

A photograph of a modern glass skyscraper at night, illuminated from within, with a grid of white lines overlaid on the image. The building is reflected in a dark surface below it.

March 2019 / Research Report

REAL ESTATE AS AN ASSET CLASS

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Why Real Estate?

Real estate is tangible property consisting of land and improvements (buildings). Real estate can be divided into two categories: commercial and residential. Commercial real estate refers to the direct ownership of income-producing properties including industrial/warehouse, office, and retail buildings, as well as segments such as medical office and self-storage. Although technically residential, rental apartments (including student housing) are also often classified as commercial real estate.

Real estate can be accessed in both the public and private markets. Private real estate investment is the direct purchase of real estate. Real Estate Investment Trusts (REITs) are public or private (listed or non-listed) vehicles that invest across a portfolio of properties. In the U.S., including public and private real estate debt and equity, the institutional real estate market is estimated to total \$6.2 trillion.¹ Focusing on U.S. real estate equity only (public and private), there is an estimated \$1.8 trillion held by investors.² This figure would increase significantly if owner-occupied properties were included.

Today, U.S. commercial real estate is a significant component of the overall investable universe and should be considered alongside stocks, bonds and cash. On average, institutions generally target an allocation to commercial real estate greater than 10%, while individuals tend to have a limited allocation to the asset class.³ According to modern portfolio theory, excluding real estate is tantamount to making an active bet against the asset class.

Commercial real estate should be considered in a well-balance multi-asset portfolio for the following reasons:

- 1) **Risk-adjusted returns:** Commercial real estate outperformed both stocks and bonds over the past 20 years while realizing lower volatility than stocks.⁴
- 2) **Reliable income:** Commercial real estate may be accretive to portfolio income, generating outsized yields relative to both stocks and bonds. Over the past 20 years, commercial real estate has produced an annual yield of 4.3%⁵ versus 1.9% and 3.9% for stocks and bonds, respectively.⁶
- 3) **Diversification:** Commercial real estate has exhibited low or even negative correlations to major asset classes over the past 20 years.⁷
- 4) **Potential hedge against Inflation:** As a hard asset whose value tends to increase with replacement cost over the long term, commercial real estate provides a potential hedge against inflation.⁸

¹ Pension Real Estate Association (PREA). As of September 2018.

² Pension Real Estate Association (PREA). As of September 2018.

³ Pension Real Estate Association (PREA). As of July 2017.

⁴ NCREIF Property Index (Commercial Real Estate); S&P 500 Total Return (Stocks); Bloomberg/Barclays U.S. Aggregate Bond Total Return Index (Bonds). As of December 2018.

⁵ Private real estate dividend (cash flow) calculated as income less capital expenditure.

⁶ NCREIF Property Index (Commercial Real Estate); S&P 500 Total Return (Stocks); Bloomberg/Barclays U.S. Aggregate Bond Total Return Index (Bonds). As of December 2018.

⁷ NCREIF Property Index (Commercial Real Estate); S&P 500 Total Return (Stocks); Bloomberg/Barclays U.S. Aggregate Bond Total Return Index (Bonds). As of December 2018.

⁸ U.S. Bureau of Labor Statistics (Inflation); NCREIF Property Index (Commercial Real Estate). As of December 2018.

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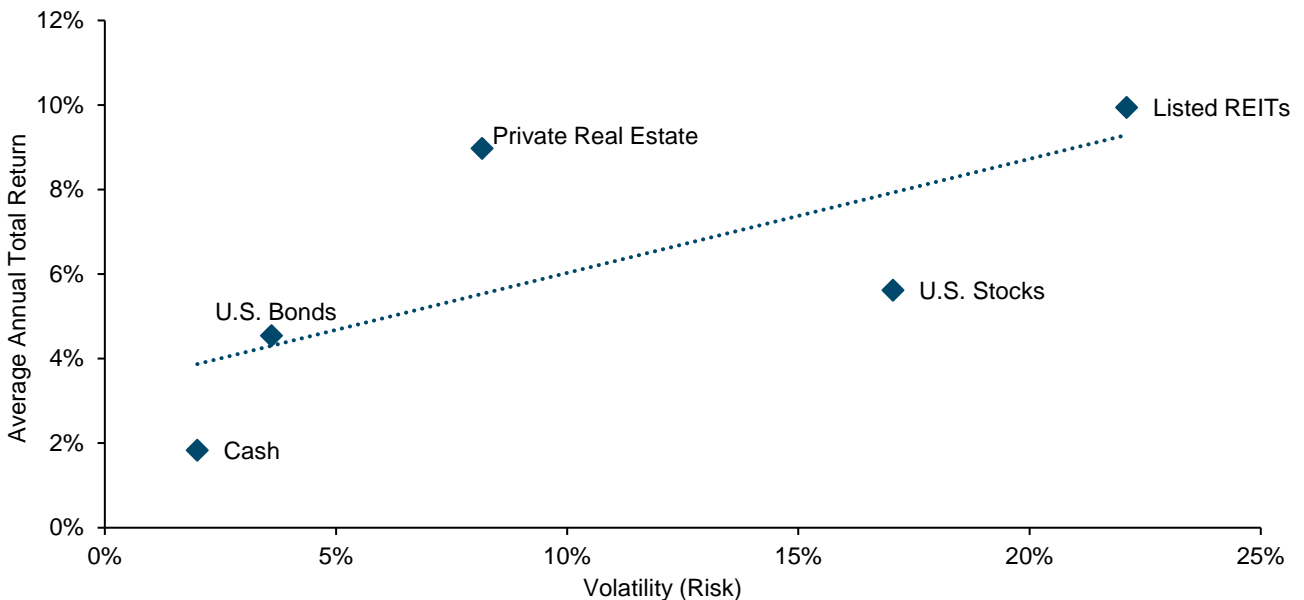
1 / Risk-adjusted return profile

Commercial real estate offers an attractive return profile. Since 1978, unleveraged private real estate equity measured by the National Council of Real Estate Investment Fiduciaries (NCREIF) Property Index has generated a total return of 9.2%, composed of a 4.8% dividend return⁹ and 4.4% appreciation return.¹⁰

As a hard asset with appraisal-based valuations and relative illiquidity, real estate has historically reacted more gradually to changing economic conditions than public (listed) markets. Further, commercial real estate outperformed both stocks and bonds over the past 20 years while realizing lower volatility (risk) than stocks (exhibit 1). As a result, commercial real estate generally produced a more attractive risk-adjusted than stocks, bonds or cash over that time frame.¹¹

Over the next 10 years, DWS as part of its Long View anticipates that commercial real estate may outperform bonds and produce returns comparable to stocks.¹² As an asset class with historically lower relative volatility, commercial real estate remains an attractive investment for strong risk-adjusted returns.

EXHIBIT 1: U.S. ASSET CLASS RISK AND RETURNS (1999-2018)



Sources: Federal Reserve 90-day Treasury Bill (Cash); Bloomberg/Barclays U.S. Aggregate Bond Total Return Index (U.S. Bonds); S&P 500 Total Return (U.S. Stocks); FTSE/NAREIT All Equity REITs Total Return Index (Listed REITs); NCREIF Property Index (Private Real Estate). As of December 2018.

⁹ Note: Dividend return (cash flow) calculated as income return less capital expenditure.

¹⁰ NCREIF Property Index (NPI). As of December 2018.

¹¹ Federal Reserve 90-day Treasury Bill (Cash); Bloomberg/Barclays U.S. Aggregate Bond Total Return Index (U.S. Bonds); S&P 500 Total Return (U.S. Stocks); FTSE/NAREIT All Equity REITs Total Return Index (Listed REITs); NCREIF Property Index (Private Real Estate). As of December 2018.

¹² DWS Multi-Asset Long View. Published January 2019.

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2 / Potential for Reliable income

Commercial real estate produces cash flows in the form of rental income. Due to the bond-like nature of lease obligations, commercial real estate generally generates reliable streams of income from long and stable tenant leases. Historically, income has been an essential component of the attractive long-term total returns produced by commercial real estate. Since 1999, 48% of the total returns from unleveraged private real estate have come in the form of dividends (income return less capital expenditures).^{13,14} Further, over the past 20 years, the annual dividend return generated from unleveraged private real estate has been more than twice that of stocks and 40 basis points higher than bonds (exhibit 2).¹⁵

Lease rollover, changes in occupancy and changes in market rents provide commercial real estate owners the opportunity to grow incomes. Real estate investments have the potential to deliver steady cash flow with dividends that are distributable to investors monthly, quarterly or annually.

EXHIBIT 2: AVERAGE ANNUAL DIVIDEND AND APPRECIATION BY ASSET CLASS (1999-2018)



Sources: Federal Reserve 90-day Treasury Bill (Cash); Bloomberg/Barclays U.S. Aggregate Bond Total Return Index (U.S. Bonds); S&P 500 Total Return (U.S. Stocks); FTSE/NAREIT All Equity REITs Total Return Index (Listed REITs); NCREIF Property Index (Private Real Estate). As of December 2018.

¹³ National Council of Real Estate Investment Fiduciaries ("NCREIF"). As of December 2018.

¹⁴ NCREIF (Private Real Estate). As of December 2018. Note: Private real estate dividend (cash flow) calculated as income less capital expenditure.

¹⁵ NCREIF Property Index (Private Real Estate); S&P 500 Total Return (Stocks); Bloomberg/Barclays U.S. Aggregate Bond Total Return Index (Bonds). As of December 2018.

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3 / Potential for Diversification

Real estate, specifically private real estate, has historically demonstrated a low correlation to stocks and bonds (exhibit 3). Low correlations are due to several factors, including the influence of non-macroeconomic performance drivers (e.g., construction pipelines and mortgage markets) and the smoothing effect of extended leases on property cash flows. Periodic appraisal-based valuations lend further stability relative to transactions-based market pricing. Accordingly, the addition of real estate has the potential to lower a multi-asset portfolio's volatility and enhance its risk-adjusted return.

EXHIBIT 3: ASSET CLASS CORRELATIONS (1999-2018)

	GDP	INFLATION	CASH	U.S. BONDS	U.S. STOCKS	LISTED REITS	PRIVATE REAL ESTATE
GDP	1.00						
INFLATION	0.36	1.00					
CASH	0.54	0.36	1.00				
U.S. BONDS	-0.26	0.04	-0.32	1.00			
U.S. STOCKS	0.58	0.02	0.47	-0.47	1.00		
LISTED REITS	0.44	0.18	0.35	0.15	0.54	1.00	
PRIVATE REAL ESTATE	0.67	0.53	0.66	-0.18	0.27	0.26	1.00

Sources: U.S. Bureau of Economic Analysis (BEA): National Income and Product Accounts (GDP); Consumer Price Index (Inflation); Federal Reserve 90-day Treasury Bill (Cash); Bloomberg/Barclays U.S. Aggregate Bond Total Return Index (U.S. Bonds); S&P 500 Total Return (U.S. Stocks); FTSE/NAREIT All Equity REITs Total Return Index (Listed REITs); NCREIF Property Index (Private Real Estate). As of December 2018. May not be indicative of future results.

Diversification neither assures a profit nor guarantees against loss.

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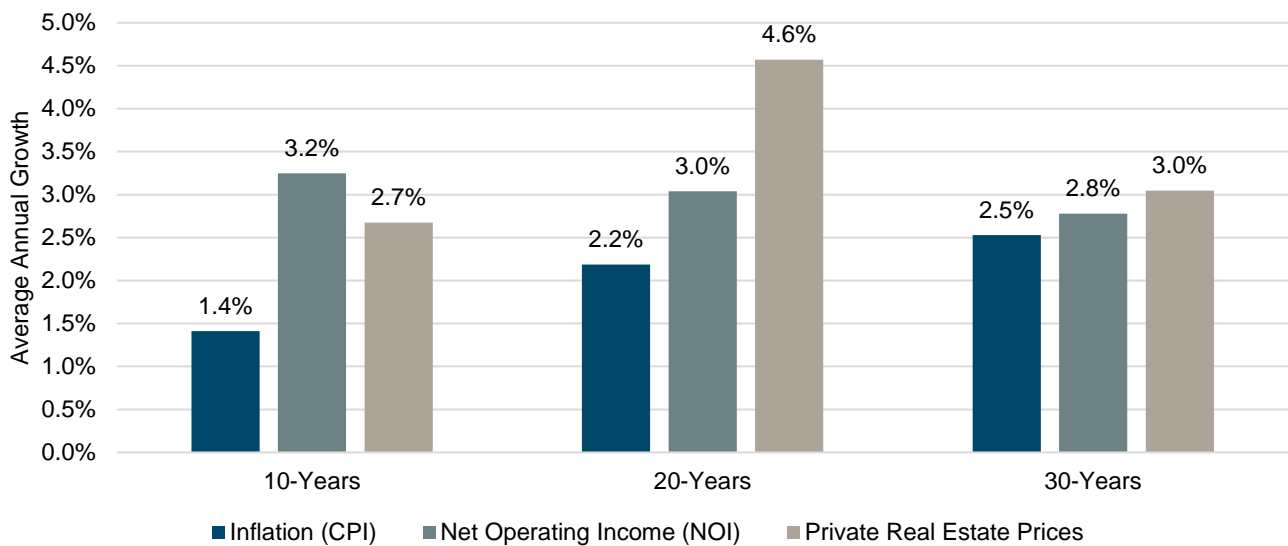
4 / A potential hedge against inflation

Over the long term, commercial real estate has historically provided a hedge against inflation in both income and pricing.

Lease contracts may include inflationary rent escalators. Additionally, leases which are periodically reset or negotiated adjust rents to market fundamentals of supply and demand. Due to these factors, commercial real estate net operating income (NOI) growth has historically kept pace with inflation (exhibit 4).

Second, commercial real estate prices have also historically tracked inflation (exhibit 4). On an annualized basis, real estate prices have outpaced inflation over the past 10-, 20-, and 30 years.¹⁶ Drivers which enable real estate prices to adjust to inflation include the cost of construction (in the form of labor and materials) and changes in land values. Overall, fluctuations in replacement cost result in the change of property values.

EXHIBIT 4: COMMERCIAL REAL ESTATE PRICES AND INCOME GROWTH PACE INFLATION (1989 – 2018)



Sources: U.S. Bureau of Labor Statistics (Inflation); NCREIF (Net Operating Income and Private Real Estate Prices). As of December 2018. May not be indicative of future results.

¹⁶ NCREIF Property Index (Price Change); U.S. Federal Reserve Board (Inflation). As of December 2018

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Definitions

The consumer price index (CPI) measures the price inflation as a percentage, year over year, of a basket of products and services that is based on the typical consumption of a private household.

The gross domestic product (GDP) is the monetary value of all the finished goods and services produced within a country's borders in a specific time period. Real Estate Risk Factors

A hedge is an investment to reduce the risk of adverse price movements in an asset.

Inflation is the rate at which the general level of prices for goods and services is rising and, subsequently, purchasing power is falling.

Net operating income (NOI) equals all revenue from a property minus all reasonably necessary operating expenses.

A Real Estate Investment Trust (REIT) is a company that owns, and in most cases, operates income-producing real estate. REITs sell like a stock on the major exchanges and invest in real estate directly, either through properties or mortgages.

Appendix

ROLLING 12-MONTH TOTAL RETURNS

	12/31/2018- 12/31/2017	12/31/2017- 12/31/2016	12/31/2016- 12/31/2015	12/31/2015- 12/31/2014	12/31/2014- 12/31/2013
NCREIF Property Index	6.71%	6.98%	7.97%	13.33%	11.26%
FTSE/NAREIT All Equity REITs Total Return Index	-4.04%	8.67%	8.63%	2.83%	28.03%
S&P 500 Total Return	-4.38%	21.83%	11.96%	1.38%	13.69%
Bloomberg/Barclays U.S. Aggregate Bond Total Return Index	0.01%	3.54%	2.65%	0.55%	5.97%
90-Day Treasury Bill	1.98%	0.96%	0.31%	0.04%	0.02%
	2/28/2019 - 2/28/2018	2/28/2018 - 2/28/2017	2/28/2017- 2/28/2016	2/28/2016- 2/28/2015	2/28/2015- 2/28/2014
FTSE/NAREIT All Equity REITs Total Return Index	19.61%	-6.13%	17.73%	-3.97%	21.88%
S&P 500 Total Return	4.68%	17.10%	23.97%	-5.43%	15.51%
Bloomberg/Barclays U.S. Aggregate Bond Total Return Index	3.17%	0.51%	1.56%	1.36%	5.05%
90-Day Treasury Bill	2.12%	1.12%	0.35%	0.09%	0.02%

Sources: Federal Reserve 90-day Treasury Bill (Cash); Bloomberg/Barclays U.S. Aggregate Bond Total Return Index (U.S. Bonds); S&P 500 Total Return (U.S. Stocks); FTSE/NAREIT All Equity REITs Total Return Index (Listed REITs); NCREIF Property Index (Private Real Estate). As of February 2019.

Real Estate Risk Factors

Investments in Real Estate are subject to various risks, including but not limited to the following:

- Adverse changes in economic conditions including changes in the financial conditions of tenants, buyer and sellers, changes in the availability of debt financing, changes in interest rates, real estate tax rates and other operating expenses;
- Adverse changes in law and regulation including environmental laws and regulations, zoning laws and other governmental rules and fiscal policies;
- Environmental claims arising in respect of real estate acquired with undisclosed or unknown environmental problems or as to which inadequate reserves have been established;
- Changes in the relative popularity of property types and locations;
 - Risks and operating problems arising out of the presence of certain construction materials; and
 - Currency / exchange rate risks where the investments are denominated in a currency other than the investor's home currency.

An investment in real estate involves a high degree of risk, including possible loss of principal amount invested, and is suitable only for sophisticated investors who can bear such losses. The value of shares/ units and their derived income may fall or rise.

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