



nuveen
NATURAL CAPITAL

Midwest Agriculture Conference

Federal Reserve Bank of Chicago

November 2023

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A word on risk

As an asset class, agricultural investments are less developed, more illiquid, and less transparent compared to traditional asset classes. Agricultural investments will be subject to risks generally associated with the ownership of real estate-related assets, including changes in economic conditions, environmental risks, the cost of and ability to obtain insurance, and risks related to leasing of properties.

As an asset class, timberland investments are less developed, more illiquid, and less transparent compared to traditional asset classes. Timberland investments will be subject to risks generally associated with the ownership of real estate-related assets, including changes in economic conditions, environmental risks, and the cost of and ability to obtain insurance. Market forecasts are subject to uncertainty and may change based on varying market condition, political, and economic developments.

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Responsible investing incorporates Environmental Social Governance (ESG) factors that may affect exposure to issuers, sectors, industries, limiting the type and number of investment opportunities available, which could result in excluding investments that perform well.

Past performance is no guarantee of future results.

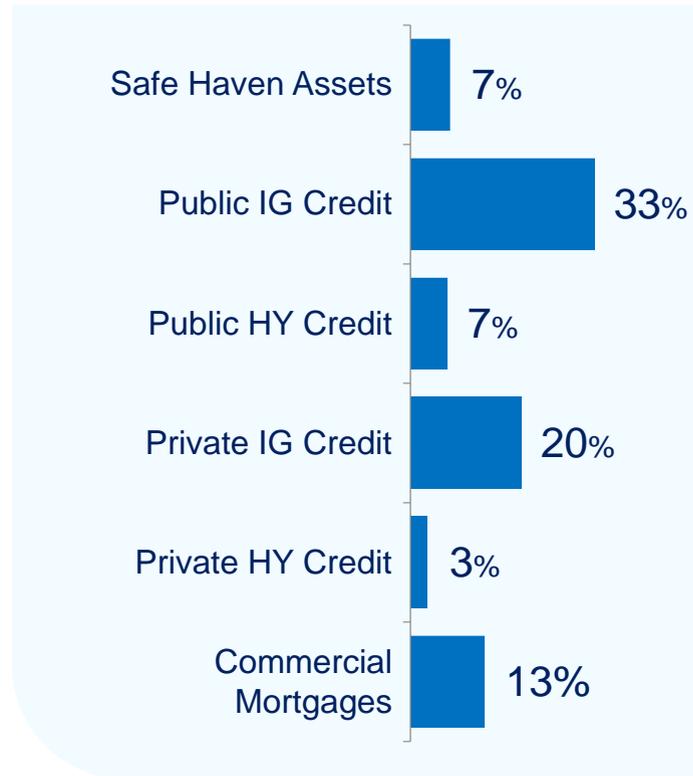
Securities offered through Nuveen Securities, LLC, Member FINRA and SIPC.

Nuveen provides investment advisory solutions through its investment specialists. Nuveen Natural Capital is an investment specialist of Nuveen LLC.

The TIAA General Account – owner of Nuveen

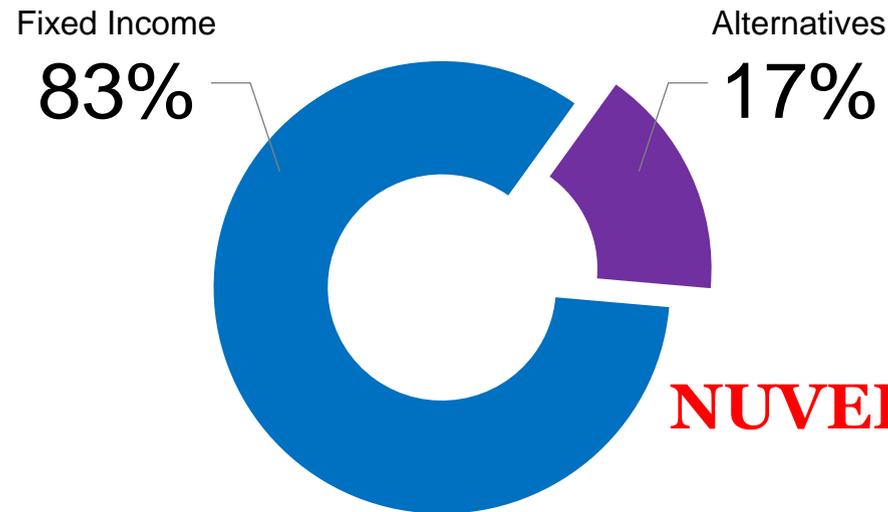
Regulations (RBC, statutory accounting) favor high quality **fixed income**...

... But **alternative assets** are needed to meet long-term return hurdles.



TIAA General Account: \$292B

(as of 06/30/2023)



Fine-Tuned for TIAA:

Large Surplus

3% Rate Guarantees

Long Duration

Limited Liquidity Needs

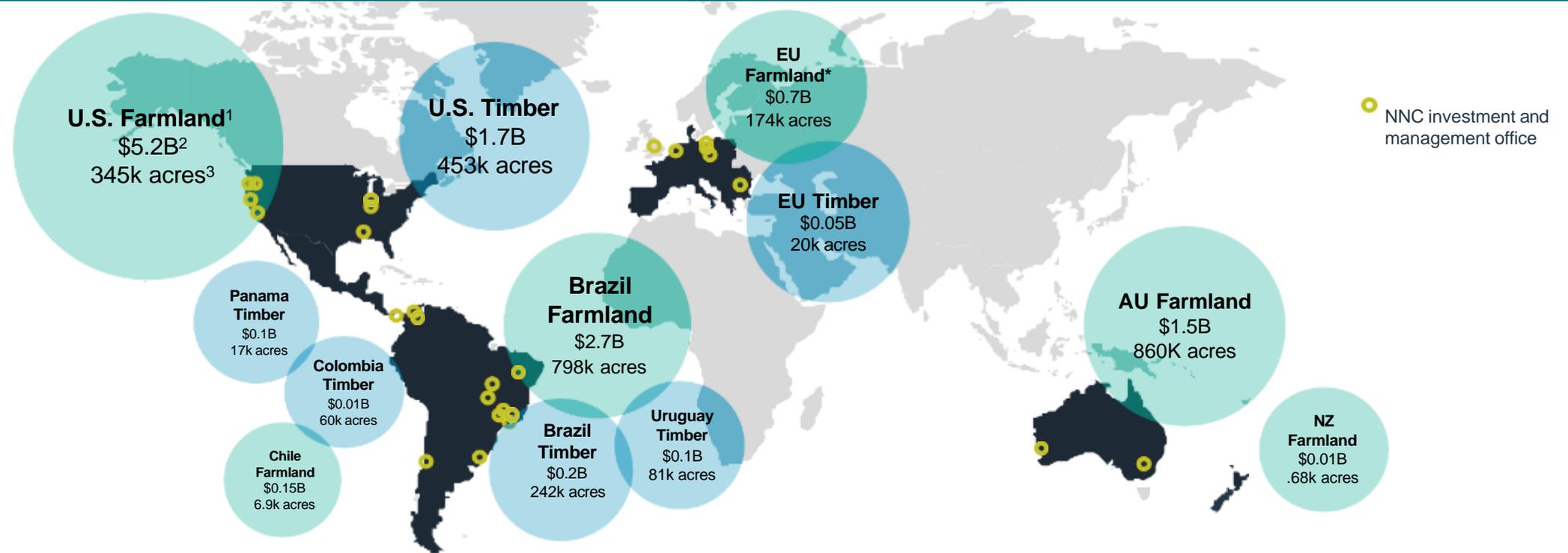
Source: Financial Strength: The TIAA General Account, June 30, 2023.

Nuveen Natural Capital (part of wider \$1.1T Nuveen platform)

Global footprint and diversification gives consistent returns

#1 farmland manager globally

#1 in farmland assets⁴
Top 10 in timberland⁴
\$12.4B AUM⁵
200+ employees
27 local offices
590+ properties
Investing in natural capital since 1986



Major Office Locations: N America: Farmland - Champaign, IL; Chicago, IL; Memphis, TN; Fresno, CA; Napa, CA. Timberland - Portland, OR; Seaside, OR. Central & S. America: Farmland - São Paulo, SP, Brazil (shared farmland/timberland office); Piracicaba, SP, Brazil; Botucatu, SP, Brazil; Santiago, Chile. Timberland - Panama City, Panama; Sao Paulo, SP, Brazil (shared farmland/timberland office); Nova Andradina/Campo Grande (Mato Grosso do Sul State), Brazil; Unai (Minas Gerais state), Brazil; Itapeva/Capao Bonito (Sao Paulo State), Brazil; Barranquilla, Colombia; Zambrano Farm, Colombia; Montevideo, Uruguay. EMEA: Farmland - London, England; Warsaw, Poland; Gdansk, Poland; Bucharest, Romania; Amsterdam, The Netherlands. Timberland - Kwidzyn, Poland. APAC: Farmland - Wagga Wagga, NSW, Australia; Perth, WA. AUM and Acres listed on map are as of 31 Mar 2022 and are reflective of Fair Market Value. *EU Farmland is reflective of row crop investments in Poland and Romania.

1 Combined permanent and row crops. 2 AUM is reflective of Fair Market Value as of 31 Dec 2022. Sums may vary slightly due to rounding. 3 Gross acres shown. Includes partial property divestitures. 4 Pensions & Investments, 03 Oct 2022 Rankings based total worldwide farmland and timberland assets under management for the 12 months ending 30 Jun 2022 as reported by each responding asset manager. 5 AUM is reflective of Fair Market Value as of 31 Dec 2022

Risk/return balance : diversification across four key factors

Geography	
EM & G10	Ideal risk/return balance (G10 provides liquidity, EM provides capex ROI and higher rates of appreciation)
S & N hemispheres	Exposure to hemisphere crop cycles capitalizes on year-round supply
Intra-country	Diversified tenant/operator market, mitigates weather and climate risk

Water profile	
Dryland¹ & irrigated	Balanced exposure offers comparative advantages of different growing regions
Ground water	Mitigation of drought risk and upside potential from water monetization opportunities
Surface water	Reliable source of surface water identified via rigorous underwriting and in-house water experts

Operating strategy	
Cash lease/cash flex	Consistent income with reduction to commodity price or production risk
Share lease	Flexibility manages risk in developing markets
Custom & direct farming	Supports potential attainment of superior risk-adjusted returns

Crop type	
Row crops	Income stability and capital returns
Permanent crops	Higher average income returns but with greater volatility
Crop optionality	Enables growth of most profitable crops

¹ Solely reliant on rainfall.

Geographic and commodity diversification

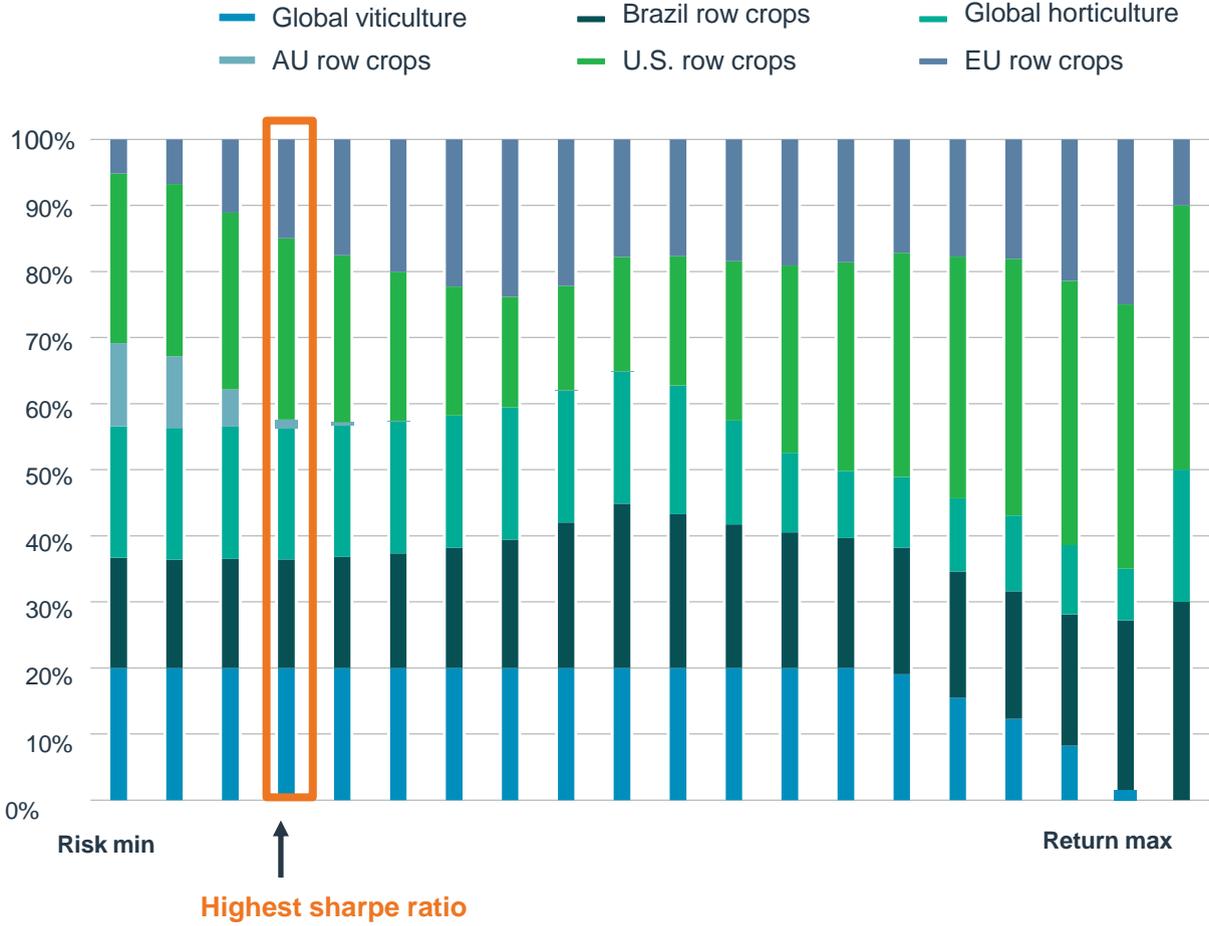
Limited correlation between investment opportunities

	Illinois row crop - leased	Mississippi row crop - leased	Australia row crop - leased	Brazil row crop - leased	Poland row crop - leased	Romania row crop - leased	U.S. almonds - operated	U.S. pistachios - operated	U.S. wine grapes - operated
Illinois row crop - leased	1.00	0.69	0.23	-0.11	0.67	0.58	0.26	-0.07	0.28
Mississippi row crop - leased		1.00	0.16	0.04	0.64	0.41	0.48	-0.00	0.31
Australia row crop - leased			1.00	0.35	0.32	0.32	0.26	0.51	0.22
Brazil row crop - leased				1.00	0.14	0.06	0.07	0.51	0.22
Poland row crop - leased					1.00	0.44	0.26	0.23	0.33
Romania row crop - leased						1.00	0.29	0.12	-0.00
U.S. almonds - operated							1.00	0.26	0.10
U.S. pistachios - operated								1.00	0.56
U.S. wine grapes - operated									1.00

Source: Nuveen internal data, 11-year correlation from 2010-2021. Operated strategies: historical annual price and yield data to determine volatility in cashflows and annual returns. Leased strategies: three-year rolling average on mix on produced commodities to estimate volatility in annual returns. Wine grapes: Napa Cabernet Sauvignon.

Optimal farmland portfolios are diversified by country, crop and operating strategy

Indicative efficient frontier farmland portfolios



Nuveen utilizes proprietary data and analysis to identify the optimal risk-adjusted portfolio that lies on the efficient frontier.

Source: Nuveen proprietary data.

Natural capital investments reduce carbon intensity

Low carbon-intensity asset within a diversified portfolio.

Risk-return and carbon intensity



Carbon Intensity = tCO2e/million USD

U.S. Farmland and Timberland estimates from Nuveen Natural Capital portfolios

MSCI ESG Manager

- Global and U.S. stock and bond indexes
- NAREIT
- MSCI Infrastructure index

Note: All carbon intensities with two exceptions include scope 1 and 2 emissions and exclude scope 3. For real estate and farmland, emissions include farm management and operating activities which are considered scope 3. Timberland removals are representative of average annual change in forest carbon stock for a portfolio that includes a mix of sustainable forestry and improved forest management strategies. Improved forest management strategies exhibit significant net removals whereas sustainable forestry strategies feature stable carbon stocks and do not have any net removals. Removals for improved forest management strategies are calculated by converting verified carbon credits of Nuveen-managed/administered properties into an annual rate of change in forest carbon stock. These rates of removals are not perpetual and may change over time as volume growth cannot exceed rate of harvest (and/or decomposition) perpetually. We also look at 100% sustainable forestry portfolio where timberland is net zero emissions. The risk-return characteristics of the timberland portfolio from which carbon intensities are estimated may not exhibit that of NCREIF Timberland Index which includes primarily sustainable forestry strategies. The risk-return characteristics of the NAREIT Index and S&P Global Infrastructure Index from which carbon intensities are calculated may not exhibit that of the NCREIF Real Estate or Cambridge Developed Markets Infrastructure Indexes, respectively. Carbon intensity for U.S. and Global stock and bond are from MSCI ESG manager. Carbon intensity for MSCI World Low Carbon Leaders Index is set at the Index's target benchmark, 50% of the MSCI World Index carbon and from MSCI ESG Manager.

Thank you



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