of the mortgage term when the principal balance is fully repaid.

There are two primary debt structures in commercial real estate; direct lending secured by individual properties and loans/bonds issued to the entity owning a portfolio of properties. For diversification purposes, a group of direct lendings can be bundled together and re-issued publicly as a Commercial Mortgage-Backed Security (CMBS). The second common avenue to invest in real estate debt is by purchasing the bonds issued by a REIT or REOC, which may be publicly or privately traded. These are either backed solely by the full faith and credit of the real estate company issuing them, or may also include some form of a blanket lien (a lien that gives the right to seize, in the event of nonpayment, nearly all types of assets and collateral owned by a debtor in order to satisfy the debt) on the portfolio of properties. Ultimately, investing in real estate debt is much like investing in public bonds issued by utilities, industrial companies, or banks, only with the addition of collateral backing the investment.

An equity investment, on the other hand, represents a residual interest in the property. Investors are essentially full or part owners of the property, directly or indirectly, and profit when the property value increases or higher rent is collected from tenants.

Putting it All Together: 4 Main Investable Categories

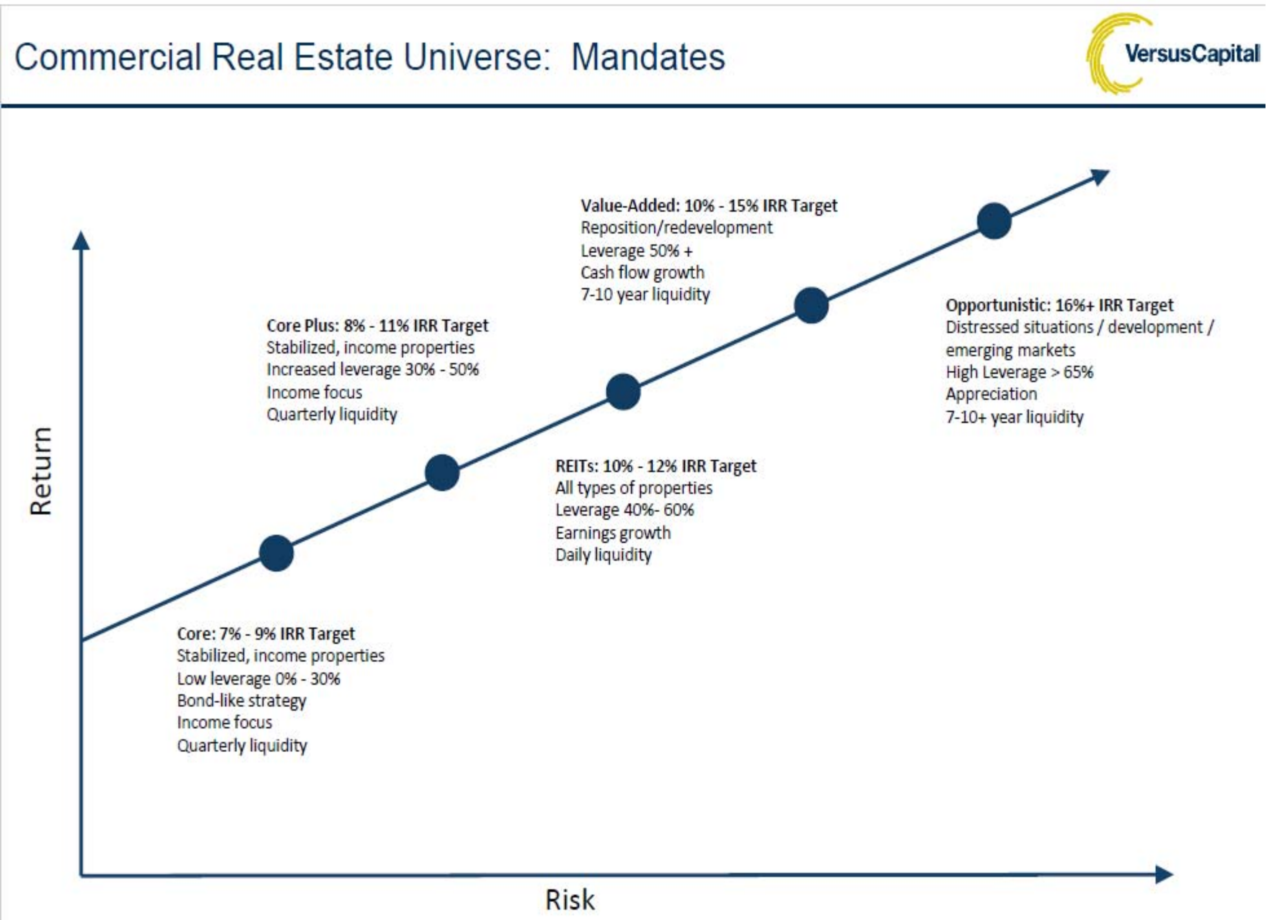
These two different real estate equity markets (public & private) and two different real estate asset classes (debt & equity) can be combined to form four main investable real estate categories: public equity, public debt, private equity, and private debt. The choice of which quadrant to invest in will depend on the investor's risk tolerance, return expectations, and investment preferences. The table on the next page reflects the typical real estate investment structures to invest in based on the category chosen.



- If public equity aligns with one's investment objectives, the structure to invest in is real estate securities, such as publicly traded REITs or real estate operating companies (REOCs).
- If private equity is more suitable, one can buy direct ownership interests in real estate properties. Investment structures include LLC & LPs, Private REITs, Insurance Company Separate Accounts, and Bank Trusts. (Definitions of these structures can be found on pages 10 & 11.)
- If seeking exposure to public debt, investors may opt to invest in mortgage REITs, mortgage-backed securities (MBS), or commercial mortgage-backed securities (CMBS).
- If private debt meets investor preferences, one can consider lending money to purchasers of real estate, thereby investing in mortgages. Investment structures include LLC & LPs and Private REITS.

Real Estate Equity Investment Style Options

Real estate equity offers multiple strategies across the risk/return spectrum to invest in based on one's desired risk and return preferences. In the graph below, there are five distinct strategies listed in order from lowest risk/return to highest: Core, Core Plus, REITS, Value-Added, and Opportunistic.



Core

Core real estate can be defined as *high quality* real estate assets located in major metropolitan markets. These properties are characterized by a stable tenant base, predictable rental income, and stable property values.

Core Plus

Core Plus real estate invests primarily in core (see above for definition) but with emphasis on a modest value-added approach by increasing leverage or investing in secondary markets (defined on page 8).

REITS

A corporation, partnership, trust, or other entity with multiple investors that specialize in seeking to achieve income or capital gain from the direct ownership of real estate. Shares of a REIT are publicly offered and are listed on a national securities exchange (more detail on page 2). REIT property portfolios often are similar to those in Core or Core Plus.

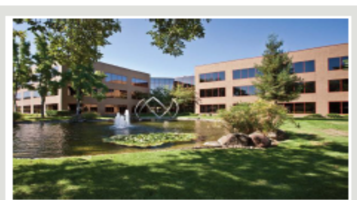
Value-Added
A higher risk, and potentially higher return, real estate investment strategy that deals with acquiring properties that have management or operational problems, require physical improvement, and/or suffer from capital constraints. The investment thesis is often to apply management talent, and/or capital (including re-structuring outstanding debts) to solve the problems, "rehabilitate" (or re-position) the properties to Core or Core Plus status, and then sell out for a profit.

Opportunistic
A higher risk, and potentially higher return, real estate investment strategy that requires significant management or operational involvement. It includes investing in development projects, distressed portfolios with little or no rental income, and non-performing loans. These strategies look for capital arbitrage opportunities and incorporate various tactics such as taking public real estate companies private, or assuming construction and leasing risk through ground-up development. They pursue properties that require specialized acquisition and management expertise to mitigate the business and leasing risk that may be associated with individual investments. They may utilize high levels of leverage that typically range between 50-85%. Returns are mostly driven by capital appreciation.

Underlying Property Characteristics: Property Types

Four Main Property Types

Office



- Medium term leases
- Meaningful leasing and maintenance expenses (capex)
- High & mid rise, urban, suburban

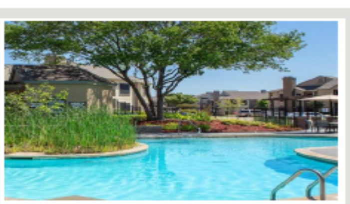
Retail

- Variety of lease types, including participatory rents
- Largely defined by trade area
- Malls, strip centers, power centers

Industrial

- Longer term leases, often single/majority tenant
- Warehouse, R&D, light manufacturing
- Transportation hubs can define location

Multifamily (Apartments)



- Monthly rental income
- Wide variety of quality and design
- Garden, mid-rise, high-rise

GUGGENHEIM

Commercial real estate can be broadly broken down into four main property types: office, retail, multi-family residential, and industrial. Other less common property types include hotels, storage facilities, parking lots, and senior housing. All are designed to be income producing properties where space is leased to tenants who pay rent payments. Undeveloped “greenfield” properties are “to-be-built” versions of these property types, with all of the attendant added construction risks.

Office Property

Property that is directly owned and leased to companies in order to run and operate their day to day business functions. They are typically located in downtown areas or suburban office parks. Returns generated from office property vary and are sensitive to economic performance and job growth.

Retail Property

Property that is owned and leased to retail store owners in which goods are directly delivered to consumers. These types of property can range from single buildings to large enclosed shopping malls. Many retail properties have “anchor tenants,” which are large, well known retailers that serve to draw people to the shopping plaza (for example, supermarkets or department stores). Demand for the retail space is driven by location, visibility, population density, population growth, and relative income levels. Retail properties tend to perform best in growing economies when sales growth is high. Returns are more stable because retail leases are generally longer term and retailers are less inclined to relocate their stores.

Industrial Property

Property that is owned and leased to organizations for industrial use such as distribution, manufacturing, research & development, or warehousing. Important factors to consider with industrial property are functionality, location relative to major transportation, building configuration, and degree of specialization in the space (availability of cranes, freezers, outdoor or covered yard space, etc.).

Multi-family Residential Property

Property owned that consists of several different housing units leased out to individuals and families for living purposes. The most common type of multifamily housing is an apartment building. Duplexes and townhomes also qualify as multifamily housing. Multi-family property generally delivers the most stable returns because people need a place to live regardless of what the economic market environment is like. A loss of a single tenant does not have a large impact on total income generation.

Underlying Property Characteristics: Location, Location, Location!

Primary Markets
Core/primary real estate geographies typically include high-barrier-to-entry major market locations such as New York, Washington DC, Boston, San Francisco, Los Angeles, and other large metropolitan areas in the US and around the globe. These markets are viewed as having more stable demand characteristics (both from tenants and investors) and more liquidity as compared to secondary or tertiary markets (non-core markets). Core/primary markets also typically have lower risk/return expectations than non-core markets.

Secondary Markets
Secondary Markets can be broadly defined as geographic locations outside of major metropolitan areas with populations greater than 350,000 people. Typically, fewer institutional investors pursue assets in these markets. Cities that fall into this category include Baltimore, Charlotte, N.C., Cincinnati, Cleveland, Denver, Detroit, Las Vegas, Memphis, Tenn., Minneapolis, Nashville, Tenn., Orlando, Fla., Phoenix, Portland, Ore., Sacramento, Calif., San Diego, Seattle, St. Louis, and Tampa, Fla.

Tertiary markets
All other localities not included in the primary or secondary markets.

How Returns Are Generated: Income and Capital Appreciation

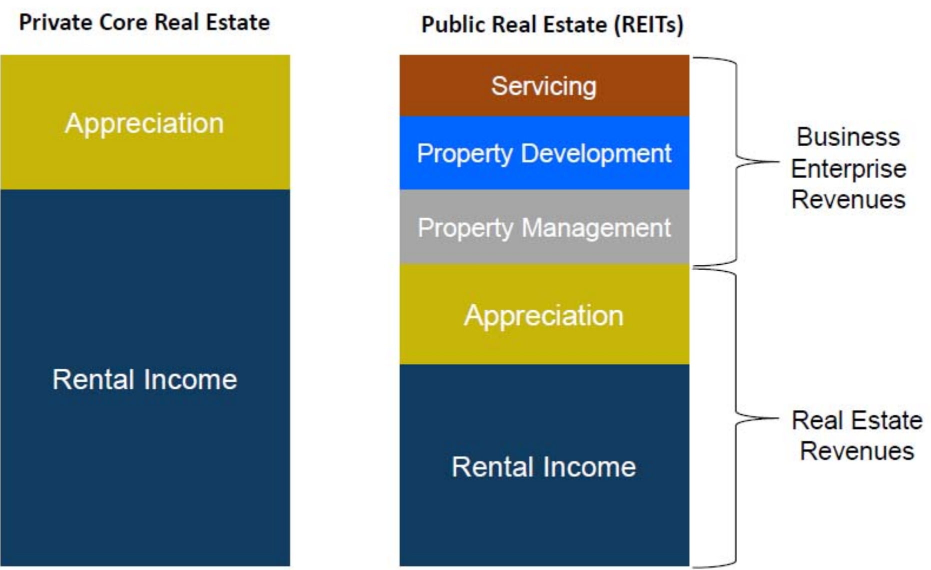
Real Estate investment total return is a combination of income and capital appreciation. The income return is generated from rent payments received from tenants minus the costs associated with operating the property. The income return is, therefore, highly dependent on how fully leased the property is. If too many tenants are lost, rent will not be sufficient to cover the operating costs associated with the building. Understanding what drives the supply and demand of lease occupancy for any property considered for purchase is critical, since lower rent leads to lower return.

The other way to generate return in real estate is through capital appreciation, which is a function of the perceived market value of the underlying property. Real estate is a tangible asset, thus investors can do things to the property to enhance its value like fixing a leaky roof or improving exterior and interior appearance. By making astute improvements, a real estate investor has a greater degree of control of capital appreciation performance than other types of investments. Market value of the property is determined by having the property appraised. Appraisals are subjective and linked closely to the market value of similar properties that were recently sold in the market.

Income returns tend to be fairly stable, and capital returns fluctuate more. The income return acts like a coupon-paying bond that pays a regular, steady stream of income. The capital appreciation component behaves like a stock where its underlying value tends to fluctuate. Together, they make up the total return of the property.

When calculating the return for REITs, there are additional revenue sources besides rental income and capital appreciation that contribute to total return. They include business enterprise revenues such as servicing, property development, and property management. Sometimes a REIT company may become an outsourcing firm that manages and runs other properties for a fee. You can see the difference in the revenue sources between private core real estate and public equity REITs in the table below:

Public & Private Real Estate: Revenue Sources



The Use of Leverage

Real estate strategies generally use some leverage in their portfolios. The amount of mortgage financing is important to the performance of the property because of the amplifying effects of leverage. Assume an investor purchases a property for $1,000,000 without any financing. In a year's time, they undertake an appraisal, and discover that the property is worth $1,200,000. The capital gain is $200,000 ($1,200,000 - 1,000,000). This results in a capital return of 20% ($200,000 / $1,000,000).

Now assume the investor bought the same property but financed half of the purchase (50% loan to value ratio): they would receive a $500,000 loan from the bank and only risk $500,000 of their own money. With the same $1,200,000 appraisal, after subtracting the principal and interest owed to the bank ($1,200,000 - $500,000 loan - $50,000 interest = $650,000), the net worth of the investment is $650,000. Since the original investment was $500,000, the capital gain is $150,000 ($650,000 - $500,000). This translates into a return on invested capital (ROI) of 30% ($150,000 / $500,000). This 30% is much higher than the 20% return that would have been achieved if the investor did not take out a loan, because they are making the capital gain ($150,000) on a smaller out-of-pocket investment ($500,000).

Leverage is dangerous because while it is nice to see the larger return in rising markets, it amplifies negative returns in falling markets. Using the above example, if the property value was appraised for $800,000, the capital loss without using leverage would be -20% (-$200,000 / $1,000,000). If the aforementioned investor financed $500,000 and only invested $500,000 of their own money, they would lose -50% on their investment! ($800,000 - $500,000 loan - $50,000 interest = $250,000 property value; given a $500,000 initial investment = -$250,000 capital loss / $500,000 initial investment = -50% loss).

Most core real estate funds have a loan to value, or leverage ratio, of less than 40%. The average leverage ratio for the funds that comprise the NFI-ODCE index is about 23%.

Real Estate Investment Vehicle Structures:

Real estate properties typically require very large equity investments and must be operated by professional property managers. Therefore, investing in real estate requires more capital and expertise than most individual or institutional investors have access to. Building a diversified portfolio comprised of multiple properties across various sectors and geographic locations requires a considerable amount of money. In order to gain quality access to this asset class, investors may pool their resources together in vehicles such as open-end or closed-end real estate funds or REIT mutual funds. There are a multitude of fund types available to choose from. The most commonly used are outlined in the chart below:

Real Estate Investment Vehicle Summary

	Minimum Initial Investment	Investment Liquidity	Investor Control
Private Real Estate			
Open-end funds	Medium ($1 million+)	Semi-liquid (typically quarterly)	Low
Closed-end funds	Medium ($1 million+)	Illiquid (typically 10-year holding period)	Low
Separate Accounts	Large ($100million+)	Semi-liquid	High
Direct Investments	Large ($100million+)	Semi-liquid	High
Public Real Estate			
Mutual Fund	Small ($1,000+)	Highly Liquid (daily)	Low
Exchange Traded Fund	Small ($100+)	Highly Liquid (intra-day)	Low

Open-end funds

Open-end funds are a suitable investment vehicle for the majority of institutional plans. They allow for smaller investments in large diversified asset pools, thus providing an investor with broad diversification across geographies and property types. Open-end funds are typically structured as LLCs & LPs, trusts, private REITs, or insurance company separate accounts, all of which allow investors to commingle (combine) their capital. An open-end fund provides for controlled investment against an upfront capital commitment. Commitments are “called” (invested) at the discretion of the fund manager when investment opportunities become available. Open-end funds normally allow controlled withdrawal of investor’s money from the fund.

Withdrawals, also known as redemptions, are usually permitted quarterly and are subject to available cash at the discretion of the fund manager. There may be entrance and exit "queues" for commitments to, or withdrawals from, the fund. If a "run" (sale & withdrawal) on a fund were to occur, distributions would be a function of property sales, which can take time.

Closed-end funds

Closed-end funds are generally much more illiquid structures, and have a pre-defined, finite life. Closed-end real estate funds are structured very much like private equity funds, in which investors make a commitment that is drawn down over time as the partnership's management finds quality investment opportunities. This money is then returned to them as soon as each investment is liquidated (but *only* when the investment opportunities are liquidated). The funds are commonly structured as LLCs or LPs. Unlike open-end funds, there are no provisions for quarterly or annual liquidity. However, there is also no reinvestment of capital or profits freed up by a property sale. All proceeds, less management fees, are returned to investors. Some investor assets may be locked up for 7-10 years if individual investments have not been sold. Owning a single closed-end fund is not ideal for long-term investment in the core real estate space because the life of the fund may not align to the ideal holding period for an asset based on market cycles. Closed-end funds are most appropriate for opportunistic strategies.

Separate Accounts and Direct Investments

Separate accounts and direct investments involve one individual investor or plan and are operated by a qualified professional asset manager who acts as the fiduciary. They are most applicable to very large institutional investors that can afford to purchase multiple properties on their own in order to achieve a diversified portfolio. Owners thus have complete control of the investment strategy. For example, a $10 billion plan with a 10% real estate allocation could own 20 properties with an average size of $50 million. This results in a smaller number of underlying holdings than an open-end fund might own, but the separate account investor has complete control of the portfolio, if desired.

NOI and Cap Rates Explained

NOI and Cap Rates are two very commonly used terms when discussing real estate investments. Net Operating Income (NOI) is the total value of rental income plus any other revenue of a property after operating expenses have been deducted, but before income taxes and interest are taken out. It is a calculation used to analyze real estate investments. Operating expenses are those required to run and maintain a property such as insurance, property management fees, utilities, property taxes, repairs, and more. NOI can only be increased by raising rents or decreasing operating costs. NOI is used to help analyze and compare properties to one another that an investor might be considering buying or selling. Growth of NOI is an important factor to pay attention to because it reflects the growth in earnings that the property will experience over time.

NOI is used to determine the capitalization rate, which is the ratio that estimates an investor's potential return on their investment. It can be calculated by dividing Net Operating Income by the current market value of the property, and is expressed in percentage terms:

Cap Rate (%) = Net Operating Income / Current Market Value

A cap rate of 12% means that every year, an investor is earning 12% of the value of their property as profit. The higher the cap rate, the better! Cap rates can be easily used to compare properties to one another in order to assess which one will deliver the most profit to the investor.

Benefits of Real Estate Investing

Real estate can play an important role as part of an overall investment portfolio. Some benefits include: diversification and low correlation, inflation hedge, reliable current income stream, and capital appreciation.

Diversification: Low Correlation to Other Asset Classes
Real estate returns have relatively low correlations with other asset classes. This provides a diversification benefit when added to an investment portfolio.

Inflation Hedge
Real estate returns are directly linked to the rents that are received by tenants. Many long-term leases contain built-in rent increases over time, while shorter-term leases will roll over at the higher current market rate. Either way, real estate income tends to increase faster in an inflationary environment, allowing an investor to potentially achieve higher real rates of return than they would receive from bond investments.

Reliable Income Stream: Current Income
Real estate provides investors with stable, bond-like income from contractual leases. The cash flow is fairly predictable even during economic downturns.

High Absolute Returns: Capital Appreciation
As mentioned earlier, real estate is a tangible asset. As a result of this, investors have a greater degree of control of capital appreciation performance than with other types of investments via their ability to maintain and improve the property.

Understanding the Risks

There are various risks associated with investing in real estate. These include illiquidity (particularly during falling markets), asset value volatility, asset valuation inaccuracies (due to the use of estimates/appraisals), and use of leverage (may amplify losses in falling markets).

Illiquidity
Open-end funds are semi-liquid. Investors can partially control the decision when to add or withdraw capital, but the ultimate deployment or return of capital is subject to fund manager constraints. In normal markets, liquidity is typically available on a quarterly basis. During times of distress, however, funds can be entirely illiquid based on the discretion of the fund manager. Closed-end funds are completely illiquid. The length of time to exit an investment is dictated by the life of the fund and the general partner.

Separate accounts and direct investments are semi-liquid. Investment control rests with the investor, and the time to exit an investment is dictated by the time to find a buyer and negotiate a sale.

Volatility
Volatility is largely driven by the capital appreciation component of total return which is driven by outstanding market conditions.

Valuations are Appraisal Based Estimates
Appraisals are estimates based on the analysis of projected income and the price of recently sold similar properties in the area. Appraised values can lag real-time market values and may differ from the price a buyer may be willing to pay for the asset.

Leverage Amplifies Negative Performance
As the cash flow and value of an asset drop, the loan conditions remain unchanged. This results in losses being multiplied in falling markets. (See section on page 9 labeled "The Use of Leverage" for more detail).

Real Estate Market Outlook

Global markets have experienced significant volatility as a result of concerns about the global economic landscape. Contributing factors include speculation of a slowdown of growth in China (as it moves from a manufacturing and export-led economy to a consumption and service based economy), the end of quantitative easing and the Federal Reserve's zero interest rate policy, and the collapse of commodity prices as oil prices fell dramatically from a high of $110/barrel in 2014 to $37/barrel at year end 2015. Despite all of this, labor market conditions continue to advance. The US economy created an estimated 2.9 million additional jobs in 2015 compared to 2.6 million in 2014, contributing to a drop in unemployment to 4.9%. Housing, vehicle sales, and consumer spending trends continue to support expansion. Population growth is also expected to continue to increase by as much as 90 million people by 2050, more than half of which is expected to come from immigration ("Versus Capital 4Q Fund & Market Update" [9]).

As the economy continues to improve, the number of jobs will continue to grow. This supports continued growth in tenant demand at a time when supply is at historical lows. As a result, vacancies for all property types are expected to drop. Lower vacancies give property owners more power to increase rents and boost net operating income (NOI). Overall, commercial real estate market fundamentals remain sound despite the economy's slower growth environment. Capital flows remain healthy, and valuations appear aligned with fundamentals.

According to Prudential Real Estate Investors, real estate returns going forward are likely to be driven by income returns. As yields are at very low levels, significant gain through capital appreciation is likely behind us. Total returns are expected to be healthy, although they are not forecasted to be in the double-digit performance range that the market has experienced in recent years.

According to Guggenheim Real Estate, retail sales are expected to grow strongly in 2016. Strong demand exists for high quality retail centers, particularly those that offer an experience not replicated through internet shopping. Job growth, low commodity prices, moderate wage increases, and limited supply growth also support the retail sector's strong outlook. Vacancy is likely to continue to decrease over the next couple years, leading to upside potential in this space.

Apartment fundamentals continue to remain strong. The US apartment vacancy rate held steady in 2015 and remained relatively unchanged from 2014 despite active multifamily construction across major markets. Vacancy still remains below the long-run equilibrium rate.

E-commerce will continue to shape the outlook for the industrial space. Increasing inventory levels, steady job growth, and demand for overnight and same-day delivery are driving demand for industrial property. Rents are rising in most major markets as new construction remains limited.

Office fundamentals continue to strengthen. Increasing rents and solid demand will continue improving the sector. Vacancy in downtown regions continue to fall and is approaching pre-recession lows. US office vacancy is projected to fall even further in 2016 with rent growth averaging 4% annually.

Conclusion: Why invest in Real Estate?

Real Estate is the 3rd largest global investment asset class, and plays an important role in a long term investment portfolio. Over time, real estate has produced strong risk adjusted returns. While some asset classes have generated higher absolute returns than real estate, they have done so with higher risk exposure. Core real estate, specifically, has produced competitive absolute return relative to stocks and bonds and has produced excellent *risk adjusted* returns relative to stocks. Real estate provides diversification benefits to a portfolio by delivering low correlation to bonds and equities and high correlation to inflation. Real estate offers high, stable, income returns along with the potential for capital appreciation, and can serve as an inflation hedge. Investments in real estate should be viewed as long-term investments and appropriately allocated based on a portfolio's risk/return objectives.

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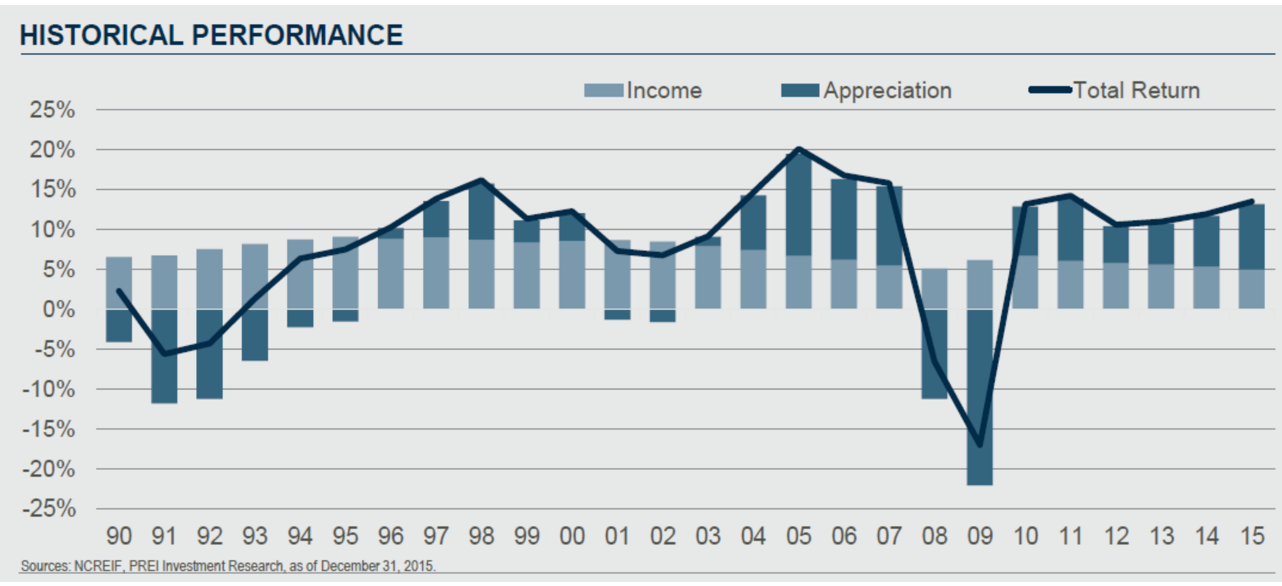
Historical Performance of Real Estate

Data through December 31, 2015

Historical Performance (15 Years ending 4Q15)	Private Real Estate[1]	Equity REITs[2]	S&P 500[3]	Small Cap Stocks[4]	Bonds[5]
Avg. Return (%/year)	7.9%	11.1%	5.0%	7.3%	5.0%
Std. Deviation (%/year)	12.6%	24.2%	18.6%	21.3%	3.4%
Sharpe Ratio	0.43	0.40	0.18	0.28	0.46
Private Real Estate Correlation with	1	0.21	0.18	0.15	-0.18
# Quarters with Negative Total Returns	6	17	19	20	15

[1] Private Real Estate is measured by NFI-ODCE. [2] Equity REITs are measured by FTSE NAREIT All Equity REITs. [3] S&P 500 is measured by IA SBBI S&P 500
[4] Small Cap Stocks are measured by Russell 2000. [5] Bonds are measured by Barclays U.S. Aggregate Bond. Source: NCREIF, FTSE/NAREIT, Moody's Analytics, PREI Research; as of 2016

Income versus Capital Appreciation Returns:



Works Cited

2016 Global Real Estate Market Outlook. Publication. CBRE Research, 2016. Print.

Case for Commercial Real Estate Investing. Guggenheim, 15 Jan. 2016. PPT.

Global Real Estate: Thoughts on Portfolio Structure & Global Markets. Prudential Real Estate Investors, 8 Mar. 2016. PPT.

Non-Core Real Estate Investment Series, Part I: Opportunistic Strategies. Rep. N.p.: Callan Associates, 2011. Print.

Phillips, Chad W., and C. Tyler Williams. *Guggenheim Real Estate: Market Update*. Publication. Guggenheim, Feb. 2016. Print.

Real Estate Investing: Closing the Gap in Institutional and HNW Portfolios. Versus Capital, 18 Nov. 2015. PPT.

Ruhmann, Sean, and Claire Woolston. *US Private Core Real Estate Investing*. Publication. NEPC, 2011. Print.

The 2016 Global Real Estate Universe: Insights for Diversification and Metro Market Capitalization. Rep. LaSalle Investment Management, 2016. Print.

Versus Capital 4Q Fund & Market Update. N.p.: Versus Capital, 31 Mar. 2016. PPT.

Woychuk, Ian, CFA. "Exploring Real Estate Investments: Introduction | Investopedia." *Investopedia*. 2007. Web. 22 Mar. 2016.