



Q4 2014

CBRE GLOBAL INVESTMENT PARTNERS

GLOBAL FARMLAND INVESTMENTS

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CBRE Global Investment Partners focuses on farmland investments which capture growing global demand for food commodities.



We invest in countries which have a comparative advantage in production and market share in the relevant food type and manage risk by avoiding areas with heightened political risk, narrow profit margins, or high exposure to climate change.

Our model is to invest with local partners which are experts in the relevant product type within their local market through a variety of structures including funds, club deals and programmatic joint ventures.

Farmland is a productive real asset providing investors with exposure to agricultural commodity prices.

Investment characteristics include:

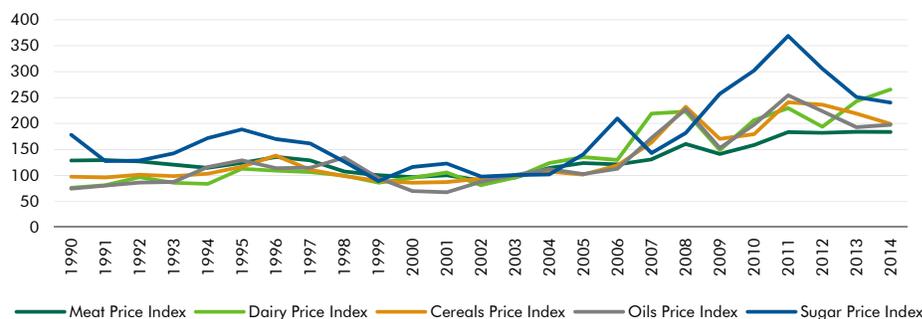
- Income yield
- Capital appreciation which has exceeded inflation
- Low correlation to other asset classes

Increasing demand for food has created a supply and demand imbalance over the recent decade that has driven up prices of agricultural commodities, with consequential growth in farmland values. In particular the emergence of an Asian middle class of 500¹ million has been a major shock to food commodity markets over last decade and will continue having a significant impact.

Key factors affecting the imbalance include:

- Finite supply of land and declining arable land per person
- Population growth and urbanisation in less developed countries
- Rising disposable incomes in emerging markets with increasing protein consumption
- Demand for biofuels

FAO Food Commodity Price Indices



Source: FAO Stat 2014

¹ Kharas, Homi (2010), "The Emerging Middle Class in Developing Countries" Development Centre Working Papers, No.2985, OECD Publishing

We construct portfolios of farmland investments which are selected to capture the macro drivers of food price growth, while minimizing risks such as political interference and climate change

WHY INVEST IN FARMLAND?

Including farmland in a real assets allocation can provide significant benefits in the context of a multi asset class portfolio. Investment characteristics include:

Income Yield

Lease payments from tenant farmers or through direct participation in net profits of the farming operation provide attractive income yields. These vary widely depending on product type, location and environmental factors. In mature markets, net income yields range from 2.0% to 4.5% for tenanted farms. Yields for operated farms are higher on average, but are more volatile as they are more directly exposed to annual variation in production levels and commodity prices.

Capital Growth

Farmland values are driven primarily by commodity prices and productivity levels. These factors have contributed to a recent strong growth trend in farmland values in prime areas. In developing markets, quality and access to transport infrastructure are also significant. Land suffers little obsolescence provided it is well maintained and conversely values can be increased through active management to improve the productivity of the land.

Inflation Hedge

Farmland has a low correlation to most traditional asset classes but a positive correlation with inflation as seen in the chart to the right.

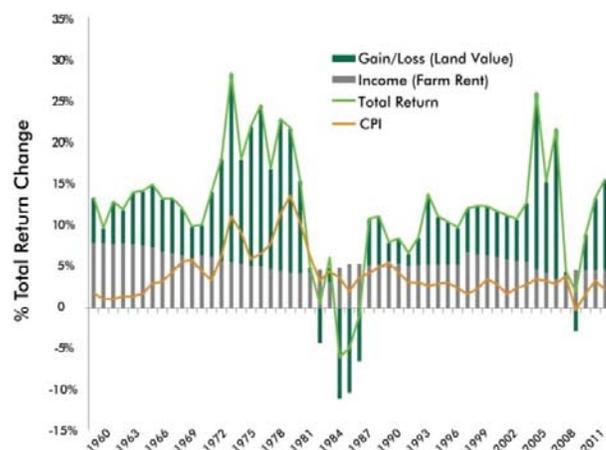
Attractive Risk-Adjusted Returns

A Sharpe Ratio measures the excess return per unit of risk, or 'Risk Premium', in an investment asset. From 1991 to 2013, the Sharpe Ratio for US farmland was higher than that achieved by commercial real estate, bonds, and large cap equities as shown in the table and chart to the right.

Portfolio Diversification

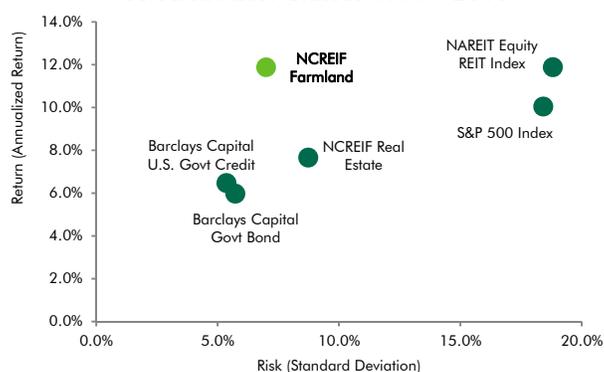
The low or negative correlation between farmland and traditional asset classes such as stocks and bonds make farmland particularly attractive as a portfolio diversification tool as shown in the following matrix.

U.S. Farmland Returns and Inflation (1960-2012)



Source: USDA ERS, USDA NASS, U.S. BLS

Historical Risk & Return Profile for Selected Asset Classes 1991 - 2013



Sources: NCREIF, Bloomberg & CBRE GIP

| 1991- 2013 | Annualised Average Return | Risk (Standard Deviation) | Sharpe Ratio |
|----------------------------------|---------------------------|---------------------------|--------------|
| NCREIF Farmland | 11.9% | 7.0% | 1.70 |
| NCREIF Real Estate | 7.7% | 8.7% | 0.88 |
| NAREIT Equity REIT Index | 11.9% | 18.8% | 0.63 |
| Barclays Capital Govt Bond | 6.0% | 5.7% | 1.05 |
| Barclays Capital U.S.Govt/Credit | 6.5% | 5.4% | 1.21 |
| S&P 500 Index | 10.1% | 18.4% | 0.55 |

Source: NCREIF, Bloomberg & CBRE GIP

| Correlation Matrix USA 1991-2013 | NCREIF Farmland Index | NCREIF Property Index | NAREIT REIT Equity Index | Barclays Capital Govt Bond | Barclays Capital U.S. Govt/Credit | Consumer Price Index | S&P 500 Index |
|--|-----------------------|-----------------------|--------------------------|----------------------------|-----------------------------------|----------------------|---------------|
| NCREIF Farmland Index | 1.00 | | | | | | |
| NCREIF Property Index | 0.43 | 1.00 | | | | | |
| NAREIT Equity REIT Index | -0.05 | 0.00 | 1.00 | | | | |
| Barclays Capital Govt Bond ² | -0.24 | -0.08 | -0.08 | 1.00 | | | |
| Barclays Capital U.S. Govt/Credit ² | -0.35 | -0.17 | 0.14 | 0.90 | 1.00 | | |
| Consumer Price Index | 0.13 | 0.17 | 0.35 | 0.02 | 0.08 | 1.00 | |
| S&P 500 Index | -0.02 | 0.11 | 0.45 | -0.25 | 0.03 | 0.15 | 1.00 |

Source: NCREIF, Bloomberg & CBRE GIP

²: Barclays Capital

INVESTIBLE UNIVERSE

There are 1.4 billion³ hectares of land in agricultural production across the world, ranging from highly intensive “factory” farms to marginal farmland with very low density grazing by livestock. Industry estimates suggest the institutionally investible universe of farmland is US\$1 trillion⁴. Global institutional ownership represents a very small proportion (US\$35 billion). Of this amount, around 10% is included in the US NCREIF Farmland Index. A global farmland investment strategy needs to start with a clear definition of what should be included in the investible universe. CBRE Global Investment Partners defines our farmland investment universe using two filters:

| | |
|--------------------------------|---|
| Country Risk | Political risk, restrictions on foreign ownership of farmland, property rights, adequacy of transport infrastructure, domestic food security risk, sufficient market size for exit liquidity |
| Agricultural Production | Comparative advantage of a country in the production of specific agricultural products based on environmental suitability, relative importance in global market for relevant commodity, comparative cost of production, and level of expertise in relevant area |

COUNTRY RISK ANALYSIS

As a foreign investor, owning rural land can be problematic in many countries and this quickly reduces the eligible countries for inclusion in a global farmland portfolio. Countries like Australia have clear ownership frameworks and are accessible to foreign investors. Others require majority domestic ownership so a foreigner can only invest via a minority shareholding. Regulations can also differ within countries, as is the case between different states and provinces in the USA and Canada. Corruption, infrastructure weakness and a lack of transparency can also have a significant impact. We show below an overview of how large agricultural producing countries rank against these indicators and our conclusions regarding which countries are investible.

| Large Agricultural Producing Countries | Australia | Brazil | Bulgaria | Canada | Chile | Denmark | France | Germany | Hungary | Ireland | Italy | Japan | Mexico | New Zealand | Poland | Romania | Russia | South Africa | Spain | Sweden | United Kingdom | United States | Uruguay | |
|--|-----------|--------|----------|--------|-------|---------|--------|---------|---------|---------|-------|-------|--------|-------------|--------|---------|--------|--------------|-------|--------|----------------|---------------|---------|---|
| Corruption Index | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Foreign Ownership | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Infrastructure Rank | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | * |
| Real Estate Transparency | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | * |
| Investible Country | ✓ | ✓ | ✗ | ✓ | ✓ | ✓ | ✗ | ✓ | ✗ | ✓ | ✗ | ✗ | ✗ | ✓ | ✓ | ✓ | ✗ | ✗ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

● Tier 1: Corruption Index Score >70, Infrastructure Risk <25, Real Estate Transparency <2.5, Foreign Ownership: Limited restrictions
 ● Tier 2: Corruption Index: > 60 but < 70, Infrastructure Risk < 40 but > 25, Real Estate Transparency < 3.0 but > 2.5, Foreign Ownership: Moderate restrictions; ● Below Tier 2 Ranking.
 Conclusions: ✓: Investible, ✓: Invest but with caution (structuring/ownership issues more complicated), ✗: Not investible [* Information not available]
 Sources: Transparency International – Corruptions Perception Index 2013, Heritage Foundation 2014, Economist Intelligence Unit 2013, Jones Lang LaSalle Transparency Index 2013, various government sources and legislation, CBRE Global Investment Partners

AGRICULTURAL PRODUCTION ANALYSIS

The second filter is to consider the types of agricultural production in each of the investible countries. Our approach is to focus on the commodities for which each country has a comparative advantage in the production of that food commodity. We also favour commodities which we believe will benefit most from the macro theme of increasing demand for protein in developing markets. The six principal criteria considered in our filter process include:

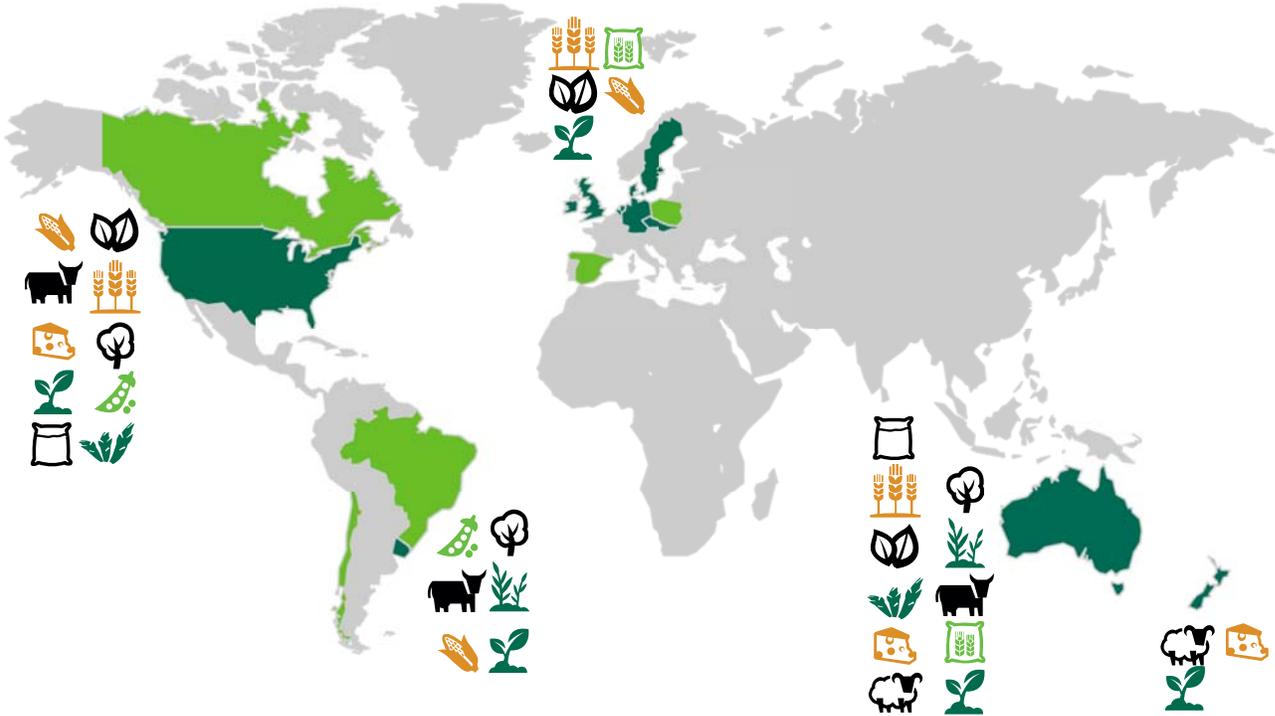
- Environment: Suitability of temperature, water availability and distribution, soils, presence of diseases/pests
- Scale of production and significance in global market
- Macro Themes: Correlations such as growing import demand from fast growing emerging economies
- Cost of production on a comparative basis, proximity to key customer markets
- Availability: Access to good quality land for specific production, sufficient liquidity to enter/exit
- Expertise: Competent professional farmers, effective industry promotion body

³ World Bank 2011 data ⁴ Macquarie Group 2012

Our review covered a range of key globally traded crops and animal products within our investible universe. Based on our criteria, the countries with a comparative advantage in their production and trade are identified below.

| Selected Crops | Wheat | Soybeans | Corn | Milk /Milk Powder | Sugar | Cotton | Oats | Canola/ Rape | Sorghum | Barley | Beef Cattle | Rice | Sheep Meat | Selected Permanent Crops |
|----------------|-------|----------|------|-------------------|-------|--------|------|--------------|---------|--------|-------------|------|------------|--------------------------|
| Australia | ● | | | ● | ● | ● | ● | ● | ● | ● | ● | | ● | ● |
| Brazil | | ● | ● | | ● | ● | | | | | ● | | | |
| Canada | ● | | | | | | ● | ● | | ● | ● | | | |
| Chile | | | | | | | ● | | | | | | | ● |
| European Union | ● | | ● | | | | ● | | | ● | | | | ● |
| New Zealand | | | | ● | | | | | | | | | ● | ● |
| United States | ● | ● | ● | ● | | ● | | | ● | | | | | ● |
| Uruguay | | | | | | | | | | | ● | | | |

COUNTRY & AGRICULTURAL PRODUCTION MAP



-  Corn/Maize
-  Soybeans
-  Sugar cane
-  Sheep Meat
-  Oats
-  Wheat
-  Dairy/Milk
-  Beef Cattle
-  Barley
-  Sorghum
-  Cotton
-  Canola/Rapeseed
-  Permanent Crops

CASE STUDY: DRY MILK/MILK POWDER

We believe New Zealand is a preferred market to invest in dairy farms. Using New Zealand Dairy as a case study, we will walk through our filtering process to illustrate how we reached this conclusion.

At a country level, New Zealand scores well on the corruption, infrastructure, transparency and foreign ownership indices. The New Zealand Overseas Investment Office assesses applications for foreign ownership of farmland and has set criteria which are achievable for responsible institutional investors. It is therefore classified as an investible country.

Environment

Good rainfall and available water in a temperate maritime climate - South Island more reliable than North Island. Tight border controls and biosecurity monitoring prevent many foreign pests/diseases.

Scale in Global Market

New Zealand holds a significant share of the global export market for dry milk/whole milk powder (30%) whilst producing 11% of global milk powder.

Correlation with Macro Themes

Fast growing developing economies are significant importers of milk powder as a source of low cost protein (compared to meat). Import demand from China for example has grown by 11% p.a. (average) over last 5 years. A Free Trade Agreement was signed between New Zealand and China in 2008.

Profitability

New Zealand is a global leader in low cost pasture systems (i.e. grass not grain) which is uncorrelated to grain prices as an input cost. Subsidies were removed in 1984 and dairy farms generate high profit margins by international standards. New Zealand has a reputation for food safety and consistency of production and has relative proximity to key Asian markets (lower freight costs).

Availability

Dairy farms are a liquid farmland asset in New Zealand with 12,140 farms traded in 2013 (NZ\$3 bn⁶ in value).

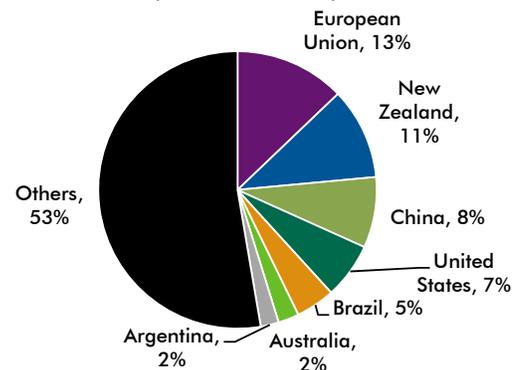
Expertise

Well-developed professional farmer culture in New Zealand with a robust share-milker workforce. Fonterra is the dominant dairy cooperative in New Zealand and is a very strong marketing body globally.

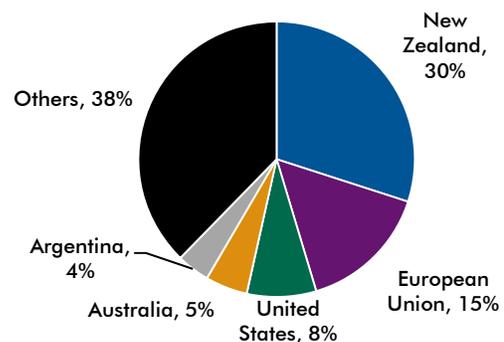
In comparison Australia and the USA are considered secondary markets for dairy given Australia's climate volatility and the US reliance on grain fed systems which have a higher correlation to the grain price.



Global Production of Dry Milk Powder (% Market Share)



Global Exports of Dry Milk (% Market Share)



Dry Milk/Milk Powder Imports



Source: USDA (Average annual figures from 2010/11-2014/15(f))
Note: Percentage figures marked represent % share of global imports over same period

⁶ Real Estate Institute of New Zealand

ACCESSING FARMLAND INVESTMENTS IN PREFERRED MARKETS

We believe farmland is very much a local business and therefore our investment model focuses on finding the best local operating partners for our chosen investment strategies. We select active operators who are able to extract greater productivity, income and exit land value from assets through applying best in class farm management practices.

- We source these local operators through our networks and analyse individual opportunities, leveraging the CBRE group by working with the CBRE Agribusiness and Valuation business lines as well as our contacts in the industry including consultants, industry associations and investor groups.
- We are willing to take on operating risk with proven partners. A combination of leasing and operating farmland investments in a global portfolio provides some stable cashflow with the ability to participate in potential upside from commodity price growth and superior farm management. We pursue leasing strategies in markets where it is established practice and preferably to corporate tenants.
- We take a prudent approach to leverage given the seasonal nature of cashflows in farmland.
- We invest using a variety of structures including funds, club deals and programmatic joint ventures.
- We are signatories to the UN Principles for Responsible Investment and are very focused on investing responsibly in the farmland sector. We prefer to work with partners who follow environmentally sound land management practices, with a high regard for animal welfare and compliance with regulations.

We welcome the opportunity to share our capabilities at CBRE Global Investment Partners for investment in this growing asset class. For more information please contact:

JEREMY PLUMMER

CEO, CBRE Global Investment Partners

T. (44) 20 7809 9342

jeremy.plummer@cbreglobalinvestors.com

ALEXANDRA CROSSING

Portfolio Manager, CBRE Global Investment Partners

T. (65) 6593 3482

alex.crossing@cbreglobalinvestors.com

ALICE WILCOX

Investor Services, CBRE Global Investment Partners

T. (44) 20 7809 9359

alice.wilcox@cbreglobalinvestors.com

MATT TEPPER

Portfolio Manager, CBRE Global Investment Partners

T. (1) 617 425 2805

matt.tepper@cbreglobalinvestors.com

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