Reaping the rewards of farmland

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When the economic history of 2013 is written, it will surely be remembered as the year of unprecedented policy experimentation. In the US, the Federal Reserve expanded its balance sheet by more than $1 trillion, purchasing $85 billion of treasuries and mortgage-backed securities each month. In April, the Bank of Japan trumped this with monthly asset purchases of $70 billion a month in an economy of less than half the size of the US. Its aim is to double the size of Japan's monetary base.

If Nobel prize-winning economist Milton Friedman was right and inflation is "always and everywhere a monetary phenomenon", investors with liabilities linked to prices should take note. Periods of high government indebtedness also tend to be associated with inflation surprises as Reinhart and Sbrancia show in a recent paper.[1] The good news is that there is an expanding menu of real assets that potentially offer inflation hedging and attractive investment returns.

At Insight Investment we believe investing in farmland merits particular attention. In addition to its potential inflation-hedging characteristics, it can also generate income and capital growth. As an asset class, farmland is supported by both investment fundamentals, and positive supply and demand dynamics. The global population, according to the latest estimates of the United Nations, will rise from 7.2 billion in mid-2013 to 9.6 billion over the next 40 years. As countries grow wealthier their populations tend to eat more meat. The Chinese eat six times as much meat as they did in 1980, though that is still less than one-third of per capita consumption in the US.

It takes 3kg of grain to produce 1kg of meat and, as a result of increased urbanisation and other trends, the amount of arable land per capita globally has almost halved in the last 40 years.[2] Growth in the production of cereals per hectare due to better fertilisers and agronomy is now stagnating at 1% per annum. Though predictions of a Malthusian crisis have fortunately been proved to be wrong, many scientists believe feeding the planet will be one the greatest challenges of the 21st century.

Farmland is the ultimate beneficiary of the returns from agriculture. There are three potential sources of returns: farming income from selling the commodities produced; land value appreciation; and incremental returns from enhanced productivity. These distinct sources of return are also a source of portfolio stability. Commodity prices can be volatile, but in the United States, the only country where reliable long-term data exists, there are only three years in the last sixty that saw declines in both agricultural commodity prices and farmland values.

US data also points to the inflation-hedging credentials of farmland. In inflation-adjusted (real) terms, the return from farmland, excluding income, increased by 4.3 times between 1951 and the end of 2012[3] (Figure 1 shown overleaf). Over the same time period, the Commodities Research Bureau Foodstuff index was flat in real terms.

Accessing the opportunity

The investment case for farmland is compelling, but it requires skill and resources to make the most of the opportunity. The biggest risks to any investment in agriculture are fluctuating commodity prices, disease/ pests and climate impacts. The best way to mitigate those risks is to adopt a global, commodity-diverse approach to investment. Farmland investment risk is further controlled and returns enhanced by focusing on those countries where there is a clear comparative advantage in production.

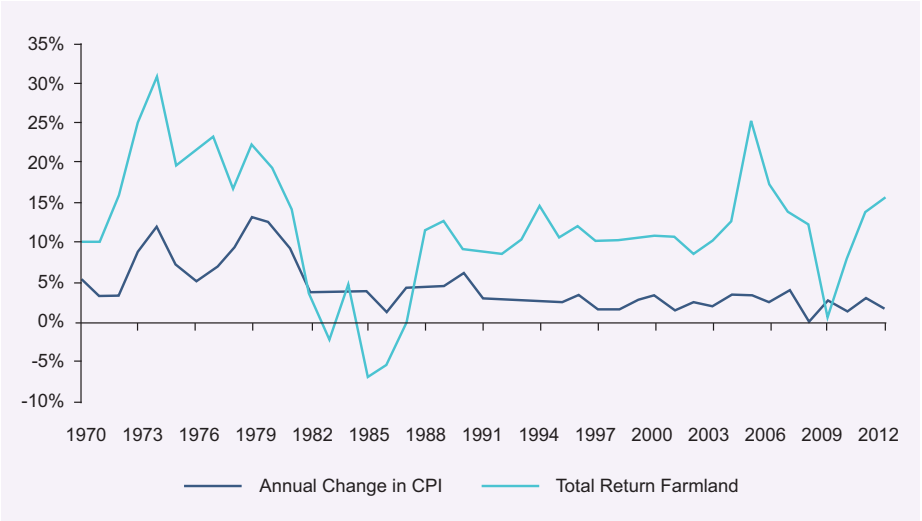
Insight's focus for farmland investments is on those countries which have such an edge. For example, Australia is a target location for cattle investment due to a strong disease-free status. The country has never experienced an outbreak of Bovine Spongiform Encephalopathy (BSE) and has been free of Foot and Mouth disease for more than a century. Of the major cattle rearing countries, only Chile and New Zealand can boast similarly strong track records.

Additionally, the majority of Australian beef exports are from grass-fed herds. While there is debate about the merits of different cattle grazing systems and the quality of the end product, grass-fed herds do not rely on expensive soy, barley or other grains as feeds. This means Australian cattle producers are less exposed to the volatility of inputs (grain) making their income stream from their output (live cattle and beef) more predictable.

The wide variance in land values and production costs is something that is little appreciated outside of the agricultural sector – farmland is not an efficient market. Another example of comparative advantage is New Zealand dairy farming. These herds are also predominantly grass-fed. The mild and wet climatic conditions that predominate favour grass production. The ability to keep cows outside all year round and avoid the intensity of winter housing, not only offers production cost advantages, but also avoids problems associated with effluent from preserved forage and manure. This results in improved animal welfare.

This farming system allows New Zealand dairies to produce milk at a cost typically between US$3 and US$4 per kilogramme of milk solids. This contrasts with milk production in the northern hemisphere, with the exception of western coastal areas of Europe, where cows need to be housed in the winter, and fed grains and preserved forage. In many countries cows are now housed year round on "confinement" farms. These countries typically operate with a cost of production of between US$4 and US$6 per kilogramme of milk solids (Figure 2 shown on the following page).

Figure 1: Natural hedge against inflation: Farmland returns vs. inflation rate

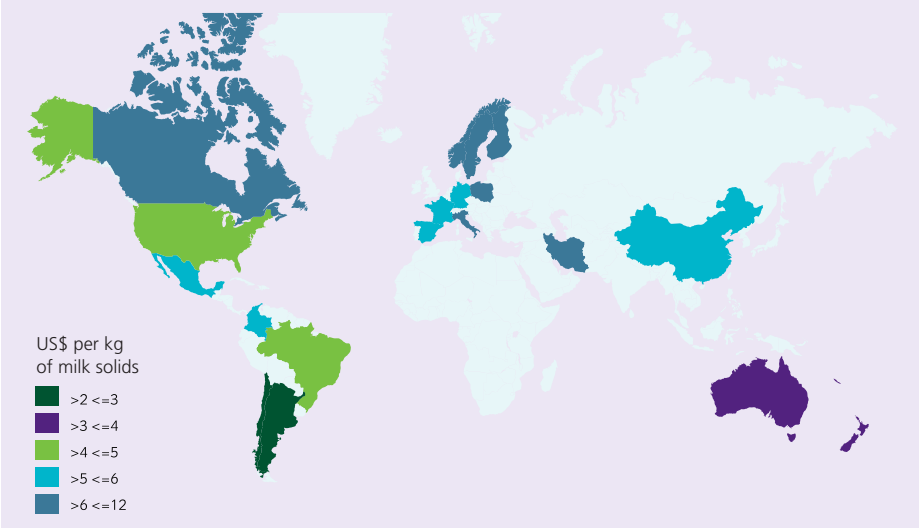


Source: USAD, Bloomberg

From field to portfolio

In addition to comparative advantage, when Insight assesses investments for its farmland strategy three criteria must be met: the ability to generate stable income; the potential for land value appreciation due to strong fundamentals; and the capacity to accelerate value creation through active management and productivity gains. The benefits of this active management approach can be illustrated by the strategy's investment in Thames Diary, a 358 hectare farm in the Southland

Figure 2: New Zealand – comparative advantage in cost of milk production



Source: International Farm Comparison Network Dairy Report 2012

region of New Zealand purchased in July 2012.

Steps have been taken to boost productivity by investing in infrastructure and improving animal husbandry. The 50-bale rotary cowshed has been upgraded, water resources improved, and drainage and pastures enhanced. These investments have already improved milk production, from an average of 400,000 kg/ha milk solids annually to 423,000 kg/ha milk solids, which in turn boosts the value of the land.

A fringe benefit of investing in countries that have a comparative advantage in specific areas of food production is that these farms are also the most sustainable. In pasture-based dairying, animals are kept in their natural environment rather than on confinement farms. This not only results in a lower cost of production, it also means the cows live longer and are less susceptible to disease.

Milk from grass-fed herds also has lower levels of saturated fat. A study by researchers at Harvard University's school of public health has shown that the high levels of conjugated linoleic acid (CLA) in grass-fed dairy products can also protect against heart disease.

What is good for investors is good for cows and good for food consumers.

1. The Liquidation of Government Debt, BIS Working Paper no 363, Carmen N Reinhart and M Belen Sbrancia, discussion comments by Ignazio Visco and Alan Taylor

2. Food and Agricultural Organization of the United Nations (FAOSTAT), 2013

3. United States Department of Agriculture