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SECURING TOMORROW'S HARVEST: EUROPEAN FARMLAND AS A STRATEGIC SUSTAINABLE INVESTMENT

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ASSET MANAGEMENT

The sustainable investor for a changing world

CONTENTS

EXECUTIVE SUMMARY

- Agriculture stands as one of humanity's most transformative achievements. It has enabled the rise of civilisations, sustained growing populations, and shaped the landscapes we depend on today. It is a testament to our collective ingenuity, cooperation and capacity to adapt.
- Farmland – commercially managed land to produce agriculture products – offers a compelling opportunity for investors seeking to align financial with environmental and social benefits.
- Although still owned mostly by families (more than 90% of EU farms are today family-run)[1], farmland is becoming increasingly accessible to institutional investors through specialised funds and partnerships.
- A small but growing number of financial institutions, notably insurance companies and pension funds, have entered the asset class, as it can play an effective role in investment portfolios. It can offer attractive long-term risk-adjusted returns, stable annual income, inflation hedging benefits, and diversification due to its low correlations with other asset classes.
- It is anticipated that, with global population rising and diets shifting, a 14% increase in agricultural production will already be needed by 2034[2].
- While agricultural intensification in the second half of the 20th century has led to considerable growth in crop and livestock production, it also causes environmental impacts on water, biodiversity, soils and climate[3].
- Farmland investments are therefore closely tied to environmental and sustainable priorities and the green transition. Intensive forms of agriculture co-exist with more sustainable ones, which have a lower impact on the environment. Responsible farming practices (e.g., regenerative agriculture) can indeed improve soil health, water management and biodiversity.
- Ultimately, small changes can lead to a ripple effect thereby benefiting communities in building a sustainable, effective and collaborative food value chain for a more food secure future. Therefore, farmland is more than an investment – it is food, community and legacy.
- European agriculture plays a vital dual role in providing food and livelihoods, ensuring food security for European citizens and supporting 44 million jobs[4] across the agriculture and food-related industries in Europe. We believe there is a unique opportunity for institutional investors to support the new generation of farmers, further the transition of European farmland towards more sustainable production, and ensure long-term food security.

Farmland investment is not without risk, the three primary sources of which are market risk, physical risk, and compliance risk (including regulatory, legal, and policy risks), all of which are addressed in this paper.

1 Eurostat, Farms and farmland in the European Union - statistics, (2022)

2 OECD-FAO Agricultural Outlook 2025-2034, (2025)

3 European Environmental Agency: Water and agriculture: towards sustainable solutions, (2020)

4 https://european-union.europa.eu/priorities-and-actions/actions-topic/agriculture_en

DEFINITIONS

AGRICULTURE

Agriculture refers to the practice of cultivating land for the production of crops and livestock to provide food, fibre, medicinal plants and other products essential to human life. It encompasses a wide range of disciplines — including agronomy, horticulture, animal husbandry, agricultural engineering and agricultural economics — integrating both traditional knowledge and modern scientific techniques.

As a primary sector of the economy, agriculture serves as the foundation for food security, rural development and sustainable resource management.

FARMLAND

Farmland refers to the land areas used for agricultural purposes, i.e., the production of crops for commercial purposes, specifically for food, feed, fibre and fuel. The crops grown are either annual crops such as grains, grass and vegetables, or permanent crops (with a multiyear lifetime), such as fruits, nuts, berries or olives.

Farmland investment can include investing in the land, crops and water infrastructure.

NATURAL CAPITAL

Natural capital refers to the world's stock of natural resources that provide people with essential goods and services.

It includes forests, water systems, soil and fertile land, air, minerals and biodiversity (fauna and flora).

These provide services, such as food, fibre and timber, as well as a broad range of regulating, supporting and cultural ecosystem services that drive the global economy and human well-being.

DEFINITIONS

ROW CROPS

These crops are planted and harvested annually. They include grains and oilseeds.

Typically, row crop investments produce relatively steady income returns over time, and planting decisions can be made annually.

A number of row crops are used in the production of alternative fuels.

PERMANENT CROPS

Permanent crops, such as tree nuts, citrus and berries, have a long lifespan, typically 25 years or more. They mature three to seven years after planting, so there is usually a lag between investment and realisation of returns.

Roughly 40% to 70% of the value of the investment is above the ground in the form of a tree or vine.

These crops historically have delivered higher average income returns than row crops, but they also have experienced higher volatility on a year-to-year basis.

NATURE-BASED SOLUTIONS

These are investments in the conservation, restoration and sustainable management of ecosystems that protect or increase ecosystem services, like carbon storage, water security or biodiversity improvements.

In the context of farmland, this is achieved through regenerative land management by decreasing synthetic input use and managing soil health, while maintaining crop yield potential. Additionally, protecting and enhancing biodiversity of set-aside areas adjacent to cropland offers opportunities to fight the biodiversity loss crisis.

1. INTRODUCTION: ROLE AND SIGNIFICANCE OF FARMLAND

Land is the foundation of our global agrifood systems, supporting over 95% of food production while providing essential ecosystem services that sustain life on Earth[5]. As a finite resource, it faces unprecedented pressures from competing demands including urban expansion, biofuel production and changing consumption patterns driven by rising incomes and shifting diets.

As a critical resource, farmland underpins not only food security but also biodiversity conservation, climate regulation and the livelihoods of 892 million agricultural workers globally. It spans about 4.8 billion hectares worldwide[6].

The UN Food and Agriculture Organisation (FAO) estimates that by 2034 the world will need to produce about 14% more food to feed the population[7]. Yet, the land base is finite and under pressure. In fact, farmland per capita has been declining steadily as population grows, and productive farmland is being lost to urbanisation, soil degradation and climate change. This imbalance elevates farmland's strategic value: it is a scarce, irreplaceable resource. Ensuring sufficient farmland and sustainable production on it are critical not just for humanitarian reasons, but also for geopolitical stability – as seen when supply shocks or export bans cause price spikes.

5 FAO, The State of Food and Agriculture, (2025)

6 FAO, The State of Food and Agriculture, (2025)

7 OECD-FAO Agricultural Outlook 2025-2034, (2025)

Europe's farms are diverse, yet predominantly small-scale and family-owned (around nine million farms, 93% of them family-run) [8]. This traditional ownership structure underscores farmland's significance socially and economically. Looking ahead, it also indicates a possible opportunity for professional investors to contribute to and support the sector.

European farmland tends to be intensively managed and highly productive, yet the continent still relies on global markets for certain commodities. The war in Ukraine – a key 'breadbasket' region – underscored farmland's significance when the conflict disrupted grain exports and sent food prices higher worldwide. The incident highlighted that maintaining and investing in domestic farmland resources is vital for food security and inflation control.

The European Union's Common Agricultural Policy (CAP) explicitly supports farms' incomes, rural development and food supply stability. Today, the EU spends nearly one-third of its budget on agriculture (CAP subsidies), reflecting how strategically important farmland is to the region.

In the wake of the 2008 Global Financial Crisis, investors began seeking tangible, resilient, real assets that could withstand market turmoil. Farmland's resilience during the 2008–2009 crisis became a turning point – while global equities lost roughly half their value, farmland values in the United States, Europe and other parts of the world saw an increase during that same period. This stark contrast proved that farmland returns were largely uncorrelated to stock market swings, rooted instead in underlying food demand and biological production cycles.

Farmland also provides many ecosystem services well beyond food production and serves as habitats for many species. Sustainably managed farmland can therefore not only deliver long-term food security by ensuring healthy and fertile lands; is also vital in combating climate change and biodiversity loss.

Today, farmland's profile as an investment is rising. Large pension funds and insurance companies have begun allocating capital to agriculture, either through direct acquisitions or specialised farmland funds. The asset class is benefiting from several macroeconomic tailwinds:

- Increased global food demand
- Growing interest in real assets as inflation hedges, and
- A strong push for sustainable investments that align with the United Nation's Sustainable Development Goals (SDGs), where farmland can play a key role.

European institutional investors in particular are examining farmland in the context of 'natural capital' strategies alongside forestry and other nature-based solutions, such as the restoration of ecosystems.

8 FAO, The State of Food and Agriculture, (2025)

2. FARMLAND FUNDAMENTALS: ROLE OF CAPITAL, SUPPLY, DEMAND AND TRENDS

Farmland is one of the largest real asset classes globally by value. Estimates of total global farmland value run into the tens of trillions of dollars. However, only a fraction of that is currently investable in a practical sense.

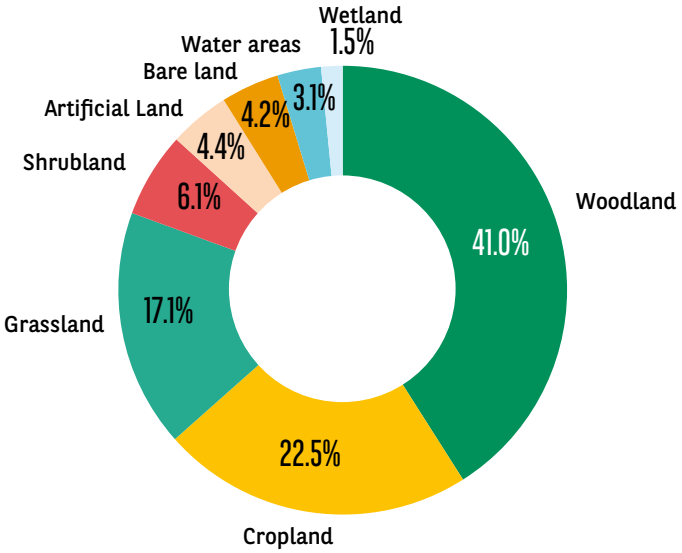
The vast majority of the world's world's roughly 4.8 billion hectares of farmland[9] is held by smallholders, family owners or government entities, and is not actively traded on an open market. This means the investable universe (land parcels that can be acquired or invested in by institutional capital) is smaller, but it is growing as ownership structures slowly evolve and new investment vehicles emerge. Today, it is estimated that institutional investors have invested between US$100 to US$200 billion[10] in the asset class.

When looking at Europe's farmland market, it is fragmented by country, each with its own regulations and characteristics. Western Europe has higher land values than Central and Eastern European countries (such as Romania, Poland or the Baltics). Even so, the EU has seen the formation of farmland investment funds and aggregators, often partnering with local farm join up. Exhibit 1 presents the EU agricultural land area by category as of 2022 and shows that 22% of the total land area (i.e., arable land and permanent crops) sustains crop production in the EU. Forests cover more than one-third.

9 fao.org, Land statistics 2001–2022. Global, regional and country trends, (2024)

10 IWC, (November 2025)

Exhibit 1: EU land cover in 2022 (% of total area)



Source: Eurostat (online data code: lan_lcv_ovw).

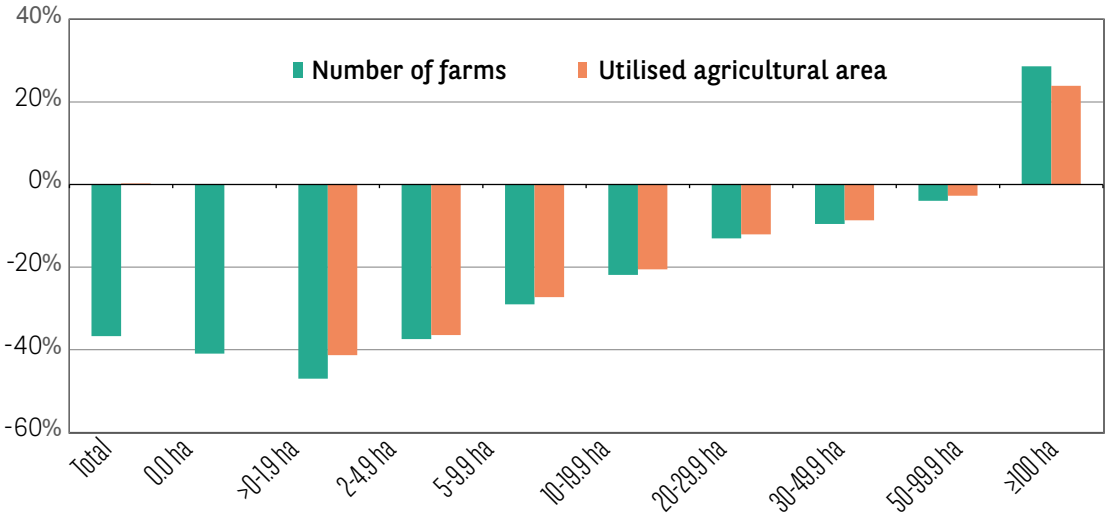
Farms are increasingly being consolidated across Europe's countries, enabling scale and efficien-cy. As can be seen in Exhibit 2, the number of farms in the EU declined by approximately 37% between 2005 and 2020, even as total farmland area remained constant (small decline in total arable area), indicating an expansion by larger family-run farming businesses.

In fact, companies holding more than 100 hectares have increased by more than 5% annually since 2005[11].

Consolidation can be largely attributed to a variety of economic factors, including technological advances, shifts in consumer preferences, retail and supply chain consolidation, and more vola-tile commodity markets affecting the profitability of farm operators. In other words, institutional investors are not increasing consolidation but, rather, are filling a void caused by the industry's structural changes.

11 FAO, The State of Food and Agriculture, (2025)

Exhibit 2: Change in the number of farms and utilised agricultural area by farm size in Europe, 2005-2020



Source: Eurostat, Farms and farmland in the European Union (2022).

With more land changing ownership from retiring farmers or government holdings to new owners, and with new structures being created to allow investor participation without outright land sales – for instance, sale-leaseback arrangements or partnerships – the investable universe for institutional capital is expanding.

In understanding this trend and its development, it is clear that institutional capital can play a significant role in the evolving farmland ownership landscape, providing farming operations with alternative capital to drive their expansion.

Continued agriculture technological advancements will keep improving productivity and sustainability, thereby raising the earnings potential of land and ensuring long-term food security. Technology could also unlock previously unproductive marginal land (e.g., better drought-tolerant seeds making semi-arid land productive). While taking some time, this factor is generally positive for farmland owners.

Moreover, technology allows new business models, e.g., data monetisation (some companies pay farmers for field data, or to install digital sensors). Improving yields may also reduce the conversion of nature areas into arable lands, thereby reducing the pressure on habitats and local ecosystems.

One trend we have seen in the market for some time now – and one we believe is likely to continue – is vertical integration. Grocery retailers are adapting to this new environment and many are considering downstream integration, which has resulted in several merger and acquisition (M&A) deals involving European grocers buying supplier companies. This trend can be expected to continue to flourish.

By controlling various stages of the supply chain, companies can reduce costs associated with distribution and improve their ability to respond to changes in consumer demand. In today's world where data is important, vertical integration is a step toward harnessing more data.

Instead of sourcing their products from multiple suppliers, supermarkets are looking to work closely with integrated farming businesses to streamline their operations by taking direct ownership in various stages of the production process, rather than relying on external contractors or suppliers. Vertical integration not only allows for greater negotiating power with suppliers and buyers, but also generally improves access to credit and capital.

Simultaneously, grocers are looking to secure climate change resilience in their value chains and meet consumer demand for sustainably produced foods. We believe this makes a strong case for investors to commit to consolidated, sustainably managed agricultural assets so as to make the most of economies of scale and control.

A. THE ROLE OF PRIVATE CAPITAL IN FARMLAND

First of all, private capital can be instrumental in shifting unsustainable land-use practices towards more environmentally friendly outcomes (carbon, biodiversity and social improvements) and build long-term resilience. Institutional investors can thus now play a crucial role in facilitating the transition to a more sustainable agriculture.

Investing in sustainably managed farmland can provide solutions to challenges associated with current food production systems, align agriculture with the SDGs, and help achieve planetary health diets for all people – as we will see in section 4.

One of the most topical ecosystem services provided by land-based investments is climate regulation, driven by the natural ability of soils to sequester and store carbon in biomass and organic matter. For example, investments in sustainably managed farmland have the potential to safeguard existing carbon stocks and increase long-term carbon storage.

Reducing emissions from agriculture and land use is another way investment can contribute to climate change mitigation. Agriculture and the land use sector directly account for about 11% of carbon emissions in Europe[12]. Investing in sustainable, regenerative agriculture has the potential to cut emissions by reducing the use of synthetic fertiliser, as well as transitioning to renewable energy sources for operations.

Secondly, private capital is – and will likely continue to be – vital to answering the structural generational challenge the agricultural industry is facing today. Indeed, only 12% of all farm holdings in the European Union are run by farmers under the age of 40[13], and persuading more young people to begin farming is a significant challenge.

There is support from the EU CAP to encourage young people into farming via start-up grants, income support and benefits such as additional training. However, this is not always enough. Private capital can provide liquidity for retiring farmers and facilitate access to land for new entrants. As intergenerational transfers take place, with institutional capital buying the land from retiring farmers, new owners can lease the land and thereby get local scale without having the land weighing on their balance sheet. Supporting the next generation of European farmers not only enhances the future competitiveness of EU agriculture, it also helps guarantee Europe's food supplies for years to come.

12 European Commission, Tackling climate change, (2019)

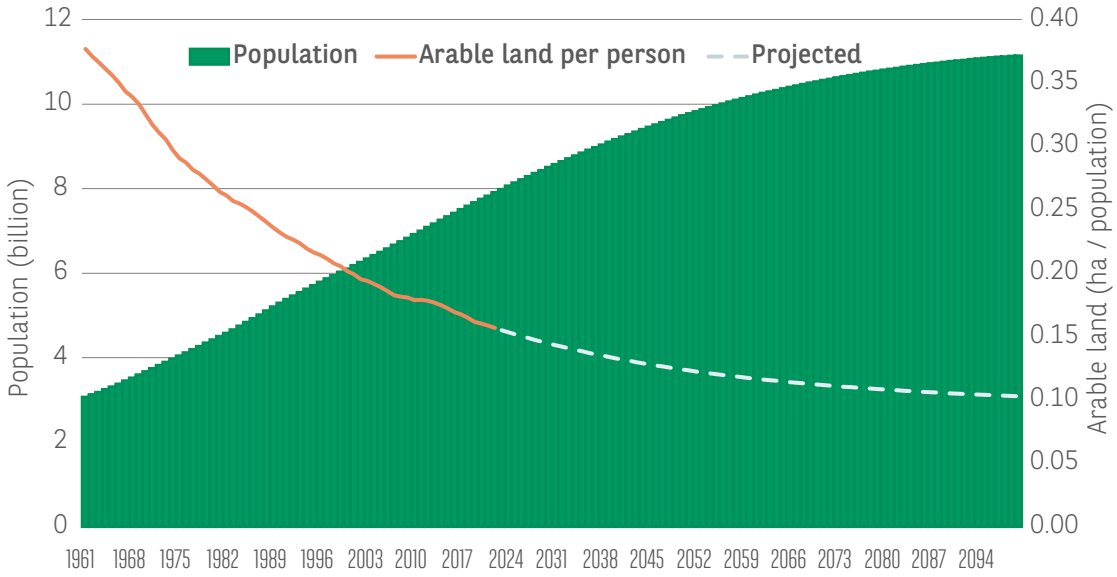
13 Eurostat. Farmers and the Agricultural labour force, (2022)

B: DEMAND IS INCREASING

As populations grow and farmland availability per-capita decreases (see Exhibit 3 below), demand will continue to expand over the coming decades. While population growth alone will drive demand for agricultural commodities, changes in diets in developing countries driven by per-capita income growth will further compound demand by shifting consumption patterns towards foodstuffs that, all else being equal, require more land to produce the same quantity of food.

According to the World Bank, the global population will grow from 8.2 billion in 2025 to 8.6 billion in 2030 and more than 9.6 billion people in 2050[14]. To feed these extra mouths, it is predicted that demand for agricultural products will rise significantly. For example, the FAO projects that global demand for cereals, the most fundamental agricultural food staple, will rise by 11% by 2034[15].

Exhibit 3: Global population vs. arable land projections



Sources: Food and Agriculture Organization of the United Nations (FAO).

In addition, economic expansion in developing countries has led to the emergence and rapid expansion of the middle class and associated changes in consumption patterns. Examples include the spread of westernised diets and consumption trends which will continue fuelling demand for a wider range of agricultural products including fruit, tree nuts and grain to feed more livestock.

Regarding the latter, the average land area needed to produce one unit of beef protein is roughly 100 times that of cereal, and global per capita consumption of meat and fish is expected to grow by 3% annually over the next decade[16]. The strong correlation between income levels and protein consumption is shown in Exhibit 4 below.

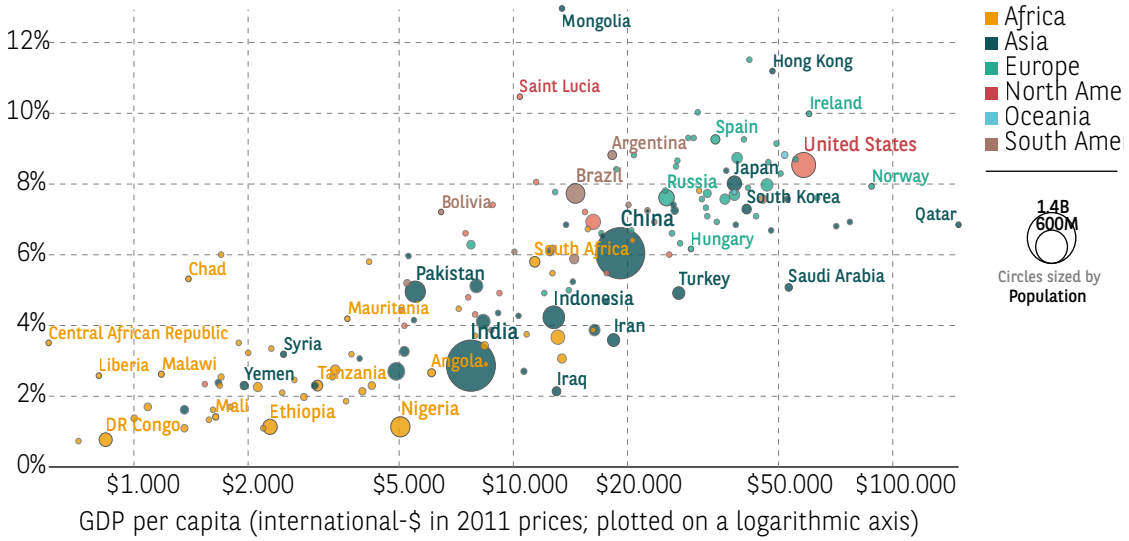
14 World Bank (2025) World Population Day: trends and demographic changes

15 OECD-FAO Agricultural Outlook 2025-2034, (2025)

16 Data, O. W. (2024). Land Use. Our World in Data

Exhibit 4: Share of calories from animal protein vs. GDP per capita, 2022

Share of calorie supply in the average diet sourced from animal protein (which includes meat, seafood, eggs and dairy products), measured as the percentage of daily calorie supply, versus GDP per capita, adjusted for inflation and for differences in living costs between countries.

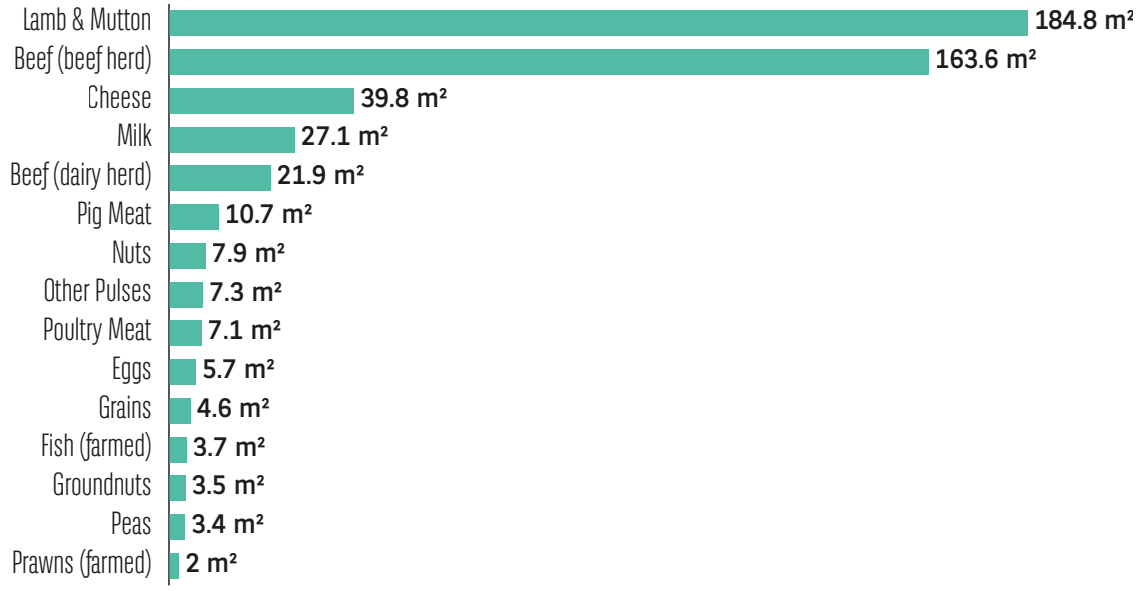


Source: Our World in Data; World Bank – WDI; UN FAO.

This increase in consumption is driving primary demand for agricultural commodities, and in turn also driving demand for arable inputs (see Exhibit 5 below).

Exhibit 5: Land use per 100 grams of protein

Land use is measured in squared meters (m²) per year to produce 100 grams of protein across various food products.

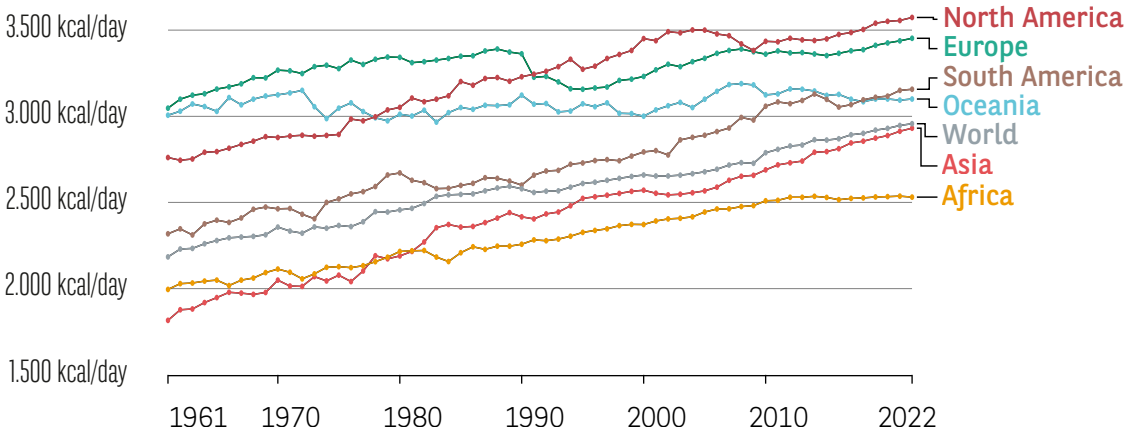


Source: Our World in Data; World Bank – WDI; UN FAO.

While there has already been a substantial increase in consumption of animal products and per capita calorie intake worldwide, and although developed countries may be slowing their meat consumption, by 2050, the average global daily food consumption is expected to be 3,070 kcal per person, versus 2,745 kcal today, led by further increases in developing countries[17].

Exhibit 6: Food energy supply by region

Quantity that is available for consumption at the end of the supply chain. It does not account for consumer waste, so the quantity that is actually consumed may be lower. This is the total of all agricultural produce, both crops and livestock.



Source: Our World in Data; World Bank – WDI; UN FAO.

The challenge in meeting the increase in demand for food production is exacerbated by competition for foodstuffs to support global biofuel production. Many countries now have targets or mandates in place for biofuel usage. By 2050, delivering against these targets could mean commandeering a substantial proportion of today's cereal production.

Simultaneously, the demand for sustainably sourced foods such as organic labelled and regenerative branding is increasing amongst western consumers[18]. Combined with an increased demand for local nature preservation, this further increases the pressure on farmland and underlines its long-term value.

17 Data, O. W. (2024). Land Use. Our World in Data

18 McKinsey. (2023). Consumers care about sustainability—and back it up with their wallets

C: SUPPLY IS BECOMING INCREASINGLY CONSTRAINED

Amid a backdrop of multi-faceted growth in global demand for agricultural goods, the supply side of the equation also faces challenges and constraints. The result is a supply-demand imbalance that stands to financially benefit well-positioned long-term investors in the agricultural supply chain.

The EU will likely remain self-sufficient in most agricultural products and able to generate surpluses which contribute to the global food supply, in particular that of wheat. However, the EU is still far from being self-sufficient for products such as tropical fruit, nuts, oilseeds and soya beans, although some improvements are expected[19].

Although the EU is self-sufficient in some crops, the region is challenged by similar constraints seen elsewhere globally:

- Overall finite availability of uncultivated arable land
- Loss of arable land to alternative uses
- Increasing volatility of supply due to climatic shifts and corresponding weather events.

The FAO forecasts that meeting projected demand will require growth in production of ~50% by 2050[20]. However, land is becoming an increasingly scarce resource. Globally, there is now half the arable land per-capita versus 40 years ago[21], as a result of population growth, increased urbanisation, industrialisation, loss of organic carbon, salinisation and climate change. The quality of arable land is also declining, with one-third of the world's soils now considered degraded[22].

With populations continuing to grow, the natural resources required to support agricultural production are also becoming increasingly constrained. For example, food production is highly dependent on predictable rainfall patterns and the resilience of water sheds and river systems. Farms account for 70% of total global water consumption, of which 40% is lost to the environment due to poor irrigation and poor water management. In the EU, farming accounts for approximately 60% of water use, a number that has been dropping since 1990, mainly due to efficiency gains[23].

19 European Commission, (2022). EU AGRICULTURAL OUTLOOK
20 FAO, The future of food and agriculture, (2022)
21 Data, O. W. (2024). Land Use. Our World in Data.
22 FAO, The State of Food and Agriculture, (2025)
23 European Environmental Agency: Water and agriculture: towards sustainable solutions, (2020)

3. FARMLAND AS AN ASSET CLASS: KEY FEATURES OF FARMLAND INVESTMENTS

Farmland has transitioned from being viewed purely as a productive resource for farmers to being recognised as a financial asset for institutional investors with distinct investment characteristics, and by nations as a natural resource providing food security.

In many ways, farmland exhibits traits of both real estate and commodities: the land itself is a real asset, while its outputs (crops/livestock) tie it to commodity markets. This unique nature gives farmland a combination of income generation, capital growth and inflation sensitivity that can enhance multi-asset portfolios. Combining this with a strategy that targets positive impacts on nature makes farmland a unique and strategically valuable asset.

There is a range of additional factors that can supplement farmland returns:

- Investors can harvest value gains from upgrading farmland or from introducing new higher value crops, such as converting fields to orchards.
- Supplementary revenue can be obtained from renewable energy projects on farmland (e.g., leasing a portion of land for solar panels or wind turbines).
- The market for carbon credits – though still embryonic – has grown substantially over recent years, potentially offering an additional income stream for soil carbon sequestration from climate-friendly farming practices.

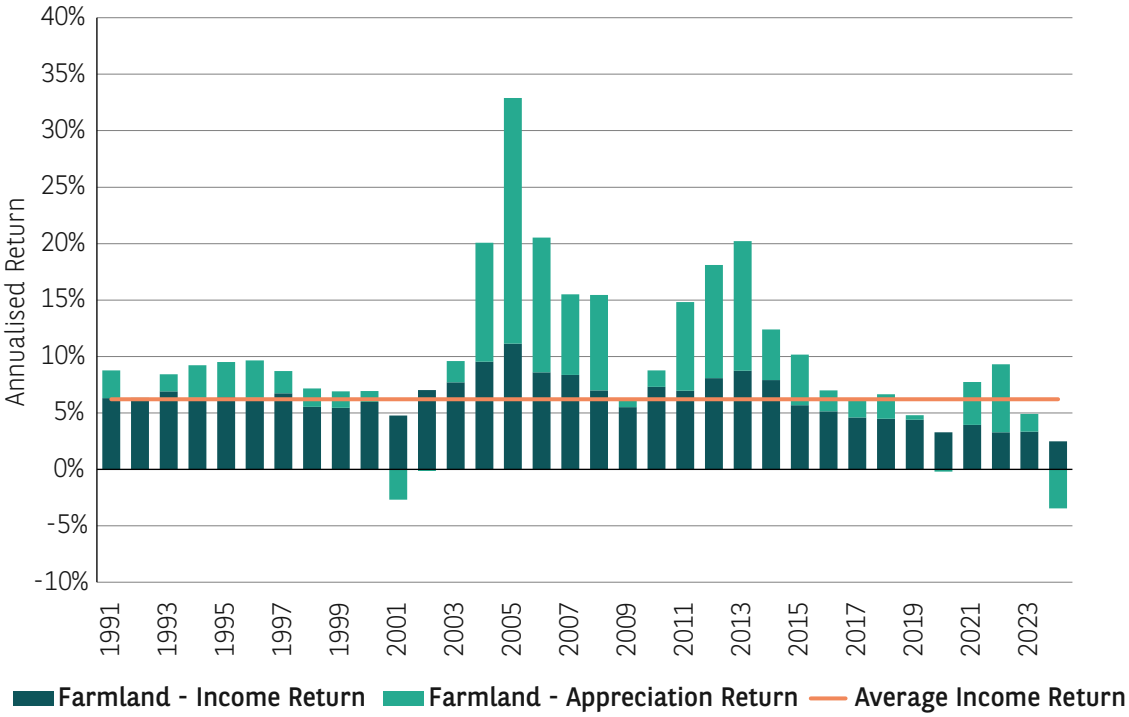
These alternative revenues, while smaller, can enhance cash yield and bolster total returns.

Income return and capital appreciation

Since 2000, the benchmark for the asset class – the NCREIF Farmland Property Index[24], which tracks the total performance of US farmland with both row and permanent crops, has more than tripled. Farmland values, in particular, have seen steady growth since 2008, with significant jumps from 2010 through 2014.

As illustrated in Exhibit 7, US farmland investments have historically generated an attractive total annual return, including relatively strong income return from both leases and operating cash flows. The annual cash yield depends on the crop type.

Exhibit 7: NCREIF farmland index – income and capital appreciation (1991-2024)



Sources: Bloomberg and NCREIF Farmland Property Index (2024).

Although more volatile when compared to annual income, capital appreciation has historically been a significant component of total farmland return due to supply-demand imbalance, commodity price movements, and, occasionally, discount rate compression in asset valuations.

24 NCREIF: National Council of Real Estate Investment Fiduciaries; The NCREIF Farmland Property Index is a quarterly benchmark that measures the investment performance of a large portfolio of privately-owned farmland properties in the United States. The index is the sole well-documented benchmark for the performance of farmland investments and is widely used by pension funds, insurance companies, farmland managers, consultants and asset allocators. While it only includes properties in the United States, we believe it to be a relevant benchmark for farmland in other mature markets and a key resource for understanding farmland as an investment asset class, providing insights into trends, income and appreciation across different regions and crop types.

Similar values seen in NCREIF data (US only) can be expected for Europe, meaning that European farmland has the potential to provide bond-like income from contractual leases and selling commodities, and long-term capital appreciation from rising land values to help meet future liabilities.

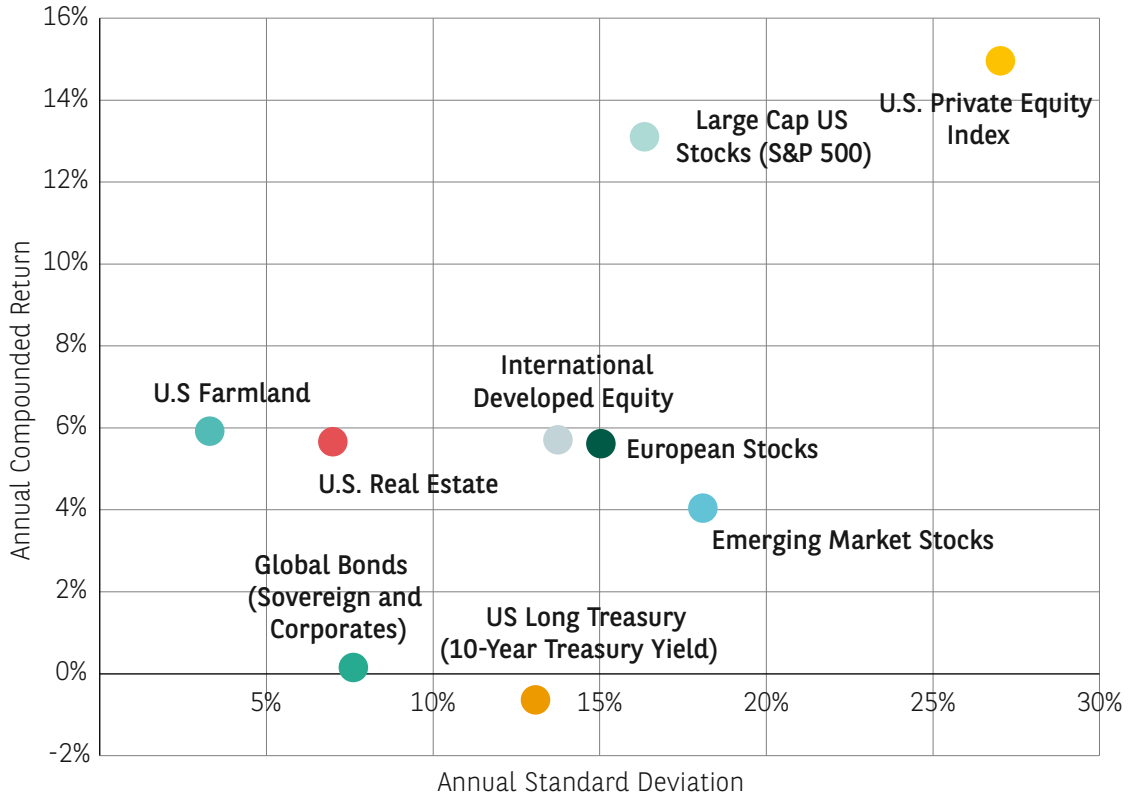
Farmland has consistently performed well during periods of high market volatility. Its value is underpinned by farmland's crucial role in the economy: the need to feed a growing population.

Long-term investors could expect to benefit from potential continued capital appreciation, arising mainly from productivity gains through enhanced property management practices and the use of improved crop varieties. In addition, national food security policies could have a positive impact on supply patterns, which in turn could put upward pressure on commodity prices and underlying land values.

Attractive risk-adjusted returns

Core US farmland has historically offered attractive risk-adjusted returns compared to other asset classes. Exhibit 8 illustrates this point by presenting the risk-return profile of farmland versus other asset classes. Of particular note is that farmland returns have historically delivered average returns while displaying low volatility.

Exhibit 8: Risk vs. return across asset classes (2015-2024)

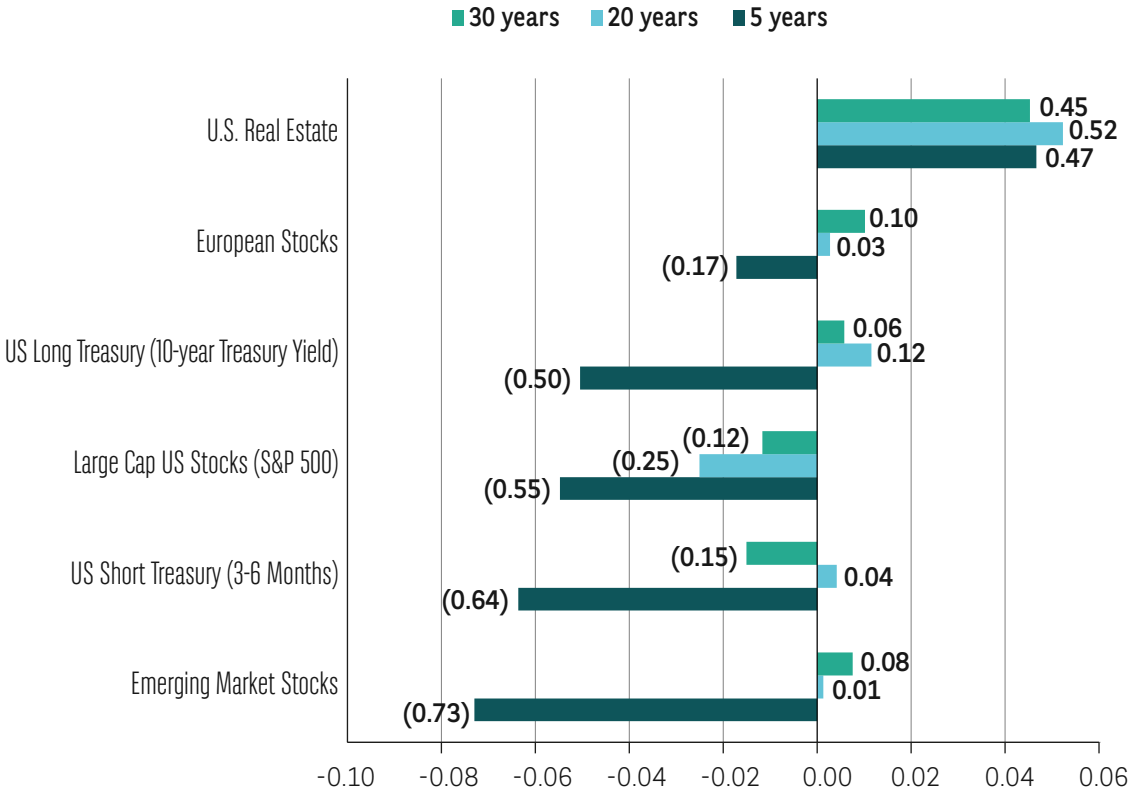


Sources: Bloomberg and NCREIF Farmland Property Index, (2024).

Low correlation to traditional asset classes

In addition to attractive risk-adjusted returns, farmland investments offer low correlation with most other major asset classes. This is largely due to the non-financial nature of farmland, as returns are predominantly driven by agricultural crop prices that are independent of financial markets. Consequently, the addition of farmland to an investment portfolio provides diversification benefits. Exhibit 9 shows the historical correlations between the NCREIF Farmland Property Index and other major benchmarks. Looking ahead, correlations with other asset classes are expected to stay low as cashflow and capital preservation drive long-term institutional farmland investments.

Exhibit 9: Farmland - correlation with other asset classes

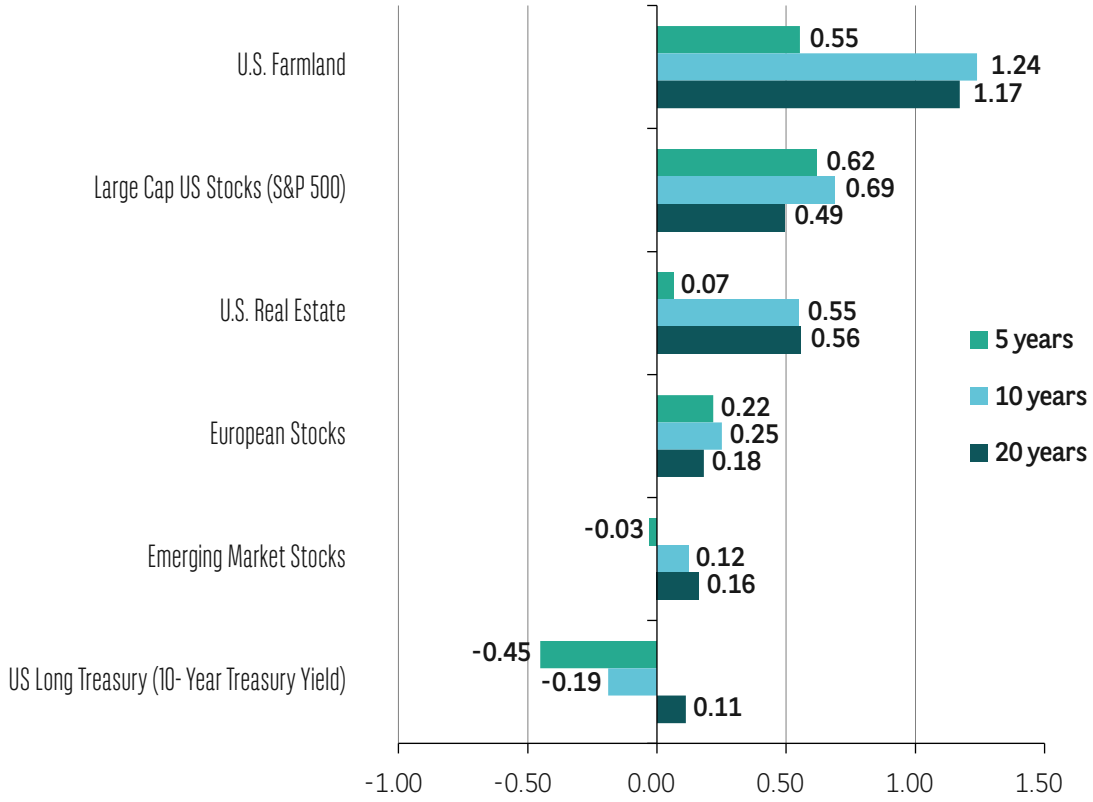


Sources: Bloomberg and NCREIF Farmland Property Index, (2024).

Farmland also offers a unique advantage in that diversification can be expanded across different crops, allowing investors to capture regional price differences and dietary trends.

Furthermore, the Sharpe ratio has been calculated for each asset class over three distinct periods of time – five, 10 and 20 years. As shown in Exhibit 10, farmland stands out for having the most positive effect on the risk-adjusted return when added to a portfolio for any time period.

Exhibit 10: Sharpe ratio comparison across asset classes over time (risk-free rate: 3-6 months)



Sources: Bloomberg and NCREIF Farmland Property Index (2024).

Inflation hedge and real return

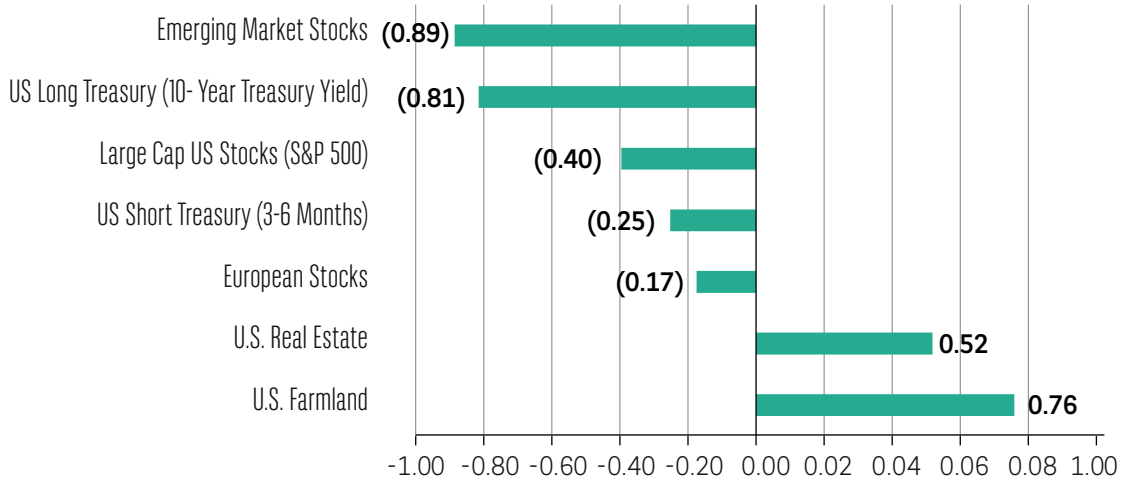
Farmland provides a strong hedge against inflation for two reasons:

i) Long-term returns have outpaced the inflation rate

ii) Many commodities are components of inflation measurements, such as the Consumer Price Index (CPI). Thus, when inflation rises, commodity prices also tend to go up. Driven by global demand trends, rising commodity prices increase the profitability of farmland, also causing land values to rise and providing both a short and long-term hedge against inflation.

Exhibit 11 shows that the correlation of inflation and US farmland over the last five years – when inflation was high – was the highest among the different asset classes analysed.

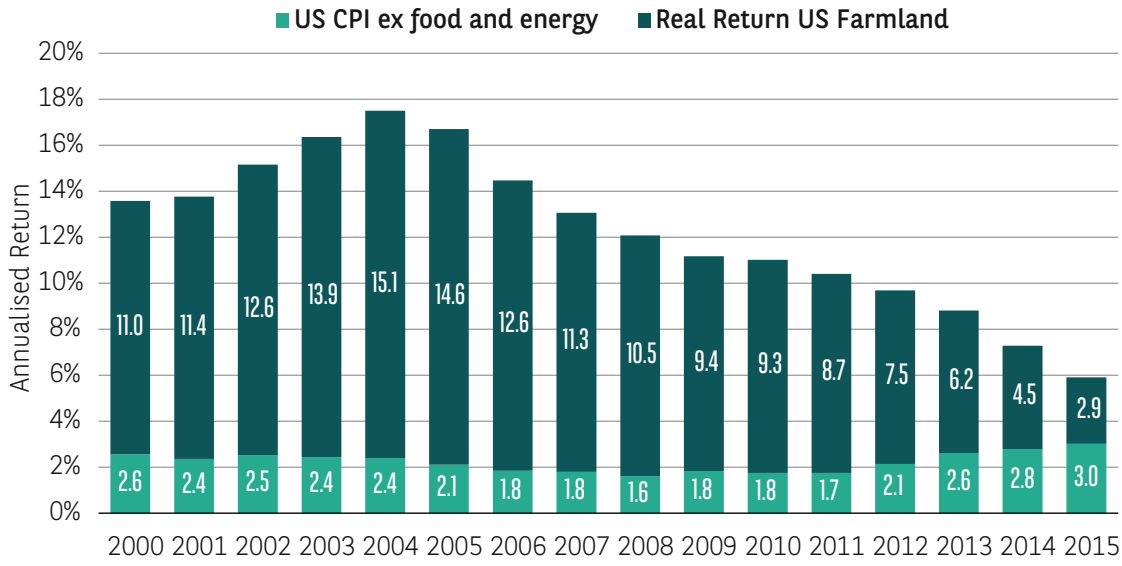
Exhibit 11: How core inflation correlates with different asset classes - the 5 years correlation



Sources: Bloomberg and NCREIF Farmland Property Index (2024).

Looking across 10-year investment windows starting from 2000, Exhibit 12 shows that – no matter which vintage a farmland investor chose – maintaining a farmland position for a decade resulted in a positive real return, underscoring farmland's strong value preservation properties.

Exhibit 12: 10-year farmland real returns by vintage



Sources: Bloomberg and NCREIF Farmland Property Index (2024).

The asset class contains various sub-segments (e.g., numerous row crops and permanent crops, different geographies) whose performance may not move in lockstep.

For instance, in recent years, US annual row crop farmland (growing staples like corn, wheat, soy, etc.) continued to appreciate due to high grain prices, while some permanent crop farmland (e.g. almond orchards) saw value declines due to oversupply and water scarcity issues[25]. This can be seen in Exhibit 13 below. A well-diversified farmland portfolio across crop types and regions can therefore internally mitigate risk – when one segment underperforms, another may outperform, smoothing total returns in a diversified portfolio in farmland.

Exhibit 13: Changes in farmland returns arising from different US crops (2003-2024)

Row crop (annually) | Citrus | Apples | Wine Grapes | Almonds | Pistachios

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
43%	36%	91%	39%	39%	35%	23%	32%	41%	31%	50%
22%	29%	64%	33%	23%	21%	9%	15%	19%	27%	45%
9%	26%	33%	18%	21%	19%	7%	9%	15%	18%	22%
7%	17%	24%	16%	17%	16%	4%	2%	13%	17%	17%
-1%	9%	20%	14%	9%	3%	2%	-2%	9%	16%	15%
-7%	5%	-17%	13%	5%	-1%	-9%	-4%	3%	14%	14%

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
39%	37%	15%	14%	13%	11%	15%	11%	14%	10%	6%
34%	20%	14%	11%	13%	10%	4%	9%	5%	5%	-1%
15%	13%	14%	5%	8%	8%	3%	4%	4%	3%	-6%
12%	12%	8%	5%	6%	4%	-1%	1%	3%	-1%	-9%
11%	5%	5%	3%	3%	2%	-3%	1%	3%	-6%	-16%
6%	-7%	4%	0%	-7%	0%	-7%	-4%	-2%	-15%	-16%

Source: NCREIF Farmland Property Index (2024).

The benefits of including farmland in an institutional portfolio

Exhibit 14 presents an illustrative case study to show that including farmland in an already well-diversified institutional investment portfolio can improve its risk-return profile, both from an economic and a regulatory perspective. This is mainly due to the attractive risk-return profile of the asset class itself, in conjunction with diversifying properties, i.e., a low correlation with the more traditional asset classes.

This is illustrated in the tables below, which show BNP Paribas Asset Management's forward-looking capital market assumptions for a range of asset classes over a 10-year investment horizon. Farmland investments are expected to continue to have an attractive risk-adjusted return, resulting in a relatively attractive Sharpe ratio.

25 Capital, A. (2025). Summary of the NCREIF Farmland Index. State of Returns.

Exhibit 14: Expected return, standard deviation, Sharpe ratio, SCR*, and ER/SCR for farmland and other asset classes over the next decade

Investment horizon: 10 years	Return [ER]	St. Dev.	Sharpe ratio	SCR*	ER/SCR
Cash EUR	1.2%	0.5%	0.00	0.0%	
Bond EUR Sovereign	4.2%	5.5%	0.54	8.0%	52.7%
Bond EUR Investment Grade	3.7%	4.9%	0.50	9.8%	37.9%
Bond EUR High Yield	4.4%	7.1%	0.45	16.3%	27.0%
Equity Global Developed Countries	4.0%	13.7%	0.20	45.9%	8.7%
Real Estate Listed Global	6.6%	16.8%	0.32	45.7%	14.5%
Farmland	6.9%	12.6%	0.45	25.0%	27.7%

*Solvency Capital Requirement: the regulatory capital for European insurance companies; Farmland falls in the property-module. All risk and return numbers assume the foreign currency risk is hedged to EUR. Source: BNPP Asset Management (November 2025).

Exhibit 15 shows that the correlation of farmland with the more traditional asset classes is also expected to continue to be low over the next 10-year period.

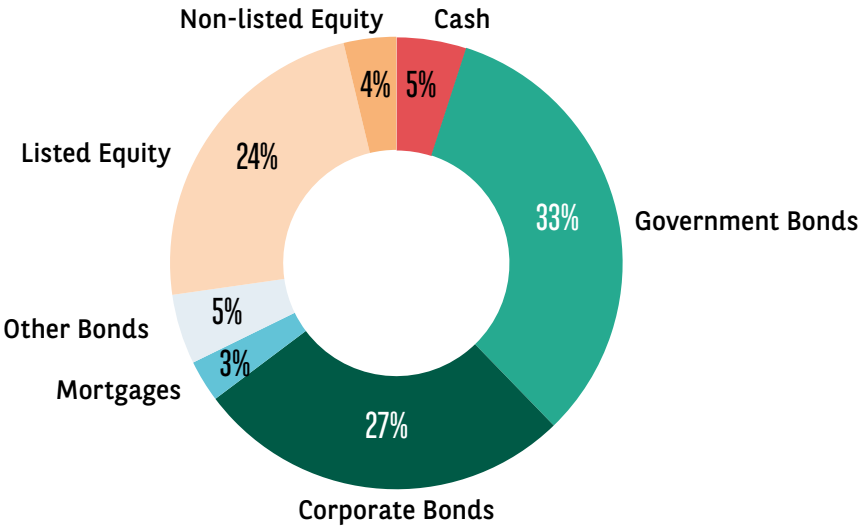
Exhibit 15: Correlation of farmland with other asset classes over the next decade

Correlation matrix	Cash EUR	Bond EUR Sovereign	Bond EUR Investment Grade	Bond EUR High Yield	Equity Global Developed Countries	Real Estate Listed Global	Farmland
Cash EUR	100%						
Bond EUR Sovereign	-3%	100%					
Bond EUR Investment Grade	-4%	68%	100%				
Bond EUR High Yield	0%	9%	64%	100%			
Equity Global Developed Countries	10%	-12%	28%	70%	100%		
Real Estate Listed Global	4%	21%	45%	56%	63%	100%	
Farmland	0%	-4%	-8%	-9%	-9%	-8%	100%

Source: BNP Paribas Asset Management (November 2025).

Our starting point for the analysis in a multi-asset context is the allocation illustrated in Exhibit 16, which is already well diversified over a range of asset classes.

Exhibit 16: Illustrative multi-asset allocation

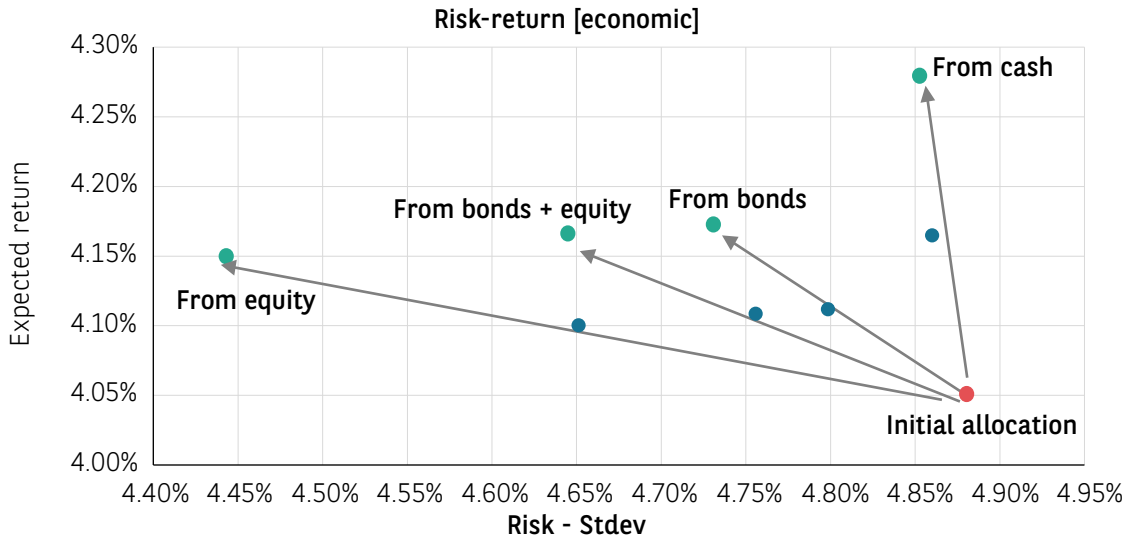


Source: BNP Paribas Asset Management (November 2025).

Based on the capital assumptions mentioned earlier, this illustrative allocation has an expected return of 4.05% with a standard deviation of 4.88%. The solvency capital charge of this portfolio is approximately 14.8%, i.e., higher than for bonds, but lower than for equity.

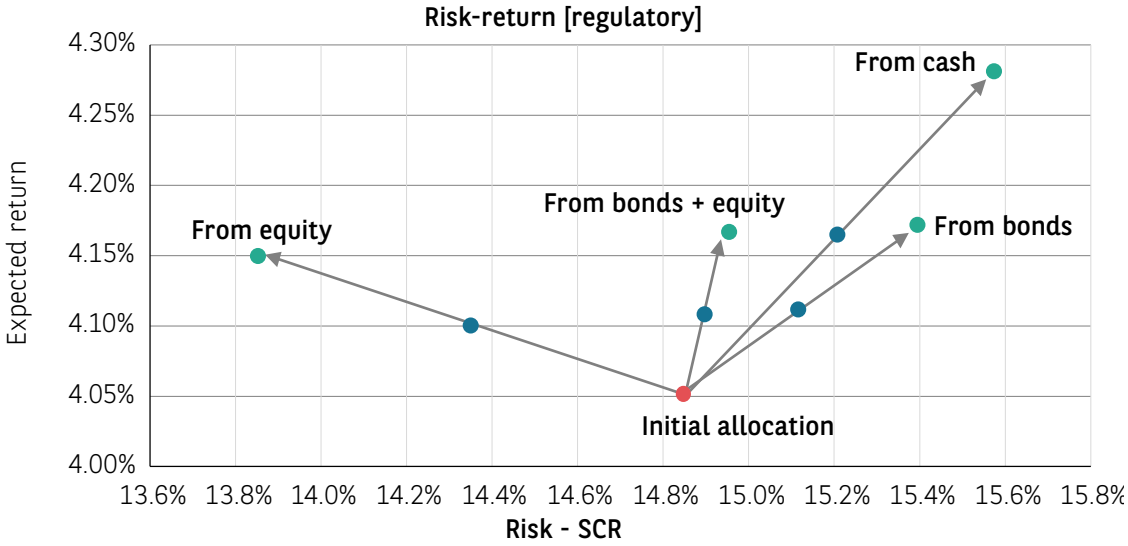
Exhibits 17a and 17b show the change in the respective economic and regulatory risk-return profile when adding 2% (blue dots) or 4% (green dots) of farmland to this allocation financed from different sources.

Exhibit 17a: Change in economic risk-return profile by adding farmland



Source: BNP Paribas Asset Management (November 2025).

Exhibit 17b: Change in regulatory risk-return profile by adding farmland



Source: BNP Paribas Asset Management (November 2025).

From these graphs, we can conclude that financing an allocation to farmland from:

- **Cash / bonds:**
  - Improves the return potential
  - Leads to a comparable or slightly lower economic risk
  - Increases regulatory risk.

- **Equity:**
  - Results in a higher return potential
  - Reduces risk from both an economic and regulatory perspective.

- **A combination of equity and bonds:**
  - Allows for the calibration of the risk-return profile of the asset allocation to the desired level, which is superior to the risk-return profile of the initial allocation.

We believe this case study clearly demonstrates, from a pure financial standpoint, that including farmland in an already well-diversified institutional portfolio can improve its efficiency from the risk, return and regulatory perspectives.

Accessing farmland: Direct ownership, funds, etc.

Investors can gain exposure to farmland in several ways. Each has its own advantages, drawbacks and degree of suitability depending on the investor's specific resources and expertise. The main investment vehicles for farmland include:

	Direct ownership	Separate managed account (SMA)	Co-mingled fund
Description	Direct acquisition and ownership of farmland assets, which can be managed by own management staff or outsourced to a third party.	Land is purchased and managed by a professional asset manager, exclusively on the investor's behalf.	Co-mingled funds allowing multiple investors to participate in a relatively large, diversified portfolio of farmland assets, offered and managed by a professional asset manager. These can be closed-ended or open-ended (evergreen).
Characteristics	Direct investment allows for full control of the land and its resources but requires significant capital and strong expertise in farmland. Relatively low level of diversification; typically several properties purchased	SMAs allow investors to build a tailored portfolio of directly-owned properties with a high level of control and flexibility. However, the level of diversification may be relatively low if the size of the SMA is not above a certain threshold.	Co-mingled funds give investors limited control over the assets but offer the advantage of critical mass in buying properties of scale and attaining a broader diversification of holdings. This can give exposure to different crops, geographies and operating strategies.

Source: International Woodland Company, December 2025 / BNP Paribas Asset Management.

Co-investment opportunities alongside fund investments and secondary deals are also sometimes available. However, such deals are scarce, as are fund-of-funds and fund-of-separate accounts, which are generally an easy way for smaller and/or first-time investors to quickly obtain a diversified allocation to farmland.

The range of available vehicles means investors can choose based on their own objectives, preferences and restrictions. As examples, a pension fund new to farmland might prefer a closed-ended fund with a number of likeminded investors for simplicity, whereas a more seasoned real asset investor might look for direct or separately managed account access to increase control and flexibility.

4. AGRICULTURE'S PLACE IN SUSTAINABLE INVESTING

Farmland sits at the intersection of some of the most pressing environmental and social issues of our time: climate change, biodiversity loss, water scarcity, rural community viability, human health and, of course, food security[26]. As such, farmland investments present an environmental, social and governance (ESG) risk, requiring a strategy that takes such factors into account. However, farmland also offers investors a direct avenue to promote the UN Sustainable Development Goals.

A: FARMING AS A CLIMATE SOLUTION

Farming accounts for roughly 30% of global greenhouse gas (GHG) emissions stemming from land use change, methane from livestock, nitrous oxide from soils primarily due to fertiliser application[27]. Within the EU, agriculture accounts for 11% of overall GHG emissions, yet remains one of the largest emitting sectors within the bloc[28].

Agriculture is implicated in the climate crisis at two levels: As an industry, it is a major contributor to climate change and future climate risk scenarios, while individual farms are on the frontline of climate impacts such as droughts, floods and shifting weather patterns that threaten yields.

26 The EAT–*Lancet* Commission on healthy, sustainable, and just food systems (2025)

27 FAO. (2024). *Greenhouse gas emissions form agrifood systems.* Retrieved from https://openknowledge.fao.org/handle/20.500.14283/cd3167en

28 European Environment Agency. (2024). *Annual European Union greenhouse gas inventory 1990–2022 and inventory document 2024*

Investing in farmland with a focus on sustainability can help drive the adoption of practices that reduce emissions and increase resilience. Hence, sustainable farming can be part of the climate solution, in line with UN Sustainable Development Goal #13 (Climate Action).

Techniques such as crop rotation, reduced tilling, cover cropping and improved fertiliser management can significantly cut emissions and sequester carbon in soils. Soil is an important carbon sink when managed well – increasing organic soil matter not only pulls CO_2 from the atmosphere, but also improves soil fertility and water retention (a win-win for climate and productivity).

From an adaptation perspective, farmland investments can fund measures that increase climate change resilience, for example:

- Installing efficient irrigation systems to deal with drought risk
- Shifting to more climate-tolerant crop varieties
- Restoring peatlands on farms.

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These adaptation solutions can protect the assets and the communities relying on them.

Effective farm management always takes into consideration the local conditions and environment in which the crops are grown. No two farms are the same, and as farming depends heavily on the weather, farmers must be agile in their management. A successful harvest requires a bespoke approach.

While this holds true for all farms, crop farming in Europe can generally be split into three different systems:

A. **Organic farming** – designed to seek to utilise natural processes and avoid artificial inputs such as crop protection chemicals and artificial nitrogen fertilisers. Also, for livestock farming, the animals needs to be outdoors for part of the year. While these restrictions lower the environmental pressure on the land and ecosystems, there is a significant trade-off in the form of increased farming risk as there are few tools to mitigate crop diseases and pests. This in turns leads to general lower yields and higher CO_2 emissions than other systems on a per calorie basis. Though there is a well-established and growing demand for organic labelled food in Europe, only about 10% of EU farmland is cultivated organically and much of this is on less productive land.

B. **Regenerative farming** – an outcome-based approach seeking to improve soil health, soil fertility, farmer income and ecosystem functions. While there is no consensus on an exact definition, regenerative farming is often associated with reduced soil disturbance (tilling), increased soil cover, application of bio-stimulants – in short, seeking to give back to the soil more than was taken. The benefits are twofold: the land's long-term productivity and value improve (healthy carbon rich soils maintain yield), and a potential revenue stream from carbon schemes or price premiums from buyers seeking this commodity source. One key trade-off is that when this system relies on reduced tillage, which is a form of mechanical weed control, farmers often have to rely more on chemical crop protection (pesticides). Overall, there is a growing momentum for regenerative farming, backed by numerous breweries and food processing companies.

C. **Conventional farming –** not one system, but a spectrum ranging from farms that rely heavily on intensive farming and artificial inputs to those that cherry-pick from organic and regenerative practices and use them in their own context. Best-in-class conventional farmers rely on thoughtful management practices and use existing technologies such as:

    - precision farming to reduce use of fertilisers and pesticides and ensure high yields
    - Artificial intelligence (AI) detection of pests and crop diseases to determine the right intervention
    - Drip irrigation systems on orchards
    - Integration with biogas plants (anaerobic fermentation) to use degassed manure as an alternative to artificial fertilisers which are a significant source of Scope 3 GHG emissions in agriculture.

The difference between 'regenerative' and 'conventional' or 'organic' is not universal, and organic farmers sometimes claim to belong to the regenerative family. In some regions, adopting regenerative principles requires a complete overhaul of local industrial methods. In others, it may simply repackage what many farmers have been doing for decades under a new, more marketable label.

B: ENHANCING FARMLAND'S ECOLOGICAL INTEGRITY

Farmland is home to a significant portion of Earth's biodiversity, with a large number of species living in various ecosystems worldwide. The exact number of species can vary based on factors such as the type of soil, location and ecological conditions.

While rural landscapes may not look like biodiversity hotspots, they serve as habitats for 15% of the International Union for Conservation of Nature's (IUCN) red list of threatened species in Europe.

Intensive agriculture has been a driver of biodiversity loss (through habitat conversion, pesticide use, monocultures) and soil degradation. Sustainable farmland management aims to reverse these trends. For example, establishing biodiversity corridors, planting hedgerows, preserving field margins and fallow areas, and reducing chemical use can turn farms into a sanctuary for wildlife, benefiting pollinators, birds and other species.

In fact, when managed and preserved well, many farms benefit from having natural ecosystems flowing through the land, including diverse species of plants and trees providing habitats for birds and insects, streams with fish and reptiles, etc. If we look at just one very well-known farmer ally – bats – some studies have estimated that they provide the service of protecting crops by eating insects, which is worth more than US$3.7 billion a year in the US, and possible far more[29].

In response, EU initiatives under the EU Green Deal – such as the Soil Strategy, Farm to Fork Strategy, and Biodiversity Strategy – have been initiated to promote biodiversity, climate resilience and sustainable food production. Specific laws, for instance the Nature Restoration Regulation which targets an increase of agricultural ecosystems, for example, are concrete outcomes of such strategies.

Taking a more global perspective, a nature-positive approach to farmland is a crucial and practical way to protect and restore life on land – directly supporting the UN Sustainable Development Goal #15 (Life on Land).

As previously mentioned, agriculture is the world's largest consumer of freshwater[30]. In places like Spain, water scarcity directly threatens farmland viability. Sustainable investment means prioritising water-efficient practices: drip irrigation, rainwater harvesting, advanced sensors to avoid overwatering, and choosing less water-intensive crops in arid regions. It also involves engagement with water policy – e.g., supporting sustainable groundwater management rules. As water becomes scarcer, sustainable farming investments could reduce water-related risks and strengthen long-term viability compared to investing in conventional farming.

29 https://www.usgs.gov/faqs/why-are-bats-important#publications

30 AQUASTAT. (n.d.). Retrieved from https://data.apps.fao.org/aquastat/?lang=en

C: CONTRIBUTION TO UN SDGS AND PLANETARY HEALTH DIETS

The way we practice agriculture also plays a vital role in providing healthy diets with less diet-related disease mortality, while simultaneously ensuring the health of the planet.

The 2025 EAT-*Lancet* Commission has set the first universal scientific targets for the global food system, with the goal of ensuring all nearly 10 billion people by 2050 have access to so-called planetary health diets, i.e., diets that benefit human health and align with environmental sustainability. Indeed, it is estimated that these diets could prevent as much as 24% of premature adult deaths per year, and the associated sustainable food production should transform land use into a global carbon sink instead of a major source of emissions.

To achieve this, food systems need to shift towards mostly plant-based diets, with major reductions in food loss and waste, and better, more sustainable food production practices.

Regarding the latter, the EAT-*Lancet* Commission outlined a shift in focus towards radical improvements in fertiliser and water-use efficiency; implementing climate mitigation options; and enhancing biodiversity – again highlighting the significant role of agriculture in ensuring a sustainable future.

Looking at the UN SDGs more specifically, sustainably managed farmland and planetary health diets contributes especially to SDGs #2, #13 and #15 (Zero Hunger, Climate Action, and Life on Land).

Food security: By producing the food that society depends on, and supporting the livelihoods of billions, sustainably managed farmland actively contributes to SDG #2 (Zero Hunger), which aims to not only end hunger in developing countries, but also ensure the implementation of resilient agricultural practices that increase productivity and production, maintain ecosystems, and strengthen adaptation for climate change and severe weather events.

Climate change: By supporting the transition to lower-emission farming practices and soil carbon sequestration, agricultural management contributes to SDG #13 (Climate Action).

Biodiversity & ecosystems: Sustainable management of farmland contributes to SDG #15 (Life on Land) by preventing adverse impacts on rural habitats, improving farmland landscapes and implementing sustainable farming practices.

Sustainable agriculture also contributes to SDG #12 (Responsible Production and Consumption) by reducing pressure on the environment and on water resources from the risk of leaking nutrients and chemicals. It provides other benefits, too, including wildlife habitats, recreational opportunities and serving as a source of living-wage jobs in rural communities. These attributes align with SDG #6 (Clean Water and Sanitation) and SDG #8 (Decent Work and Economic Growth).

Exhibit 18 shows the impact of different strategies proposed by the EAT-*Lancet* Commission across six critical earth system processes that define a safe operating space for humanity.

The scenarios compare business-as-usual (BAU) with interventions such as adopting planetary health diets, halving food waste, and improving production practices to meet different levels of ambition.

Only a combination of ambitious food production improvements, dietary shifts and waste reduction will keep food systems within planetary limits. This underscores the pivotal role of sustainable agriculture in achieving global health and environmental goals.

As interest in environmentally and socially responsible investments increases, farmland's role will only grow – it is one of the few investments where you can literally see your asset grow in natural and financial capital at the same time.

Exhibit 18: Environmental impacts on food production boundaries from implementing the 2025 EAT-*Lancet* Commission's proposed actions

			GHG emissions	Cropland use	Water use	Nitrogen application	Phosphorus application	Biodiversity loss
Food production boundary			**5.0** (4.7-5.54)	**13** (11.0-15.0)	2.5 (1.0-4.0)	90 (65.0-140.0)	8 (6.0-16.0)	10 (1-80)
Baseline in 2010			5.2	12.6	1.8	131.8	17.9	100-1000
Production (2050)	**Waste** (2050)	**Diet** (2050)						
BAU	**Full waste**	**BAU**	9.8	21.1	3.0	199.5	27.5	1,043
BAU	**Full waste**	**Dietary shift**	5.0	21.1	3.0	191.4	25.5	1,270
BAU	**Halve waste**	**BAU**	9.2	18.2	2.6	171.0	23.2	684
BAU	**Halve waste**	**Dietary shift**	4.5	18.1	2.6	162.6	21.2	885
PROD	**Full waste**	**BAU**	8.9	14.8	2.2	187.3	25.5	206
PROD	**Full waste**	**Dietary shift**	4.5	14.8	2.2	179.5	24.1	351
PROD	**Halve waste**	**BAU**	8.3	12.7	1.9	160.1	21.5	50
PROD	**Halve waste**	**Dietary shift**	4.1	12.7	1.9	151.7	20.0	102
PROD+	**Full waste**	**BAU**	8.7	13.1	2.2	147.6	16.5	37
PROD+	**Full waste**	**Dietary shift**	4.4	12.8	2.1	140.8	15.4	34
PROD+	**Halve waste**	**BAU**	8.1	11.3	1.9	128.2	14.2	21
PROD+	**Halve waste**	**Dietary shift**	4.0	11.0	1.9	121.3	13.1	19

Scenarios developed by the 2025 EAT-*Lancet* Commission demonstrating the environmental impacts of implementing the Commission's proposed actions on six earth system processes which boundaries should not be breached. Where: 'dietary shift' - planetary health diet as described by the EAT-*Lancet* Commission; 'halve waste' - reduce food losses and waste by half in line with SDG target 12.3; 'PROD' - improved production practices with standard level of ambition; 'PROD+' - improved production practices with high level of ambition. See the EAT-*Lancet* Commission summary report for more details. The colours illustrate whether environmental impacts transgress food production boundaries: Green - below lower range value; light green - below or equal to boundary but above lower range value; yellow - above boundary but below upper range value; red - above upper range value. BAU indicates business as usual scenario. Table adapted from EAT-*Lancet* Commission.

5. MAIN RISKS IN FARMLAND INVESTMENT

Farmland investments are not without risk. As an institutional asset class, farmland is less developed and more illiquid compared to traditional asset classes like bonds or equities.

Below, we list the main risks associated with investing in farmland, categorised into market risks, financial risks, physical risks (climate and environmental risks), regulatory, legal, and political risks, and operational risks.

- Agricultural commodity markets can be volatile. Crop prices fluctuate based on global supply-demand, trade policies, and even currency shifts. A sharp drop in crop prices can reduce farms' income and in turn pressure land rents and values. Farmland portfolios concentrated on one commodity are especially exposed (e.g., a citrus orchard investor is tied to orange or lemon and lime prices).
- Farmland is an illiquid asset class composed of many different types of farms and land. Premium farmland will always be of interest and considered a lower liquidity risk.

- Farming is inherently weather-dependent. Droughts, floods, hail, unseasonal frosts or pest and disease outbreaks[31] can impact yields in a given year but can be mitigated through active management and by diligent asset selection. While farmland in aggregate might not lose value from a single bad harvest (since land is valued on long-term potential rather than one year's crop), repeated climate impacts or long-term shifts (like desertification or loss of chill hours needed for certain fruit) can degrade land value. In some cases, obtaining insurance for certain perils[32] can provide financial relief for a single year's crop revenue. The best way to deal with risks that are inherent in the asset class is to diversify
- Agriculture is influenced by government policy – agricultural subsidies, land use regulations, trade tariffs, environmental rules, tax policy, etc. Changes in farm subsidies or price support schemes can alter farms' profitability. In the EU, for example, if future CAP reforms reduce direct payments to farmers, land rents might come under pressure (since part of the rent effectively comes from subsidy income). Environmental regulations can restrict land use (e.g., bans on certain fertilisers, crop protection products, or requirements to introduce fallow land for biodiversity). These can increase operating costs or reduce output in the short term (though often for long-term good). In Europe, navigating CAP effectively (e.g., understanding 'greening' requirements or subsidy eligibility of purchased land) is a key part of investment management
- Trade disputes can lead to tariffs on farm products, impacting prices. Geopolitical conflicts can also disrupt supply: the war in Ukraine removed a major grain supplier temporarily, causing spikes in global grain prices – beneficial to producers elsewhere in the short term, but it also brought volatility. As most crops are more or less tied to the crop commodity markets, such global events often affect prices, even for crops that are sold locally
- Land investors are not just landowners, they are land-stewards. With this responsibility, even when the land is leased out, one must ensure that the land is well-managed with consideration for farmers, the local community, wildlife and habitats. Having creditworthy and competent lessees and operating partners is critical. If the tenant fails (e.g., goes bankrupt in a bad year), the owner might have to step in and run the farm or find a new tenant, which can be disruptive and costly
- Farming operations involve risks of their own and management errors can affect returns. Even under a lease model, there is a risk of disputes with tenants or the need to enforce sustainable practices[33]. Many institutional owners use professional farm managers to oversee day-to-day farming and report back, ensuring best practices and timely decision-making aligned with investors' long-term strategies. Investors should ideally work with professional asset managers with boots on the ground to mitigate such risks.

Many deals take place off-market, making reputation and local market knowledge truly important in accessing and closing transactions. Also, local presence and/or local partnerships are crucial during the holding phase.

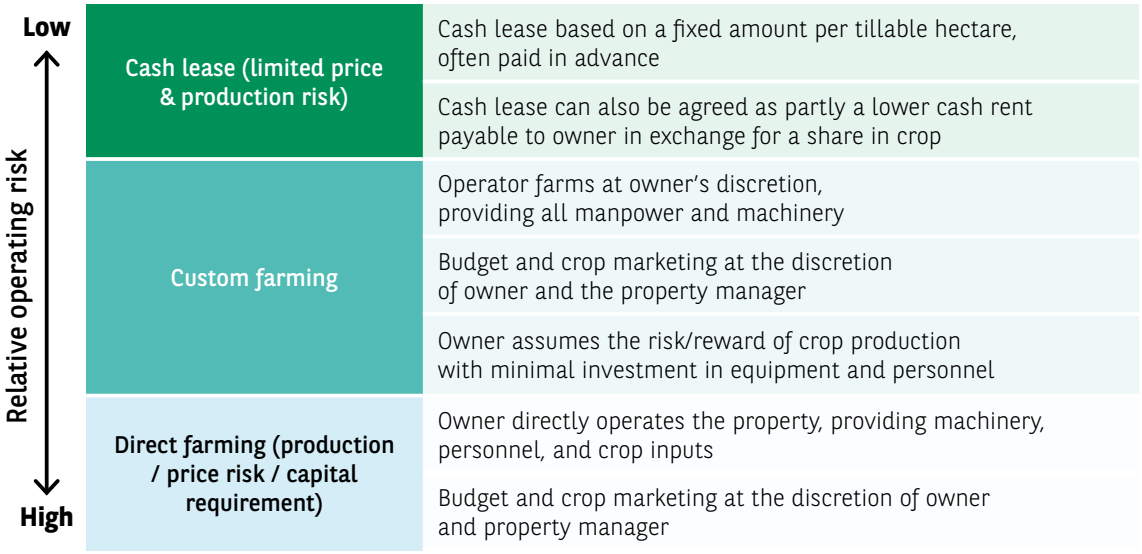
As a manager for institutional investors, it is critical to manage risk carefully, and diversification across geographies, crop types, end-markets and strategies is a prime tool for addressing and mitigating too great an exposure to a specific risk.

31 Such as a fungus in a vineyard

32 Crop insurance, hail insurance

33 A tenant might be tempted to maximise short-term yield at expense of soil health unless the lease prevents it

In addition, to mitigate the volatility of cash returns, investors can engage in a variety of operating strategies to deliver consistent income while reducing exposure to crop price and production risk:



Source: International Woodland Company, December 2025 / BNP Paribas Asset Management.

Finally, managers and investors need to have robust compliance and oversight capabilities to address environmental issues, legal, accounting and control requirements, as well as sustainability and labour practices, among other factors.

A: MITIGATING RISK THOUGH DEMAND-DRIVEN CROPS

Agricultural commodity markets are navigating macroeconomic trends where global stocks, production risks and trade conflicts result in price fluctuations. Fortunately, many producers have had excellent opportunities to price crops and lock in profitability throughout the years, despite elevated input costs compared to historical costs.

Tree crops generally offer both higher sale prices per tonne and higher yields per hectare compared to annual crops. Over the past two decades, almonds have experienced significant growth in both production and global consumption. This expansion has been driven in part by the global health megatrend, as almonds are naturally rich in protein and healthy fats. Beyond their traditional uses in snacking, confectionery and baking, almonds now increasingly feature in a wide range of health-oriented products, such as almond milk and almond butter.

Global almond consumption has increased by 161% over the past 20 years, while the harvested area has expanded by 143% during the same period[34]. According to USDA data, around 77% of the world's almonds are produced in the United States - specifically in California's Central Valley. The European Union (mainly Spain and Portugal) account for an additional 9% of global production[35].

34 https://www.savills.co.uk/research_articles/229130/380721-0

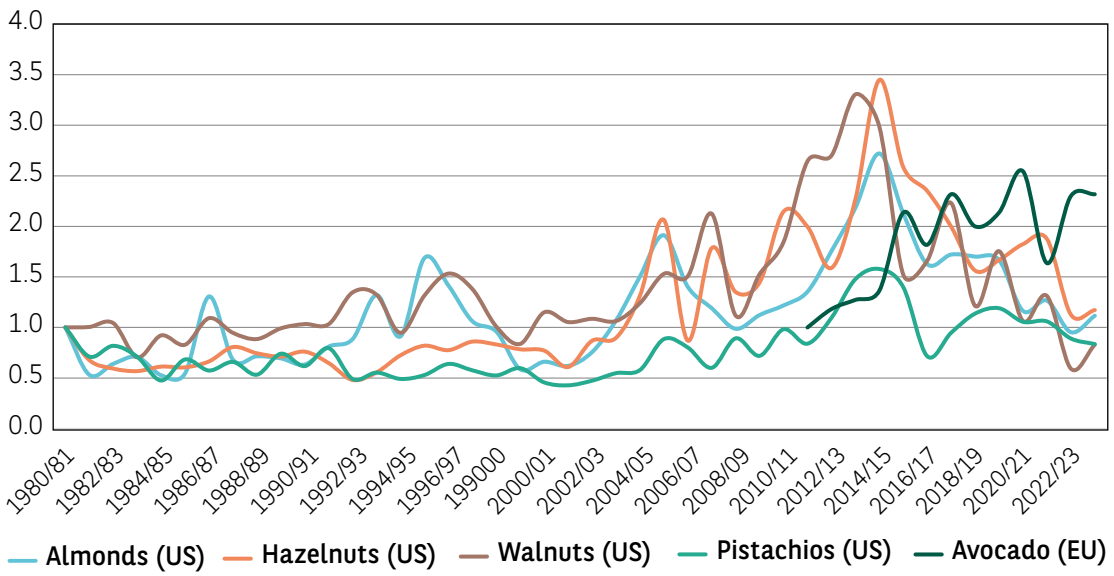
35 2024/2025 Almond production, USDA Foreign Agricultural Service, (2025)

Almond orchards have long been favoured by farmland investors due to their strong cash generation potential. The latest USDA census indicates that approximately 10% of US almond orchards are owned by institutional investors and corporates[36]. Almond prices have come down in recent years, however, as California growers replace ageing orchards with alternative crops, supply constraints are likely to push prices higher, creating attractive entry points for investors. This presents an opportunity to capture cyclical upside alongside strong long-term fundamentals.

Driven by their alignment with enduring health and wellness trends, many investors are recognising the long-term value of owning tree crop orchards. While these assets offer compelling growth potential, investors must carefully manage risks related to water availability, climate variability and market fluctuations. Strategic diversification across crop types, geographic regions and water sources can help mitigate these risks and support a well-balanced, long-term risk-return profile.

Another crop benefiting from rising demand is the subtropical avocado. Increasing global consumption has directly impacted both local and international prices (see Exhibit 19). FAO data indicates that avocado prices have trended upward over the past two decades – despite periodic fluctuations – reflecting strong market acceptance and improved farm-gate returns. Prices received by producers have risen steadily since the early 2010s. However, as imports into the European Union remain significant, domestic growers continue to face competition from global suppliers, which can occasionally constrain price growth.

Exhibit 19: US crop price indices (shelled basis) & avocado index (Andalucia, Spain)



Source: USDA, For avocado: Ministerio de Agricultura Pesca y Alimentación, Spain and Junta de Andalucia

36 https://www.almonds.org/why-almonds/growing-good/family-farms

6. EXAMPLE OF A EUROPEAN LEADER - FRANCE IS AN IMPORTANT FARMING NATION

With more than 28 million hectares of agricultural land, 45% of which under arable crops, France has the largest area with farmland in Europe. In value term, 17% of European production is produced in France and the country is one of the largest producers of fruit and vegetables in Europe. France is also the largest producer in Europe of wheat and corn with c. 12% of the crops cultivated organically[37].

One crop receiving global recognition is France's valuable viticulture. More than 780,000 hectares are planted with vines in France, making it the world's second largest producer after Italy. The three main wine producers are Italy, France and Spain (49% of global wine production and 80% of European production)[38].

With 214.2 million hectolitres of wine consumed around the globe in 2024 (-3.3% versus 2023), global wine consumption fell to its lowest level since 1961, owing to a decline in world demand and a profound change in consumer habits. Despite this trend, the sector remains an important contributor to France's trade balance with a surplus of €14.3 billion[39].

The market downturn and economic concerns are opening up new avenues for investors interested in these sectors and ready to capture the transformations underway. Indeed, these changes are necessary and relevant, particularly as one in two farmers will retire over the next decade.

37 AgriFrance: Investing in rural land, (2025)

38 AgriFrance: Investing in rural land, (2025)

39 AgriFrance: Investing in rural land, (2025)

Needless to say, the renewal of generations and the transmission of farms to new owners will be a challenge. By adopting a strategic vision and a long-term approach, it is possible to benefit from this uncertain period to seize fresh opportunities.

In France (as well as globally), land prices are a critical factor in land-use decisions, reflecting both expected returns from land-based activity and underlying land scarcity. France has an open and transparent data archive collected by its Land Development and Rural Settlement Agency (SAFER). SAFER reports the number of land acquisitions at the commune level, enhancing transparency of both prices and market activity.

While many factors influence land values, ranging from land quality, local market and economic conditions to regional land-use regulations, one analysis by SAFER suggests a correlation between more densely populated area and higher farmland prices[40].

40 FAO, The State of Food and Agriculture 2025

7. CONCLUSION

With global demand for food continuing to grow amid resource constraints, agriculture remains a vital and resilient sector. Limits to arable land, soil and freshwater availability will increasingly challenge food production, requiring both innovation and investments to ensure long-term productivity, reliability and environmental resilience. While technological advancements can offer significant efficiency gains, they cannot fully overcome the fundamental challenges of water scarcity, extreme weather and soil degradation. However, despite these constraints, substantial investment opportunities exist if carefully managed.

The industry provides essential services, from improving resource efficiency to restoring ecosystems, presenting a compelling opportunity for investors seeking to align financial returns with environmental and social benefits.

Farmland as an asset class has an important role to play in investment portfolios. Europe's farmland in particular offers a blend of stability and growth potential, especially when viewed in a global context where food and environmental security are paramount.

For example, European farmland can provide:

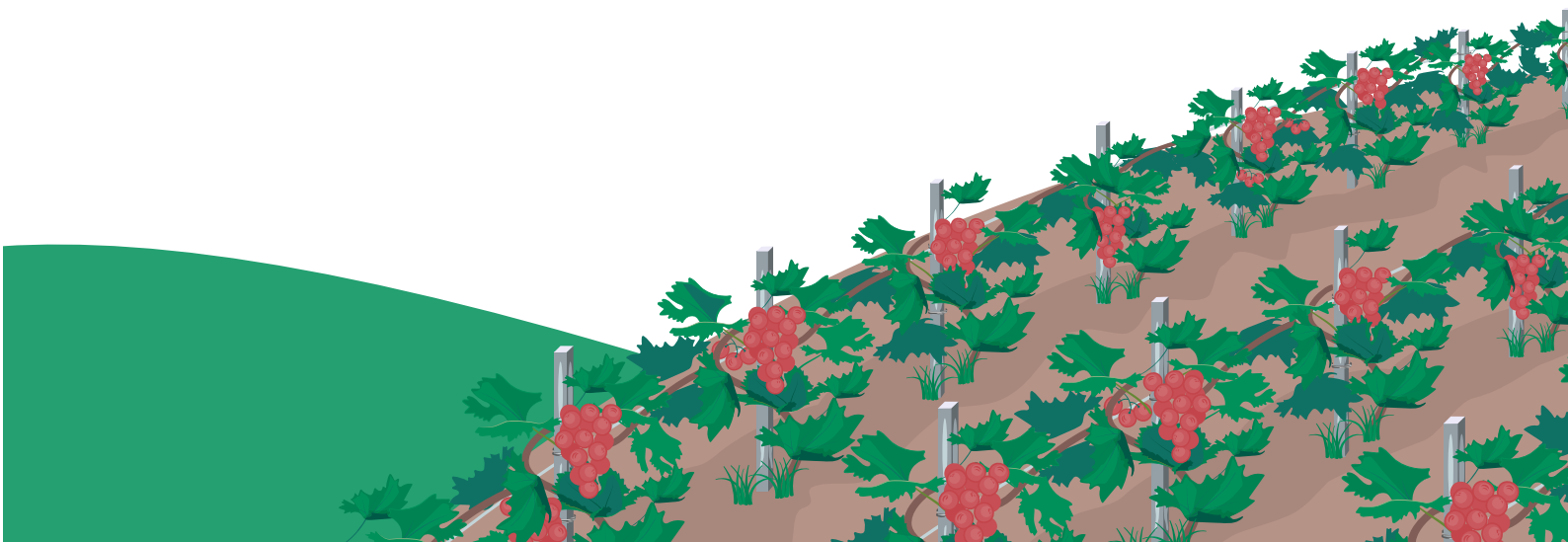
- Attractive long-term risk-adjusted returns
- Relatively stable annual income yields
- Diversification benefits due to its low correlation with other asset classes
- Inflation-hedging properties.

Beyond its attractive financial characteristics, sustainably managed farmland also offers a tangible way for investors to contribute positively to climate change adaptation and/or mitigation, and to help meet several of the UN's Sustainable Development Goals. Indeed, sustainable farmland management aims to foster resilient ecosystems, protect wildlife habitats and maintain biodiversity, aligning them closely with investors' commitment to environmental stewardship.

The inclusion of farmland in institutional investment portfolios is likely to become more commonplace as time goes on. As that happens, best practices and benchmarks will evolve further, knowledge will spread, and the market should become more efficient.

By carefully integrating farmland into their allocations, institutional investors can get the benefits of diversification, enjoy steady income and capital appreciation, and contribute positively to global sustainability goals. In a world facing inflationary pressures and climate challenges, farmland stands out as a true real asset, promising not only harvests from the field but also robust returns and portfolio resilience.

Finally, with the current and upcoming generational turnover in farm ownership in Europe, private capital will be key and there will be opportunities to invest in and consolidate parcels that come to market, bringing scale efficiencies and improved sustainability oversight (e.g., ensuring long-term soil health, integration with nature, biodiversity protection, precision irrigation, etc., across the portfolio). Such improvements can enhance land productivity and value, providing alpha on top of baseline market appreciation, and support the needed food transition.



8. BNPP AM AND IWC

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ABOUT BNP PARIBAS ASSET MANAGEMENT

As a part of BNPP AM's strategy to offer a wide range of Private Assets solutions, we have since 2019 considered natural capital as a possible addition to our current offering.

We quickly realised that farmland as an asset class is attractive from a financial standpoint, due to its risk-adjusted return, low correlation to other asset classes, and inflation hedging properties. We also saw that the macroeconomic factors which food production depends on are trending positively (population growth, increase in per capita income, green transition, etc.).

In parallel, we set ambitious targets in our Global Sustainability Strategy to improve the environmental impact of our investments, with a focus on land management. We believe a better world is one with an economic model built on a successful Energy transition, healthy Ecosystems, and Equality and inclusive growth – our '3Es'.

In 2021, we launched our Biodiversity Roadmap, which details our views on why biodiversity loss matters to us and how we are actively responding to it. Subsequently, in 2022, we launched our Net Zero Roadmap outlining our commitment to the goal of achieving net zero portfolio emissions by 2050 (or sooner). Natural carbon cycles and nature-based solutions are instrumental in climate change mitigation and adaptation, as well as in reverting biodiversity loss. But today, nature-based solutions are an underexposed area for investors to support the net zero transition. In 2024, we published our Equality Roadmap to strengthen our strategy and commitments on an under-researched and under-funded area of sustainable investing that is growing in importance, and which is also key in agriculture investments. Our partnership with International Woodland Company (IWC) is thus a key element in delivering these roadmaps.

Beyond, IWC, BNPP AM will continue to seek to reduce the impact of its investments coming from land-use change through the six pillars of our approach to sustainability.

We are convinced farmland can help deliver positive real-world outcomes alongside industry leading financial returns to clients. But the transition towards a greener economy is a challenge that cannot be faced alone. We therefore believe it is critical to work in partnership with clients, colleagues, companies, governments and civil society.

ABOUT IWC

Since 1991, IWC – a BNP Paribas Asset Management partner – has been providing natural capital investment solutions and investment advice to institutional investors. IWC is today a leading natural capital investment expert with deep experience in global timberland, farmland, ecosystem restoration and responsible investment, providing diversification, inflation hedging and capital appreciation investment opportunities, which also have a positive impact. IWC is proud to count among its clients some of the largest natural capital investors in the world.

Since its establishment, a strong sense of responsibility has driven IWC to employ best practices based on a deep and thorough approach to sustainability, biodiversity, ESG and impact investing.

Striking a balance between economic, social and environmental needs has always been the backbone of IWC's philosophy and core values. IWC is a recognised leader within the nature-based solutions investment community and is eager to publish and share best practices across a variety of relevant industry topics.

IWC is a UNPRI signatory, FSC member, participant in PEFC's stakeholder consultation forum, Dansif member, and TNFD Forum member.

With more than three decades of experience, IWC currently oversees approximately US$6 billion of institutional mandates dedicated to natural capital investment programmes worldwide.

Private assets are investment opportunities that are unavailable through public markets such as stock exchanges. They enable investors to directly profit from long-term investment themes and can provide access to specialist sectors or industries, such as infrastructure, real estate, private equity and other alternatives that are difficult to access through traditional means. Private assets do, however, require careful consideration, as they tend to have high minimum investment levels and may be complex and illiquid.

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VIEWPOINT

BNP PARIBAS
ASSET MANAGEMENT

The sustainable investor for a changing world