Private real estate:

Opportunity for income and diversification

Executive summary

- Real estate is an essential component of diversified portfolios, offering potential for high and stable income, capital appreciation, inflation protection and diversification. Two categories—private real estate and listed real estate investment trusts (listed REITs)—have differing characteristics and roles in asset allocation.
- U.S. private real estate and listed REITs improved the performance and diversification of traditional stock-bond portfolios over a 21-year time period, 1997–2017. U.S. private real estate produced better risk-adjusted returns than listed REITs, reflecting its lower volatility.
- Combining private real estate and listed REITs improved risk-adjusted returns, reflecting their low correlations (Exhibit 4). Listed REITs play a key role in providing liquidity to support portfolio rebalancing or redemptions, compensating for private real estate's illiquidity.
- Overall, private real estate can offer a greater potential to diversify multi-asset portfolios and reduce downside risk, based on its record of higher risk adjusted returns, lower volatility and lower correlations, compared to listed REITs.

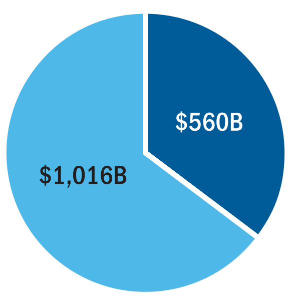
Why invest in real estate?

Real estate is a fundamental building block of investment portfolios, providing ballast against the uncertainty of stock market returns, rising interest rates and inflation. At a time when investors are starved for yield, real estate provides high income with stability borne of long-term lease contracts. Moreover, real estate's long-term growth potential benefits from megatrends, such as aging populations, urbanization and technological innovation. Still, investors often lack understanding of real estate investments. For example, many investors confuse private real estate and listed real estate investment trusts (listed REITs)—two types of real estate exposure with different risk-return characteristics. Listed REITs have offered less stability than private real estate because they are publicly traded and subject to the broad stock market's volatility. Moreover, many investors lack exposure to the benefits of private real estate. Although 57% of 403(b) retirement plans offer a real estate investment option, the vast majority are listed REITs and relatively few plans offer private real estate.[1] This paper explains key differences that account for private real estate's particular advantages for diversifying risk in multi-asset portfolios.

Comparing private real estate and listed REITs

Private real estate—a distinct asset class separate from stocks and bonds—represents direct ownership of high-quality commercial property in four primary categories: offices, apartments, retail and industrial.[2] Listed REITs, a category of stocks, are issued by companies that own and manage pools of commercial property. Both represent large markets rich in opportunity, with listed REITs valued at more than $1 trillion and private real estate at more than $500 billion in two leading U.S. indexes (Exhibit 1).

Exhibit 1: Private real estate and listed REITs represent large markets



Data as of 29 Dec 2017. The following indexes are represented: U.S. private real estate (NCREIF Property Index, or NPI), U.S. equity listed REITs (FTSE NAREIT U.S. Real Estate Index). It is not possible to invest in an index. Performance for indices does not reflect investment fees or transaction costs. Sources: NCREIF, FTSE Russell.

Key differences

Returns

Private real estate returns historically have been competitive with listed REITs, bolstered by a premium compensating investors for illiquidity. Returns for both categories tend to be more stable over market cycles because income from long-term leases represents a larger proportion of total returns, compared to other asset classes. As a result, the income yield for private real estate and listed REITs has tended to be higher than investment-grade bonds.

Volatility

Private real estate volatility has been significantly lower than listed REITs and other stock categories, producing a record of higher risk-adjusted returns.[3] The lower volatility is due to its illiquidity with infrequent trading and valuations determined by periodic appraisals. Listed REITs' higher volatility largely reflects broad stock market sentiment and investment flows, although higher leverage is also a factor.

Liquidity

Listed REITs can play an essential role in providing liquidity to support portfolio rebalancing, compensating for private real estate's illiquidity. Private real estate investment funds used in DC plans generally include allocations to listed REITs, other liquid investments and cash for liquidity to support participant redemptions (see page 4).

Diversification benefits

Diversification benefits, which help to manage risk, are a primary reason for including real estate in multi-asset portfolios. As a distinct asset class, private real estate has a different risk-return profile than stocks and bonds. Factors include high and stable income, illiquidity and infrequent trading that reduce volatility. This is clearly reflected in Exhibit 2 showing low or negative historical correlations with stocks and bonds, 0.17 and -0.08, respectively. As a result, private real estate is less likely to suffer losses at the same time or to the same degree as stocks, helping to reduce downside risk in a multi-asset portfolio.[4] Although publicly traded, listed REITs' correlations also have been relatively low with stocks and bonds, 0.40 and 0.09, respectively. Combining private real estate and listed REITs may provide additional diversification benefits based on their record of low correlations to each other, 0.08. The low correlations reflect differences in how quickly market prices can be updated and the amount of leverage.

Exhibit 2: Correlations between U.S. real estate, bonds and stocks (1997-2017)

	U.S.			
	Private real estate	Listed REITs	Stocks	Bonds
Private real estate				
Listed REITs	0.08			
Stocks	0.17	0.40		
Bonds	-0.08	0.09	-0.33	

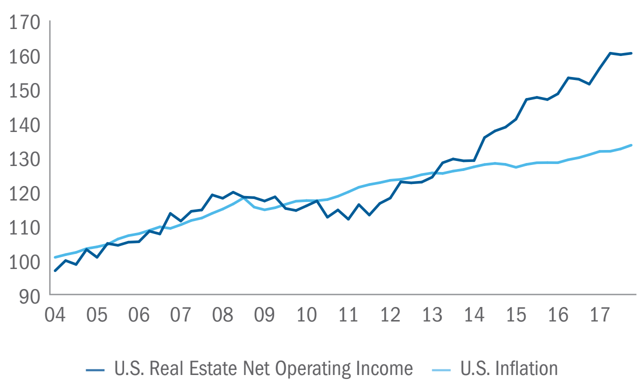
Data as of 31 December 2017. Indexes represented: Private real estate (NCREIF Fund Index–Open End Diversified Core Equity (NFI–ODCE), REITs (FTSE NAREIT U.S. Real Estate Index), U.S. stocks (S&P 500 Index), U.S. bonds (Bloomberg Barclays U.S. Aggregate Bond Index). It is not possible to invest in an index. Performance for indices does not reflect investment fees or transactions costs. Source: MacroBond.

Inflation hedging

Private real estate and listed REITs provide a natural hedge against inflation, with commercial rents and property values highly correlated with rising prices. Exhibit 3, for example, shows that U.S. private real estate's net operating income (NOI) has closely tracked increases in the consumer price index[5] since 2004 and exceeded it since 2013.

Exhibit 3: Real estate net operating income (NOI) has outpaced inflation since 2013

U.S. Private real estate income and inflation growth



Data as of 31 Dec 2017. U.S. private real estate net operating income (NOI) is based on the NCREIF Fund Index–Open End Diversified Core Equity (NFI–ODCE). U.S. inflation data reflect the Consumer Price Index For All Urban Consumers (CPIU). Sources: NCREIF, Moody's Analytics.

Comparing index performance: private real estate vs. listed REITs

This section compares the performance and diversification benefits of U.S. private real estate and listed REITs using index data for the 21-year period, 1997–2017. We show the benefits of combining the two categories using 80% private real estate and 20% listed REITs—an allocation designed to provide additional liquidity and diversification. Private real estate is represented by NCREIF Fund Index–Open End Diversified Core Equity (NFI–ODCE) representing lower-risk investments in U.S. operating properties across regions and property types. Listed REITs performance is represented by FTSE NAREIT U.S. Real Estate Index covering equity REITs across sectors.

Performance summary

(21-year period 1997–2017)

- U.S. private real estate exhibited slightly lower absolute returns than listed REITs, 9.2% vs. 9.6%, with lower volatility, 11.1% vs. 19.1% (Exhibit 4).
- As a result of lower volatility, private real estate's risk-adjusted returns were higher, 0.71 vs. 0.49, based on Sharpe ratio.
- Combining the two categories in an 80%/20% split improved performance due to their low correlations. Absolute returns increased and volatility declined, producing higher risk-adjusted returns, 0.82.
- Private real estate and listed REITs are complementary in multi-asset portfolios. In combination, their different risk-return profiles can work together to improve diversification.

Exhibit 4: Private real estate offered better risk-adjusted returns than listed REITs.

	Private real estate	REITs	80% private real estate/20% REITs
Total returns (average annual)	9.2%	9.6%	9.7%
Volatility (standard deviation)	11.1%	19.1%	9.9%
Risk-adjusted returns (Sharpe Ratio)	0.71	0.49	0.82

Data for the period 01 Jan 1997–31 Dec 2017. The indexes represented are as follows: U.S. private real estate (NCREIF Fund Index–Open End Diversified Core Equity (NFI–ODCE), listed REITs (FTSE NAREIT U.S. Real Estate Index). Performance over different time periods may have been less favorable than shown above. It is not possible to invest in an index. Performance for indices does not reflect investment fees or transaction costs. Source: MacroBond.

Portfolio analysis—U.S. real estate

This section explores the impact of adding U.S. private real estate and listed REITs to standard 60%/40% stock-bond portfolios. First, we compared the results of separately adding 10% allocations to each category, replacing 5% each of stocks and bonds. Next, we compared these results with adding a combined 10% allocation consisting of 8% private real estate and 2% listed REITs. We show results based on returns for U.S. indexes for the 21-year period, 1997–2017 (Exhibit 5). (We chose 10% as a reasonable allocation to an illiquid alternative asset class. The 2% allocation to REITs in the combined portfolio was designed to provide additional liquidity and diversification.)

Results

- **10% allocation to private real estate:** Improved returns relative to a stock-bond portfolio, producing a larger reduction in volatility and a larger increase in risk-adjusted returns, compared to adding listed REITs.
- **10% allocation to listed REITs:** Improved returns relative to a stock-bond portfolio, but with higher volatility and lower risk-adjusted returns compared to adding private real estate.
- **Combined 10% allocation to private real estate and listed REITs:** Improved absolute returns and reduced volatility for better risk-adjusted returns, compared to a stock-bond portfolio. Results were similar to adding only private real estate, but including REITs improved liquidity.

Exhibit 5: Diversifying stock-bond portfolios with U.S. real estate

	U.S. markets			
	60% stock/ 40% bond	Adding 10% private real estate	Adding 10% listed REITs	Adding 10% combined*
Total returns (average annual)	7.6%	7.8%	7.9%	7.9%
Volatility (standard deviation)	10.6%	9.9%	10.7%	10.0%
Risk-adjusted returns (Sharpe Ratio)	0.58	0.64	0.61	0.63

*10% combination includes 8% private real estate and 2% listed REITsData for the period 01 Jan 1997–31 Dec 2017. Indexes represented: U.S. stocks (S&P 500), U.S. bonds (Bloomberg Barclays U.S. Aggregate Bond), private real estate (NCREIF Fund Index–Open End Diversified Core Equity (NFI–ODCE), listed REITs (FTSE NAREIT U.S. Real Estate Index). Performance over different time periods may have been less favorable than shown above. It is not possible to invest in an index. Performance for indices does not reflect investment fees or transaction costs. Source: MacroBond.

Private real estate exposure in DC plans

Private real estate funds are becoming more prevalent in DC plans using fund structures that address potential concerns about diversification, liquidity and daily valuation. They typically offer exposure to high-quality commercial real estate diversified by geography and four main categories—offices, apartments, retail and industrial. These core holdings generally offer high occupancy rates and stable lease income. Private real estate funds often address liquidity by limiting direct real estate exposure to 75% to 85% of assets, with 15% to 25% invested in liquid short-term investments, listed REITs and cash. The liquid portion of the portfolio supports portfolio rebalancing and fund redemptions by plan participants. Daily valuation is generally accomplished through staggered quarterly property appraisals with new valuations incorporated daily and income forecasts adjusted for lease changes and market events.

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Conclusions

- Private real estate is a distinct asset class offering powerful diversification benefits, based on its record of higher risk-adjusted returns and lower volatility than stocks, and higher, more stable income than investment-grade bonds.
- Investors should understand the important differences between private real estate and listed REITs, which represent a subcategory of stocks. With lower volatility, private real estate historically has provided better risk-adjusted returns. Listed REITs can play an essential role in providing liquidity to support portfolio rebalancing or redemptions, compensating for private real estate's illiquidity.
- Combining private real estate and listed REITs can improve portfolio diversification, based on their history of low correlations.
- Adding private real estate to multi-asset class portfolios offers greater potential to improve the overall risk-return profile and reduce downside risk, compared to adding listed REITs.

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[1] 2017 403(b) Plan Survey, Plan Sponsor Council of America.

[2] Additional private real estate sub-categories include student housing, senior housing and data centers.

[3] Past performance is not a guarantee of future results.

[4] Private Market Real Estate Investment Options for Defined Contribution, Aon Hewitt, November 2014.

[5] Consumer Price Index For All Urban Consumers (CPI-U) measures changes in the price of a basket of goods and services purchased by urban consumers.

Risks and other important considerations

Diversification is a technique to help reduce risk. It is not guaranteed to protect against loss.

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