

Inquiry into superannuation fund investment in agriculture

House Standing Committee on Agriculture and Water Reforms

June 2018

Author:

Dr Jason West

Contents

Contents.....	2
Introduction	3
Summary and recommendations.....	4
Terms of reference	5
End notes.....	12

Introduction

For more than a century, The University of Queensland (UQ) has maintained a global reputation for delivering knowledge leadership for a better world. UQ has won more Australian Awards for University Teaching than any other university. This commitment to quality teaching empowers our 52,000 current students, studying across UQ's three campuses, to create positive change for society.

Our research has global impact, delivered by an interdisciplinary research community of more than 1500 researchers within our six faculties, eight research institutes and more than 100 research centres. The most prestigious and widely recognised rankings of world universities also consistently place UQ among the world's top universities.

School of Agriculture and Food Sciences

The UQ School of Agriculture and Food Sciences is internationally renowned for its research and innovation to ensure global food and water security and to create a more sustainable world. It offers teaching and research excellence across the interconnected disciplines of agriculture, agribusiness, food science and technology, plant and soil sciences, and animal and wildlife science. UQ is the world's top-ranked tropical agriculture university.

Dr Jason West

Dr Jason West is recognised as a world leader in commodity research and the dynamics that drive agricultural commodity prices. He is known for understanding the modelling challenges of some emerging areas in finance including superannuation portfolio management, financing environmental adaptation and developing new techniques for credit risk management. His recent research has used these techniques to focus on the key questions of wealth portfolio optimisation for superannuants using stochastic simulation and dynamic programming linked to survival expectations.

This submission represents the opinions of the contributing authors listed in this document. It does not necessarily represent an official position of The University of Queensland.

Summary and recommendations

Parts of regional Australia where agriculture is the primary industry face chronic rates of long-term unemployment and historically low levels of new investment. In addition to uneven geographical growth, uneven growth between different income groups is being felt in many rural centres. Distressed rural agricultural communities are being caught in failing equilibrium with an economic shift to urban areas caused by declining private activity and a falling tax base. This leads to a feedback effect of falling public investment and infrastructure which then makes it even more difficult to attract private capital. Capital liquidity constraints both drive and are driven by a lack of public infrastructure, resulting in an equilibrium characterised by decay.

Agriculture as an investment is a forgotten asset class for several reasons:

1. regulatory impediments act as a barrier to superannuation fund investment in Australian agriculture. The compliance framework confronting agricultural investors concerning land use, chemical control, livestock treatment and crop management is substantial;
2. data quality and size are not available at a sufficiently granular level;
3. the approach to performance benchmarking dissuades agricultural investment;
4. the experience of funds in agricultural operations and commodities is poor; and
5. the nature of tax on agriculture as an investment, particularly in distressed rural areas, does not encourage investment.

The House Standing Committee on Agriculture and Water Reforms inquiry into superannuation fund investment in agriculture is a welcome opportunity to examine this issue in detail. Recommendations outlined in this document in no order of preference are:

1. The Australian Bureau of Statistics conduct a robust survey of farm performance building on the existing ABARES release. Data collected needs to independently verify rate of return measures across statistically meaningful and spatially-identifiable samples of crop and livestock producers.
2. A policy promoting the use of superannuation funds specifically designed to invest in the restoration of depressed rural agriculture areas is needed to encourage external investment.
3. Tax relief for superannuation funds investing in agricultural operations in distressed rural communities to expand current operations, look for land use change opportunities, support the deployment of productivity-enhancing technologies and access local labour.
4. Create 'Opportunity Zones' to provide strong incentives aligned to the needs of agricultural operations and downstream activities. A policy promoting the use of superannuation funds specifically designed to invest in the restoration of depressed rural agriculture areas is needed to encourage external investment and address widening inequality and lack of economic mobility in targeted areas.
5. Targeted consolidation of local, state and Federal regulations in agricultural operations related to land use, chemical controls, livestock treatment, biosecurity, packaging and crop management to encourage external investment into the sector.
6. Encourage APRA and superannuation industry bodies to include the agricultural sector in performance benchmarking metrics to permit investors with exposure to agriculture assets with accurate metrics against which outcomes are assessed.

Terms of reference

- i. The Committee inquire into and report whether there are any regulatory requirements imposed on superannuation funds by ASIC, APRA and any other relevant regulators, which are acting as a barrier to superannuation fund investment in Australian agriculture

There are regulatory impediments against superannuation funds imposed by a range of authorities acting as a barrier to superannuation fund investment in Australian agriculture. The compliance framework confronting agricultural investors concerning land use, chemical control, livestock treatment and crop management is substantial. This prevents interest from private investors directing funds into anything beyond farmland itself.

Recommendation:

1. Targeted consolidation of local, state and Federal regulations in agricultural operations related to land use, chemical controls, livestock treatment, biosecurity, packaging and crop management to encourage external investment into the sector.

- ii. The Committee inquire into and report whether the information required by the superannuation funds in order to invest in Australian agriculture is readily available, and if not, what statistical performance reporting of the agricultural sector is necessary

The annual farm survey conducted by the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) is of some use at a high level, but the data made available for public consumption aggregates the data by region, industry and produce category. The data is not useful for insightful analysis at a high frequency, both spatially and temporally.

There are statistical limitations to this data given the survey breadth, sample size, quality and availability of individual results. For an investor, the availability of independent robust agricultural data by location would need to be greatly improved not only for the initial investment decision, but also for ongoing performance benchmarking and the decision to expand investments in the future. Another issue is data related to the throughput capacity and linkages in supply chains for the transport and processing of agricultural outputs to domestic and international markets.

Data related to the above activities is well-guarded by those who collate it, but even these agencies fail to take full advantage of the opportunities that ready access to timely and accurate data presents. Without reliable and where possible near-real-time data, investment performance, productivity, supply chain operation effectiveness, cost controls and marketing activities will continue to underperform.

Recommendation:

1. The Australian Bureau of Statistics conduct a robust survey of farm performance building on the existing ABARES release. Data collected needs to independently verify rate of return measures across statistically meaningful and spatially-identifiable samples of crop and livestock producers.
2. Encourage APRA and superannuation industry bodies to include the agricultural sector in performance benchmarking metrics to permit investors with exposure to agriculture assets with accurate metrics against which outcomes are assessed.

iii. The Committee inquire into and report whether there are any other practical barriers to superannuation fund investment in Australian agriculture

Tax relief for superannuation funds investing in agricultural operations in distressed rural communities could expand to current operations, look for land use change opportunities, support the deployment of productivity-enhancing technologies and access local labour would be a significant incentive. Recently passed tax reform in the US creates "Opportunity Zones" which use tax incentives to draw long-term investment to parts of America that struggle with high poverty and sluggish job and business growth. The intent is to revitalise towns that are starved for investment and deliver a windfall, in the form of avoided capital gains taxes, for investors who finance activities in these zones. The new US tax law provision instructs governors in each state and territory to designate Opportunity Zones from a pool of low-income, high-poverty census tracts. Investors then create Opportunity Funds to seed either new businesses in those areas or expand existing ones, and then minimise their tax burden through preferential treatment of capital gains. If the investment is held beyond 10 years, the investor permanently avoids capital gains taxes on any proceeds from the Opportunity Fund investment.ⁱ The scope for the creation of Opportunity Zones should not be restricted to agricultural farmland alone, but maintain strong incentives aligned to the needs of agricultural operations and downstream activities.

A model to establish these zones would need careful design and not be limited to agricultural operations alone. For instance, in many circumstances poor local infrastructure will prevent direct investment in agriculture. Provisions related to infrastructure investments at the local level also receiving tax relief in these zones would be necessary to motivate agricultural investments.

There is a renewed paradigm shift in commodity prices and profits resulting in a real appreciation of agricultural related assets which is spawning renewed interests in investing in agriculture in many parts of the world. Australian investors, including superannuation funds, however, have been more muted in their response due to two primary factors:

1. benchmarking of performance against traditional asset classes (equities, bonds, cash) that possess low barriers to entry; and
2. lack of reliable data to interrogate and aggregate agriculture risk-return profiles across regions and industries.

Scholarly research suggests that farmland returns in Australia have been attractive over the past two decades.ⁱⁱ The risk-return characteristics of agriculture, coupled with its low and, at times, negative correlation with traditional asset classes such as equities and bonds, promote its emergence as an 'asset class' in its own right. Such investment has also been shown to act as a long-term hedge against inflation, a primary consideration for the liability obligation owed by superannuation funds to its members during retirement.

Figures 1 and 2 illustrate annual returns split between farmland appreciation and income for large non-dairy and large dairy farms respectively. This shows that relying on farmland returns alone is likely to underperform other comparable assets in commercial and industrial real estate. Investing in agricultural operations to earn income on production is thus necessary to earn returns in the form of both capital growth (farmland value appreciation) and dividends (production income).

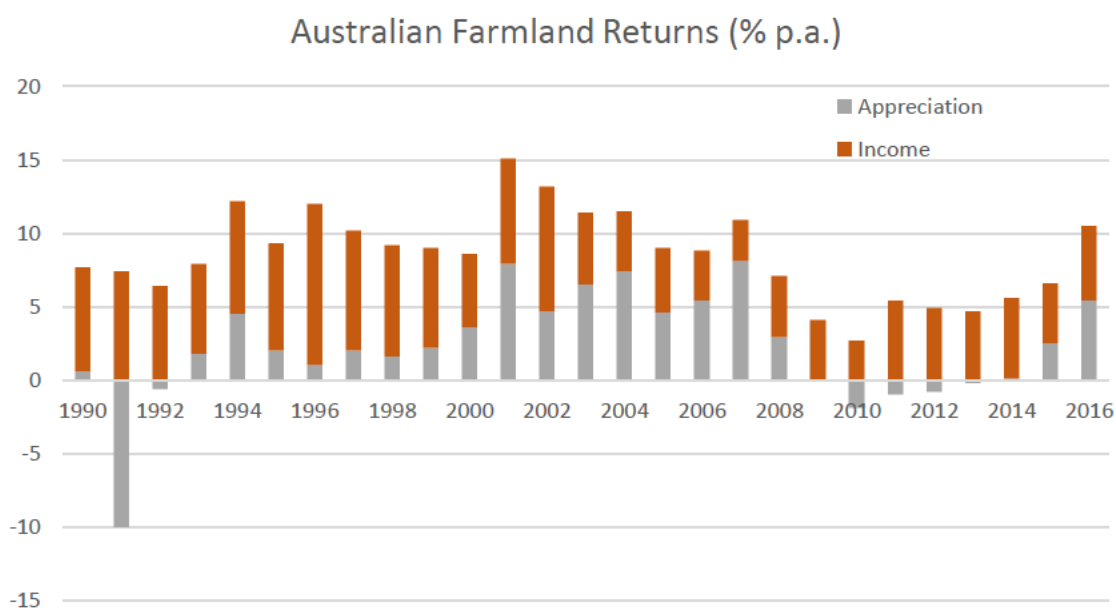


Figure 1. Farmland Annual Returns (Australia) – Non-dairy. Source: ABARES.

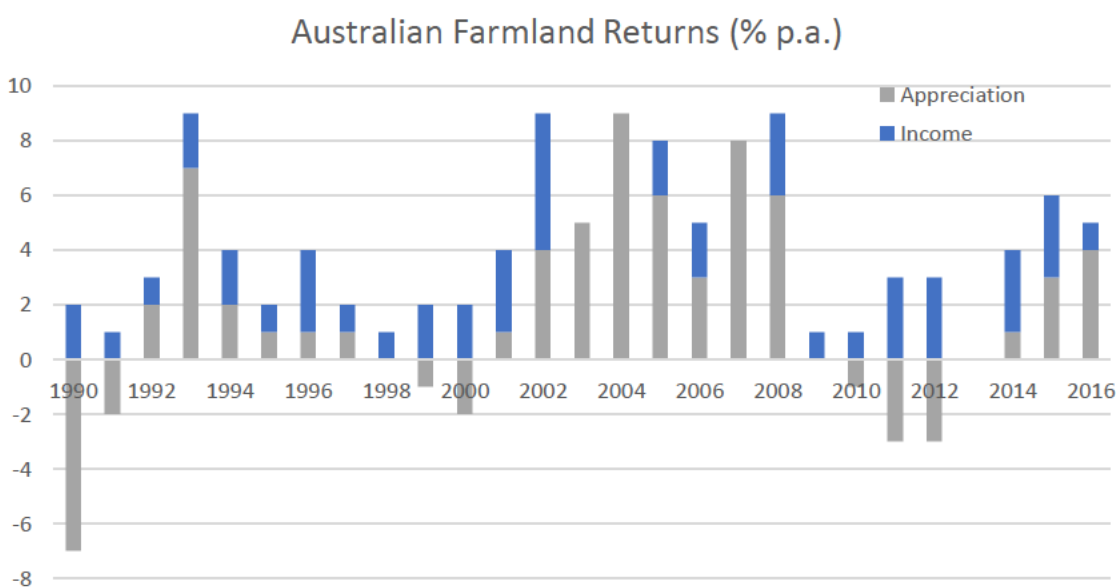


Figure 2. Farmland Annual Returns (Australia) – Dairy. Source: ABARES.

Historically, Australian superannuation fund exposure to agriculture has been limited to ownership of farmland. At end-2017, 51.5 per cent of superannuation investments were invested in equities (roughly evenly split between Australian listed equities and international listed equities with around 4 per cent in unlisted equities), 31.5 per cent invested in fixed income and cash, 13.3 per cent invested in commercial / industrial property (non-agriculture) and

infrastructure leaving 3.7 per cent for investment in other assets (hedge funds, commodities and agriculture) (APRA, 2018).

The risk-return profile of direct ownership results from capital gains plus lease income earned over the period of operation. Superannuation funds have been reluctant to invest and operate agricultural ventures for a range of reasons:

1. The risk-return profile of farmland assumes that land use is evaluated 'as is,' rather than allowing for land use change to more intensive / higher-value commodities or other related / diversifying activities. When agricultural portfolios are comprised of suppliers, agri-services and agri-processors in addition to agriculture producers, the scope for diversifying risk without loss of return *within* agriculture becomes more acute.ⁱⁱⁱ
2. Australian funds generally track their performance against benchmarks. These benchmarks include measures against market returns of investable assets as well as benchmarking against each other. Market returns are intended to reflect an asset class mix representative of suitable investments. Fund managers are then rewarded for their performance against this benchmark. A typical benchmark may consist of the following 'asset classes' to derive an 'independent' index.

Asset Class	Sample Benchmark
Australian Shares	S&P/ASX 200 Accumulation Index
International Shares	MSCI World ex-AUS Index (Unhedged AUD) MSCI World ex-AUS Index (Hedged AUD).
International Listed Property	FTSE EPRA/NAREIT Developed ex-Australia Rental Index (AUD hedged)
Liquid Alternatives	CPI + 4%
Alternative Debt	Bloomberg AusBond Bank Bills Index plus 1% p.a.
Australian Fixed Interest	Bloomberg AusBond Composite Bond Index
International Fixed Interest	Barclays Global Aggregate Bond Index (Hedged into AUD)
Cash	Bloomberg AusBond Bank Bills Index

Agricultural investments do not feature in any of these benchmarks. They are simply ignored and their performance as an asset class, particularly when acting as a reliable diversifier against the highly correlated returns observed in typical asset classes. If they are included, it would be aggregated with other alternative or property assets, despite the risk-return behavior of agriculture displaying vastly different profiles from either of those asset classes.

3. Short-term historical returns govern the performance assessment of all funds. Agriculture remains at the mercy of commodity cycles, weather events, foreign trade restrictions, biohazards and supply chain bottlenecks. Agricultural assets require access to patient capital; that is, capital that does not need to generate returns year-on-year, but returns over the natural business cycle. The need for long-term asset returns to fund long-term liabilities would suggest agriculture is a well-matched investment to fund the retirement needs of Australians. Indeed, research conducted by Garner & Brittain (2012) has shown this has been the case for the past five decades.^{iv} Superannuation funds who use year-on-year or even five-year comparisons with each other are disincentivised to match real long-term assets with real long-term liabilities.

4. There is no reliable, liquid and generally acceptable agriculture or commodity index against which farmland or agricultural commodities produced in Australia can be measured. So long as there is no reliable measure in agriculture there is no motivation for fund managers to invest in agricultural assets, regardless of whether they generate positive earnings, reliable cash flows and risk diversification. A number of global commodity indices exist such as the S&P Goldman Sachs Commodity Index (Agriculture) and the Bloomberg agricultural commodities index family, however these are heavily weighted towards US commodity futures prices that do not adequately reflect real return on assets. Using these indices to benchmark performance would invite substantial basis risk for Australian superannuation funds.
5. Investing in equities, bonds, cash and listed property are relatively low barrier investment activities, with a ready market and settlement process. In contrast, seeking investments in uncorrelated, inflation-hedged returns available in the agricultural sector incurs high search costs including an understanding of commodity markets, logistics and supply chain infrastructure. Most fund managers are not equipped with personnel possessing sufficient experience to understand the complexities of these aspects as they relate to the agricultural sector. For a country endowed with substantial agricultural resources, it is not similarly endowed with technicians and economists with intimate knowledge of how they operate.
6. Local, state and Federal regulations required to conduct agricultural operations are extensive. Rules related to land use, chemical controls, livestock treatment, biosecurity, packaging and crop management is substantial. This acts as a natural barrier against dormant superannuation capital directing funds into anything beyond farmland itself. Superannuation funds established by their investment committees to act purely as 'rent seekers' will forever lack the sophistication needed to properly invest in agricultural operations themselves.

While knowledge of the sector remains low, coupled with the disincentive to invest associated with the way in which funds are judged, Australian superannuation funds will continue to underinvest in agriculture. What appears as a competitive advantage for agricultural operators to have direct access local capital has resulted in sustained frustration for the agriculture sector, while foreign investors seek to exploit the advantages that local investors have ignored.

Investing through the agricultural value chain rather than being focused on primary production is likely to leave investors exposed to a constrained risk-return profile. Encouraging investment in production inputs, food processing and logistics, as well as primary production, can better diversify an investor's risk. Figure 3 provides a summary of the range of returns in companies engaged in crop inputs, crops, animal production and logistics globally for the period 2007-17. The upper and lower limits of each column indicate the spread of annual returns to each sector with the average return to the top five companies over the same period indicated by the orange point. The figure illustrates that investment in agriculture would benefit from exposure throughout the entire value chain rather than exposure to single areas such as crop production only. This means that policies aimed at encouraging agricultural investments must allow for investments through the full spectrum agricultural operations and not cease at the farm gate.



Note: Total shareholder return (TSR) is based on analysis of global publicly listed agribusinesses with revenues greater than \$US1bn in FY16/17.

Figure 3. Range of annual returns to major agricultural sector companies globally, 2007-17.

Source: Datastream.

A policy promoting the use of superannuation funds specifically designed to invest in the restoration of depressed rural agriculture areas could serve many positive goals. In a resource-constrained environment, such funds could provide the capital needed to reshape agricultural operations through tax relief incentives. Given the risk-return profile of agriculture in Australia, these investments have the potential to be highly profitable, which would feed a virtuous cycle. Such a program could partially address widening inequality and lack of economic mobility in targeted areas.

Recommendation:

1. A policy promoting the use of superannuation funds specifically designed to invest in the restoration of depressed rural agriculture areas is needed to encourage external investment.
2. Tax relief for superannuation funds investing in agricultural operations in distressed rural communities to expand current operations, look for land use change opportunities, support the deployment of productivity-enhancing technologies and access local labour.
3. Create 'Opportunity Zones' to provide strong incentives aligned to the needs of agricultural operations and downstream activities.

End notes

ⁱ Jared Bernstein and Kevin A. Hassett (2015). Unlocking Private Capital to Facilitate Economic Growth in Distressed Areas. Center on Budget and Policy Priorities & American Enterprise Institute. Available at <https://eig.org/wp-content/uploads/2015/04/Unlocking-Private-Capital-to-Facilitate-Growth.pdf>.

ⁱⁱ John Williams, Peter McSweeney and Robert Salmon (2014). Australian farm investment: domestic and overseas issues. Australian Agribusiness Perspectives, Paper 98, 1-18.

ⁱⁱⁱ Wilson, W. W. (2012). Global Fundamentals to 2020: Dynamic Changes in Agriculture and Implications for Investments, Global AgInvesting 2012, New York.

^{iv} Garner, D. & Brittain, W. (2012). Farmland as an Alternative Investment Asset Class: Fundamentals - Characteristics - Performance - Opportunities - Risks. DGC Asset Management, Northampton, UK.