THE HOW AND WHY OF INVESTING IN AGRICULTURE

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BetaShares
Exchange Traded Funds

Although Australia is a major agricultural exporter, the typical Australian investor's portfolio tends to have relatively low exposure to agriculture or "soft commodities". Indeed, the benchmark S&P/ASX 200 equity index has significantly less than 1% exposure to agricultural companies . That said, there are solid reasons for local investors to consider some agricultural exposure as part of a well-diversified investment portfolio.

For starters, agriculture is a key global sector likely to enjoy a solid long-term or "secular" demand outlook as a rising global population and improved per-capita incomes are increasing both the quantity and quality of food demanded worldwide. Over the short-term, moreover, there appears particularly good upside price potential as an unusually extended period of good global growing conditions has pushed many agricultural prices to relatively low levels. And irrespective of short-term price movements, due to the relatively low correlation between agricultural sector performance and the Australian equity markets more broadly, some exposure to the agriculture sector offers a potentially handy extra source of portfolio diversification for Australian investors.

Given the growth in the local exchange traded funds sector, it's never been easier or more affordable for Australian investors to gain transparent and diversified exposure to agricultural commodities or agriculture companies.

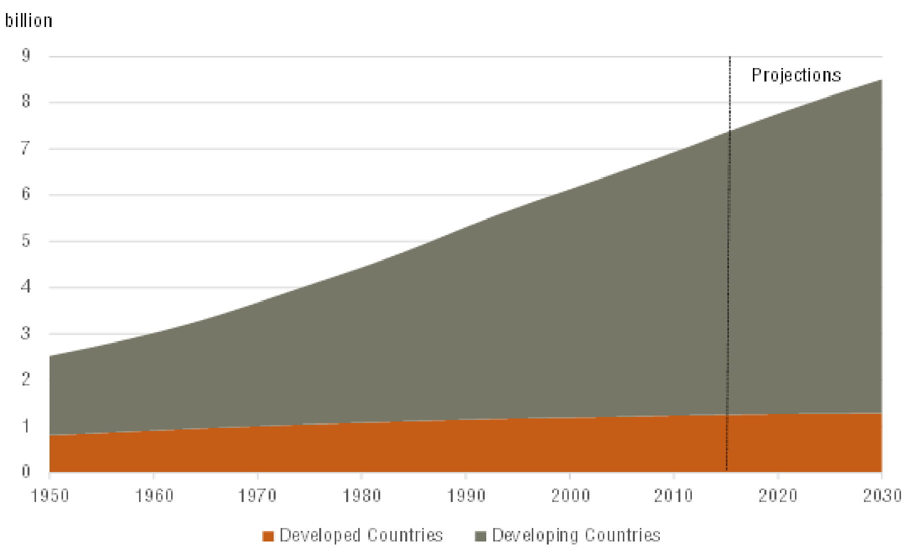
AGRICULTURE IS A "SECULAR" GROWTH INDUSTRY

Although agricultural prices tend to be volatile from year to year - largely reflecting weather related volatility in supply conditions – underlying demand for agricultural products has lifted in recent years and is likely to remain quite firm in the years ahead. Indeed, amid all the uncertainties over sector winners and losers in the evolving global economy, one fact remains: people need to eat.

After slowing from a 3% annual pace in the 1960s to a low of around 1% by the late 1990s, growth in global grain consumption returned to a near 2% annual growth rate over the past decade, due to rising demand from the key emerging economies of China, Brazil and India. Rising population growth – and equally importantly, rising living standards – has underpinned this growth in demand.

As seen in the chart below, according to the latest United Nations population projections, the global population will expand from 7.3 billion people in 2015 to 8.5 billion by 2030. In short, over the next 15 years, the world will have 1.2 billion more mouths to feed.

GLOBAL POPULATION PROJECTIONS: 1950-2030

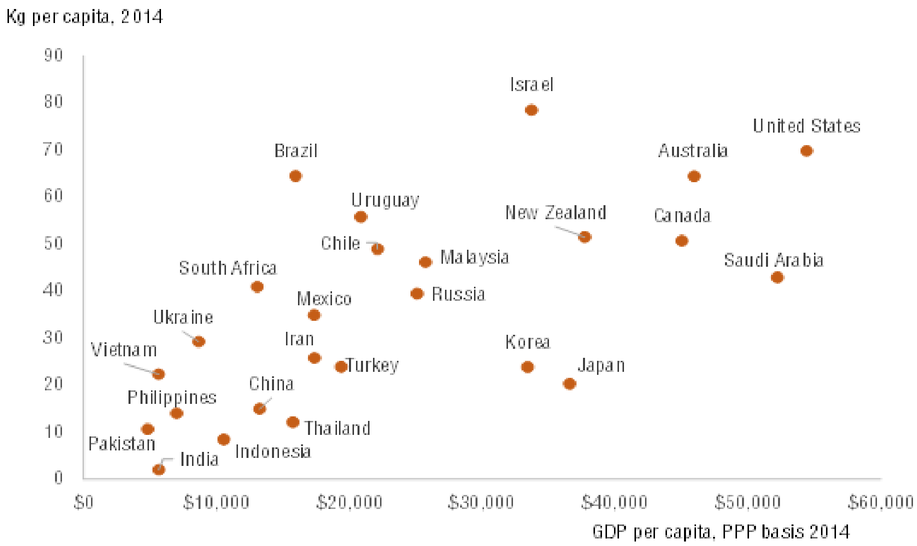


Source: UN Population Projections, 2016.

1 Source: Bloomberg, as at 30 June 2016

At the same time, virtually all of the world's population growth (97%) is expected to occur in less developed countries. As seen in the chart below, there is a clear positive correlation between per-capita consumption of key agricultural products and per-capita income levels. Rising living standards in the developing world, therefore, should support further demand growth for agricultural products.

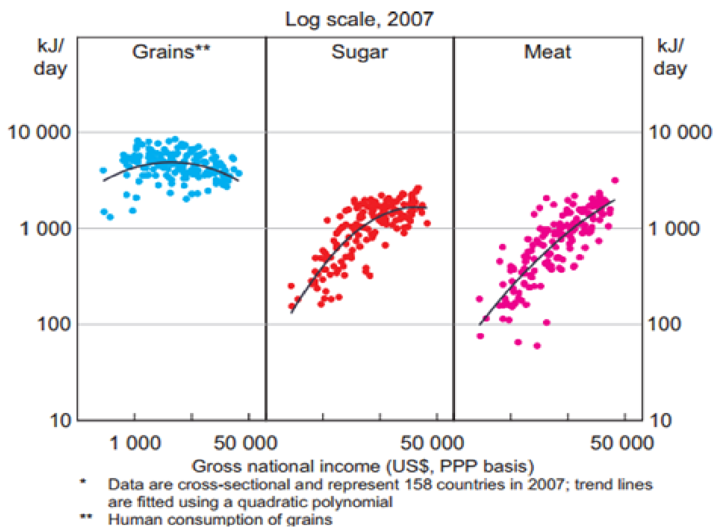
PER- CAPITA FOOD CONSUMPTION AND GROSS DOMESTIC PRODUCT:2014



Source: OECD-FAO Database

The composition of food demand is also evolving in line with global living standards. As seen in the chart below, at relatively low per-capita income levels, overall demand for basic foods such as grain tends to rise faster than income, as per-capita "calorie" consumption levels rise. Beyond a certain level of income, however, while overall food demand then tends to slow relative to income growth, the quality of food demanded tends to rise, as reflected in more sugar intensive and protein-rich diets. The associated rise in demand for meat and dairy products then generates further demand for grain, which is needed to feed required cattle, poultry and pigs.

PER- CAPITA FOOD DEMAND AND INCOME*



Source: OECD-FAO, World Bank, RBA

2 OECD-FAO AGRICULTURAL OUTLOOK 2016-2025

Another source of agricultural demand in coming years is likely to be the biofuel industry, especially if demand and prices for traditional energy sources such as oil remains reasonably high. According to the latest OECD-FAO projections , global ethanol production is expected to expand modestly from 116 to 128.4 billion litres between 2015 and 2025, with half this growth coming from Brazil.

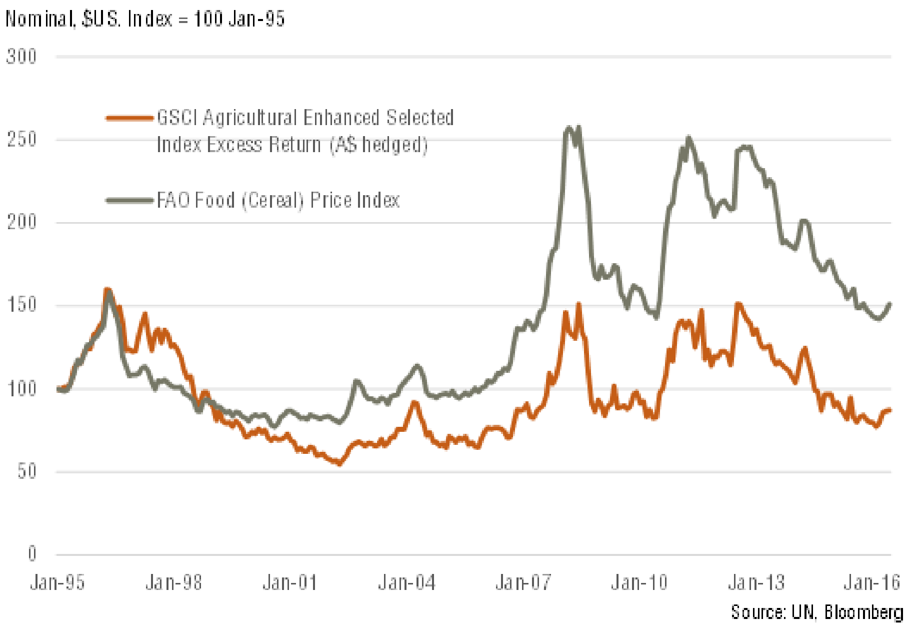
All up, the latest OECD-FAO projections suggest per-capita consumption of key agricultural products – meat and dairy products in particular - is expected to grow strongly across the developing world over the next decade. In turn, this would also drive strong demand for grains, both for human consumption and feedstock.

CONSUMPTION OF KEY AGRICULTURAL COMMODITIES BY REGION: FORECAST 10-YEAR GROWTH TO 2025

Note: ZAF refers to South Africa.
Source: OECD/FAO (2016), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), http://dx.doi.org/10.1787/agr-data-en.
StatLink http://dx.doi.org/10.1787/888933381185

AGRICULTURAL PRICES APPEAR POISED TO BOUNCE

After relatively stable price performance in the late 1990s and earlier last decade, agricultural prices have since tended to trend upward, with two particular periods of explosive price performance in 2008 and 2011-12.

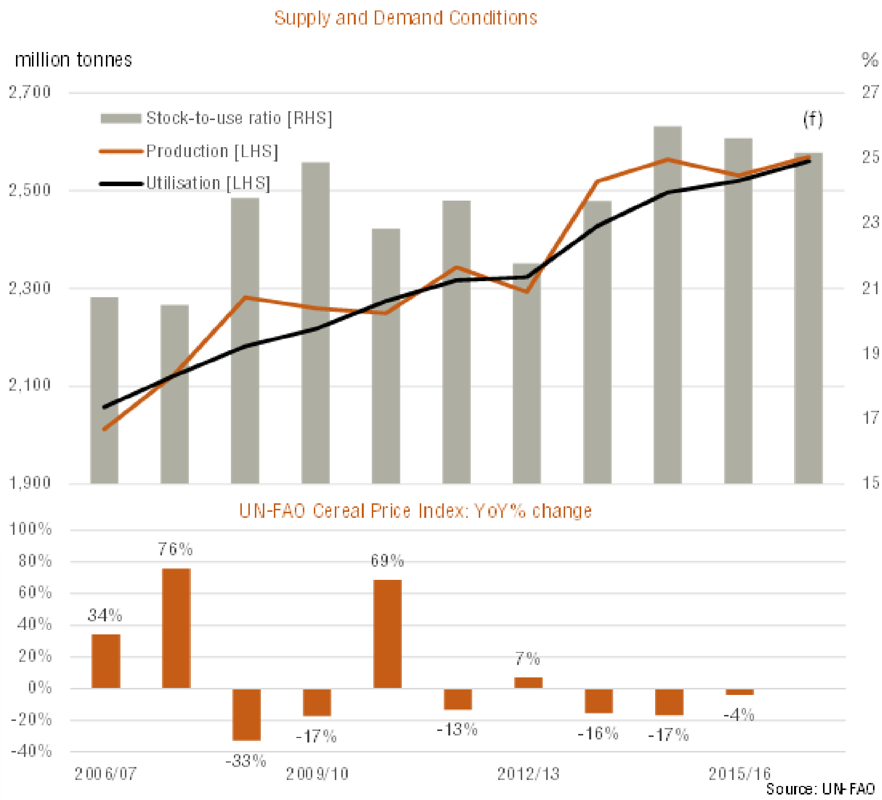


Source: International Grains Council

3 The Food and Agricultural Organisation of the United Nations (FAO) reflects selected benchmark $US spot prices for wheat, maize and rice. The GSCI Agricultural Enhanced Selected Index Excess Return (A$ hedged) tracks a weighted average of the futures prices for corn, soybeans, sugar and wheat.

As seen in chart below, these periods of strong price performance reflected periods of already low and/or falling global stocks levels at a time when weather-dependent global production struggled to match the trend rise in global demand.

GLOBAL CEREALS MARKET: FY'07 TO FY'16



Source: International Grains Council

Despite ongoing solid demand for agricultural products in recent years, however, food prices have generally been subdued due to an unusually extended period of good global growing conditions, particularly in the United States.

According to UN-FAO estimates, in the two years to end-June 2015, global cereal demand (dubbed "utilisation") rose by a solid 7.5%, but this was surpassed by an 11.8% lift in global production. While demand has continued to grow, and production has levelled out, the latest UN-FAO projections suggest both supply and stocks should remain at sufficiently healthy levels to keep the market well supplied in 2016-17.

That said, with the slide in agricultural prices to relatively low levels (by the standards of recent years), and global production having enjoyed several years of good growing conditions, there are clearly upside risks to prices if and when weather conditions (inevitably) are less supportive of production. Increasingly volatile weather patterns in the face of global warming only add to this risk.

INVESTING IN AGRICULTURE HAS NEVER BEEN EASIER OR MORE AFFORDABLE

Investors interested in gaining exposure to the agriculture sector have a number of options at their disposal.

Most obviously there is direct ownership of grain, livestock – or even farms. But for most investors this is not practical due to the high costs of storage, high investment minimums and/or expert management time required. These investments are also not very diversified.

Another option is to gain exposure through commodity price futures. But direct investment in commodity futures is generally the preserve of large sophisticated investors and institutions due to the need for specialised trading accounts, high minimum investments and well developed skills to carefully manage the risks involved.

To overcome these constraints, another option is to invest in a professionally managed fund that in turn invests in commodity futures. The BetaShares Agriculture ETF - Currency Hedged (synthetic) (ASX Code: QAG), for example, enables investors to gain exposure to the $US futures price of a basket of agricultural commodities such as corn, wheat, soybeans and sugar. This may be a suitable option for investors that want to take a view on the specific direction in agricultural prices, especially over the short-term.

Over the longer-term, however, investors need to remain mindful that the performance of futures and spot agricultural prices can increasingly deviate over time, due to positive and negative "roll returns" from holding future contracts [4].

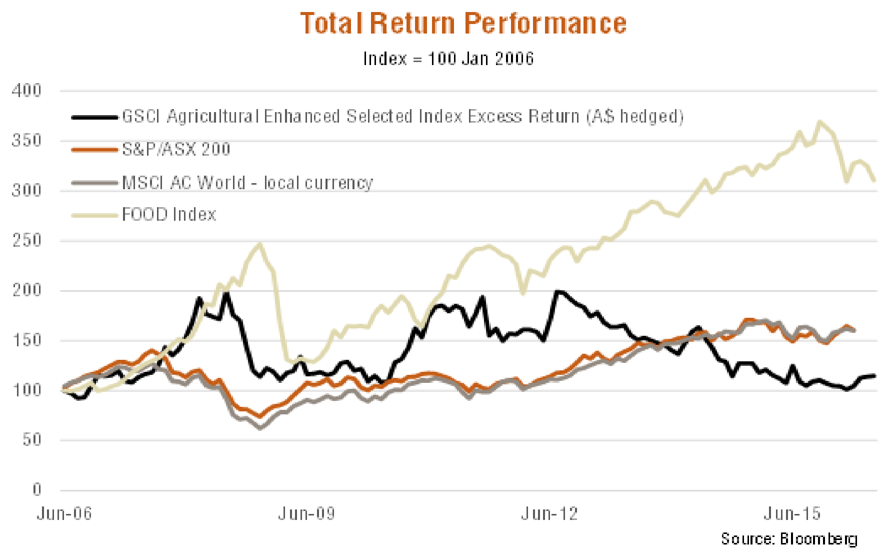
Another option is to invest in agriculture companies. Indeed, investors can already with little difficulty invest in one or more of a handful of Australian listed agricultural stocks, such as GrainCorp and the Costa Group. The problem with this approach, however, is that it can expose investors to undue stock-specific risk, especially given the risk of various agricultural supply side shocks – such as arising through climate change or new technology – that could affect individual companies. Handling investments across a number of stocks just to gain broad industry exposure also adds to an investor's administrative burden, due to the need to deal with regular multiple corporate actions and income distributions.

To overcome these challenges, the BetaShares Global Agriculture Companies ETF – Currency Hedged (ASX Code: FOOD), by contrast, provides investors an easy and transparent way to gain diversified exposure to some of the world's leading agricultural companies outside of Australia. FOOD invests in around 50 of the world's largest global agricultural firms outside of Australia, which at end-June 2016 had an average market capitalisation of $10.2 billion. That compares, for example, with market capitalisation of only $2 billion and $1 billion for GrainCorp and Costa Group respectively.

As has been particularly evident in recent years, one advantage of gaining diversified exposure to agriculture companies – as distinct from food prices per se - is that even over periods in which the food prices are relatively stable, companies across the agricultural sector may still be able to generate good profits and positive investor returns.

Indeed, as seen in the chart below, the index of agricultural companies that FOOD aims to track has handily outperformed both Australian and global equities over the past decade, reflecting both solid underlying demand for agricultural products and rising producer productivity (as reflected in rising food yields).

BETASHARES GLOBAL AGRICULTURAL ETFS' UNDERLYING INDICES (CURRENCY HEDGED) VS MSCI WORLD INDEX & S&P/ASX 200 INDEX: JUNE 2006 – JUNE 2016



Source: Bloomberg. The Index which FOOD aims to track is the Nasdaq Global ex-Australia Agriculture Companies Hedged AUD Index. You cannot invest directly in an index. Performance excludes the impact of ETF fees and expenses. Past performance is not an indication of future performance of the Index or the ETF.

Another factor to consider when owning agriculture companies is that their share price performance can be highly susceptible to food price movements, and so can provide relatively more magnified returns (both positive and negative) over the food price cycle.

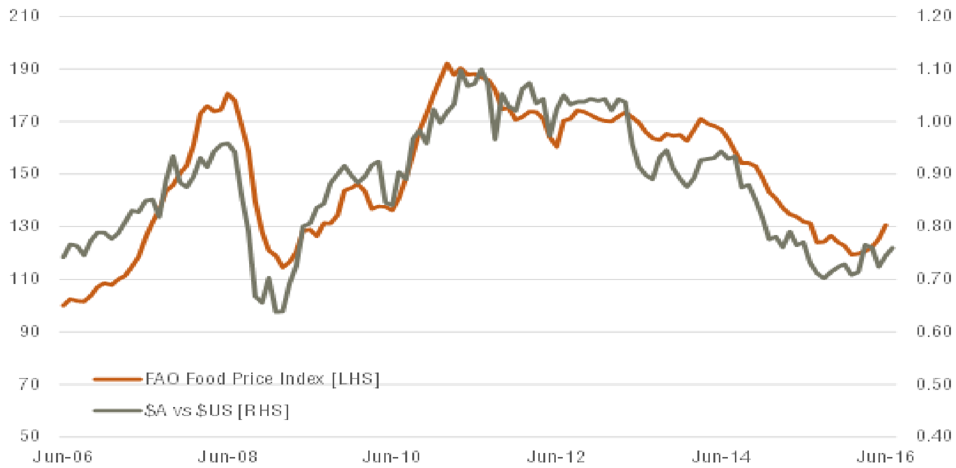
Currency Hedging

When seeking investment exposure to agriculture, another issue to consider is currency hedging. Both of the BetaShares QAG and FOOD ETFs provide currency-hedged exposure. That means the investment performance of both Funds will be more directly correlated with the performance of the global agricultural futures and company prices respectively, and less so by the often erratic shifts in the Australian dollar exchange rate against other currencies.

4 When future prices are above spot prices, the market is said to be in "contango", and holding futures positions involves a "negative roll" cost. By contrast, when futures prices are below spot prices, holding a futures position over time provides an extra "positive roll" return.

In the case of a commodity related global investment exposure such as agriculture, hedging can be particularly important for Australian investors. That's because of the tendency, as seen in the chart below, for the Australian dollar to follow broad commodity price cycles, i.e. in periods when the food prices have tended to rise, the Australia dollar (as a "commodity currency") has also tended to rise and vice-versa.

FOOD PRICES (IN $US) AND THE AUSTRALIAN DOLLAR – JUNE 2006-JUNE 2016



Source: Bloomberg. Past performance is not an indicator of future performance.

Administrative and Tax Issues

Investors also have the option to invest in agriculture via the local Australian market or through offshore exchanges. Where possible, investing locally has obvious administrative advantages for Australian investors. But even when investing in Australia, there is also the issue of whether a particular investment on offer is locally domiciled, or "cross-listed" from another foreign exchange, such as in the United States.

Like all BetaShares Funds, both QAG and FOOD can be bought and sold on the Australian Securities Exchange (ASX), and are Australian domiciled funds. Therefore, investors can buy or sell exposure to either Fund just as easily as that for locally listed company shares. And being locally domiciled, investors in either Fund do not need to fill out W-8 BEN forms, or risk any potential U.S. estate tax issues. These risks do arise, for example, where investments are made in "cross listed" international investment funds.

PORTFOLIO CONSTRUCTION WITH AGRICULTURAL COMMODITIES

As seen in the table below, over the past decade, the investment performance of indices that FOOD and QAG aim to track have performed quite differently, with the former outperforming the S&P/ASX 200 Index handsomely, while the returns of the latter have been flat overall (reflecting, as noted above, relatively good global growing conditions despite solid increases in agricultural demand). Both of these indices have had similar relatively high levels of annual return volatility compared to the S&P/ASX 200 Index, but, importantly, the correlations of their annual returns to that of the S&P/ASX 200 Index have been relatively low – particularly for the agricultural futures price index that QAG aims to track.

RETURN AND RETURN PORTFOLIO ANALYSIS: 10-YEAR TO END-JUNE 2016

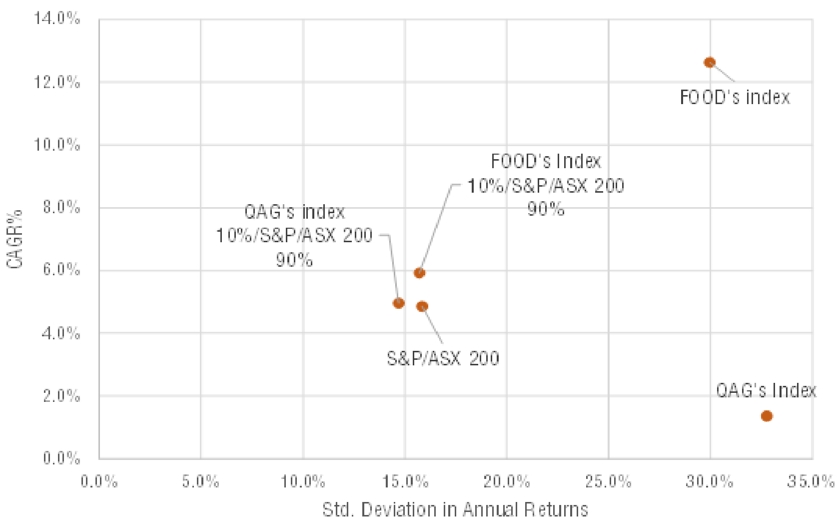
Risk, Return and Correlation: Selected Investments

	Return (p.a) %	Std. Dev	Correlation with S&P/ASX 200
S&P/ASX 200	4.9%	15.8%	
FOOD's Index	12.6%	30.0%	0.40
QAG's Index	1.4%	32.8%	0.02
FOOD 10%/S&P/ASX 200 90%	5.9%	15.7%	
QAG 10%/S&P/ASX 200 90%	5.0%	14.7%	

Source: Bloomberg. Past performance is not a reliable indication of future performance of FOOD or QAG or the indices they respectively aim to track. This analysis also does not take into account FOOD's and QAG's management costs. You can't invest directly in an index.

These relatively unique risk-return characteristics give rise to some interesting results when either of these indices are blended within a portfolio tracking the S&P/ASX 200 Index. As seen in the table above and the chart below, for example, the performance of an illustrative Australian equities portfolio which included a 10% allocation to the index that FOOD aims to track would have produced a higher return over the past decade, with broadly similar risk (or return volatility), despite the fact that annual return volatility from the agricultural component of the portfolio was notably higher than that of the Australian equity component. Overall portfolio volatility did not increase because of the relatively low return correlation between the two components of the portfolio.

ILLUSTRATIVE RISK AND RETURN PORTFOLIO ANALYSIS: 10-YEAR TO END-JUNE 2016



Source: BetaShares, Bloomberg. Illustrative only. Not a recommendation to adopt any particular investment strategy. Not indicative of future performance. This analysis also does not take into account ETF management costs, which would reduce returns. You can't invest directly in an index.

Similarly, while the return performance of the index that QAG aims to track was notably lower than that of the S&P/ASX 200 Index over the past decade, the overall annualised return from a blended portfolio was still marginally higher than that of Australian equities, and with modestly less annual return volatility. Again, this seemingly perverse result reflects the very low correlation in annual returns between the two components of the blended portfolio.

CONCLUSION

Due to ongoing gains in both global population and per-capita incomes, the quantity and quality of food demanded across the globe is likely to remain solid in the years ahead – and relatively impervious to economic cycles - implying that the global agricultural sector could be considered a key "secular" growth industry. At the same time, global agricultural companies have demonstrated an ability to produce relatively good investor return over the past decade, even in an environment where agricultural prices have experienced bouts of volatility and subdued prices in recent years. With agricultural prices having been relatively weak in the past few years on the back of particularly good global growing conditions, they appear increasingly vulnerable to an upward spike as and when producer conditions inevitably turn less favourable.

From a broader portfolio perspective, moreover, the relatively low correlation in agricultural investment returns and that of Australian equities suggests including some agricultural exposure within a well-diversified Australian equity portfolio has the potential to improve risk-adjusted adjusted returns.