

AGRICULTURAL INVESTMENTS

LOW-HANGING FRUIT

**WHY YOU SHOULD PLANT U.S. AGRICULTURE
IN YOUR INSTITUTIONAL PORTFOLIO**

**A Comprehensive Guide to
Making an Investment Decision**

2024

For Professional and Institutional Investors Only. All investments
involve risk, including the possible loss of capital.

ABOUT US

PGIM Real Estate's Agricultural Investments group provides a fully integrated platform to serve third-party investors seeking equity exposure to farmland across the United States through both permanent crop and row crop strategies. With more than 40 years of fiduciary experience in owning and operating farms, we build each portfolio from the ground up and seek opportunities that are accretive to the portfolio while staying within the client's investment objectives.

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HISTORICAL RETURN AND DIVERSIFICATION BENEFITS

Sustained Long-term Performance

Farmland has consistently performed well relative to stocks, bonds, timberland and real estate over the past 20 years.

HISTORICAL ANNUALIZED RETURN ^{1,2}

	FARMLAND	TIMBERLAND	REAL ESTATE	STOCKS	BONDS
1-Year	5.0%	9.5%	-7.9%	26.3%	5.5%
3-Year	7.4%	10.5%	4.6%	10.0%	-3.3%
5-Year	6.0%	6.6%	4.3%	15.7%	1.1%
7-Year	6.1%	5.7%	5.1%	13.4%	1.3%
10-Year	7.3%	5.8%	6.8%	12.0%	1.8%
15-Year	9.4%	4.7%	6.5%	14.0%	2.7%
20-Year	12.3%	7.1%	7.8%	9.7%	3.2%

Performance: ■ Best ■ Second-Best

 Farmland Has Produced the Highest Annual Returns and Sharpe Ratio Over the Past 20 Years and Has Not Generated a Negative Annual Return

HISTORICAL RISK-ADJUSTED VOLATILITY METRICS (20-YEAR)¹

	FARMLAND	TIMBERLAND	REAL ESTATE	STOCKS	BONDS
St. Deviation ³	7.5%	6.1%	9.2%	16.6%	4.8%
Sharpe Ratio	1.28	0.71	0.58	0.50	0.09
Max 1-yr Return	33.9%	19.4%	20.2%	32.4%	8.7%
Min 1-yr Return	3.1%	-4.7%	-17.0%	-37.0%	-13.0%
Neg. Returns (# yrs)	0	2	3	3	3

Performance: ■ Best ■ Second-Best

Asset Class Diversification

Low or negative correlations to asset classes such as stocks and bonds can make farmland a powerful diversifier in a mixed-asset portfolio.

ANNUAL RETURN CORRELATIONS (20-YEAR)¹

	FARMLAND	TIMBERLAND	REAL ESTATE	STOCKS	BONDS
Farmland	1.00	0.70	0.52	-0.20	-0.05
Timberland		1.00	0.49	-0.27	-0.30
Real Estate			1.00	0.05	-0.12
Stocks				1.00	0.29
Bonds					1.00

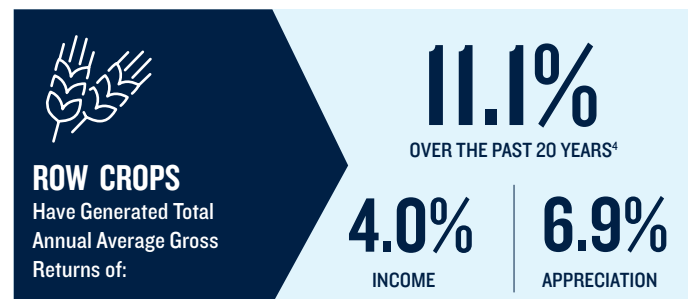
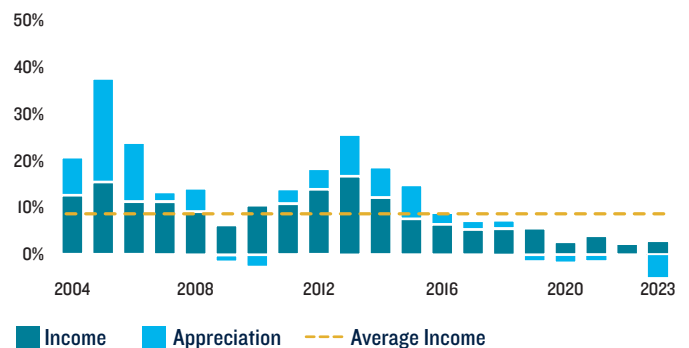
PAST PERFORMANCE IS NOT A GUARANTEE OR RELIABLE INDICATOR OF FUTURE RESULTS. DIVERSIFICATION DOES NOT ASSURE A PROFIT OR PROTECT AGAINST LOSS IN DECLINING MARKETS.

High Income and Total Return

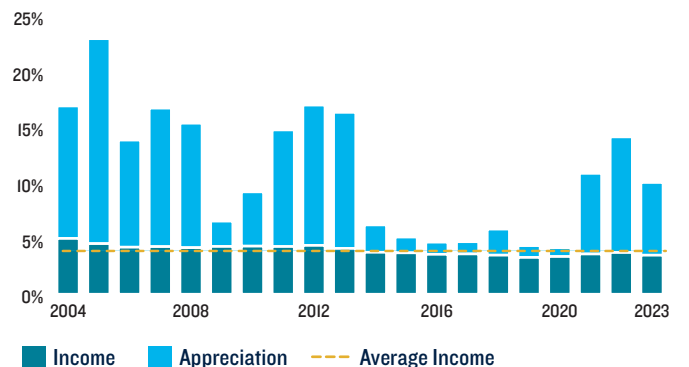
Direct farming operations and leases have provided a steady source of income return. Productivity gains and commodity price increases drive appreciation gains. Strong crop prices and robust net farm income have boosted farmland values significantly over the past 20 years.



NCREIF FARMLAND PERMANENT CROP ANNUAL RETURNS (2004-2023)⁴



NCREIF FARMLAND ROW CROP ANNUAL RETURNS (2004-2023)⁴

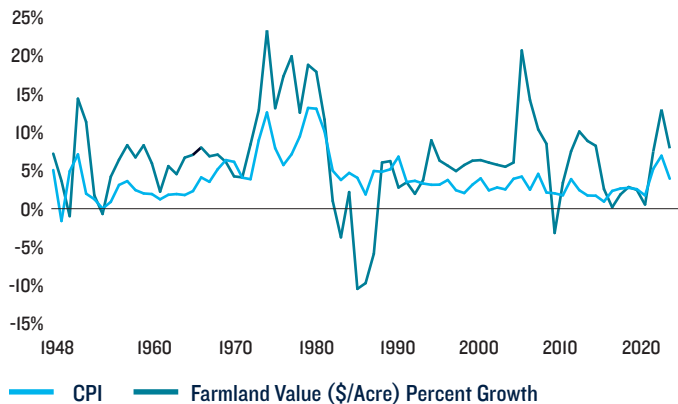


CAPITAL PRESERVATION AND GROWTH

Potential Inflation Hedge

Farmland is a real asset that has proved to be a better store of wealth than stocks or government bonds in periods of higher inflation.

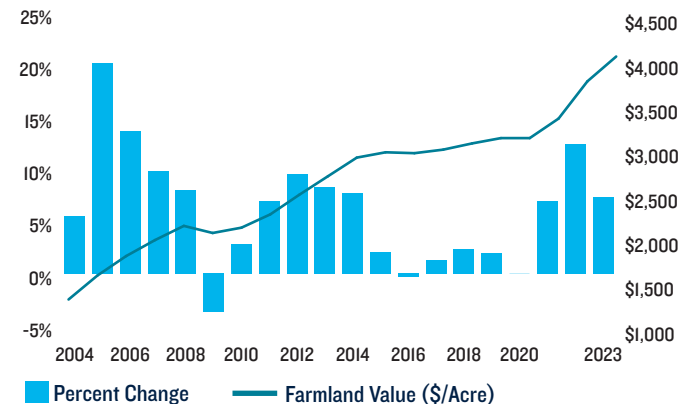
FARMLAND VALUE PERCENT GROWTH VERSUS INFLATION (1948-2023)⁵



Prolonged Value Growth

Farmland has posted mostly positive returns, proving effective in preserving capital under various market conditions.

FARMLAND VALUES \$/ACRE AND ANNUAL PERCENTAGE CHANGE (2004-2023)⁵



EMERGING ASSET CLASS WITH ESTABLISHED BENCHMARK

Emerging Institutional Asset Class

Despite robust growth, U.S. farmland institutional ownership is still in its nascent stage and is likely to increase.

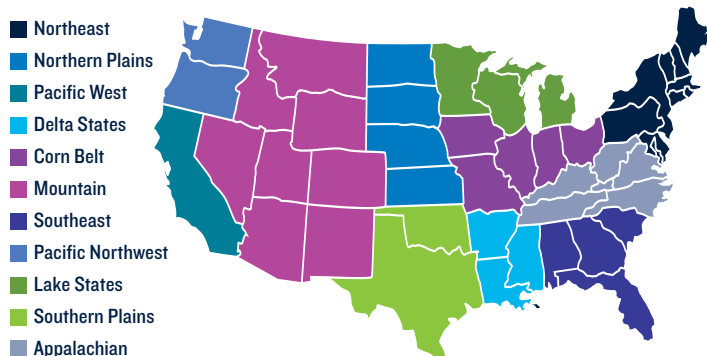
2.0% OF U.S. FARMLAND IS OWNED BY INSTITUTIONAL CAPITAL⁶

Ability to Benchmark Performance

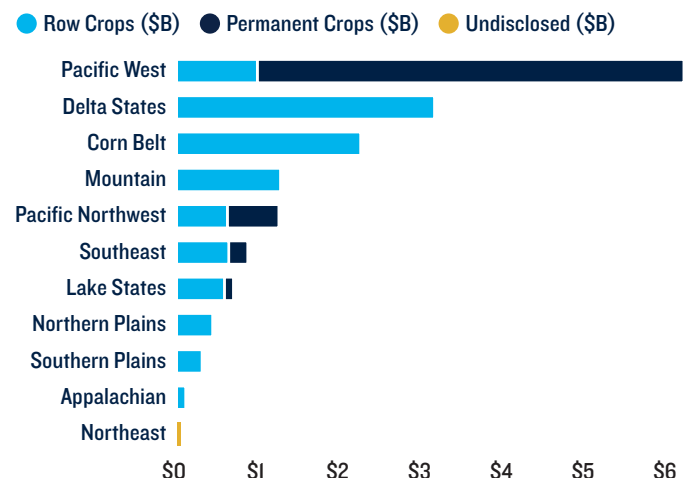
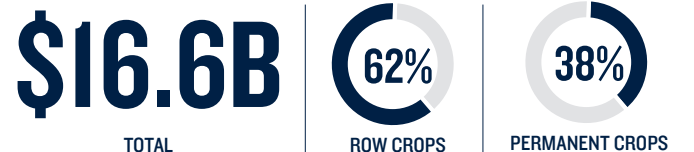
NCREIF Farmland Property Index provides transparency and enables investors to benchmark manager performance.

NCREIF FARMLAND PROPERTY INDEX⁴

1990 INCEPTION DATE | **100%** INSTITUTIONALLY OWNED PROPERTIES



NCREIF FARMLAND PROPERTY INDEX MARKET VALUE⁴



All returns shown are gross of fees. **Past performance is not a guarantee or reliable indicator of future results.** Data as of December 2023 unless otherwise noted.¹ Supporting indexes: (1) Farmland: NCREIF Farmland Index, (2) Timberland: NCREIF Timberland Index, (3) Real Estate: NCREIF Property Index, (4) Stocks: S&P 500 Index, (5) Bonds: Bloomberg Barclays US Aggregate Bond Index. Sources: Barclays, Global Investors, NCREIF, S&P, PGIM Real Estate.² Benchmark returns over different time periods ending December 2023.³ Standard deviation is based on annual returns.⁴ The reported aggregate NCREIF Farmland Index AUM does not tie to the summation of the detailed AUM by NCREIF regions due to rounding and constraints imposed by masking in the publicly available data. Sources: NCREIF Farmland Index, PGIM Real Estate.⁵ Sources: USDA Economic Research Service, U.S. Bureau of Labor Statistics, PGIM Real Estate.⁶ Source: USDA NASS, 2017 Census of Agriculture.

COMPETITIVE ADVANTAGES OF INVESTING IN THE U.S.

Production & Export Powerhouse

The U.S. is the leading producer and a top exporter of some of the world's most important commodities. The U.S. benefits from a large domestic market and a low per-unit production cost of several large commodities.

SELECT U.S. COMMODITY PRODUCTION AND EXPORTS RANKINGS (2023/2024)⁷

	PRODUCTION (MIL. METRIC TONS)		U.S. (%)	U.S. RANKING	
	U.S.	WORLD		PRODUCTION	EXPORTS
ROW					
Corn	389.7	1,232.6	31.6%	1	2
Soybeans	113.3	398.2	28.5%	2	2
Wheat	49.3	785.7	6.3%	5	5
Cotton	2.7	24.6	11.0%	4	1
PERMANENT					
Apples	4.4	83.1	5.2%	4	3
Fresh Oranges	2.5	48.8	5.2%	6	3
Table Grapes	0.9	28.4	3.1%	8	7
Walnuts	0.7	2.7	25.9%	2	1
Orange Juice	0.1	1.5	7.0%	3	5
Almonds	1.2	1.5	78.2%	1	1
Pistachios	0.7	1.1	63.4%	1	1

Complete Commercial Base

The U.S. is the birthplace and heart of agricultural suppliers such as John Deere and Caterpillar. Also, large and well-recognized processors and marketing firms can provide long-term contracts for commodity production.

Optimal Geographic Conditions

The U.S. has extensive, supply-constrained farm areas with favorable and diverse climatic and soil conditions for the production of a wide variety of major permanent crops and row crops.



Advanced Infrastructure

Transportation infrastructure is a key variable in moving farm goods. The U.S. has an advanced network of strategically located highways, railroads and seaports that facilitates swift commodity shipment worldwide.



Well-Capitalized Farm Economy

The U.S. is home to major commodity exchanges and a deep set of private- and government-sponsored financial institutions that provide consistent capital to the farm sector. This financial infrastructure facilitates farmland production through credit and risk transfers.

KEY INVESTMENT CATEGORIES FOR A PORTFOLIO

PERMANENT CROPS



PERMANENT CROPS: Long-lived trees or vines that can take many years to grow enough to have a commercial crop.
SUBCATEGORIES: Developing and mature.
PLANTING: Once planted, switching crops to react to market conditions is expensive and difficult.
MANAGEMENT: Can direct operate the farm or lease to a tenant.
RETURNS: Returns are weighted heavily to operating income.



ROW CROPS



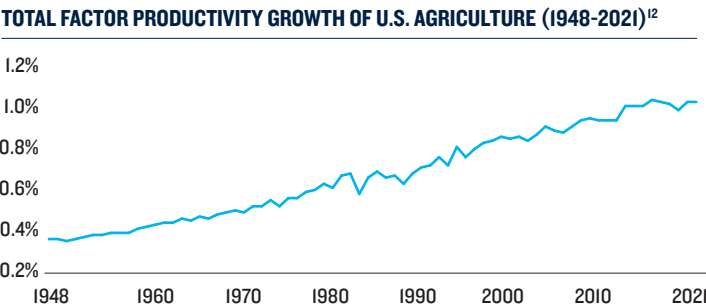
ROW CROPS: Crops planted annually that are typically mechanically harvested on a large scale.
SUBCATEGORIES: Commodity, vegetable and specialty.
PLANTING: Plantings changed quickly to react to market conditions.
MANAGEMENT: Mostly leased to experienced regional farmers.
RETURNS: Leased mostly allow for steady income returns.



WHY NOW IS A GOOD TIME TO INVEST

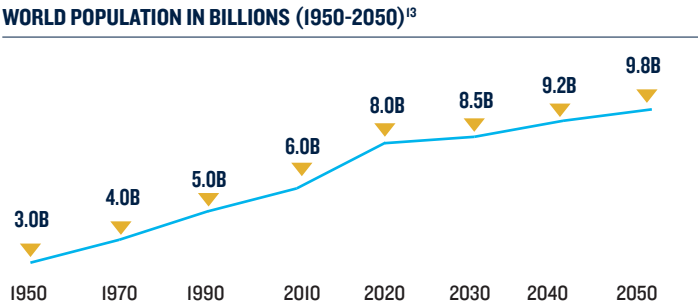
Technology Driving Productivity

Farm productivity growth has been driven by government- and private sector-supported research. The U.S. is also home to innovative start ups focused on farming information technology, ag biotech, robotics, and automation.



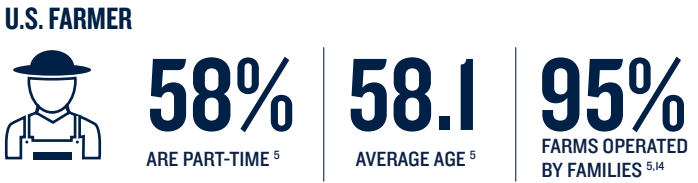
Rising Global Demand

Increasing global demand for higher value-added crops that are healthy and nutritious coupled with improved incomes and expanding diets will continue benefiting the U.S. farm sector.



Growing Institutional Opportunities

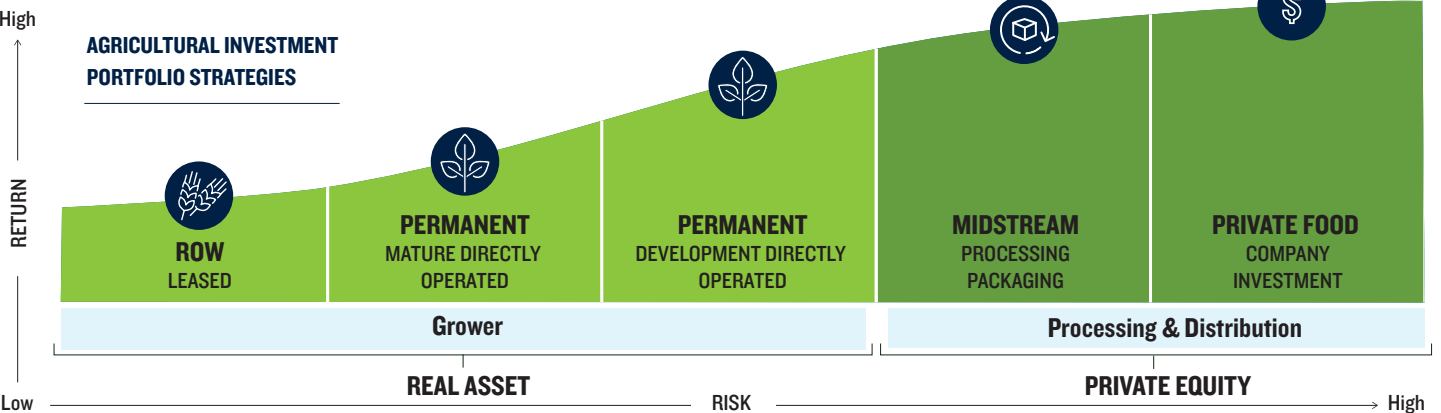
An aging farmer generation, fractional family ownership structure and technological advances requiring sizable capital investment will naturally transition farmland holdings from individuals to institutions.



PORTFOLIO STRUCTURING

Portfolio Strategy

Client return objectives and risk tolerance form the starting point for agricultural portfolio construction and influence whether the strategy is real-asset- or private-equity-driven.¹⁵ This section focuses on a real asset, inside-the-farm-gate strategy. Portfolio considerations include:



INVESTMENT CATEGORIES: Row crops that can be readily adjusted to changing market conditions are typically viewed as being less risky than permanent crops. Within permanent crops, development is more risky than mature.

MANAGEMENT STYLE: Leased investments have credit exposure but can provide stable, bond-like cash flows. Directly operated investments have commodity exposure and give managers more control over the improvements. They offer access to full operating profits, which may vary annually.

DIVERSIFICATION: Crop type and geographic diversification are important components of risk management.

⁷ Source: Foreign Agricultural Service USDA. ⁸ Source: California Department of Food and Agriculture. ⁹ Source: USDA / Federal Grain Inspection Service 2024 Annual Report. ¹⁰ Source: Agfunder Agrifood Tech Investing Report - Year in Review 2022. ¹¹ Source: Pitchbook. ¹² USDA Economic Research Service as of December 2021. ¹³ U.S. Census Bureau, International database. ¹⁴ Includes families, family partnerships, and family corporations. ¹⁵ No investment strategy or risk management technique can guarantee returns or eliminate risk in any market environment. Diversification does not assure a profit or protect against loss in declining markets.

EXPLORE OPPORTUNITIES AND LEARN MORE

www.pgimrealestate.com/aginvesting



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NCREIF Farmland Index: The NCREIF Farmland Index is a quarterly time series composite return measure of investment performance of a large pool of individual agricultural properties acquired in the private market for investment purposes only. All properties in the Farmland Index have been acquired, at least in part, on behalf of tax-exempt institutional investors - the great majority being pension funds. As such, all properties are held in a fiduciary environment. Reinvestment of dividends is not applicable to this asset class. Note: A benchmark Index is not professionally managed, does not have a defined investment objective, and does not incur fees or expenses. Investors cannot invest directly in an index. Source of the Benchmark: NCREIF - National Council of Real Estate Investment Fiduciaries.

NCREIF Timberland Index: The NCREIF Timberland Index is a quarterly time series composite return measure of investment performance of a large pool of individual U.S. timber properties acquired in the private market for investment purposes only. All properties in the Timberland Index have been acquired, at least in part, on behalf of institutional investors. As such, all properties are held in a fiduciary environment.

NCREIF Property Index (NPI): The NCREIF Property Index ("NPI") is a quarterly index tracking the performance of core institutional property markets in the U.S. The objective of the NPI is to provide 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 universe of investments is: (1) Comprised exclusively of operating properties acquired, at least in part, on behalf of tax-exempt institutions and held in a fiduciary environment.; (2) Includes properties with leverage, but all returns are reported on an unleveraged basis; and (3) Includes Apartment, Hotel, Industrial, Office and Retail properties, and sub-types within each type. The database fluctuates quarterly as participants acquire properties, as new members join NCREIF, and as properties are sold. Sold properties are removed from the Index in the quarter the sales take place (historical data remains). Each property's market value is determined by real estate appraisal methodology, consistently applied. Please note that when returns are computed for the NPI, the returns for the levered properties are computed on a de-levered basis, i.e., the impact of financing is excluded.

Bloomberg US Aggregate Bond Index: The Bloomberg US Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, US dollar denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, fixed rate agency MBS, ABS and CMBS (agency and non-agency). Provided the necessary inclusion rules are met, US Aggregate-eligible securities also contribute to the multi-currency Global Aggregate Index and the US Universal Index. The US Aggregate Index was created in 1986, with history backfilled to January 1, 1976.

Source of the Benchmark: Bloomberg Finance L.P.

REF: 007606

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