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Direct real estate's potential to improve returns and reduce risk for target-date funds

As target-date funds have become more popular, portfolio managers have tried to improve diversification and risk management by adding asset classes. Many now hold high-yield bonds, emerging markets equity and real estate investment trusts (REITs). Until recently, however, no target-date mutual fund offered exposure to direct real estate — a separate asset class with investment characteristics distinct from equity and fixed income.[1]

Direct real estate versus REITs: Key differences

- **Direct real estate** is the ownership of physical real estate, such as retail shopping malls and office buildings. It is considered a distinct asset class because ownership is private and its performance has low correlations with publicly traded stocks and bonds. The TIAA-CREF Lifecycle Funds' exposure to direct real estate is gained through investment in the TIAA-CREF Real Property Fund LP.
- **Real estate investment trusts (REITs)** — a category of equity securities — are issued by companies that own and manage pools of commercial property. REIT shares tend to be highly liquid and trade on public exchanges. Returns are affected by the performance of the underlying real estate and stock market fluctuations, which account for returns and volatility similar to other publicly traded equities.

DIRECT REAL ESTATE'S INVESTMENT CHARACTERISTICS

- **Potential for performance benefits and lower volatility:** As the chart below shows, direct real estate has offered returns competitive to equities and REITs, with significantly lower volatility (as measured by standard deviation) for the 20-year period, 1998-2018. Two factors contribute to direct real estate's low volatility: First, steady rental income from long-term leases tends to represent a much larger proportion of total returns, compared to equities. Second, as private investments, direct real estate is not publicly traded and less subject to news headlines and macro events.

Figure 1. Performance, volatility, and risk-adjusted returns

Annualized performance for 20-year period ended 31 Dec 2018

	U.S. equity	Non-U.S. equity	U.S. bonds	Direct real estate	REITs
Total returns	5.96%	4.61%	4.55%	8.60%	9.95%
Standard deviation	16.50%	19.13%	3.42%	4.78%	20.37%
Sharpe ratio	0.32	0.23	0.78	1.42%	0.49

Figure 2. Correlations between direct real estate and major asset classes

20-year period ended 31 Dec 2018

	U.S. equity	Non-U.S. equity	U.S. bonds	Direct real estate	REITs
U.S. equities	1.00	0.87	-0.39	0.20	0.64
Non-U.S. equities	0.87	1.00	-0.27	0.15	0.57
U.S. bonds	-0.39	-0.27	1.00	-0.11	0.06
Direct real estate	0.20	0.15	-0.11	1.00	0.27
REITs	0.64	0.57	0.06	0.27	1.00

Charts do not represent the past performance of any TIAA-CREF or Nuveen fund. For fund performance visit nuveen.com.

Source: Morningstar Direct, NCREIF. **Past performance is no guarantee of future results.** Performance assumes the reinvestment of income and no transaction costs or taxes. **U.S. equity:** Russell 3000 Index; **Non-U.S. equity:** MSCI ACWI ex USA Index; **U.S. bonds:** Bloomberg Barclays U.S. Aggregate Bond Index; **Direct real estate:** NCREIF Property Index-Open End Funds(NPI-OE); **REITs:** FTSE NAREIT All Equity REITs Index. Different benchmarks, economic periods, methodologies and market conditions will produce different results. There is no assurance that any asset class or index will provide positive performance over time. **See last page for important disclosures regarding asset class related risks and definitions of each representative asset class. It is not possible to invest directly in an index.**

- **Diversification:** Low correlations historically with stocks, bonds and REITs are a key argument for including direct real estate in multi-asset portfolios. Returns have tended not to fluctuate in tandem with public markets because they derive mostly from multi-year leases.

- **Inflation hedging:** Direct real estate historically has been a natural inflation hedge, with commercial rents and property values highly correlated to rising prices.

What about liquidity?

Direct real estate's less frequent transactions don't necessarily pose a challenge to maintaining target allocations.

- Net cash flows from regular plan contributions to target date funds can be used for monthly rebalancing.
- Investments in high-quality property markets potentially can be sold if necessary.

CONCLUSION

Direct investment in real estate offers the potential to improve the outcomes of target-date funds. A record of high returns, low volatility, and low correlations suggests this distinct asset class may provide superior portfolio diversification than public REITs — the dominant form of real estate exposure in target-date funds.

In 2014, TIAA and Nuveen came together to expand our capabilities across all investment types. Today, our customers fully benefit from our combined history of stability, retirement leadership and innovation.[2]

For more information, contact your TIAA Representative or visit TIAA.org.

Endnotes

1 The TIAA-CREF Target Date Funds exposure to direct real estate is gained through investment in the TIAA-CREF Real Property Fund LP, a private fund, which is not available for investment by the general public.

2 Reference to financial stability does not apply to the investment products offered.

This material is not intended to be a recommendation or investment advice, does not constitute a solicitation to buy, sell or hold a security or an investment strategy, and is not provided in a fiduciary capacity. The information provided does not take into account the specific objectives or circumstances of any particular investor, or suggest any specific course of action. Investment decisions should be made based on an investor's objectives and circumstances and in consultation with his or her advisors.

Asset class related risks

Different types of asset investments have different types of risks, which may provide higher returns but also greater volatility. In general, equity securities tend to be more volatile than fixed income securities. Foreign investments may involve exposure to additional risks such as currency fluctuation and political and economic instability. The value of, and income generated by, debt securities will decrease or increase based on changes in market interest rates. Real estate investments can be hurt by economic downturns or by changes in real estate values, rents, property taxes, interest rates, tax treatment, regulations, or the legal structure of REITs. An investor should consider all of the risk factors for each asset class before investing.

Glossary

Correlation is a statistical measure of how two securities move in relation to each other. Perfect positive correlation (a correlation co-efficient of +1) implies that as one security moves the other security will move in lockstep, in the same direction. Alternatively, perfect negative correlation (a correlation co-efficient of -1) means that securities will move by an equal amount in the opposite direction. If the correlation is 0, the movements of the securities are said to have no correlation; their movements in relation to one another are completely random.

Sharpe Ratio (Risk-Adjusted Return) is a risk-adjusted return measure calculated using standard deviation and excess return to determine reward per unit of risk. The higher the Sharpe Ratio, the better the historical risk-adjusted performance. **Standard Deviation (Risk)** is a statistical measure of the historical volatility of a mutual fund or portfolio; the higher the number, the greater the risk.

The **Bloomberg Barclays U.S. Aggregate Bond Index** is a broad-based flagship benchmark that measures the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS and CMBS (agency and nonagency). The **FTSE NAREIT All Equity REITs Index** contains all tax-qualified REITs with more than 50 percent of total assets in qualifying real estate assets other than mortgages secured by real property that also meet minimum size and liquidity criteria. The **MSCI ACWI ex USA Index** captures large and mid cap representation across 22 of 23 Developed Markets (DM) countries (excluding the US) and 23 Emerging Markets (EM) countries. With 1,853 constituents, the index covers approximately 85% of the global equity opportunity set outside the US. The **NCREIF Property Index-Open End Funds** provides a historical measurement of property-level returns to increase the understanding of, and lend credibility to, real estate as an institutional investment asset class. The **Russell 3000 Index** measures the performance of the largest 3000 U.S. companies representing approximately 98% of the investable U.S. equity market. **It is not possible to invest directly in an index.**

The principal value of the fund(s) is not guaranteed at any time, including at the target date.

A word on risk

Mutual fund investing involves risk; principal loss is possible. There is no guarantee the Fund's investment objectives will be achieved and the **target date** is an approximate date when investors may begin withdrawing from the Fund. Target-date mutual funds are actively managed, so the **asset allocation** is subject to change and may vary from that shown and after the target date has been reached, the Fund may be merged into another with a more stable asset allocation. The Fund is a fund of funds subject to the risks of its **underlying funds** in proportion to each Fund's allocation. These risks include those of **fixed-income** underlying funds risks which may be susceptible to general movements in the bond market and are subject to credit and interest rate risks as well as those of **equity** underlying funds risks, such as foreign investment and issuer risks. **Credit risk** arises from an issuer's ability to make interest and principal payments when due, as well as the prices of bonds declining when an issuer's credit quality is expected to deteriorate. **Interest rate risk** occurs when interest rates rise causing bond prices to fall. The Fund's **income** could decline during periods of falling interest rates. **Non-U.S. investments** involve risks such as currency fluctuation, political and economic instability, lack of liquidity and differing legal and accounting standards. These fixed-income underlying funds risks, such as call, extension, and income volatility risks as well as other risk considerations, such as active management risk, equity underlying funds risks and direct real estate risks, are described in detail in the Fund's prospectus.

Before investing, carefully consider fund investment objectives, risks, charges and expenses. For this and other information that should be read carefully, please request a prospectus or summary prospectus from your financial professional or Nuveen at 800.752.8700 or visit nuveen.com.

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