

Spotlight

Global Farmland Index



Summary Measuring the opportunities of farmland investment across the world

■ **Our Global Farmland index** recorded an average annualised growth of 13.3% since 2002 and 2% over the past five years. p.2

■ **Although pressure on commodity prices has slowed growth in values in recent years**, the long term fundamentals of farmland ownership still apply with increased food production and competitive land use driving demand. p.2

■ **Our Opportunity v Risk Matrix tool** considers these relative opportunities and risks of farmland investment in different countries. p.4

■ **The key to a successful global farmland investment portfolio is to understand the range of cultures**, political administrations, ownership structures, tax regimes and foreign investment regulations. p.6

Strong and steady growth over past 14 years

The Global Farmland Index tracks the value of farmland across the globe

The value of farmland across the world is tracked by our 'Global Farmland Index' launched in 2012 (see panel on page 3). The index now reports to 2016 and highlights the strong and steady rise in the value of farmland globally over the past 14 years. During this time, our index recorded an average annualised value growth of 13.3%.

The largest increase in farmland values occurred in the six years between 2002 and 2008 with the Global Index recording an average annualised rise of 27%. This exceptional pace of growth did not continue with such impetus (6.4%) during the six years that followed due to a softening in farmland prices between 2008 and 2009 as some of the more mature markets experienced a correction in values, notably Ireland and Denmark where the global banking crisis caused prices to fall.

More recently, pressure on commodity prices has slowed average growth in values (2% in five years to 2016). In spite of this, the long term positive fundamentals of farmland ownership still apply with increased food production (balanced by reduction in food waste) and competitive land use, driving demand.

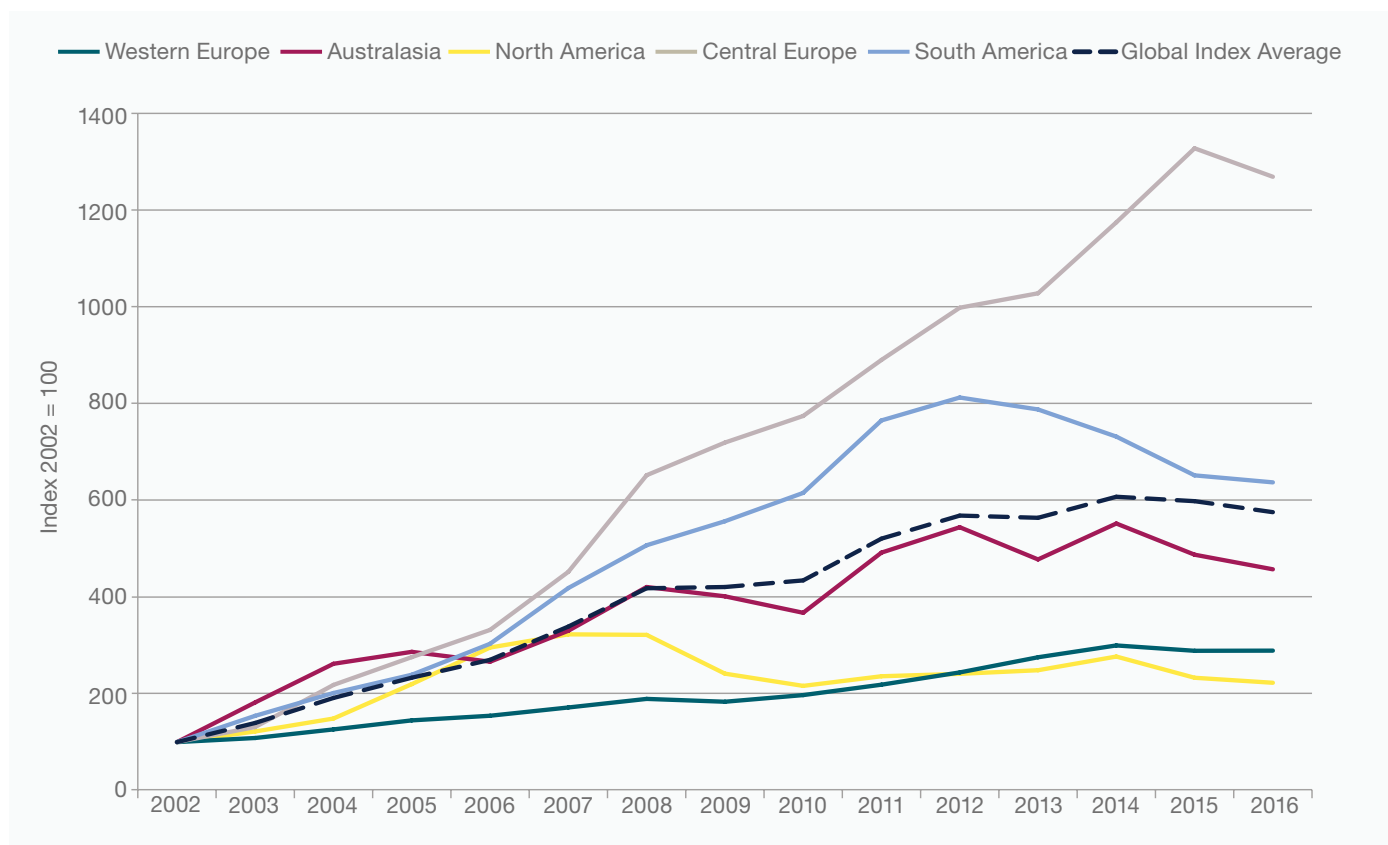
Figure 1 illustrates a divergence in the rate of growth in the world markets between 2008 and 2015 and demonstrates how the rate of growth varies significantly across the world. Indeed, values across Western Europe recorded the most varied patterns, from significant value growth followed by a correction in Denmark and Ireland to steady but strong growth in the UK and Germany and a relatively flat performance in France.

Reflecting the lower risk profile of a mature market, annualised average growth across Western Europe stands at 6% since 2002, which is significantly lower than that recorded in the emerging markets (20%) but comparable to North America (8%).

The highest rates of farmland growth continue to be recorded in the emerging markets of Romania, Hungary, Poland, Uruguay and Argentina.

Germany has recorded strong growth in values since a policy shift in 2010 by the German Agricultural Land Body (BVVG) to sell off previously state owned land in East Germany to private investors. This land had, since 1992, previously been leased. ■

FIGURE 1 Global Farmland Index



Source: USDA, Eurostat and various other data sources/estimates & Savills Research

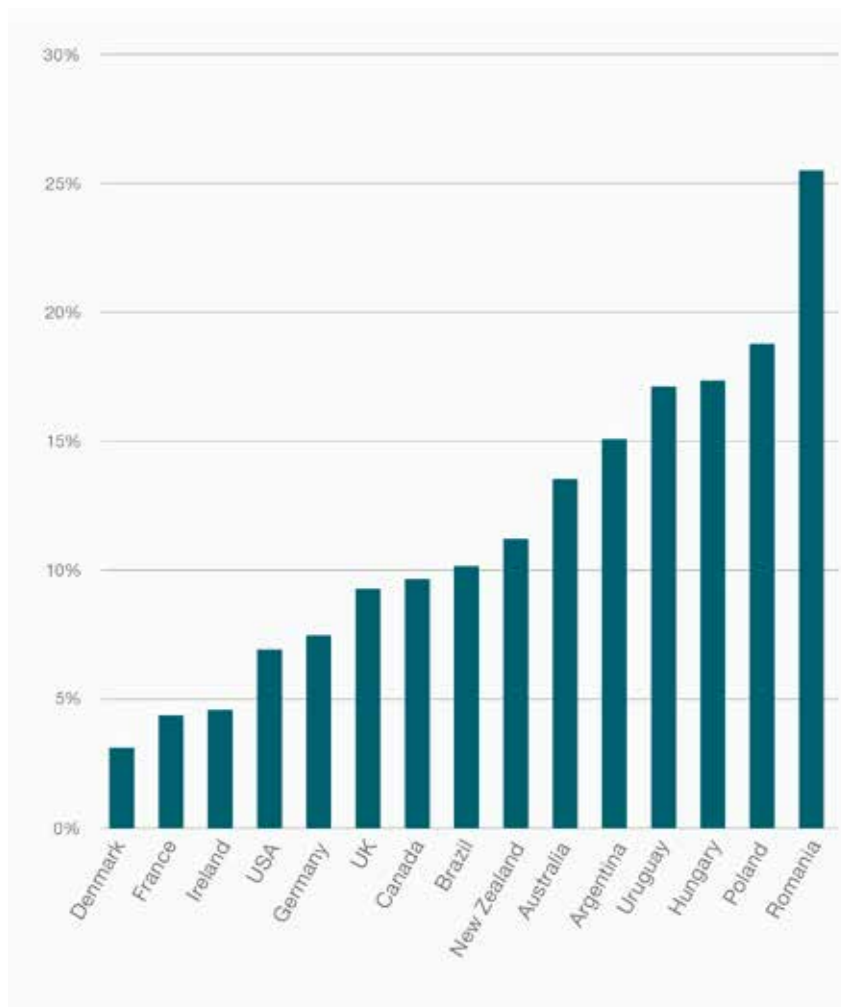
SAVILLS GLOBAL FARMLAND INDEX

The Savills Global Farmland Index provides a comparative indication of farmland value trends around the globe. The Index was launched in 2012 and is based on data from 15 key farmland markets. The Index is derived from the average value of crop/arable land in domestic currency converted to US\$ per hectare.

The 15 countries in the Index are Argentina, Australia, Brazil, Canada, Denmark, France, Germany, Hungary, Ireland, New Zealand, Poland, Romania, United Kingdom, United States and Uruguay.

Although converting to US\$ per hectare can have an effect on annual growth rates in terms of domestic currency it does allow potential investors a good starting point for comparable analysis. It is a common denominator, which corresponds to the currency of global markets. The values are represented as an Index relative to values in the year 2002 (2002 = 100).

FIGURE 2 Annualised Capital Growth of values in US\$ per ha (2002 to 2016)



Source: Savills Research and other publicly available data

FIGURE 3 Average farmland values (US\$ per ha)

\$ per ha	2002	2008	2016
Australia	\$355	\$1,219	\$2,117
Brazil	\$785	\$3,595	\$3,069
Uruguay	\$386	\$1,844	\$3,557
Hungary	\$387	\$2,700	\$3,663
Canada	\$1,445	\$3,291	\$5,295
Romania	\$262	\$3,146	\$6,372
France	\$3,641	\$7,274	\$6,671
Argentina	\$964	\$5,367	\$6,950
United States	\$3,929	\$6,820	\$10,106
Poland	\$1,233	\$6,413	\$13,828
Denmark	\$13,529	\$47,877	\$20,956
New Zealand	\$5,234	\$22,203	\$23,340
Ireland	\$12,720	\$57,379	\$23,976
Germany	\$8,928	\$14,569	\$24,680
United Kingdom	\$7,283	\$20,005	\$25,404

Source: Savills Research and other publicly available data

Assessing risk, maximising opportunity

Both mature and emerging markets experience a diversity of risk

Savills Research has developed an Opportunity v Risk Matrix tool to help make an initial assessment of the relative opportunities and risks of farmland investment in different countries. The scores are derived from a detailed set of metrics combined with our experience and knowledge of the markets.

The basket of countries used in the tool is the same as that used in our Global Farmland Index. ■



RISK SCORE

(the lower the better) is derived from a matrix that looks at the range of potential risks. To some degree these can be categorised into those, where the investor has no control such as political and economic stability and the weather, and those where some control might be possible to alleviate the extent of the risk. This might include location to take advantage of the current infrastructure.

BENEFIT SCORE

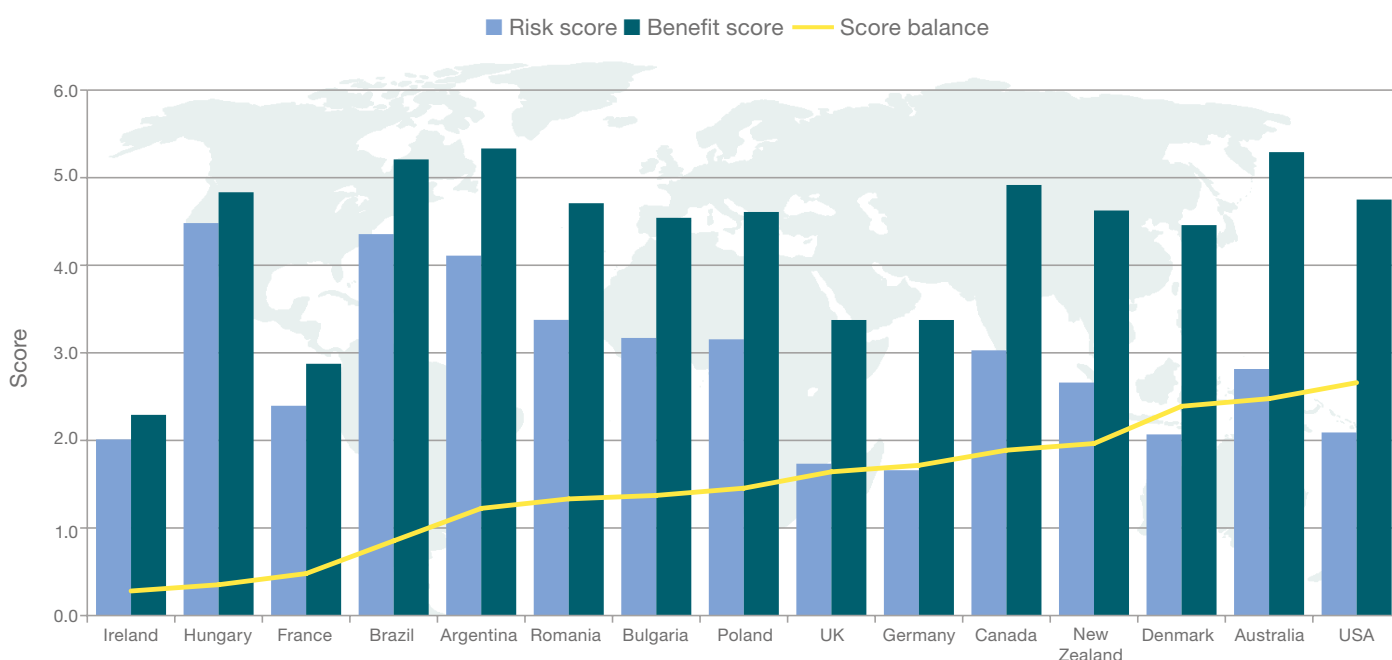
(the higher the better) is derived from a matrix of factors which identify potential agronomic advantage and investment returns.

SCORE BALANCE

(the higher the better) is calculated by subtracting the Risk Score from the Benefit Score. Figure 4 illustrates the three components with the Score Balance showing the potentially best opportunities ranked low to high from the left side of the graph.

The scores given are an indication of the relative risks between each country and should only be regarded as such. Although the types of risk may be similar, there are significant differences in the weightings for factors such as climate and infrastructure, between regions within countries. See page six for more details.

FIGURE 4 Opportunity and risk



Source: Savills Research. Various reports and data sources were used to lay the foundations of the matrix but this was overlaid with our experience and knowledge to ensure the final overall scoring/ranking for each country is realistic and current. **Risk Matrix Data Sources:** Freedom House, Control Risks, World Bank, Food and Agriculture Organisation of the United Nations (FAO), Bank of England (BoE), Datapunt, World Economic Forum (WEF), International Land Coalition (ILC), Organisation for Economic Co-operation and Development (OECD)

Key findings by country ranked as per Figure 4

USA and Australia	
	USA and Australia rank highest for investment. Large scale farming is a key driver in both countries. Location within these large regions is critical and the best opportunities require adequate rainfall/water, good soils and infrastructure. Both score well politically and economically, and the liquidity in their respective farmland markets is good.
Denmark	
	Denmark offers good opportunities and the lifting of the *FDI restrictions and opening up the market in Denmark has significantly increased its score in our matrix from bottom to third place since our analysis in 2012. Significant price correction has also created investment opportunities.
New Zealand, Canada and Germany	
	New Zealand, Canada and Germany (especially East Germany) benefit from relatively benign political risks. Agronomic opportunities are strong for production and trade resulting in potentially higher income returns, particularly within New Zealand and Canada. This has improved their relative positions in the matrix with Canada and Germany jumping slightly ahead of the UK since 2012 and New Zealand moving from sixth to fourth position.
UK	
	Although the UK sits just about in the middle of the table and is in a similar position to the 2012 matrix results, the abiding attraction of the UK to both UK and overseas investors is its liberal property laws, transparency of ownership, low taxation, and opportunities beyond farm income on land ownership which include development, energy and leisure. Its weaknesses are the difficulty of achieving farm scale due to a low turnover in the farmland market.
Poland, Bulgaria and Romania	
	The Central European counties surveyed have strong 'benefit' scores driven by healthy potential returns from good agronomic performance and the opportunity for large scale farming. However, these are dampened by increasing political and economic uncertainty and therefore the ranking of Central European markets in our matrix has fallen since 2012. This does not mean that opportunities do not exist but significant due diligence is required.
Argentina and Brazil	
	There are moves to lift the FDI restrictions in Argentina and, along with Brazil, it shows strong 'benefit' scores with the opportunity for large scale profitable agriculture but there are still significant political concerns and poor rural infrastructure can hamper the movement of goods. The ranking of South American markets in our matrix has also fallen since 2012. Again, this does not mean that opportunities do not exist but significant due diligence is required.
France, Hungary and Ireland	
	France and Hungary are still restrictive in terms of foreign ownership and in Ireland, large scale farming opportunities are rare, hence these countries feature at the bottom end of the risk and opportunity scale.

*FDI Foreign Direct Investment

RISKS

Where do the risks lie?

Politics



Political security, fiscal policy including taxation, economic and agricultural stability (reliance on subsidy), and currency have major implications on agricultural investments

Land Ownership



Opportunities are created when laws that limit, or prohibit foreign ownership are relaxed. Sometimes there are specific criteria or characteristics required on those who can acquire private ownership of land

Infrastructure



Reliable access to infrastructure is vitally important to maximising farm profits

Climate threats to production



The affect of climate on agricultural performance is significant and needs exploring

Farmland market liquidity



Entry and exit opportunities need to be assessed

Agricultural R&D



Willingness of governments and industry to embrace and invest in

BENEFITS

Agronomic factors, drive income returns

Size and scale of investment



Will the farm perform in the top percentile?
Is there an opportunity to maximise economies of scale?

Soil Quality



Soil type and quality relative to enterprise mix

Potential for yield/output increases



Also requires excellent management and resources to make improvements

Water Availability



What is the water availability?
Natural or ability to irrigate?

Supply Chain



The ability to move up the supply chain and get closer to the consumer may enhance agricultural productivity and investment returns.

Sustainability



This is increasingly important to retailers and consumers

Fundamentals of farmland ownership remain positive

The right asset in the right market will yield returns

Although our Global Index suggests a general 'slow down' in the average growth in values for global farmland, the rate of appreciation varies considerably around the world. We believe farmland investments will benefit from the long term positive fundamentals of farmland ownership, with increased world population, food production (balanced by reduction in food waste) and competitive land uses, such as renewable energy, driving demand.

These fundamentals offer farmland investors the opportunity to spread risk and maximise returns with a range of land-based

enterprises, from food to energy production. A farmland portfolio can cut across countries and regions, soil types, climates and enterprises enabling the ironing out of price volatility for inputs and outputs.

Successful return on investment relies on an increase in unit production through land improvement and the efficient use of the latest technologies, while balancing investment performance with a reasonable risk profile.

The right asset in the right market will yield positive returns for the investor in the long term. ■

FUTURE THEMES



Population growth



Changing diets



Alternative land uses



Food production





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Contact

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