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Australian agricultural scale and corporate agroholdings: environmental and climatic impacts

Special issue: Agroholdings and mega-farms in a global context

INDUSTRY SPEAKS

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Abstract

The average size of Australian farms in scale and revenue are the globe's largest. This scale is a result, in part, of low average rural population densities; development patterns in broadacre production; low levels of effective public policy transfers; a stable and suitable institutional setting suitable for corporate and other large scale investment; and low yields. It is also a factor of the natural variability of the country's climatic systems which have contributed to the scale of extensive northern cattle production; this variability has implications for the pattern of ownership of broadacre and extensive production. Corporate ownership, tends to concentrate production aggregations at sufficient scale to offset its additional overheads in areas of relative climatic stability and to replicate these agroholding aggregations spatially to protect the stability of revenue flows. Family structures are more dominant in areas of greater climatic variability. Of interest is the impact that any increasing climatic variability (versus rapid changes in technology) may have upon this pattern.

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1. Introduction

The purpose of this article is to draw attention to the impact of environmental factors on scale in Australian farming and its influence on ownership options for large size holdings. The paper's focus is on corporate ownership of large scale, spatially diverse agroholdings. The combination provides scale economies and greater revenue stability.

By global standards, Australian farms are comparatively large in size as indicated in Table 1. Australia also has the largest average farm businesses by gross value of agricultural production per farm (AFI, 2014).

Several factors contribute to this enormous size. The Australian continent's 22 million people are among the most urbanized in the world and live mostly in the state capital cities. Consequently, low average rural population densities result in comparatively little competition for agricultural land in the main broadacre and pastoral production areas. Furthermore, very low levels of effective public policy transfers (OECD, 2016) imply little capitalisation into land values. Nearly all industries are subject to either international or domestic competitive pressure implying a need for scale to maintain returns. A stable political and legal system facilitates the transfer of land assets into larger holdings (freehold in the southern broadacre areas and long term Crown leases in extensive pastoral areas). A growing lease market for freehold broadacre land also encourages the creation of larger broadacre enterprises.

Comparatively high labour costs and efficient capital markets have encouraged the substitution of labour for machinery, particularly in cropping, as enterprises have sought to increase work rates and access embodied productivity from new machineries. Particularly in broadacre cropping, a productivity divide has emerged between more technologically endowed, often larger farms compared to those of often smaller sizes with less access to the latest machinery. The resulting difference in returns is further driving farm amalgamations.

Australia's pattern of land settlement was much later than most other advanced agricultural economies and much of the 20th century settlement followed the development of the science necessary to bring it into production. Its poor soils and consequent low yields, particularly in Western Australia, meant that farms had to be of larger scale to support settlement. Again, larger block sizes assists the process of farm amalgamation.

Table 1. Number of farms and area for selected countries and years (adapted from Statistics Canada, 2006).

Country	Census year	Farm number	Area on farms (acres)	Average farm size (acres)	Total land area (×1000 acres)	Area of farms as a percentage of total land area
Canada	2001	246,923	166,802,197	676	2,278,502	7.3
Canada	2006	229,373	167,010,491	728	2,278,502	7.3
Argentina	2002	295,485	425,273,427	1,439	676,236	62.9
Australia	2001	140,516	1,126,091,533	8,014	1,898,296	59.3
Brazil	1996	4,859,865	873,773,389	180	2,089,604	41.8
China	1997	193,445,894	321,326,863	2	2,304,806	13.9
France	2000	663,810	73,877,143	111	135,930	54.3
United Kingdom	2000	233,250	40,839,774	175	59,521	68.6
United States	2002	2,128,982	938,268,725	441	2,263,179	41.5

2. Climatic factors and farm management

The large average farm size also partly reflects the enormous size of Australian cattle stations (ranches) in the northern part of the country. Cattle stations are low input, low output systems that reflect Australia's lack of natural agricultural endowment, in so far as its soils are generally aged and poor and its climate is on average dry and highly variable. Climate variability is a feature of all Australian agriculture (Kingwell, 2012). Large northern cattle holdings, such as Kidman (a family structure) and the ASX listed AAco, are generally vertically integrated into feedlots and abattoirs, and they are mostly corporate-owned. Spatially spreading production assures a constant flow of stock for feedlots and abattoirs and properties display some specialisation such as calf production or backgrounding of older cattle (Cottle and Kahn, 2014: 165-166). Corporate ownership in the Northern Territory tends to be concentrated in its more climatically stable north ('from Tennant Creek to Darwin': Curtain and Brown, 2013) and family ownership tends to predominate in central Australia.

Cattle stations aside, where scale and vertical integration provide strong incentives for corporate ownership, corporate interest in large scale broadacre farming has also grown strongly in recent years. This is because of the returns available from agriculture (Eves, 2012), the size potential of investments, and investors' perceptions of Australia's proximity to markets, its quality of infrastructure, its surplus production for export and its Free Trade Agreements with other countries (Allens Linklater, 2014).

Allens Linklater (2014) also identified climatic variability as the major factor discouraging international and domestic investment into agriculture. It is unsurprising, therefore, that a pattern of corporate ownership centred on more climatically stable/higher rainfall areas (and/or irrigation) is also observable in broadacre agricultural industries. For instance, Lawson Grains (http://lawsongrains.com), owned by a prominent investment bank (Macquarie), has recently become the largest grain producer in Australia. It operates 74,000 ha across eight aggregations in relatively climatically stable areas and these are spread across five regions to further protect the stability of returns. This pattern of diverse spatial aggregations at scale and spatial dispersion is observed across the corporate landscape, from owner operators such as Lawson Grains to land lessors such as Westchester[1].

Scale is necessary for corporates because of higher overheads compared to family structures (Plunkett, 2015). Yet corporate farms have struggled to outcompete well run family structures (Planfarm/Bankwest, 2015; Tomlinson, 2014) and anecdotally it would appear that adopting simpler management structures that lessen overheads and increase on site management responsiveness (i.e. adopting the some key features of family farms) may be an important factor in lifting returns.

Research underway by the authors indicates an emerging pattern of large family entities adopting some corporate governance structures to increase returns from strategic planning.

The preceding description may be thought to reflect the Allen and Lueck's (2004) thesis that corporate investment has a comparative advantage in relatively less variable environments and that more nimble family management structures are better suited to more variable environments. Of interest is how this phenomena may evolve if climatic variability increases – and presumably increases the returns from nimble, on site management – versus the impacts of unfolding technology changes that lower monitoring costs and improve performance measurement and so presumably lessen the importance of real time, site specific management decision making.

[1] See also http://hassad.com.au/properties; http://tinyurl.com/zwaodgm.

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