SPOTLIGHT
Savills Research

UK Rural - September 2022

Global Farmland

savills

Farmland performance ● Permanent crops ● Future prospects

18%
The average global farmland growth during 2021

11%
Compound annual rate of increase since 2002

Welcome to the latest edition of Savills Global Farmland Spotlight, charting the performance of farmland to the end of 2021. During 2021 a number of global institutions and asset managers rebranded their farmland and forestry investment themes to include a focus on "natural capital investing", not only considering the agricultural returns from farmland (be that leasing or operating) but, increasingly, the income streams provided by carbon, biodiversity and other elements of natural capital. Permanent crops are where these trends overlap, meeting needs for food and natural capital at the same time. In this year's Spotlight we provide an update on global farmland value trends and focus on two of the key global markets for both private and institutional investors that are experiencing significant changes in investor activity as a result of the increasing interest in permanent crops: the USA and Europe.

Another strong year for land as commodity prices drive activity

Savills Global Farmland Index reveals the performance of premium agricultural land across the world

After the hiatus of transactional activity and sluggish capital appreciation due to Covid-19 in 2020, 2021 proved a strong year for global farmland markets. Savills Global Farmland Index (GFI) tracks average capital value performance for premium agricultural land (principally cropland) across the world in USD per hectare. Our research recorded an average growth rate of 18% during 2021, the strongest since 2011, and an 11% compound annual rate over the past 19 years (2002-2021). Particularly strong performers over the last year were New Zealand (49%), Brazil (38%) and Australia (31%).

TOP PERFORMERS:

1 **New Zealand** capital value appreciation was driven by strong performance in dairy land, with median dairy property values up 37% to NZD 45,430 per hectare in December 2021. Milk prices saw strong growth during 2021, with average prices paid by Fonterra up 16% versus 2020. The total volume of farm sales for the 2021 calendar year increased considerably from 2020, reinforcing the strong demand for continuing investment in New Zealand rural land. In the year to December 2021, 1,831 farms were sold – 235 more than were sold in 2020, with 84% more dairy farms. As we enter 2022, the market remains strong, despite very limited international activity after the government substantially tightened the foreign ownership restrictions on farmland at the end of 2017.

2 **Brazilian** farmland markets also had a very strong 2021, with average values now back at levels last seen in 2013. There was price growth across all farm types, including premium crop production land and pastureland for cropland conversion. Market activity has slowed somewhat more recently as investors await the outcome of the general election in October 2022, with most opinion polls predicting a change of leadership.

3 **Australian** farmland continues to perform strongly with average prices now almost two-and-a-half times what they were in 2017. The median price rose above AUD 7,000 per hectare for the first time in 2021, with the strongest AUD growth in Western Australia (36%) and Queensland (31%). Farmland transactions increased by a significant 23% to 10,032, the largest increase in transaction volume in the past 27 years, equating to a total of 10.8 million hectares of land traded at a

SAVILLS GLOBAL FARMLAND INDEX

The Global Farmland Index is based on data from the average value of crop/arable land in USD per hectare from 15 key farmland markets – Argentina, Australia, Brazil, Canada, Denmark, France, Germany, Hungary, Ireland, New Zealand, Poland, Romania, United Kingdom, United States and Uruguay. Converting to USD per hectare gives potential investors a good starting point for comparable analysis. It is a common denominator that corresponds to the currency of global markets. The values are relative to those in the year 2002 (2002 = 100). Exchange rates will affect the performance in domestic currency. Additionally, using average values disguises what might be happening at local or regional level, as values can vary significantly.

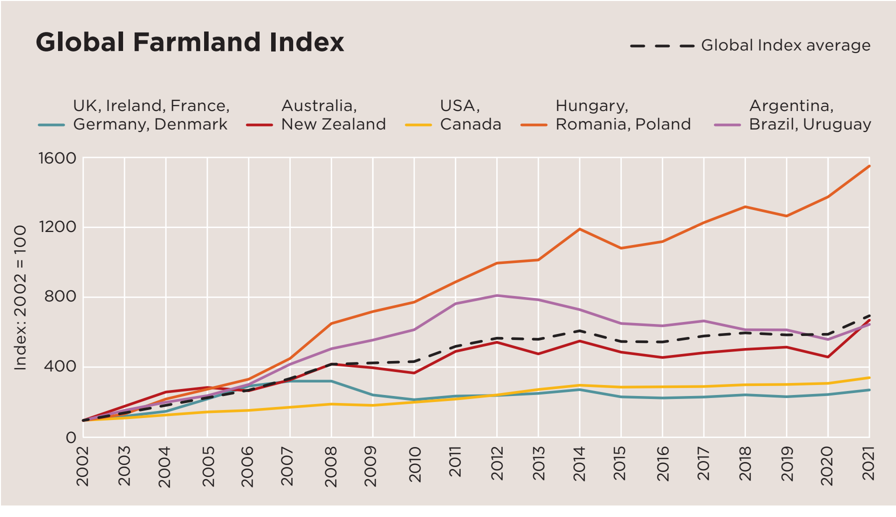


figure 1
Source Savills Research, USDA, REINZ and various other data sources/estimates

> **Farmland prices stand to benefit from growing concerns about food and land scarcity and the monetisation of natural capital**

record high combined value of AUD 15.6 billion.

Outside of these top performing three markets, Western European land markets also had a good year: the star performer in the Savills GFI was Ireland (16% EUR growth; 20% USD growth); the UK also recorded modest growth (5% GBP growth; 13% USD growth). Canada performed strongly too, with prices rising 8% in CAD and 16% in USD terms.

PERFORMANCE VS OTHER ASSET CLASSES

Gold prices eased during 2021, following a surge during 2020 as investors sought an asset to hedge against Covid-19 uncertainty. Oil prices also impacted by Covid-19 recovered during 2021 as economic activity and transport resumed. At 18% growth, farmland saw its strongest growth since 2011 (when the GFI reported 20% growth) mirrored by the steady growth of the cereals and food price indices.

THE START OF A NEW ECONOMIC PERIOD: RISING INFLATION, RISING INTEREST RATES

During 2021, inflation, which in most developed economies had been in abeyance, started to rise. By the end of the year it had reached an average of 8.4% across the GFI countries (5.4% excluding Argentina), and it has continued to climb in 2022. This is causing many investors to consider diversifying their portfolios. As food is a critical part of the "basket" of inflation measures in most jurisdictions, the resilience of farmland comes to the fore. Farmland also delivers stable returns over long holding periods, and exhibits low correlation to financial assets. Additionally, farmland prices also stand to benefit from growing concerns about food and land scarcity and the monetisation of natural capital. The downside of rising inflation is the natural response of central banks to raise interest rates to try to bring inflation under control, which may impact on financing strategies.

Global Farmland Index and key commodity returns

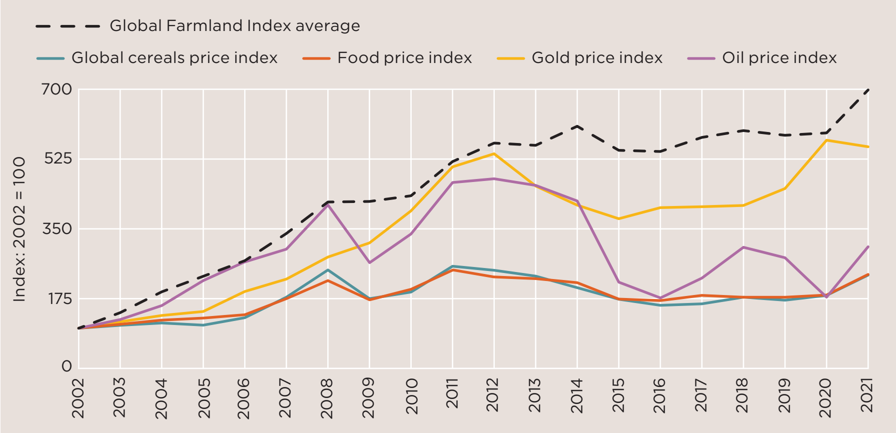


figure 2 **Source** Savills Research, FAO, OPEC, KitCo

INVESTMENT FOCUS ON PERMANENT CROPS

Permanent crops are a feature of investment strategies in several of the countries included in Savills Global Farmland Index. Rather than being planted, grown, and harvested annually, permanent crops (perennials) have varying lifecycles that range from 15-40 years, with a high initial outlay and several years delay before first harvest is achieved. Investing in permanent crops is a long-term, strategic investment given the long crop lifecycles. According to AgAmerica Lending, without factoring in land value appreciation, permanent crops annualised yield has remained around 15% over the past decade. Roughly 40%-70% of the value of the investment is above the ground in the form of a tree or vine.

A further reason for new interest in permanent crops is their significant carbon benefits, attracting new generations of agricultural investors. Permanent crops have a greater capacity to remove carbon dioxide from the atmosphere and store it in biomass and soils than annual crops. Soil disturbance is minimised, meaning soil organisms thrive and carbon is stored at greater depths. Cover crops can often be grown between the rows, meaning production can adopt a truly regenerative approach.

15%
permanent crops annualised yield according to AgAmerica Lending

> Long known for its appeal among US institutional and private investors, the prospects for overseas investors look strong

A near perfect market environment for all investors

This dynamic farmland market offers a strong correlation between values and prices

The US is a large and dynamic farmland market and has unparalleled availability of market data. With a strong correlation between capital values, rents, earnings and commodity prices, it is a near perfect market environment. Long known for its appeal among US institutional and private investors, the prospects for overseas investors look strong.

FARM STRUCTURES

There are about 364 million hectares of "land in farms", made up of two million individual farms, with an average size of 182 hectares. About 60% of farmland is owner-occupied, with the remainder leased from non-farming owners, over a third of whom are retired farmers. Institutional ownership levels, while some of the highest in the world, remain low at 2.2% but are growing every year. Importantly, about 70% of farmland is set to change hands in the next 20 years, according to the US Department of Agriculture and institutional investors are poised to gain a bigger share as farmers retire.

There has been a significant increase in the last three years of US farmland owned by overseas investors – up to 2.9% of all privately held US agricultural land (1.7% of all land in the US). Over the last 10 years, overseas ownership of cropland increased from roughly 1.7 million to 4.4 million hectares. The vast majority of US cropland produces annual row crops and permanent cropland encompasses less than 1% of total US land area; however the total investable permanent crop universe is estimated to be worth at least USD 71 billion.

The regions that have attracted significant interest over the last 10 years include the Corn Belt (annual row crops, principally corn and soybeans), the Pacific (permanent crops) and the Southeast/Delta (annual row crops and horticultural crops). Vineyards, apple and nut orchards and citrus groves are among the most popular perennials in the US. While 80% of permanent cropland is owner-operated, the remaining 20% is leased or custom farmed land owned by rural land investors.

CAPITAL VALUE TRENDS

Savills Research shows that cropland prices appreciated by about 8% in 2021 after a number of years of more muted growth, to USD 10,920 per hectare. Pasture average value in 2021 was USD 3,650 per hectare and all farm real estate averaged USD 8,350 per hectare. Land values have risen for most of the last 120 years and saw only a few periods of decline – one being the agricultural depression of the 1930s and the other being the farm credit crisis of the 1980s.

4.4m ha

Over the last 10 years, overseas ownership of cropland alone increased from roughly 1.7 million to 4.4 million hectares

70%
of US farmland is set to change hands in the next 20 years

2.9%
of US land in foreign ownership in 2021

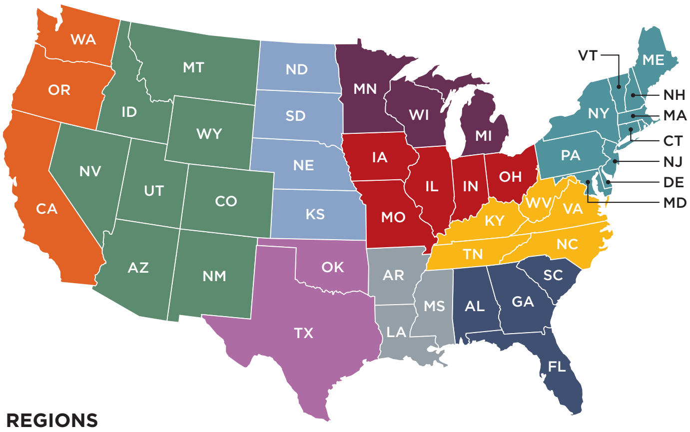
8%
cropland price increase in 2021

REGIONAL SPOTLIGHT

■ **CORN BELT:** This includes the states of Illinois, Indiana, Iowa, Missouri and Ohio. Illinois and Iowa have the most expensive land – cropland values have increased in Illinois by 8.2% to USD 19,520 per hectare and in Iowa by 8.9% to USD 19,300 per hectare. Values here are highly correlated to corn and soybean prices, and have continued to grow in 2022.

■ **SOUTH-EAST AND DELTA STATES:** Average 2021 values in Florida of USD 18,040 per hectare are 65% higher than the US cropland average, highlighting the flexible soils suitable for horticultural operations in many parts of the state. Georgia is also a key state for horticultural and permanent crop opportunities with average values of USD 8,600 per hectare. Values are lower in Arkansas, Mississippi and Louisiana.

■ **PACIFIC:** California has some of the most expensive land, with average cropland values of USD 34,250 per hectare in 2021; land with irrigation is more expensive at USD 40,260 per hectare. It is the "home" of large scale permanent cropping. Average values in Washington State and Oregon are much lower, at USD 6,670 per hectare (USD 19,270 per hectare with irrigation) and USD 8,180 per hectare (USD 14,330 per hectare with irrigation) respectively.



OPERATING MODELS

As one of the most developed and institutionalised markets, the US offers the most flexible range of models for farmland investing:

■ **Cash-lease (fixed)** Annual income is determined prior to the operating year and is not subject to fluctuations in crop yields/prices.

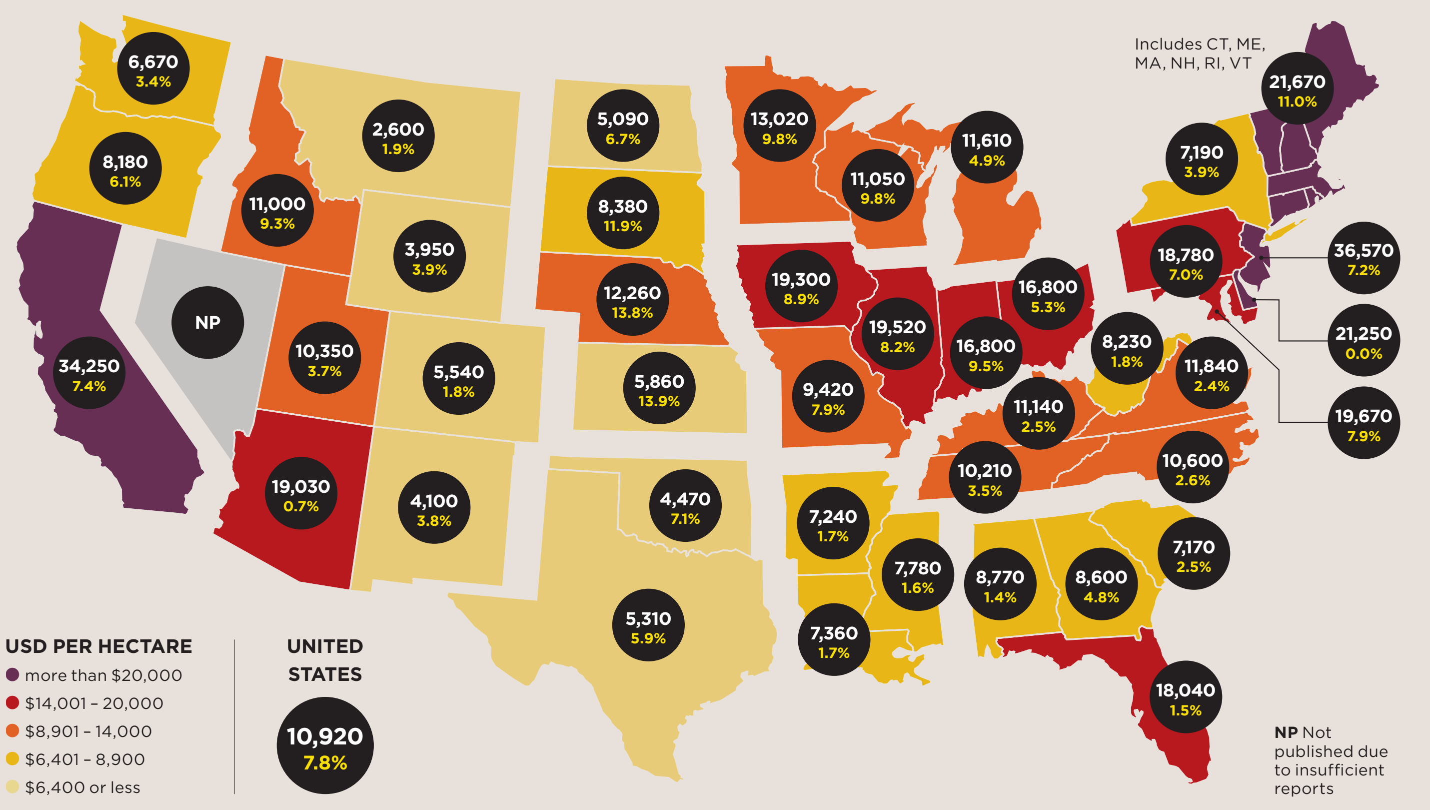
■ **Cash-lease (variable)** Minimum base rent with income participation based on price and/or yield.

■ **Revenue share lease** All income is determined based on revenue, or some other measure of crop profitability.

■ **Custom (contract) farming** Annual income is determined solely by the profitability of the crop operation but a third party custom farmer is paid to undertake the operations.

■ **Full operational model** Annual income is determined solely by the profitability of the crop operation with the local operating company/SPV undertaking the operations with its own staff and machinery.

2021 Cropland value by State USD per hectare and percentage change from 2020



Source Savills Research and USDA

300%
increase in central European land values since 2006

€70k/ha
average land values in the Netherlands 2021

17.5%
agricultural proportion of total Dutch exports 2021

Institutionalisation spreads across Europe

Investors turn away from traditonal areas of the world as they look to build scale in southern Europe

Historically Europe has seen less institutional activity than the more mature farmland markets of the US and Australia. Partially this is due to history: the farm sector has been more fragmented and the Common Agricultural Policy (CAP) has distorted values, returns and transaction rates. In many countries it has been difficult to achieve scale.

The first wave of institutionalisation of farmland markets began in earnest with the accession talks with the Central and Eastern European (CEE) countries to the European Union in the early 2000s. Markets such as Poland, the Baltic States and Romania in particular have seen significant capital inflows over the last 20 years, with price convergence between the old EU-15 and the newer EU member states over the last decade.

In the last five years we have seen the institutionalisation trend spread to southern Europe. The recent global interest in permanent crops has shone a spotlight on southern European countries, with a particular focus on Spain and Portugal. Investors looking for diversification away from traditional areas such as California are now beginning to deploy at scale in these newer European markets.

CENTRAL AND EASTERN EUROPE

There are significant areas of high quality farmland in CEE supporting a range of farming enterprises: many countries in the region are large producers of cereals and oilseeds in particular. There has been significant land price growth over the last decade with average prices across the major Central European markets increasing almost 300% from €2,100 per hectare in 2011 to €6,300 per hectare in 2021. Particular strong performers have been the two largest markets of Poland and Romania.

CHALLENGES OF INTERPRETING LAND PRICE DATA IN CEE

Despite it being 30 years since the fall of communism, land still remains fragmented in many areas of some CEE countries, such as Romania. Savills research shows huge price variations between individual arable plots in the cheaper regions of the north east, where values may be €2,000-€2,500/ha, compared to consolidated arable land in the more fashionable and developed regions such as Timisoara, which may be €10,000-€12,000/ha. Published land transaction data may be distorted by smaller sales as well, since many larger transactions often take place in corporate structures as share transactions.

CASE STUDY: THE NETHERLANDS

The Netherlands is renowned for being one of the leading agricultural and horticultural producers in the EU. After the US, it is the biggest exporter of agricultural produce in the world, exporting €65 billion of agricultural produce annually, representing 17.5% of total Dutch exports.

Many of the characteristics of the farmland market here are similar to other Western European nations: a shortage of supply, low transaction rates (c. 1.5%) and a premium attributed to the most flexible soils that can produce a wide range of high value crops. The Netherlands has the EU's highest density of livestock, but this is under threat from environmental reforms (see below).

Savills research shows average farmland prices in the Netherlands in 2021 were around €70,000 per hectare, making it some of the most expensive land in the EU; average rents were over €800 per hectare. The most sought-after and productive region, Flevoland, had capital values in excess of €100,000 per hectare and rents in excess of €1500 per hectare.

ASR DUTCH FARMLAND FUND

The ASR Dutch Farmland Fund invests in farmland in the Netherlands. The Fund leases out land to farmers with ultra-long lease periods, providing stable returns and low volatility. The €1.7 billion Fund owns 36,426 hectares of Dutch Farmland and targets an IRR of 4% with a direct target return of 2%.

IMPACT OF DUTCH AGRICULTURAL REFORM

According to Politico, Dutch farmer protests began in 2019 after a court ruled the government's strategy for reducing excess nitrogen breached EU laws. In June 2022, the government presented plans to cut nitrogen and ammonia emissions by 50% by 2030 to preserve EU-protected Natura 2000 areas. It knows this will not be easy, saying it sees three options for farmers: "Becoming more sustainable, relocating or ending their business". The impact of this on Dutch farmland markets is that supply is likely to increase if there is significant industry restructuring. This may present opportunities for investors who have been unable to access the market so far due to low transaction levels.

> **“After many decades of interest in California and subsequently Latin America, investors looking for diversification in their permanent crop portfolios have begun to target Iberia”**

Southern Europe: the new permanent crop frontier

The region offers a diverse range of opportunities

After many decades of interest in California and subsequently Latin America, investors looking for diversification in their permanent crop portfolios have begun to target Iberia. Spain and Portugal have a wide climatic range and can produce crops including nuts, citrus, olives and tree fruit.

Water availability makes a critical difference to asset viability. As with all irrigated crop opportunities, detailed asset-level due diligence on water rights is critical. Spain has 3.8 million hectares of irrigated land alone and there has been substantial investment in reservoir storage capacity in Portugal.

The region presents a number of diverse opportunities depending on the investor profile: the opportunity to acquire existing high performing assets; the opportunity to redevelop and institutionalise existing enterprises (e.g the replacement of traditional olive oil orchards with superhigh density mechanised orchards) or the opportunity to develop greenfield sites. Land prices are rising but development costs for most enterprises remain below those of California.

95%

of the olive trees in the world are cultivated in the Mediterranean region

TWO KEY OPPORTUNITIES:

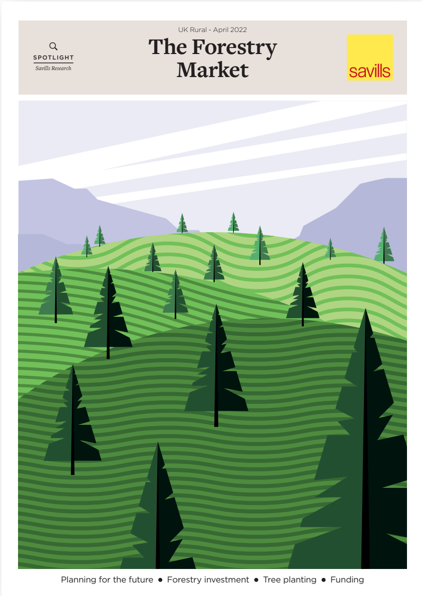
1 **Olive oil production.** The EU is the largest producer of olive oil in the world, accounting for around two-thirds of global production. Most of the world’s production comes from southern Europe, northern Africa and the Middle East, as 95% of the olive trees in the world are cultivated in the Mediterranean region. Spain is by far the largest producer of olives for olive oil in the EU; production levels in Portugal are much smaller but it is known for the quantity of higher-grade virgin olive oil it produces.

2 **Tree nut production.** The European Union is one of the world’s leading producers and consumers of almonds, with production concentrated in Spain. In 2020, the USDA estimated the total area in Spain planted with almond trees was about 720,000 hectares, of which just under 120,000 hectares was irrigated production. The productive area is increasing owing to the large number of intensive and super-intensive almond orchards planted in recent years that have started to enter production. Production volumes remain significantly below demand: total EU production is just 30% of total EU demand, and the vast majority of the deficit is imported from California.

PROSPECTS FOR 2022 AND BEYOND

The Savills Global Farmland Index showed strong returns in 2021, just as the world was thrown into turmoil by Russia’s invasion of Ukraine in February 2022. This has pushed the issues of agricultural production, food security, commodity trading and supply chain resilience firmly back into the spotlight. Russia and Ukraine are key agricultural players, together exporting nearly 12% of food calories traded globally and supplying 34% of the world’s wheat exports. The impact of the Black Sea disruptions will be felt in farmland market activity into 2023 and beyond; in most geographies values are continuing to climb on the back of strong commodity market pricing as investors seek a diversified, non-correlated inflation hedge. Despite all the disruption, two familiar trends are driving the farmland investment thesis now: rising global demand for food and a shrinking supply of arable land, as climate-related factors such as water scarcity limit supply. Overall the outlook for the sector remains extremely positive.

■ *We are delighted to announce Jonny Griffiths joins Savills Rural on 26 September 2022 as Head of International Farmland Investment. For a number of years our rural team has advised on and transacted farmland beyond the UK on an ad hoc basis using our existing network of rural agents. In this new role Jonny will have a particular focus on valuations and acquisitions of land and farms around the globe for a range of clients. Please contact Jonny on jonny.griffiths@savills.com to find out more.*



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Jonny Griffiths
Head of International Farmland
+44 (0) 20 7499 8644
jonny.griffiths@savills.com

Richard Binning
Director of Farms and Estates
+44 (0) 7968 550 312
rbinning@savills.com

Nicola Buckingham
Rural Research
+44 (0) 7807 999 011
nbuckingham@savills.com