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NATURAL CAPITAL

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Institutional farmland ownership: facilitating the separation of farming operations from its capital base

SUMMARY

This paper discusses the trend of farmland ownership and operating models across key agricultural production regions globally, exploring changes in both operating and capital structures. It is anticipated that farming will continue to be dominated by family-owned and operated businesses; however, the structure of these businesses will evolve as farm operators become more specialized and advance the adoption of new technologies. As the farming sector adapts to these industry changes, there will be significant implications for farmland ownership patterns that will be facilitated by institutional investment.

INDUSTRY CONSOLIDATION

Institutional investment in farmland is popularly perceived as one of the contributing factors to the consolidation occurring within the agricultural industry, a misconception which deserves scrutiny. While consolidation has continually increased in recent years, the evidence suggests that consolidation trends in agriculture are primarily driven by long-term themes that have been present in the agricultural industry since the 1980s, far predating the advent of institutional investment in farmland.

Agricultural consolidation can be largely attributed to a variety of economic factors, including technological advances, shifts in consumer preferences, retail and supply chain consolidation and more volatile commodity markets affecting the profitability of farm operators. That is to say that, institutional investors are not increasing consolidation, but are rather filling a void caused by the industry's structural changes.

Technological advancements in agriculture have enabled family farms to manage more tillable area. Larger, more efficient precision-guided tractors, planters, sprayers and harvesting equipment have reduced the time a farmer must devote to any given field task. This increase in operational productivity has resulted in the expansion of farming operations, with many farm operators seeking additional land that they now have the capacity to farm. This trend has forced farm operators to reconsider their business strategies, including structuring their family farms more like a corporation and being more strategic with their balance sheets. Technological advances have enabled successful farmers to scale their businesses, farm more land and continue the cycle of consolidation and growth.

OPINION PIECE. PLEASE SEE IMPORTANT DISCLOSURES IN THE ENDNOTES.

The ability to improve operational performance and returns by leveraging equipment and managing more area is a key driver in the consolidation trend; however this requires additional capital investment. Much like businesses in other sectors of the economy, farmers have to determine how to fund their expansion plans. The farmer's decision to own the land or rent the land is determined by his or her balance sheet, debt service ratios and personal risk appetite.

Finally, continuous improvement in farmer productivity has resulted in large global supplies of many agricultural products, compressing prices and changing farm economic structures. Compressed farmer margins have resulted in lower profitability per unit area, reducing financial returns and challenging the independent economic viability of smaller operators. The reduction of financial returns has resulted in a natural erosion of smaller operations over time. Larger farmers have taken advantage of this trend by purchasing or leasing the land from industry-exiting farmers, leading to consolidation of farming operations.

Evidence from Europe demonstrates the trend of consolidation. The number of farms declined almost 30% from 2005 to 2016, while the number of acres farmed remained consistent, indicating expansion by the larger family-run farming businesses.

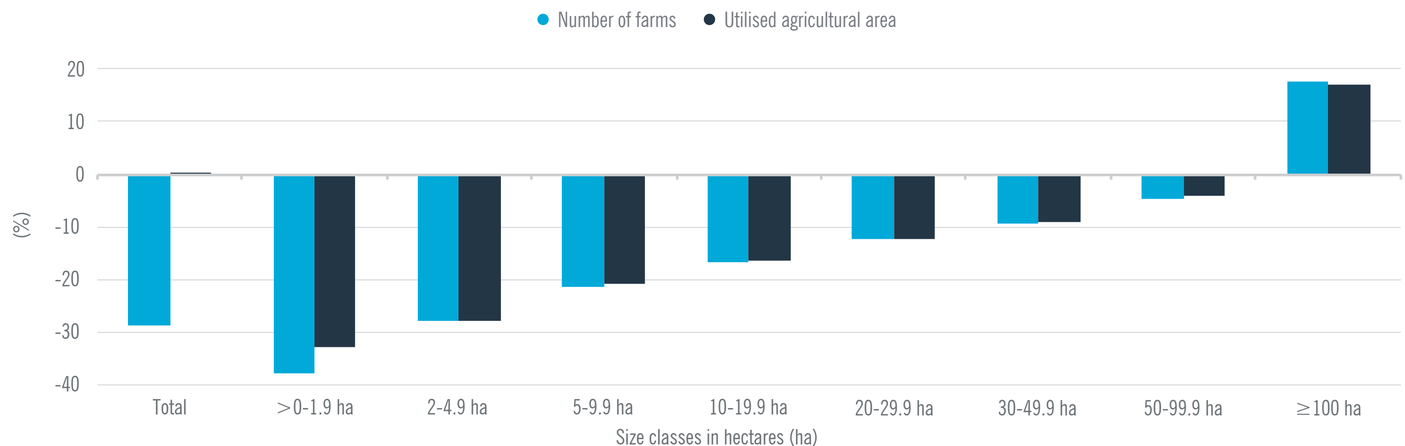
These factors have played an instrumental role in influencing the structure of the agricultural industry. We believe that these trends will continue into the future, with significant consequences for the industry structure. Understanding these factors and how they are evolving, it is apparent that institutional capital can play a significant role in the evolving farmland ownership landscape, providing farming operations with alternative ways to drive their expansion.

SPECIALIZATION

Over the past decade, globalization and the impact of World Trade Organization trading agreements have significantly altered global trading patterns. People and nations have started to specialize in production where they have perceived relative efficiencies. This has been observed in key global agricultural production regions, where farm operators influenced by global prices have focused on producing crops in which they possess an apparent comparative advantage in production.

Specialization has resulted in the reorganization of farming businesses, and farm operators have tended to focus on either livestock or crop production, strategically limiting the set of crops, livestock species or livestock production stages. Specialization has also enabled farm operators to expand both the area and the production volume per unit area (through increased productivity) of the crops that they continue to produce as they develop more specialized skills and acquire more specialized capital equipment. Specialization has improved farm economics but only in so far as there is sufficient scale, i.e. a result of consolidation.

Chart 1: Change in the number of farms and utilised agricultural area by farm size in Europe, 2005–2016



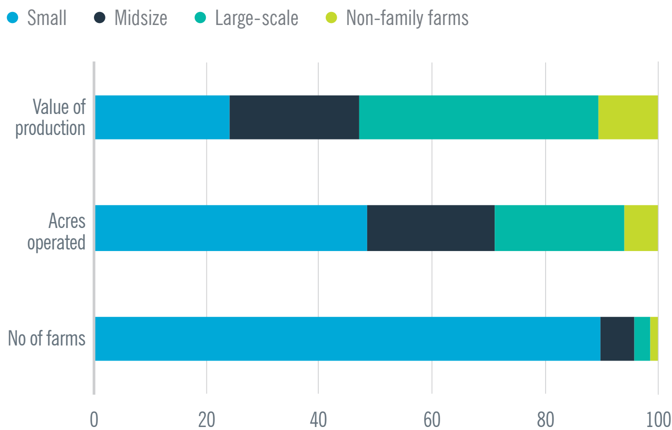
Source: Eurostat, 2005-2016

LAND OWNERSHIP STRUCTURES

Although farm production has consolidated over time and shifted to much larger operations, family owned and operated farming businesses continue to dominate the agricultural landscape in the major agricultural countries of the western hemisphere due to their ability to adapt to changes in the industry environment.

As an example, USDA figures show that non-family farms (corporate farming businesses), which include land owned by institutional investors, accounts for only a small share of the U.S. land market. Non-family farms represent 2.2% of the total number of farms, 6.5% of total acres (indicating they own larger farms) and 12.6% of the economic output.

Chart 2: U.S. farm size: family farms dominate the market



Source: USDA Economic Research Service, 2017

Despite the presence of institutional investors in the U.S. market, family-run farming businesses have by far the largest share of the farmland market by number, acreage and output.

Similarly, the 2016 Eurostat data demonstrates that the overwhelming majority of European farm businesses (approximately 96%) are classed as being family farms, with 93% employing only family labor.

Several distinct features of agriculture continue to support family-run farming businesses. While economies of scale matter in agriculture, they are not so extensive to require large diversified corporations to exploit them. Agriculture requires seasonal employment, and family businesses have been able to reallocate their labor to other tasks on and off the farm to accommodate seasonality and unexpected variability in agricultural production needs. Furthermore, most agricultural production requires an intimate local knowledge of soil, nutrient, pest and weather conditions, along with an ability to quickly adapt to changes in the production environment (changes in weather, pest populations and commodity markets). Finally, given the nuclear nature of the family-run farm operation, the alignment of principals and agents is second to none. Businesses with salaried management in farming will never contend with the productivity attention advantage of a family-run farming businesses. Going forward, it is anticipated that family farming businesses will continue to dominate the agricultural landscape due to these nuances; however, the nature of this ownership structure is likely to change as farms continue to consolidate and specialize.

SEPARATION OF OPERATIONS FROM THE CAPITAL BASE

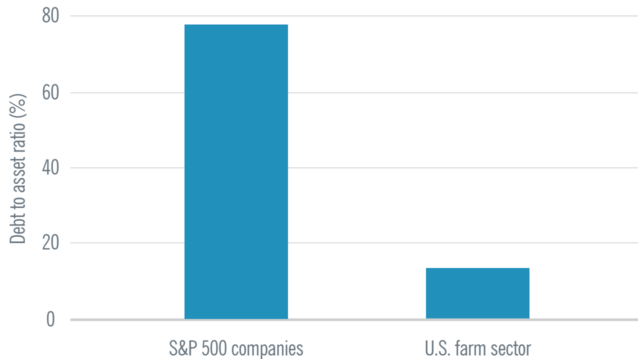
Land is only one input to agricultural production. Commercial farming also requires expertise and significant capital investment in plant, machinery, infrastructure and working capital to fund the operations of the business. The capital assets needed to operate a modern commercial farm can be considerable, and as a result, farming operators have determined it increasingly less essential to have complete ownership of their capital assets. This phenomenon can be observed in many new forms such as contract and custom farming, share cropping, leasing equipment and leasing land, each of which represents a structural change in the traditional asset ownership model.

Historically, farm operators have been known for being financially conservative, with little appetite to take on what in other industries might be considered reasonable amounts of debt. One explanation for this perceived financial conservatism is that farm operators may be uneasy about employing too much traditional leverage due to the inherently volatile nature of production risks and commodity/crop pricing, which is juxtaposed against the relative illiquidity of the farmland they operate.

Chart 3: U.S. farm sector balance sheets: farmland accounts for the majority of assets

% of net assets	2012	2015	2019F
Real Estate	78.6%	82.1%	82.7%
Machinery	9.2%	8.3%	9.0%
Other	12.2%	9.5%	8.3%
Debt to asset ratio %	**11.3%**	**12.4%**	**13.4%**

Chart 4: U.S. farm operators are conservative in their debt burdens



Source: USDA Economic Research Service, 2019, Haver Analytics, 2017

Chart three presents the U.S. farm sector balance sheet for 2012, 2015 and 2019. Interestingly, the table shows that approximately 80% of total equity is captured in the value in real estate (all land and attached buildings).

Total farm debt as a percentage of assets ranged from 11.3% in 2012 to 13.4% in 2019. By contrast, debt-to-asset ratios for publicly traded companies in the U.S. is about 78%.

Rather than financing capital investments entirely from debt, many farm operators instead choose to adopt a wide range of different strategies to leverage their capital structure. They can purchase land, infrastructure and machinery using a combination of equity and debt, or alternatively they can also lease. Furthermore, they can also use custom farming services to perform field work (effectively hiring the machinery and labor used for those tasks). By leasing land and machinery or hiring custom services, farms can economize on the cost of investing in long-lived capital assets and react more flexibly to market changes by using land and machinery more or less intensively.

INSTITUTIONAL INVESTOR INTEREST IN FARMLAND

Institutional investor interest in farmland is driven by a number of factors including: (i) the desire to hedge inflation (farmland prices have historically demonstrated a high correlation to the CPI); (ii) a low correlation of farmland assets to broader capital markets such as equities and (iii) farmland provides attractive risk-adjusted return to investors with low volatility.

Institutional capital facilitates the segmentation of land ownership from farming operations. This separation is an established evolution in other industries (e.g. real estate, retail and infrastructure). It is apparent that the demand for institutional capital in farmland is likely to increase as farming operators continue to seek greater efficiencies and grow their businesses, while institutional investors are attracted to the asset class driven by the attractive characteristics of farmland.

PERCEIVED CHALLENGES WITH INSTITUTIONAL INVESTMENT IN FARMLAND

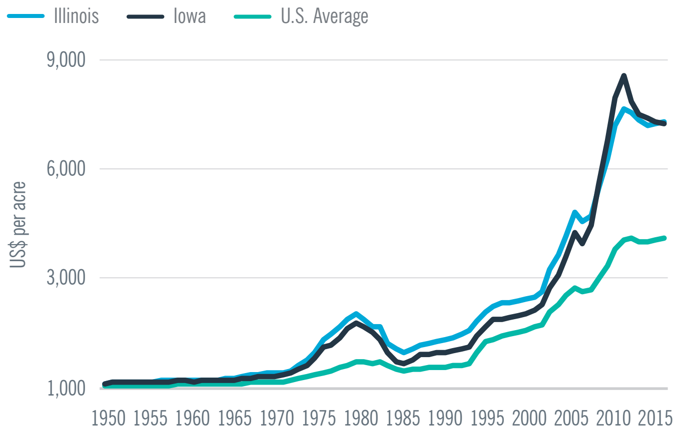
Land ownership is an emotive subject as is the ongoing consolidation of farming operations globally. Likewise, the topics of rural land ownership and food production often raise political concerns. Although changes in the industry's organization have accompanied and facilitated major improvements in agricultural productivity and efficiency, which has increased total global agricultural production, critics argue that largescale farming operations are forcing small farms out of business, damaging the viability of rural communities and creating environmental risks through their production practices.

Institutional investment can act to improve governance of farming operations by improving environmental standards and employment, while also facilitating research and development, training and trade, as well as contributing to social improvements in rural economies. Institutional investors, who invest third-party capital, can act as stewards helping to implement appropriate ESG policies and procedures that inform the land acquisition due diligence process and the ongoing management of the farmland.

Another issue is the accusation that institutional investors have inflated land prices and prevented smaller farmers from purchasing land. However, drawing on statistics from certain states in the U.S. where corporate/institutional landownership is prohibited, we see that the primary drivers of land value are interest rates and the farm's operational cash-flow generation potential. We compared two neighboring states, Illinois and Iowa, which have similar farm soil types, cropping and economics but differing land ownership restrictions. We found that farm values in Iowa, a state that prohibits corporate farm ownership, largely mirror those in Illinois and that the lack of an institutional presence in the state has no observable effect on land pricing (see chart five).

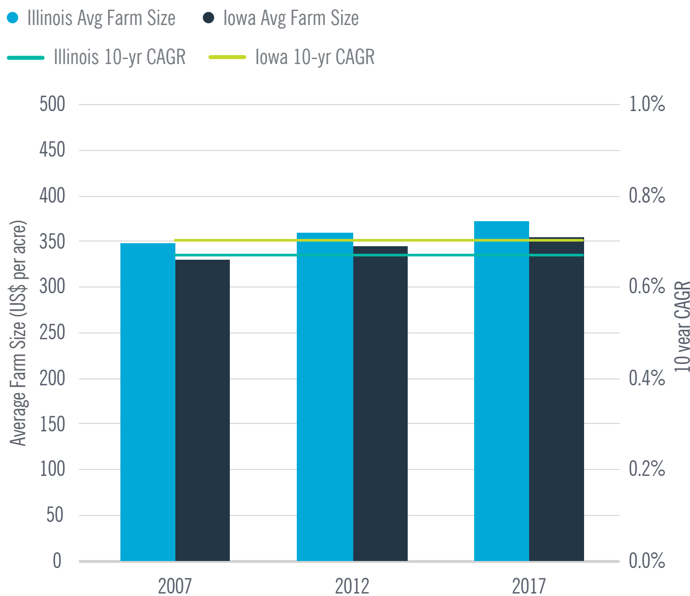
Additionally, as evidenced from chart six, despite differing land ownership rules, there is very little difference in the average farm size and farm size growth rates between states.

Chart 5: U.S. farmland values in states with different institutional ownership rules: Illinois vs. Iowa



Source: USDA Economic Research Service, 1950-2019

Chart 6: Average farm size and 10-year CAGR: Illinois vs. Iowa



Note: CAGR is compound annualized growth rate

Source: USDA Economic Research Service, 2007-2017

CONCLUSION

Driven by consolidation, economies of scale and sector specialization, structural change in the farmland industry has been persistent, widespread and pronounced. As these drivers of change are likely to persist, farm operators will continue to seek operational efficiencies, expanding their farmed area by taking advantage of technological and productivity advancements.

Family farming businesses are expected to continue to dominate the agricultural landscape due to their intimate local knowledge, unparalleled attention to detail, productivity from business ownership alignment and their ability to adapt quickly to changes in the production environment. However, the nature of this ownership structure is likely to change. It is anticipated that we will continue to witness a change in farmland ownership patterns whereby it will become increasingly less essential for farm operators to have complete ownership of their capital assets. This change will be facilitated by institutional investment in farmland, which will continue to increase, providing much needed liquidity to farm operators.

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