

Research

How REITs deliver access to the new economy

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Executive summary

Listed REITs are a liquid investment in income-producing real estate that have historically delivered positive total returns and a high dividend yield that is attractive to investors seeking income from their portfolio. Investing in REITs can help reduce the volatility of a portfolio's returns, as they have relatively low correlations with other asset classes.

The growth and evolution of the REIT sector has given rise to an important new dimension of portfolio diversification. The REIT universe has expanded greatly beyond the property sectors institutional investors traditionally owned—Retail, Office, Residential and Industrial (RORI). In 2000, these sectors comprised over 75% of the market capitalization of equity REITs. Over the past decade, new property types have been introduced and have grown rapidly. Today, these property types outside of RORI account for half of total market capitalization.

Of special interest are REITs that invest in real estate that supports the rapidly growing technology sectors of the global economy.

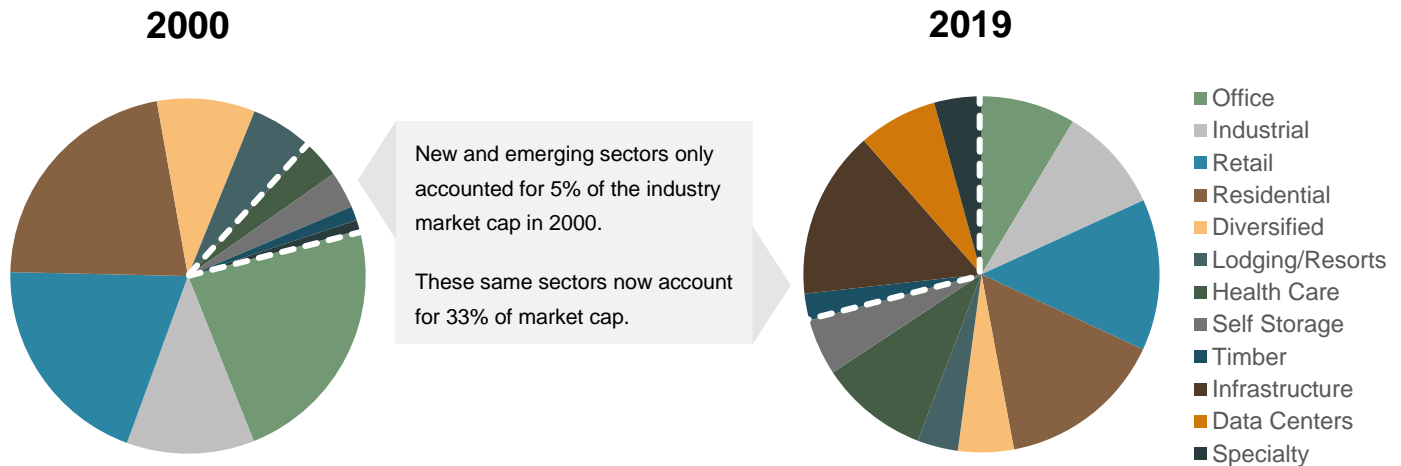
New economy and high-tech real estate

Technology has changed nearly every aspect of the US and the global economy. Two of the most prominent areas are the spread of internet communications and the rise of e-commerce. According to Cisco, global internet traffic has expanded ten-fold since 2010 and is projected to continue this pace of exponential growth. E-commerce has nearly tripled over this period, rising much more rapidly than in-store sales.

The common adage, “real estate houses the economy,” applies to the new tech economy, as well. Internet communications and e-commerce both depend on tech-related real estate, and REITs are active in owning and developing real estate that supports the tech economy. In particular, the Infrastructure sector includes REITs that own cell towers that transmit voice and data messages, and the Data Center REITs provide the facilities that house the servers that help link the data communications, store data and maintain internet web sites. These sectors now account for 23% of the market capitalization of all equity REITs, and other new and emerging sectors account for an additional 10% of total market capitalization. In the Industrial sector of the REIT industry, logistics space has overtaken traditional warehouse and flex space as the dominant form of industrial real estate. Logistics facilities are essential for the rapid delivery of goods bought via e-commerce.

Exhibit 1: REIT sectors over time

Listed REIT property ownership has become more diverse over time



- Historically, the dominant property sectors offering the largest scale investment opportunity included retail centers, apartment buildings, office buildings, and industrial warehouses.
- The industry has expanded to include property types reflecting the evolution of the changing US economy and providing investors with a broader opportunity set.

Source: FactSet, Nareit. New Sectors includes cell tower, data center, self storage, timberlands, single family home, and farmland REITs. All Other includes all other sectors in the FTSE Nareit All Equity REITs index. Data as of December 31, 2019.

REIT sector returns and correlations

The diversity of REIT property sectors can translate directly into improved diversification for the investor who holds not only traditional property types of RORI but also the newer REIT property types. Total investment returns range widely, with Infrastructure, Industrial and Data Center REITs delivering annualized total returns of greater than 20% since 2016 (Source: Nareit analysis of FTSE Nareit All Equity REITs Index as of December 2019).

Returns of different REIT sectors do not typically move in lock-step with one another, especially among the newer property types, so incorporating the newer property types into a portfolio can provide additional diversification and reduced risks. The average correlation between the traditional RORI property types (Retail Office, Residential and Industrial) is 76% (source: Nareit analysis of FTSE Nareit All Equity REITs Index). Correlations in this range can yield modest diversification. The tech-related REIT types, Infrastructure and Data Centers, have a correlation of 44% with other property types. This low correlation can yield significant diversification. Correlations of the remaining property types fall between these ranges with an average of 56%.

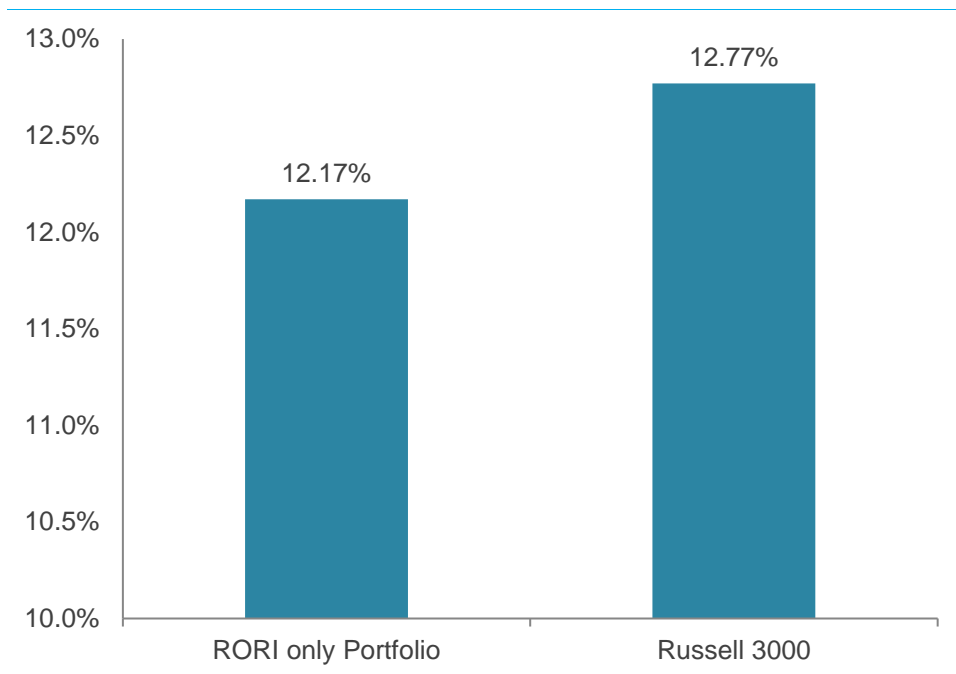
Completion portfolios

A portfolio that holds assets and property types in the same proportions as a decade ago would miss out on the diversification that can be achieved by investing in these newer and more rapidly growing REIT types. One idea is to create a “completion portfolio” that consists of these new sectors to complement the traditional real estate types in order to achieve more robust diversification.

This completion portfolio strategy can be implemented not only by investors, who hold REITs, but also by investors, who hold real estate exclusively through private investments. In fact, it may be more difficult and expensive to acquire investments in these newer tech-related real estate sectors in the private space, making a REIT completion portfolio strategy even more important for investors, who focus on private real estate.

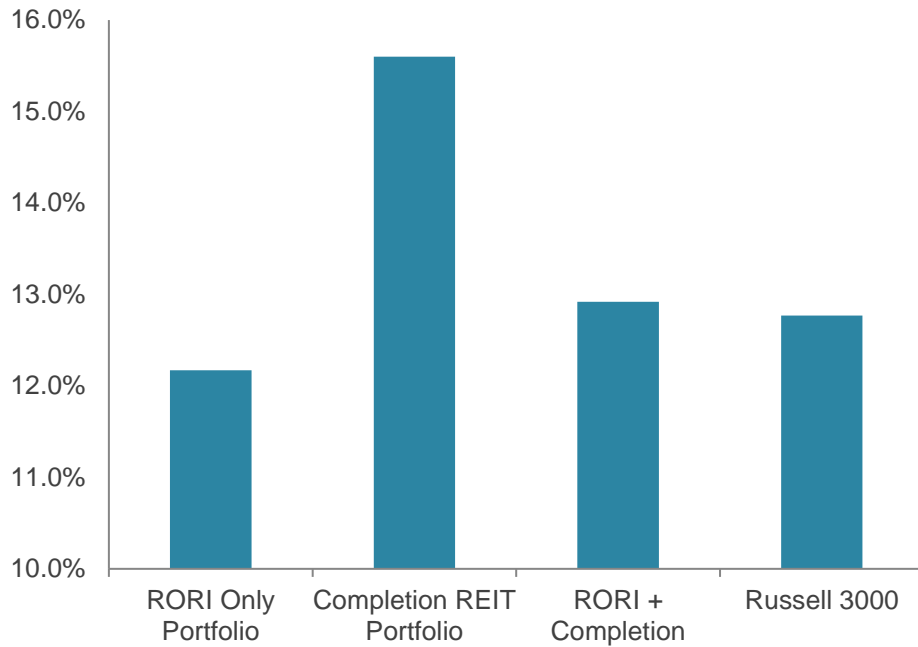
Two examples can illustrate the potential benefits of investing in a broad range of property types through REITs. First, consider a REIT portfolio comprising the “traditional” property sectors Retail, Office, Residential and Industrial (RORI):

Exhibit 2



Source: Nareit analysis of the FTSE Nareit All Equity REITs Index. Annualized total return of the RORI portfolio from 2010 through December 2019 is 11.93%, 150 bps below the 13.43% total return on the Russell 3000 Index. Past performance is no guarantee of future results. RORI portfolio returns represent hypothetical, historical data. Please see the end for important legal disclosures.

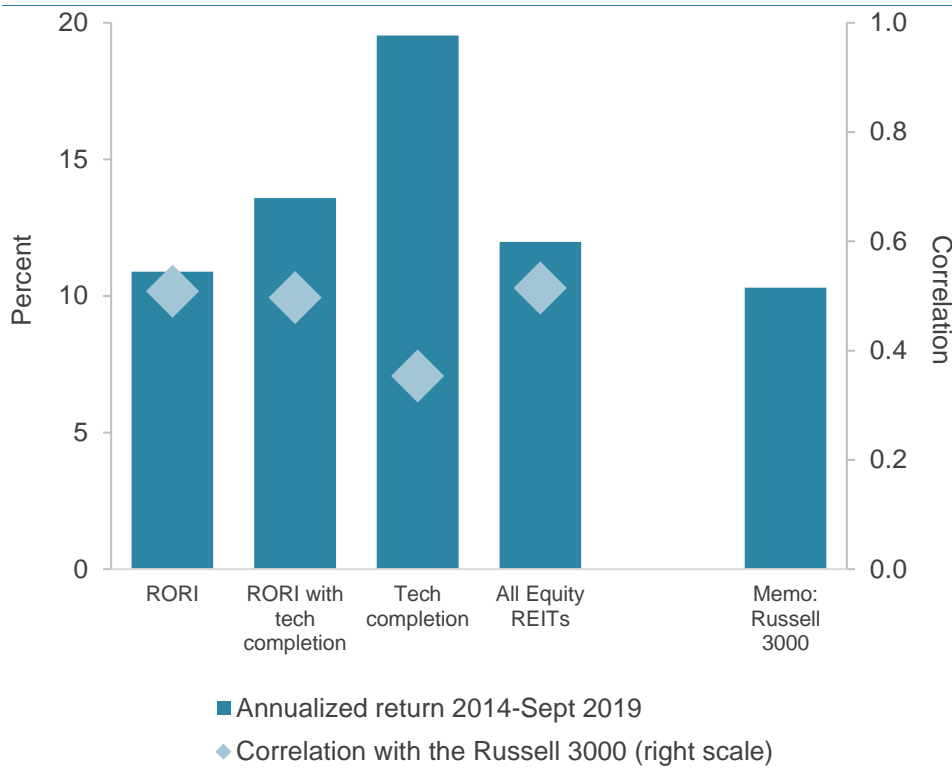
This portfolio does not have exposures to Health Care, Lodging/Resorts, Self Storage, Timber, Infrastructure, Data Centers or Specialty REITs (Specialty REITs own properties that do not fit within the other REIT sectors. Examples of properties owned by specialty REITs include movie theaters, casinos, farmland and outdoor advertising sites).

Exhibit 3

Source: Nareit analysis of the FTSE Nareit All Equity REITs Index. A completion portfolio consisting of these sectors, weighted by their market capitalization, delivered an annualized total return of 15.2% between 2010 and December 2019. A combined portfolio of RORI plus the full completion portfolio, again weighted by market cap, delivered an annualized total return of 12.59% over this period. Past performance is no guarantee of future results. RORI and Completion portfolio returns represent hypothetical, historical data. Please see the end for important legal disclosures.

The second example focuses on the impact of including a completion portfolio of just the new tech-related REIT types. The Infrastructure sector was introduced in 2012 and Data Center REITs were incorporated in 2016. Consider the impact of adding these sectors to a core portfolio of RORI REITs for the period 2014 through December 2019 (this completion portfolio consists of the Infrastructure sector from 2014 forward and includes the Data Center sector after it was incorporated in January 2016). Total return on the RORI portfolio was an annualized 10.54% over this period, 90bps below the 11.46% return on the Russell 3000 Index. A completion portfolio consisting of the Infrastructure and Data Center REITs, however, provided a total return of 18.91% over this period. The combined portfolio of RORI plus the completion portfolio, with each weighted by market capitalization, yielded 13.59%, or 2.7 percentage points higher than the RORI portfolio.

Exhibit 4: Total Returns and Correlations, REIT Sector Portfolios



Source: FactSet, Nareit. Data from 2014 – December 2019. Past performance is no guarantee of future results. REIT sector portfolio returns represent hypothetical, historical data. Please see the end for important legal disclosures.

It is important to consider the impact of adding these new sectors on the volatility of the portfolio. The standard deviation of monthly returns on the RORI portfolio was 4.00% over this period. Returns on the completion portfolio consisting of Infrastructure and Data Center REITs were more volatile, however, with a standard deviation of 4.26%. Yet somewhat surprisingly, the monthly volatility of the combined portfolio decreased from to 3.73% (Source: Nareit analysis of FTSE Nareit All Equity REITs Index).

The volatility is reduced in the combined portfolio because monthly returns on the completion portfolio have a low correlation with the broader equity market portfolio. The correlation of the monthly returns of the RORI portfolio with the Russell 3000 was 51%, similar to correlations of the All Equity REITs Index. The completion portfolio of tech sector REITs, in contrast, had a correlation of 35% with the Russell 3000 from 2014-2019 (chart 3, dark blue diamonds), and a correlation of 24% since 2016.

The low correlations of the tech sector REITs with the broader market explain how adding a completion portfolio with higher volatility can result in a combined portfolio with lower volatility. Implementing a completion portfolio strategy can reduce overall portfolio volatility due to the increased diversification achieved by investing across a wide range of REIT property types.

Implementing a completion strategy: conclusions

Holding a diversified portfolio can maximize expected investment returns, while also reducing risks. A portfolio limited to stocks and bonds does not achieve the same diversification potential of a portfolio that includes all available asset classes. In particular, portfolios that include income-producing real estate have achieved higher returns with lower risk over the past several decades (see, for example, [Asset Allocation and Fund Performance of Defined Benefit Pension Funds in the United States](#), 1998-2017, CEM Benchmarking, October, 2019), and REITs are a liquid and cost-effective way for many investors to access real estate.

Investors can achieve additional diversification within their real estate allocation by holding REITs from all property sectors. A completion portfolio that consists of REITs in the newer and emerging sectors can be constructed as a complement to the RORI sectors that institutional investors have traditionally focused on. At the same time, the newer REIT sectors can also serve as a complement to private real estate portfolio allocations. Investing in a 21st century real estate completion portfolio with REITs from tech-related property sectors can reduce the overall volatility of portfolio returns. If investing in real estate in the 21st century, 21st century property types should also be considered, as these too have the potential to reduce volatility when compared with a portfolio of only traditional RORI sectors.

If you wish to learn more, our team at FTSE Russell, as well as our partners at Nareit, are here to answer your questions. Please contact us at <mailto:info@ftserussell.com>.

Additional areas of interest:

Are you looking for global REIT exposure? If so, learn more about the [FTSE EPRA Nareit Index Series](#).

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