

# The power of private real assets

Private real assets — including farmland, timberland, infrastructure and commercial real estate — have demonstrated low or negative correlations to stocks and bonds, offering compelling diversification backed by over 30 years of performance data.

## Key takeaways<sup>1</sup>

- Across all four asset categories, private real assets delivered comparable or greater returns to traditional investments with significantly lower volatility, as evidenced by higher Sharpe ratios.
- With revenues and values tied to rising commodity prices, lease escalations, and long-term appreciation of physical assets, private real assets serve as a meaningful hedge against inflation.
- We believe even modest, constrained allocations to private real assets can help improve risk-adjusted returns for both conservative and aggressive portfolios.
- Private real assets outperformed publicly traded alternatives such as REITs and commodity stocks on a risk-adjusted basis, while also helping reduce volatility when held alongside public real asset exposure.
- While illiquidity and high barriers to entry present real implementation challenges, partnering with experienced asset managers with specialized expertise and global scale can help investors access these benefits effectively.



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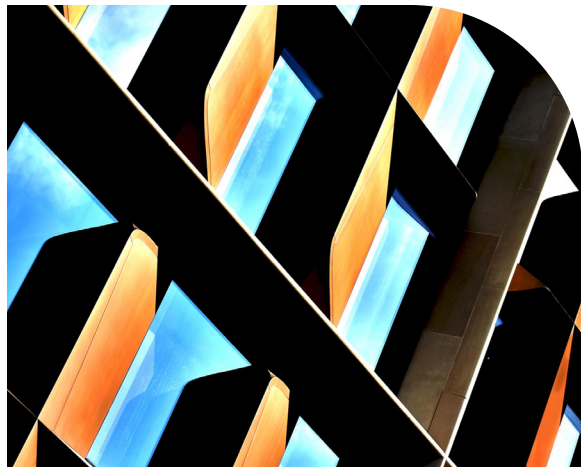
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Private real assets can be a powerful tool for investors and play a role in tackling periods of market volatility and inflationary environments.

**Our latest research demonstrates private real assets' enduring potential to deliver uncorrelated returns, making them a key element for diversifying portfolio risk.**

In addition to portfolio diversification benefits, real assets can also play a role in tackling some of the big issues investors currently face, such as increasing volatility and inflationary environments.

Rising energy and food prices, coupled with geopolitical tensions, are fueling inflation pressures, leaving investors grappling with a sustained high-rate environment and continued economic uncertainty. Real assets can potentially help given they offer a combination of inflation-hedging and stability. Our analysis shows how adding them to a traditional portfolio can reduce volatility while achieving compelling returns.<sup>1</sup>

Recognizing evolving portfolio needs and continued growth of real assets amongst investors, we have built upon our previous analysis<sup>2</sup> to include real estate, farmland, timberland and a new infrastructure index.

Our findings demonstrate the potential for all four categories of private real asset classes to deliver uncorrelated returns and diversification benefits.<sup>1</sup>

### **How real assets can benefit traditional portfolios<sup>1</sup>**

Results of our analysis support the long-term investment thesis that real assets have potential to improve the performance of traditional portfolios in multiple ways:

**Diversification:** Real assets have shown to be powerful diversifiers, with low or negative correlations to traditional stocks and bonds — and to each other (Figure 1). Private investments rarely move in lockstep with traditional assets or commodities in part because they are relatively illiquid; they are not traded in public markets.<sup>3</sup>

**Inflation hedging:** Real assets have provided a strong hedge against inflation as demonstrated by long-term returns that have far outpaced the inflation rate. Many commodities, such as foodstuffs and raw materials, are components of inflation measures, such as the Consumer Price Index (CPI), and as

prices rise so do the revenues and cash yields for real assets producing these commodities. Over time, rising commodity prices increase the profitability of timberland and farmland, causing land values to rise and providing a long-term hedge against inflation. Similarly, real estate hedges inflation through annual lease escalations, and the rising value of buildings and land in desirable locations. Some infrastructure assets may also have payments linked to price levels. More broadly, the necessity-based nature of these assets often means they play a defensive role in portfolios during challenging economic environments.

**Higher risk-adjusted returns:** For the past 30 years, real assets have provided similar or higher returns than stocks with much lower volatility, resulting in higher risk-adjusted returns, or Sharpe Ratios (Figure 2). Despite higher volatility, real assets generally provided similar or higher risk-adjusted returns than U.S. and global bonds.

**Liability-matching characteristics:** Real assets have potential to provide bond-like current income from contractual lease obligations and revenues from selling commodities. Long-term capital appreciation from rising land values may also help meet future liabilities.

**Figure 1: Correlations of real assets, stocks and bonds (1991 – 2025)**

*Real assets had low correlations to other asset classes – and to each other*

Market Indexes	Stocks		Bonds		Private real assets				Public real assets			
	U.S.	Non-U.S.	U.S.	Global	Real estate	Farmland	Timberland	Infra	U.S. REITs	Agriculture	Public timber	Public Infra
U.S. stocks	1.00											
Non-U.S. stocks	0.79	1.00										
U.S. bonds	0.07	-0.09	1.00									
Global bonds	0.17	0.17	0.81	1.00								
Private real estate	0.07	0.07	-0.20	-0.21	1.00							
Private farmland	-0.07	0.09	-0.17	-0.13	0.43	1.00						
Private timberland	0.11	0.12	0.12	0.11	-0.01	0.28	1.00					
Private Infra	0.14	0.12	0.15	0.19	0.38	0.27	0.19	1.00				
U.S. REITs	0.57	0.52	0.22	0.19	0.15	0.01	0.01	0.33	1.00			
Agriculture commodities	0.24	0.27	-0.05	0.17	0.20	0.01	0.11	0.18	0.26	1.00		
Public timber	0.67	0.73	-0.04	0.13	0.00	-0.09	-0.01	0.02	0.60	0.23	1.00	
Public infra	0.73	0.88	0.05	0.29	0.35	0.13	0.15	0.30	0.74	0.32	0.69	1.00

Data are based on rolling one-year total gross returns, calculated on a quarterly basis for periods ended 31 Dec 1991 through 31 Dec 2025 unless otherwise stated. **Asset classes reflect the following indexes:** U.S. stocks: Russell 3000 Index; non-U.S. stocks: MSCI ACWI ex USA Index; U.S. bonds: Bloomberg Barclays U.S. Aggregate Index; global investment-grade bonds: Bloomberg Barclays Global Aggregate Index; privately held U.S. commercial real estate: NCREIF Real Estate Index; privately held U.S. farmland: NCREIF Farmland Index; privately held U.S. timberland: NCREIF Timberland Index; publicly traded U.S. real estate investment trusts (REITs): FTSE Nareit U.S. Real Estate Index; agricultural commodities: S&P GSCI Agriculture Index; public timber: a Timber proxy index created by Nuveen that combines S&P Global Timber and Forestry Index (2004 – 2025) with the returns of companies representing 4% or more of the index between 1991 and 2003; private infrastructure: EDHEC Infrastructure & Private Assets Research Institute (from 31 Mar 2001). Based on data sourced from Scientific Infra & Private Assets (apps.sipametrics.com) Copyright © 2026 Scientific Infra & Private Assets. All rights reserved; public infrastructure: S&P Global Infrastructure Index (data from 31 March 2002).

Sources: NCREIF; Bloomberg; EDHEC Infrastructure & Private Assets Research Institute; Nuveen, LLC.

Past performance is no guarantee of future results. It is not possible to invest directly in an index.

## Important differences in the sizes of investable markets

Significant differences in the sizes of investable markets across real assets have important implications for investors. The NCREIF indexes used as proxies for U.S. markets represent only a fraction of the total investable markets for farmland and timberland, which are far less institutionalized than commercial real estate and infrastructure. We relied on U.S. market indexes due to the absence of indexes representing markets for non-U.S. farmland, timberland and real estate. Total assets included in the NCREIF indexes represent \$16.2 billion for farmland, \$31.1 billion for timberland and \$905.9 billion for real estate, as of 31 Dec 2025.

In contrast, we estimate the overall size of the U.S. farmland market alone is about \$420-500 billion and \$600-700 billion globally.<sup>4</sup> The NCREIF Farmland Index represents only the assets owned by institutions — the majority of assets are held by individual farmers in a highly fragmented market with high barriers to entry. Differences in historical returns among real assets categories may partly reflect different levels of market development, contributing to higher returns for the less developed. The global opportunity set for real estate also exceeds its

NCREIF index market capitalization, with MSCI estimating the value of professionally managed real estate at \$12.4 trillion as of 31 December 2024.

Estimating the size of the investable infrastructure market is also difficult. The data set used in our analysis estimates the total market capitalization is \$497.7 billion. However, this only reflects committed capital, which arguably underestimates the size of the current investment opportunity. The World Bank, for example, calculated that the pipeline of projects in emerging and developing economies to be around \$1.2 trillion in investable infrastructure projects across sustainable infrastructure. Additionally, historical risk-return data for infrastructure is less readily available than for other private real assets. We use time series data from EDHEC Infrastructure & Private Assets Research Institute and S&P which begin in 2001 and 2002, respectively (see notes for Figure 1). In contrast, the data sets for the other asset classes in the analysis date back to 31 December 1991.

Due to differences in the sizes of investable markets, we have therefore chosen to constrain allocations to real assets in several of the modeled scenarios to reflect real-world capacity constraints and liquidity concerns facing investors.

**Figure 2: Performance of private real assets, stocks and bonds**

*Private real assets had higher risk-adjusted returns versus other asset classes*

Market indexes	STOCKS		BONDS		PRIVATE REAL ASSETS				PUBLIC REAL ASSETS			
	U.S.	Non-U.S.	U.S.	Global	Real estate	Farmland	Timberland	Infra	U.S. REITs	Agriculture	Public timber	Public Infra
Mean (%)	12.1	8.0	5.0	4.6	7.6	10.1	9.2	11.6	11.5	0.5	8.8	11.2
Standard deviation (%)	17.2	18.6	5.2	6.7	8.3	6.8	9.0	10.7	19.9	19.4	22.3	17.6
Sharpe ratio	0.54	0.28	0.42	0.27	0.58	1.08	0.71	0.82	0.44	-0.12	0.27	0.48

Data are based on rolling one-year total returns, calculated on a quarterly basis for periods ended 31 Mar 1992 through 31 Dec 2025. See Figure 1 notes for the indexes representing asset classes.

Sources: NCREIF; Bloomberg; EDHEC Infrastructure & Private Assets Research Institute; Nuveen, LLC.

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## Structuring a portfolio of real assets


While the case for real assets is compelling, they raise difficult implementation questions: How should investors structure a portfolio of real assets? How might allocations change for different investor risk and return preferences?

No single optimal allocation fits all risk profiles. Allocations should reflect individual investment objectives, risk tolerance and liquidity needs. We used mean-variance optimization analysis to show the potential impact of real assets on a range of portfolios representing different risk profiles and constraints. Portfolios shown in this analysis are designed to provide an analytical framework and illustrations and should not be considered investment recommendations. The analysis is based on the following scenarios:

- Adding real assets individually — and as a group — to a portfolio of stocks and bonds.
- Comparing real assets with publicly traded commodity stocks, infrastructure stocks and REITs when added to a portfolio of stocks and bonds.
- Structuring a real assets portfolio for different investment objectives.
- Constraining real assets allocations within practical limits in conservative and aggressive portfolios.



Our analysis supports the long-term investment thesis that real assets have the potential to improve the performance of traditional portfolios.



# Observations from mean- variance optimization analysis

How do private real assets impact the risk and return attributes of a traditional stock-bond portfolio?

We highlight four key observations from the mean-variance optimization model demonstrating private real assets' potential to improve risk-adjusted return compared to a traditional investment portfolio. We also feature modeling results that show farmland, timberland, real estate, and infrastructure each contribute positively to achieve the highest Sharpe ratio.

## Observation 1:

**Real assets improved the risk-adjusted returns of a portfolio of traditional stocks and bonds**

In Figure 3, the efficient frontiers show the positive impact of adding farmland, timberland, real estate and infrastructure individually to a stock/bond portfolio. In the table, we also show the impact of combining all four categories. In this example with all categories, we constrained real assets by 20%, divided evenly at 5% in each.

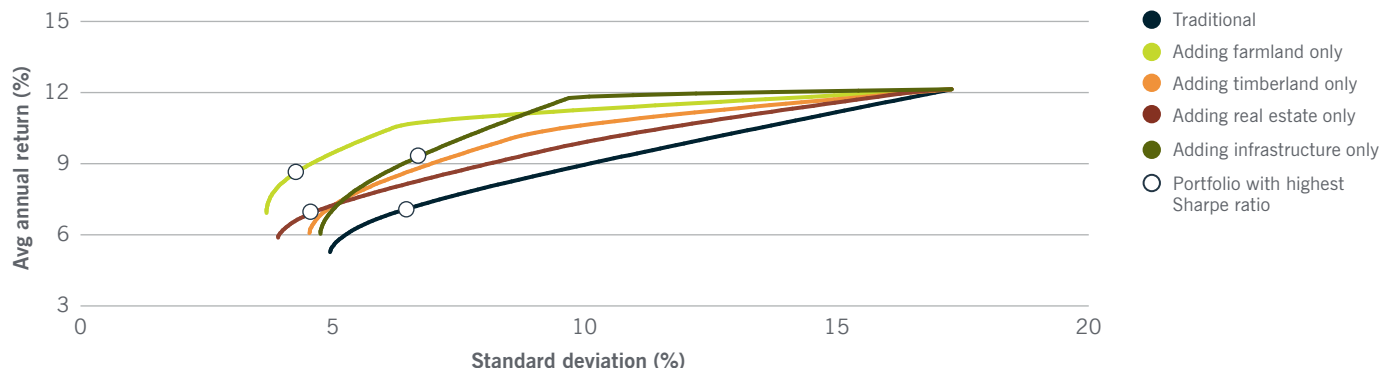
### *Results*

Each category of real assets increased returns, with similar or lower levels of risk, resulting in higher Sharpe ratios. Farmland had the greatest impact on the Sharpe ratio and received the largest allocation in an unconstrained portfolio at 55%. Infrastructure at 45% had the second biggest impact on risk-adjusted returns, followed by timberland at 43% and real estate at 37%. Diversifying a stock/bond portfolio with a 5% allocation to each of the four real assets increased annual returns by 10 basis points and reduced risk by 170 basis points, producing a higher Sharpe ratio.

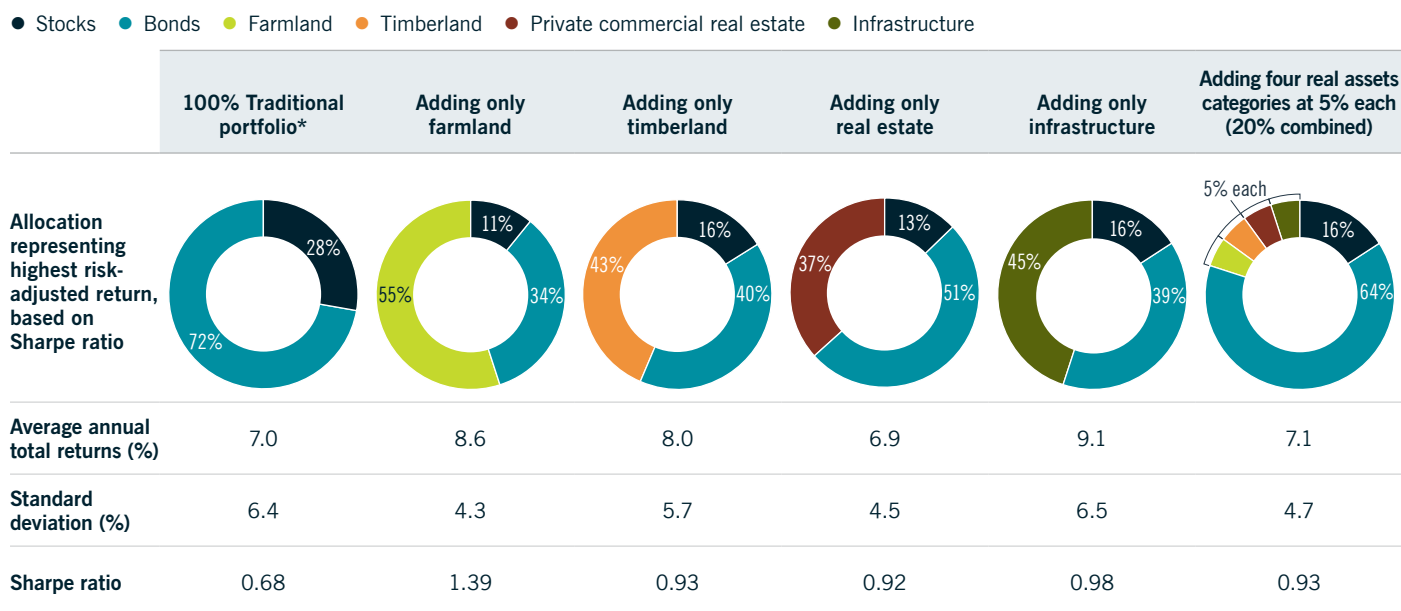
Overall, results support the case for diversifying traditional portfolios with multiple categories of real assets even when constrained within realistic limits. The constraints reflect supply limitations, the relative illiquidity of real assets, their relatively high transaction costs, and the limited history contained in the analysis.

**Figure 3: Real assets’ performance impact – individually and combined (1991 – 2025)**

*Real assets increased risk-adjusted returns of traditional portfolios*



*Comparing returns, standard deviations and Sharpe ratios (1991 – 2025)*



\*Allocations for the traditional stock/bond portfolio are a result of the mean variance optimization exercise.

Data are based on rolling one-year total returns, calculated on a quarterly basis for periods ended 31 Mar 1991 through 31 Dec 2025. **Asset classes reflect the following indexes:** U.S. stocks: Russell 3000 Index; non-U.S. stocks: MSCI ACWI ex USA Index; U.S. bonds: Bloomberg Barclays U.S. Aggregate Index; global investment-grade bonds: Bloomberg Barclays Global Aggregate Index; privately held U.S. commercial real estate: NCREIF Real Estate Index; privately held U.S. farmland: NCREIF Farmland Index; privately held U.S. timberland: NCREIF Timberland Index; publicly traded U.S. real estate investment trusts (REITs): FTSE Nareit U.S. Real Estate Index; public agricultural commodities: S&P GSCI Agriculture Index; public timber: a Timber proxy index created by Nuveen that combines S&P Global Timber and Forestry Index (2004 – 2025) with the returns of companies representing 4% or more of the index between 1991 and 2003; private infrastructure: EDHEC Infrastructure & Private Assets Research Institute (from 31 Mar 2001). Based on data sourced from Scientific Infra & Private Assets (apps.sipametrics.com) Copyright © 2026 Scientific Infra & Private Assets. All rights reserved; public infrastructure: S&P Global Infrastructure Index (data from 31 March 2002).

Sources: NCREIF; Bloomberg; EDHEC Infrastructure & Private Assets Research Institute; Nuveen, LLC.

Mean-variance optimization based on historical returns is intended for illustration purposes only and should not be considered investment recommendations

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## Observation 2:

### Private real assets provided higher returns with lower volatility than publicly traded commodities and real estate stocks

We compared private real assets with publicly traded commodity stocks and publicly traded REITs to assess diversification benefits against the illiquidity of private assets. Since many investors already have exposure to REITs and commodities, such as metals or oil and gas, we also compared the impact of combining private real assets with public stocks. This analysis used fixed allocations and constrained alternatives to 20% of the portfolio, consistent with realistic limits.

Figure 4 compares three portfolios consisting of a fixed 80% in stocks and bonds in a 60/40 ratio, and 20% in alternative assets.

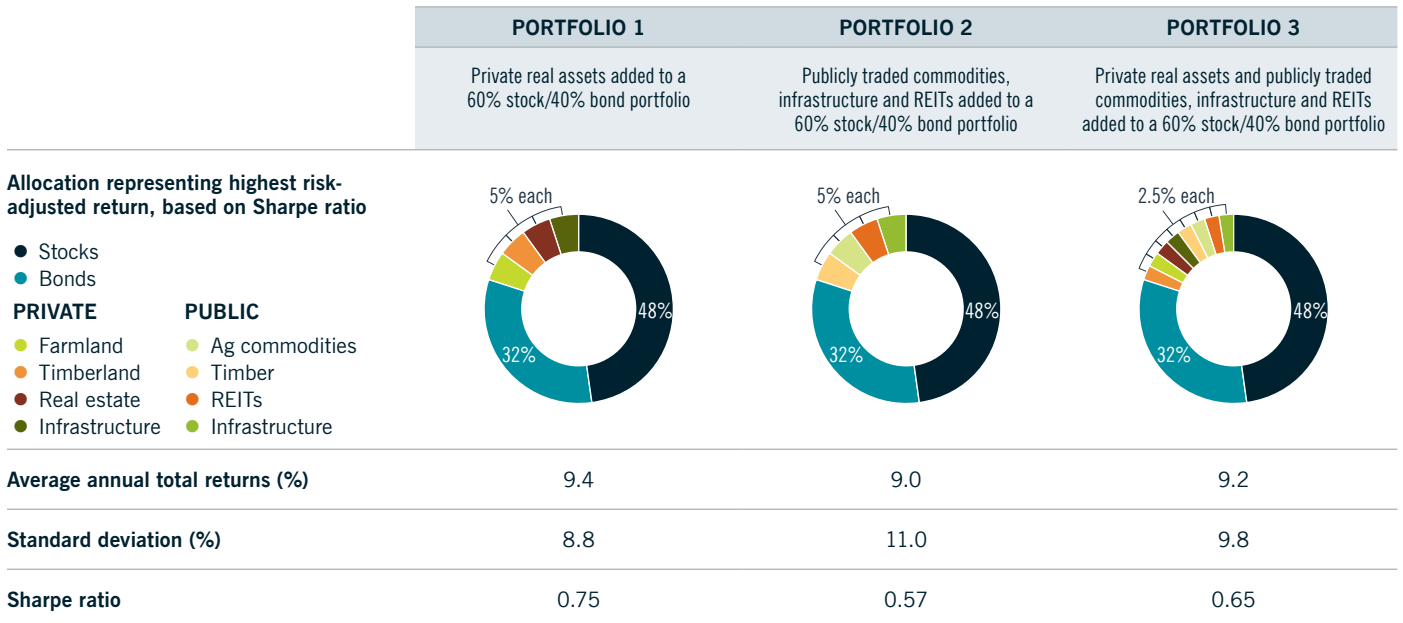
Portfolio 1 adds four categories of private real assets, divided evenly at 5% each. Portfolio 2 adds four categories of publicly traded commodities, infrastructure and REITs, divided evenly at 5% each. Portfolio 3 combines private and public assets, split evenly at 2.5% each.

### Results

Private real assets increased portfolio returns and reduced volatility, resulting in a higher Sharpe ratio, versus publicly traded commodity and infrastructure stocks, and REITs. This can be seen by comparing the performance of Portfolio 1 and Portfolio 2 in Figure 4.

Private real assets helped to diversify the volatility risk of publicly traded commodities, infrastructure and REITs. This can be seen by comparing the performance of Portfolio 2 and Portfolio 3 in Figure 4. The combination of private and public real assets in Portfolio 3 increased returns by 20 basis points and reduced volatility by 120 basis points, resulting in a higher Sharpe ratio, compared to Portfolio 2.

**Figure 4: Comparing real assets vs. public commodities, infrastructure, and REITs in stock and bond portfolio (1991 – 2025)**



Data are based on rolling one-year total returns, calculated on a quarterly basis for periods ended 31 Mar 1991 through 31 Dec 2025. Asset classes reflect the following indexes: U.S. stocks: Russell 3000 Index; non-U.S. stocks: MSCI ACWI ex USA Index; U.S. bonds: Bloomberg Barclays U.S. Aggregate Index; global investment-grade bonds: Bloomberg Barclays Global Aggregate Index; privately held U.S. commercial real estate: NCREIF Real Estate Index; privately held U.S. farmland: NCREIF Farmland Index; privately held U.S. timberland: NCREIF Timberland Index; publicly traded U.S. real estate investment trusts (REITs): FTSE Nareit U.S. Real Estate Index; public agricultural commodities: S&P GSCI Agriculture Index; public timber: a Timber proxy index created by Nuveen that combines S&P Global Timber and Forestry Index (2004 - 2025) with the returns of companies representing 4% or more of the index between 1991 and 2003; private infrastructure: EDHEC Infrastructure & Private Assets Research Institute (from 31 Mar 2001). Based on data sourced from Scientific Infra & Private Assets (apps.sipametrics.com) Copyright © 2026 Scientific Infra & Private Assets. All rights reserved; public infrastructure: S&P Global Infrastructure Index (data from 31 March 2002).

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Sources: NCREIF; Bloomberg; EDHEC Infrastructure & Private Assets Research Institute; Nuveen, LLC.

## Observation 3:

### Constraining real assets within practical limits still improved performance

How much real assets exposure is reasonable for investors? As a point of reference, institutional portfolio allocations are estimated at 5% to 10%, with endowments ranging up to about 15%. Additionally, investors are increasing their exposure to alternatives in efforts to increase current income and risk-adjusted returns, dampen volatility, and meet specific needs, such as inflation protection.

Mean-variance optimization outputs may suggest extreme allocations to individual asset classes based on returns for the period used as input. But for most institutions, allocations exceeding 20% to individual real assets categories would be unrealistic. Most portfolios would lack sufficient liquidity to meet near-term spending obligations, and investors would also have difficulty accessing enough farmland and timberland. Moreover, questions about the

limitations and relatively limited history of index data would argue against such large holdings in real assets.

There is no single optimal allocation to real assets. It will differ based on the investor’s specific risk profile. The next analysis considers two model portfolios representing a conservative allocation of 20% stock and 80% bonds and an aggressive allocation of 80% stock and 20% bonds. We limit the combined real assets allocation to 10% (2.5% per category) in the conservative portfolio and 20% (5% per category) in the aggressive portfolio.

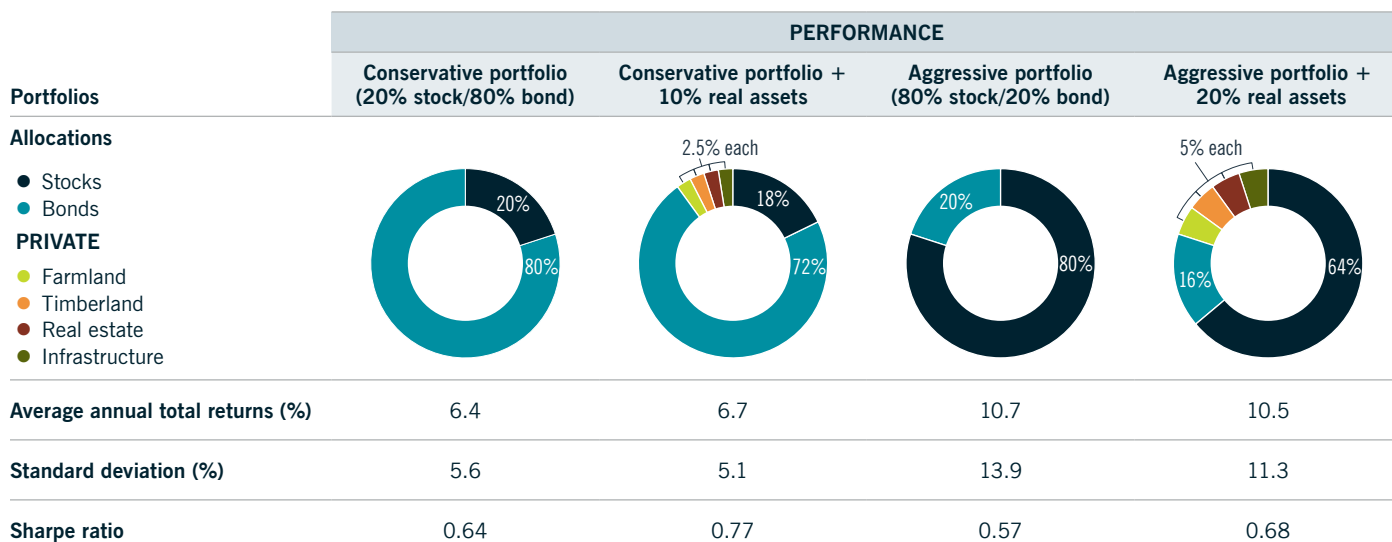
### Results

Despite the allocation limits, real assets reduced volatility compared to only stock-bond portfolios — resulting in higher risk-adjusted returns (Figure 5).

Overall, results show that, based on historical performance, investors could improve portfolio risk-adjusted returns with allocations that were fractions of the unconstrained allocations, but realistic for institutional investors.

**Figure 5: Limiting real assets exposure to 10% and 20% of traditional portfolios (1991– 2025)**

*Despite limits, real assets improved performance of conservative and aggressive portfolios*



Data are based on rolling one-year total returns, calculated on a quarterly basis for periods ended 31 Mar 1991 through 31 Dec 2025. Asset classes reflect the following indexes: U.S. stocks: Russell 3000 Index; non-U.S. stocks: MSCI ACWI ex USA Index; U.S. bonds: Bloomberg Barclays U.S. Aggregate Index; global investment-grade bonds: Bloomberg Barclays Global Aggregate Index; privately held U.S. commercial real estate: NCREIF Real Estate Index; privately held U.S. farmland: NCREIF Farmland Index; privately held U.S. timberland: NCREIF Timberland Index; publicly traded U.S. real estate investment trusts (REITs): FTSE Nareit U.S. Real Estate Index; public agricultural commodities: S&P GSCI Agriculture Index; public timber: a Timber proxy index created by Nuveen that combines S&P Global Timber and Forestry Index (2004 - 2025) with the returns of companies representing 4% or more of the index between 1991 and 2003; private infrastructure: EDHEC Infrastructure & Private Assets Research Institute (from 31 Mar 2001). Based on data sourced from Scientific Infra & Private Assets (apps.sipametrics.com) Copyright © 2026 Scientific Infra & Private Assets. All rights reserved; public infrastructure: S&P Global Infrastructure Index (data from 31 March 2002).

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## Observation 4:

**There is a positive role for all four asset classes in a private real assets-only portfolio constrained to reflect the real-world opportunity set.**

The next analysis shows how different asset categories work together in a portfolio consisting only of private real assets. We examined how the structure can change based on different investment objectives. An efficient frontier using farmland, timberland, real estate and infrastructure allowed comparison of three portfolios producing the highest efficiency, lowest risk and highest return (Figure 6).

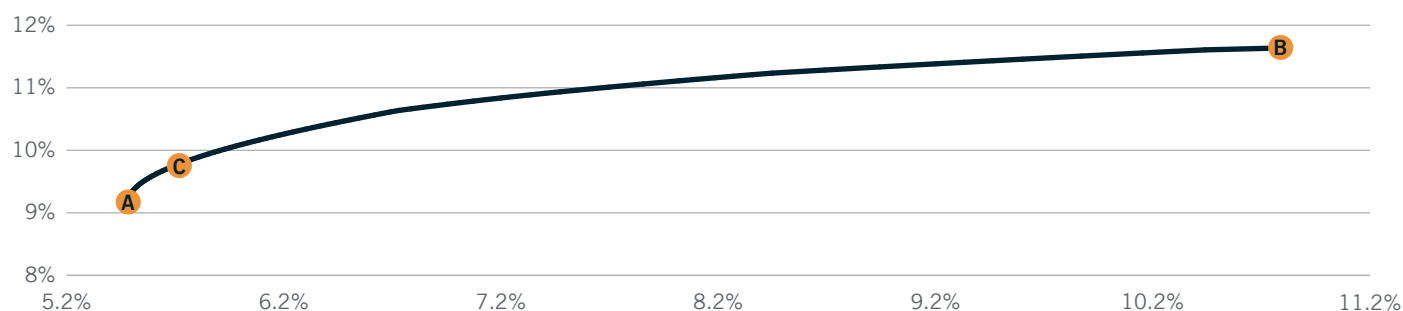
Recognizing differences in the sizes of investable markets, we constrained allocations to 25% for both farmland and timberland to better reflect the opportunity set, scale and liquidity concerns of investors.

### Results

The Sharpe ratio-maximizing portfolio included real estate at 23%, farmland and timberland each at 25%, and infrastructure at 27%. The lowest-risk portfolio increased real estate exposure to 37%, maintained farmland and timberland at 25% and reduced exposure to infrastructure to 13%. The highest-return portfolio was the portfolio with 100% exposure to infrastructure. All three real assets portfolios produced a meaningful increase in risk-adjusted returns compared to all traditional stock/bond portfolios.

**Figure 6: Structuring a portfolio of farmland, timberland, infrastructure and real estate (1991 – 2025)**

*100% private real assets portfolios*



Portfolios of the efficient frontier	A: Minimum risk portfolio	B: Maximum return portfolio	C: Highest Sharpe ratio portfolio
<b>Allocations</b>			
<b>Average annual total returns (%)</b>	9.2	11.6	9.8
<b>Standard deviation (%)</b>	5.5	10.7	5.7
<b>Sharpe ratio</b>	1.17	0.82	1.23

Data are based on rolling one-year total returns, calculated on a quarterly basis for periods ended 31 Mar 1991 through 31 Dec 2025. Asset classes reflect the following indexes: U.S. stocks: Russell 3000 Index; non-U.S. stocks: MSCI ACWI ex USA Index; U.S. bonds: Bloomberg Barclays U.S. Aggregate Index; global investment-grade bonds: Bloomberg Barclays Global Aggregate Index; privately held U.S. commercial real estate: NCREIF Real Estate Index; privately held U.S. farmland: NCREIF Farmland Index; privately held U.S. timberland: NCREIF Timberland Index; publicly traded U.S. real estate investment trusts (REITs): FTSE Nareit U.S. Real Estate Index; public agricultural commodities: S&P GSCI Agriculture Index; public timber: a Timber proxy index created by Nuveen that combines S&P Global Timber and Forestry Index (2004 - 2025) with the returns of companies representing 4% or more of the index between 1991 and 2003; private infrastructure: EDHEC Infrastructure & Private Assets Research Institute (from 31 Mar 2001). Based on data sourced from Scientific Infra & Private Assets (apps.sipametrics.com) Copyright © 2026 Scientific Infra & Private Assets. All rights reserved; public infrastructure: S&P Global Infrastructure Index (data from 31 March 2002).

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## Investment implications and conclusions

This analysis shows private real assets offer compelling potential to enhance risk-adjusted returns. As long-term investments, their benefits have potential to provide some compensation for their relative illiquidity. They can combine bond-like income from asset leases or contracted cash flows, and equity-like returns from long-term appreciation in asset values. These features can help support asset-liability matching, with potential for improved long-term portfolio returns to meet future obligations, and lower volatility of returns to meet current liabilities.

Our analysis offers a framework for understanding the potential benefits from adding private real assets to investment portfolios:

- Adding private exposure to any single category — farmland, timberland, infrastructure or commercial real estate — increased portfolio returns and reduced risk, resulting in higher Sharpe ratios.
- Private real assets offered greater risk-adjusted returns compared with publicly traded commodity and infrastructure stocks and REITs. In combination, private real assets helped to diversify the volatility of publicly traded commodities and infrastructure stocks and REITs, resulting in higher portfolio risk-adjusted returns.
- Portfolios comprising only private real assets with allocations reflecting real-world constraints also produced better risk-adjusted returns than the traditional stock and bond portfolio.

Overall, we believe the results support the case for diversifying traditional portfolios with multiple categories of real assets within realistic limits. A combined allocation of only 10%, evenly divided among the four categories of real assets, improved portfolio risk-adjusted returns compared with the conservative stock and bond portfolio.

These results should be considered broadly illustrative — not specific investment recommendations. As noted previously, data limitations — relatively short time series, self-reporting, and a “smoothing” effect from periodic appraisals — are likely to understate actual volatility of private real assets returns. Traditional mean-variance optimization has well-known drawbacks that are not tied to a specific asset class, including the assumption that returns are normally distributed and reliance on historical returns that cannot predict future results. While these limitations are important to acknowledge, they do not undermine the potential for real assets benefits to persist in the future. First, long-term capital appreciation depends on inexorable global trends — population growth and urbanization — that drive steadily rising demand and diminishing supplies of food, wood products and high-quality commercial real estate. Second, real assets’ low correlations and capacity to diversify risk are primarily a function of their being private, relatively illiquid, and not subject to public markets and speculative trading.

Investors seeking the potential benefits of these alternative asset classes could identify asset managers with specialized expertise, strategic partners, global scale and a track record of investment success.

## Challenges of investing in private real assets

High barriers to entry make it difficult for many investors to undertake direct investments in private real assets, particularly farmland and timberland. Gaining access and managing complex risks require proven capabilities to address three major hurdles:

- **Lack of transparency.** Sophisticated due diligence capabilities are essential to access opportunities and analyze the potential profitability and cash-flow profile of assets in diverse regions around the globe.
- **Capital requirements.** Deep financial reserves may be necessary to achieve scale and diversification. Diversified fund offerings may help to address challenges related to capital requirements.
- **Operational risks.** Investing in real assets comes with unique operational risks. Farmland and timberland involve a range of operational risks that include weather, pest damage, marketing perishable crops and complying with local regulations. Expertise in local markets and access to a network of local operators can allow investors to transfer operational risk and gain steady income through leasing contracts. Long-term leasing contracts are also a tool to manage operational risk in infrastructure investments. Commercial real estate requires investment scale for diversification and large staff to acquire and oversee holdings.

These challenges and risks can be addressed in several ways. For investors seeking the potential benefits of private real assets, partnering with experienced asset managers with specialized expertise, strategic partners, global scale and a track record of investment success could help to identify, manage and mitigate the unique risks presented by these asset classes.

## About Nuveen

Nuveen is a global investment leader, managing \$1.4T in public and private assets<sup>5</sup> for clients around the world and on behalf of TIAA , our parent company and one of the world's largest institutional investors.

With broad expertise across income and alternatives, we invest in the growth of businesses, real estate, infrastructure and natural capital, providing clients with the reliability, access and foresight unique to our 125+ year heritage.

Our prevailing perspective on the future drives our ambition to innovate and adapt our business — all to pursue lasting performance for our clients, our communities and our global economy.

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**For more information, please visit [nuveen.com](https://nuveen.com).**

**Endnotes**

- 1 See figures 1 – 6.
- 2 The Power of Private Real Assets, Nuveen, January 2023
- 3 Pricing data for private investments is reported less frequently than for publicly listed investments and often after the time of transaction.
- 4 Nuveen Research, 2020, How Westchester identifies and evaluates farmland suitable for institutional investment
- 5 As of 31 Mar 2026. Nuveen assets under management (AUM) is inclusive of underlying investment specialists.

**Sources**

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