OECD publishing

Please cite this paper as:

HighQuest Partners, United States (2010-08-10), "Private Financial Sector Investment in Farmland and Agricultural Infrastructure", *OECD Food, Agriculture and Fisheries Papers*, No. 33, OECD Publishing, Paris.
http://dx.doi.org/10.1787/5km7nzpjlr8v-en

OECD Food, Agriculture and Fisheries Papers No. 33

Private Financial Sector Investment in Farmland and Agricultural Infrastructure

HighQuest Partners, United States

OECD

EXECUTIVE SUMMARY

Private financial sector investment in agriculture is a small but rapidly growing phenomenon, involving large scale financial institutions, hedge funds and real estate investment trusts as well as private/public companies pursuing farm ownership/management strategies. This sector has been increasingly attracted to agriculture primarily because of current prospects for income generation, capital appreciation, and uncorrelated returns with equity markets and as a hedge against inflation. Little information has been available concerning the profile and role of private investment groups in this asset class or the impact they are having in the communities where they operate. In an effort to shed some light on these operations, a private consulting firm (HighQuest Partners)[1] with a proprietary database of funds active in the crop land and agriculture infrastructure was contracted to undertake a confidential survey of private financial sector investment in agriculture.

Some 54 funds/companies were contacted and 25 were interviewed for this report. As a group, those interviewed accounted for about USD 7.44 billion in agricultural assets under management. Estimates of the total amount of capital invested by the private financial sector in farmland and agricultural infrastructure varied between USD 10-25 billion. There is an expectation that this level of investment in agriculture will double or triple in the near to longer-term. Of the 25 funds/companies surveyed, 20 were currently raising capital.

Of the funds/companies surveyed, 32% of the offices were based in Europe, 28% in North America, 24% in South America, 12% in Asia/Pacific and 4% in North Africa/Middle East. Differences in strategies and business models reflected local conditions, type of production, access to financial networks/sources of capital, political/legal/governance issues, infrastructure challenges and overall risk/security levels.

Endowments and wealthy individuals/families have historically been the principal source of funds but there has been a noticeable shift in recent years with hedge funds and large institutions, including endowments and pension funds, entering this asset class by investing in existing funds, or in some cases sponsoring their own vehicles to attract funds for the sector. Almost all surveyed indicated significantly more interest (63%) or more interest (32%) in this asset class by investors with public and private pension funds a growing primary source of funds.

Most funds that started investing in the sector within the last decade did so in very mature or their home market with interest and investment spreading to growing or emerging markets only within the last five years or less. The geographic focus of investment activity in the sector has shifted noticeably toward South America (led by Brazil) and increasingly Africa. Both regions are attracting an increasing amount of capital being raised for investment in the sector.

Investment in farmland in North America is typically a passive activity with farmland management functions subcontracted by the fund manager to an outside farm management firm. Specialized funds in this region offer the opportunity to invest in specific agricultural activities such as permanent crops (nuts and fruit orchards), cattle production and vineyards.

Much of the investment activity in Australia/New Zealand has been undertaken by highly integrated private companies which own and operate farmland for crop production, integrated livestock production

[1] This working paper does not necessarily reflect the views of all OECD countries and has been released under the responsibility of the Secretary-General of the OECD.

(beef, diary and swine) and vertically integrated, value-added processing facilities. Recently, private and publicly-traded funds have provided investors with the opportunity to own interests in large-scale livestock operations, dairy operations, vineyards, permanent crops and farmland for major row crops.

Within the past decade, Eastern Europe has begun to attract investment for farmland acquisition and transformation. The political legacy of communal ownership, complicated laws concerning land transfer and land registries means that private investment in developing farmland in this region has so far met with mixed results. Generally, private corporations raise funds from private wealthy individuals and financial institutions to acquire and manage farmland. In countries such as Bulgaria with thriving capital markets, publicly-traded funds specializing in farmland acquisition and leasing have been launched and trade actively on local exchanges.

In South America, mainly privately-held farmland management companies raise funds and manage farmland holdings for investors which include wealthy family groups and financial institutions based in the region, as well as in North America and Europe. There is a trend to separate management and ownership, recognising that expertise in farm management and scale of operations can be leveraged more effectively across a wider platform of land holdings (owned, leased and managed for third parties).

Given the early stage of developments of capital markets in Africa and the complexity of land titles and concessions, a tiered corporate holding structure with subsidiaries at the country level overseeing subsidiaries at the farm operating unit is the typical approach used in order to mitigate operating and legal risks. In certain countries, outright ownership of land is not possible. Instead, long-term concessions are negotiated with central governments which can include commitments by investors to provide financial support for social projects. The country-to-country and sovereign wealth fund transactions in developing regions that attracted so much media attention are not examined in this report.

Brazil is recognized as the largest frontier for new farmland development. The availability of new land (estimated between 40 to 70 million hectares); a legal system which facilitates foreign investment in farmland and a relatively clear legal and environmental regulatory system have attracted foreign investment in Brazilian farmland. It is estimated that one-third of funds/companies investing in farmland globally have committed funds to Brazil. A nexus may be developing between Brazil and Africa with fund managers leveraging Brazilian production know-how in the southern cone of Africa where there are large-scale farming opportunities at a much lower land acquisition cost. Brazil land acquisition costs range from USD 1 500-3 000 per hectare compared with USD 300-500 per hectare in Africa for long-term lease concessions. There are also some transportation cost advantages on the East coast of Africa relative to the Western Hemisphere with respect to exports to India and the rest of Asia.

Of those surveyed, 83% of the farmland being acquired or leased on a long-term basis is dedicated to the production of major row crops (soft oilseeds, corn, wheat and feed grains), with 13% invested in livestock production (typically grazing of beef cattle, dairy, sheep and swine) and 4% for permanent crops such as sugar cane and viticulture, agricultural infra-structure (primarily on-farm storage) and set-asides (reserves in South America). Investment in water rights, infrastructure or other points along the value chain (either upstream for distribution of crop inputs or downstream for storage, transportation and primary processing for food and fuel/industrial applications) are of secondary importance. However, interest was growing for investments which would enhance the value of their farmland holdings such as transportation and logistics infrastructure thereby expanding market access.

The local impact of these investments was not seen as significant in the developed markets such as North America. By contrast, investors in Eastern Europe, South America and Africa reported employment benefits, within their organizations or with companies providing services or products to their operation and other farmland owners operating within the same region. Respondents indicated that they prefer to hire and

train local managers instead of bringing in expatriate managers, resulting in a transfer of new technologies and professional skills to the local population. While investing in capital equipment is necessary in developing markets such as Africa and Eastern Europe, in more developed markets such as Brazil, a majority of investors subcontract planting and harvesting tasks to outside contractors.

Staff hired directly as company employees or retained as contract employees ranged from 200 to 2000. The total number of fulltime farm employees managed by the survey groups was 4 116. The higher wages and the better working conditions provided to their employees (compared to other local employers) is an important contributor to raising the bar on employment practices in the communities where they operate. Some respondents pointed out that staffing policies exceed the local norms for wages, housing and community facilities, raising the bar for local working conditions.

In addition to the employment benefits, survey respondents claimed that their investment activity introduced more efficient agronomic and business practices, increased productivity and output, expanded market access for neighbouring farmers (via increased investment in infrastructure and logistics), and improved local access to inputs and services.

All respondents emphasized that ensuring good relationships with the local community was a key element of their business models. Financing schools, hospitals and local cultural events are commonly undertaken in return for long-term farmland lease concessions with governments. These large farm operations are also often the biggest and most compliant tax contributor, expanding the tax base for local communities. Most of the information was anecdotal but a number of survey respondents indicated that their funds were in the process of developing internal procedures to track the impact of their investments on the local operating area.

Similarly, there is increasing concern about new investors entering the market and interest in establishing voluntary guidelines for sustainable investment. Many already follow existing schemes and certification practices such as GAP, FAO practices, IPC environmental and social standards, EUREGAP certification, ISO certification for internal guidelines and procedures.

Finally, all respondents indicated that local and central governments were favourably disposed to private capital entering their market to develop and transform farmland and invest in agricultural infrastructure. Moreover, most survey participants felt the establishment of new international protocols or norms to regulate investment in farmland would not pose a problem. Many have developed close working relationships with multilateral organizations such as the World Bank, the International Finance Corporation (IFC) and the Food and Agricultural Organization (FAO) on sustainable farming practices and financing initiatives to accelerate the expansion of their operations. The consensus was that these organizations recognize the positive benefits that private investment can bring to local economies and communities.

TABLE OF CONTENTS

PRIVATE FINANCIAL SECTOR INVESTMENT IN FARMLAND AND AGRICULTURAL INFRASTRUCTURE

Introduction

1. Over the past five years, interest in crop land and agricultural infrastructure investing as an emerging alternative asset class has grown substantially amongst institutional investors. At the same, media coverage of this trend has generated heightened interest amongst NGOs, multilateral organizations and governments with spillover into the general public. The number of new funds launched within the past six months focused on investing in farmland and agriculture infrastructure indicates that despite the economic downturn which began in 2008, interest in the sector has not abated and in fact may actually be benefitting from the investors' attempts to realign their asset portfolios in response to concerns over inflation and the attractiveness of the equity markets. A number of trends have been cited as key drivers which have increased investor's and the public's awareness and interest in the sector, including:

- the dramatic rise in commodity prices since 2006 (attributed to increased global demand for food while crop yield increases have flattened resulting in decreasing carry-out stocks);
- increased consumption of animal protein and processed foods in developing economies driven by growing populations with rising disposable incomes and a dramatic demographic shift from rural areas to urban agglomerations;
- competition for land use and pressure on resources required for crop production (urbanization encroaching on arable land, shrinking surface and ground water and the impact of climate change) and
- the economic downturn beginning in 2008 which has compelled investors to seek out real assets and opportunities to diversify their investment portfolios.

2. As an emerging asset class, investment in farmland and agricultural infrastructure offers the following attractions:

- strong long-term macroeconomic fundamentals;
- attractive historical returns on land investment;
- a mix of current income and capital appreciation;
- uncorrelated returns with the equities market and
- a strong hedge against inflation.

3. This asset class has attracted the attention and has been monitored closely over the past couple of years by the media, NGOs, multilateral organizations and governmental policymakers due to questions over the legality and appropriateness of reported large-scale land acquisitions in developing regions of the world and concerns that this trend could be the harbinger of a new form of neo-colonialism. While recent media coverage and limited research undertaken by NGOs have largely focused on land acquisitions

undertaken in the context of country-to-country and country-to-sovereign wealth fund transactions, information has been available concerning the profile and role of private investment groups in this emerging alternative asset class and the impact they are having in the communities where they operate.

4. Private funds allocating capital to the sector range from large financial institutions, hedge funds, private and publicly-traded real estate investment trusts (REIT) to pure-play private and publicly-listed companies which are pursuing integrated farm management and farmland ownership strategies to acquire farmland in North and South America, Australia/New Zealand, Eastern Europe, Sub-Saharan Africa, and SE Asia. The investment strategies they are implementing range from conservative (e.g., acquire and hold/develop currently productive permanent cropland in the U.S.) to aggressive (e.g., acquire and transform raw or underdeveloped row crop land in emerging agricultural regions).

5. In an effort to obtain insights on investments by funds and the impact they are having on local communities, the Agri-food Trade and Markets Directorate for Trade and Agriculture of the Organization for Economic Co-Operation and Development (OECD) engaged HighQuest Partners (a strategic advisory and management consulting firm with expertise in the global food, agribusiness and renewable energy sectors) to undertake a confidential survey of private sector investment activity in the sector to discern what was actually happening in the field, focusing specifically on the:

- profile of the investor groups active in the sector;
- legal structures being used to raise funds and finance operations;
- types of agricultural activities the funds are investing in or seek to invest in;
- geographic regions that are attracting investment;
- returns investors expect to achieve for the capital committed;
- assessment(anecdotal)of the impact investments in farmland and agricultural infrastructure are having on local economies, environment and populations and
- the tenor or the relationships investor groups have or would like to have with multilateral and governmental bodies and the optimal role that the public sector should assume in overseeing(regulatory), promoting agricultural and economic development (attracting capital) and overseeing land stewardship(sustainability) and transformation(enhanced productivity).`

Methodology[2]

6. HighQuest Partners has developed a proprietary database of funds active in the crop land and agricultural infrastructure sector. Given that farmland and agricultural infrastructure as an asset class is relatively nascent, it is not surprising that the list of groups investing in the sector requires constant updating. Press releases announcing the launch of a new fund or a company raising equity to commit capital to the sector are issued on a weekly basis. When HighQuest began conducting interviews for the survey at the beginning of January 2010, its database included 42 private sector funds and companies that were either actively investing funds to acquire and manage farmland or had already announced plans to raise capital to invest in the sector. While conducting the survey, over 12 such announcements were made, an average one a week, with the pace of new funds being launched showing no signs of abating. (HighQuest's list of private investor groups committing capital to farmland and agricultural investing is presented in Appendix A.)

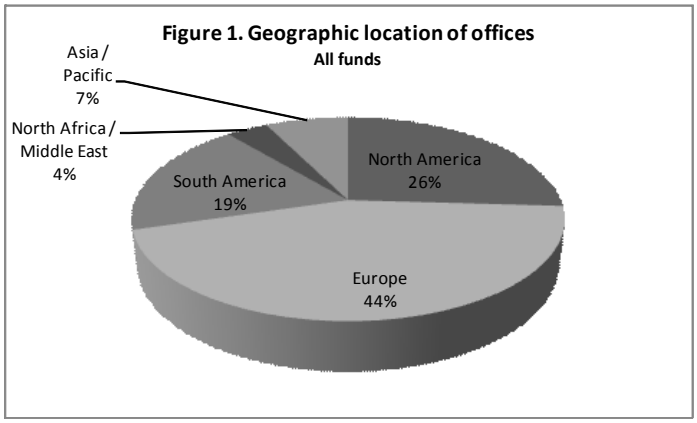
7. The 54 private investor groups were identified by HighQuest from a number of different sources, including alternative asset investing conferences, media coverage (the global financial press, trade journals and internet sites) and HighQuest Partners' advisors' network of professional relationships.

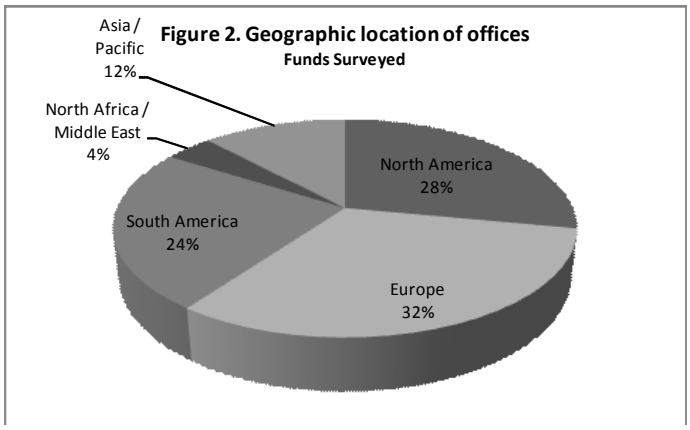
8. It should be emphasized that these 54 funds/companies represent an insignificant subset of total number of financial institutions committing capital on a global basis across all asset classes. In addition, the combined "Assets under Management" that these 54 entities have committed to investing in farmland and agricultural infrastructure represents an infinitesimally small percentage of the total amount of capital invested in the global financial marketplace. This list does not include Sovereign Wealth Funds which may have already invested in farmland or are considering committing capital to the asset class. While recent media coverage on this asset class has focused on reports of acquisitions of large tracts of raw or undeveloped land in developing markets, pejoratively referred to as "land grabs", a majority of these transactions have been negotiated as bi-lateral agreements between the funds and governments (e.g., not as a private transactions) and in most cases have not been concluded nor resulted in the deployment of capital. To date, a majority of reported acquisitions of large tracts of land, particularly in Africa, have turned out to be apocryphal. In addition, HighQuest Partners did not include investment activity by private individual investors nor strategic investors which historically have accounted for the major portion of investment activity in the sector.

9. HighQuest representatives contacted all 54 entities listed in its database with the objective of conducting 20-25 survey interviews for the project. An email was sent to a key executive of the investing group (typically the CEO, COO or managing director) inviting her/him to participate on a voluntary basis

[2] Throughout the survey interviews, representatives of private sector funds investing in farmland and agricultural used anecdotes to illustrate the impact that private sector investment is having on local communities in regards to job creation, demand for new products and services in the local economy and improvements in the quality of life; the tenor of funds' interactions with multilateral organizations and government officials; and the leadership role these funds are assuming in the local community. Participants in the survey expressed pride in the investment and efforts their firms and companies are making to improve farmland productivity in a sustainable manner and the opportunities that this provides to improve the lives of local populations. There was general consensus amongst survey participants that generating attractive returns for investors over the long-term was consistent with adherence to sustainable farm management practices and maintaining positive relationships with local populations. Many commented that all three objectives are inextricably linked and striving to achieve them would ensure the sustainable generation of attractive returns over the long-term. While we believe that these anecdotes reflect the positive impact private sector investment is having on rural communities and the environment in different regions of the world, HighQuest Partners has not verified the accuracy of the anecdotes cited in this report.

in the survey. In order to encourage participation in the survey and ensure that responses were both candid and would be representative of the group, those who agreed to participate in the survey were promised complete confidentiality. (A copy of the survey guideline is presented in Appendix B.)





Participant Profile

10. The profiles of survey participants reflect the broad range of participants active in the sector in terms of:

- legal and operating structures adopted;
- geographic and activity focus of investment activity and
- scale of Assets under Management (AUM).

11. This diversity of profiles is not surprising given that the sector is in its early stage of development. Private sector funds are experimenting with a wide range of strategies and business models which they have developed and fine-tuned to attract funds and mitigate risk while enhancing the opportunity to achieve attractive returns for investors.

12. Many of the differences in strategies and business models can be explained by the level of development (infrastructure, legal systems and access to capital markets) of the markets in which they operate. These approaches are customized in order to respond to local conditions: type of production, access to financial networks and sources of capital, political/legal/governance issues, infrastructure challenges, environmental sustainability constraints and overall risk/security challenges. These can be segmented into three broad categories: ***developed markets*** (North America and Australia/New Zealand), ***developing markets*** (South America, some countries in Eastern Europe and SE Asia) and ***early stage markets*** (Africa).

13. Figure 1 provides a breakdown of the geographic locations of the head offices of all the funds active in farmland and agricultural infrastructure investment. The largest number of funds (44%) is based in Europe. This is not surprising given the experience that European investors have had investing in the agricultural sectors in their former colonies and the British Commonwealth. North America comes in second place (26%) followed by South America (19%) and Asia/Pacific (7%), which includes Australia and New Zealand.

14. The breakdown of funds interviewed for the survey by head office locations (see Figure 2) is a bit more diversified and perhaps more representative of where capital is currently being raised for investment in this new asset class. Europe still remains in a lead position (32%), followed by North America (28%), South America (24%) and Asia/Pacific (12%).

Structure of Funds

15. Based on our interviews, no one legal/corporate structure seemed to prevail as the optimal platform for operating in this sector. These include:

- Fund structure
  - Private
  - Publicly-traded
  - Closed end
  - Limited partnerships
  - Separate accounts (investors allocate their investment to specific sectors)
- Unit Trust (similar to a real estate investment trust, or REIT, where gains/losses are passed on directly to the investor based on ownership interests)
- Corporate structure
  - Private and publicly traded companies managing funds(private and publicly traded) which acquire and own farmland
  - Private and publicly-listed companies which provide farm management services(leases and for absentee land owners) and may also conduct farmland acquisition and ownership activities

16. The sponsors of these different investment vehicles include financial firms (hedge funds and private equity firms) which raise capital from pension funds, endowments and wealthy investors (individuals and family offices) and contract with professional farm managers to manage the farmland acquired or build their own organization to acquire and manage farmland. Professional farm management companies have also integrated vertically into farmland ownership to complement their activity managing leased farmland and farmland owned by passive investors, which include wealthy families and financial institutions. It should be pointed out that some sponsors use a number of different vehicles to raise funds and manage farmland acquisition and operations. For example, a fund manager based in Brazil with interests in commercial real estate has established an operating company which provides farmland management company services for farmland acquired by a sister fund which raises capital from U.S.- and EU-based wealthy individuals and financial institutions.

17. A number of farm management firms based in South America have focused on managing leased farmland (as opposed to acquiring farmland) and offering their services to absentee landowners. In these situations, capital raised from investors provides the working capital required to negotiate and acquire leases and improve productivity of the leased farmland. Many of these firms intend to continue leasing farmland in regions such as Argentina where the cost of land acquisition and political/financing risk do not make land investment an attractive option. The land-lease model is an attractive option as funds raised for the required working capital can be leveraged over a large number of hectares. (Typically the cost of a lease equals 3% of the land's market value). A number of these companies are now raising capital from institutional investors to take advantage of the arbitrage in land values between developed regions such as Argentina (and Uruguay and Paraguay where the availability of farmland for acquisition is limited resulting in prices inflating when one attempts to purchase land) and southern Brazil and the new frontiers in northern Brazil (east and west) and to leverage their operational expertise to acquire and transform farmland.

18. Conversely, an early pioneer in the sector in Brazil has recently announced that it is contemplating spinning off its large portfolio of farmland holdings from its farm management operations. The rationale for this move is twofold: to unlock "hidden value" in its equity which trades at a discount to its net asset value and to create a platform for raising capital from a larger universe of investors which maintains a preference for land ownership (a hard asset) over investing in farm management operations.

19. Due to local laws governing the transfer of land titles which preclude transfer of free and unencumbered ownership of land in certain countries, investment groups have entered long-term leases ranging from 10 to 35 years (with options for extension of the leases) with private landowners (former members of kolkhozes privatized in the late 1990s) in Ukraine and concessions of 50 years with an option to extend to 95 years with local and central governments in Mozambique.

North America

20. In this region, a private fund or unit trust structure (similar to a real estate investment trust – REIT - where income generated by farmland and capital appreciation realized on parcels sold pass through directly to investors in a fund based on their ownership share) has typically been used. Funds in North America focus primarily on investing in farmland and have not pursued integrated strategies to invest in downstream activities such as storage and value-added processing This can be explained by the maturity of the market in this region where major multinationals with deep expertise in downstream activities have been well entrenched for decades. (In western Canada, due to restrictions on foreign ownership of farmland, the private fund structure is generally the preferred vehicle for raising funds to investing in farmland.) In the future, publicly-traded funds designed to attract a wider class of investors (lower minimum investment threshold) are likely to become more prevalent.

21. Investment in farmland in North America is typically pursued as a passive activity with farmland management functions subcontracted by the fund manager to an outside farm management firm which employs a staff including agronomists, farm manager and risk management/merchandising experts to oversee all operations in the field. Returns to investors are derived from cash proceeds generated from sale of crop production and capital appreciation generated when land parcels are sold.

22. Specialized funds in this region also offer institutional investors the opportunity to commit capital to specific agricultural activities such as permanent crops (nuts and fruit orchards), cattle production and vineyards, which in certain cases include farmland ownership.

Australia/New Zealand

23. Historically, much of the investment activity in farmland in this region has been undertaken by highly integrated private companies which own and operate farmland for crop production, processing plants to add value to the crops, integrated livestock production (beef, diary and swine) which consume some of the off-take from crop production and vertically integrated, value-added processing facilities,

24. Over the past couple of years, private and publicly-traded funds have provided investors with the opportunity to own interests in large-scale livestock operations (beef, sheep and swine), vineyards, dairy operations, permanent crops and farmland for major row crops. Given the large tracts of available land which have yet to be developed and the region's proximity to fast-growing markets in Asia, private institutional capital is expected to continue financing development of large-scale farmland and integrated operations in both countries. Private sector funds are also financing permanent crops (fruits and nuts) in the region.

Eastern Europe

25. Within the past decade, Eastern Europe has begun to attract investment for farmland acquisition and transformation. While transition to a market economy began in the early 1990s and despite the region's long tradition as a major producer and exporter of agricultural products ("the breadbasket of the world") which preceded the establishment of the Soviet Union, the political legacy of communal ownership, complicated laws concerning land transfer and land registries means that private investment in developing farmland in this region has so far met with mixed results. The private corporation which raises funds from

private wealthy individuals and financial institutions to acquire and manage farmland seems to be the preferred approach. Integrated farm management and farmland acquisition (or leasing) companies which raise equity from investors to acquire land or fund the working capital required to acquire and manage long-term leases are also entering the marketplace. This is the preferred approach in jurisdictions where acquiring clear title to farmland remains problematic. In countries such as Bulgaria with thriving capital markets, publicly-traded closed end funds specializing in farmland acquisition and leasing have been launched and trade actively on local exchanges.

South America

26. Privately-held and, in a few cases, publicly-traded farmland management companies raise funds and manage farmland holdings for investors which include wealthy family groups and financial institutions based in the region, as well as North America and Europe. One of the largest publicly-traded farmland investment companies in the world, an early pioneer in the sector, is based in the region as are two large privately-held companies following different business models: one a highly integrated food company (farmland management to consumer products) and another dedicated to wholesale commercial activities. All three groups acquire land for ownership, lease land from owners for production sharing and in some cases manage farmland for institutional investors for a fee or on a revenue sharing basis.

27. As related previously in this report, there seems to be a trend in this region to separate farm management activities from farmland ownership driven by three factors: pressure from the markets to unlock hidden value (when the company's stock trades consistently below its net asset value); the realization by operators that their expertise in farm management and scale of operations can be leveraged more effectively across a wider platform of land holdings(owned, leased and managed for third parties); and that achieving scale in their business can be accelerated by having financial investors with little appetite for investing in farm management operations allocate capital instead to land ownership which provides a higher degree of liquidity.

Africa

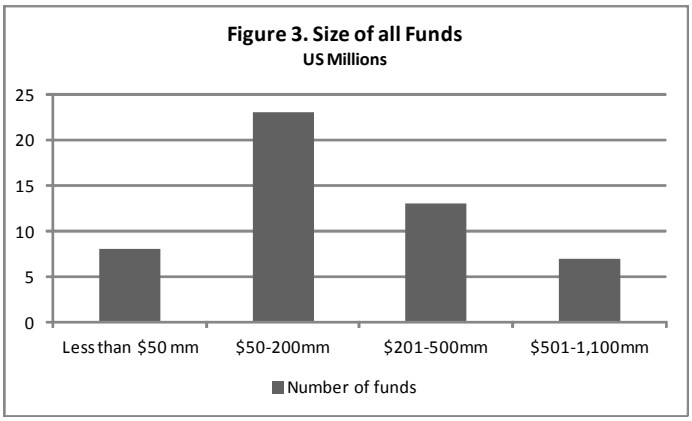
28. Due to the fact that Africa is in relatively early stage of development in terms of farmland investment, the corporate structure is the most prevalent vehicle used for raising institutional funds to acquire (or lease under long-term concessions) and manage farmland. Given the wide range of legal systems which are the legacy of previous colonial administrations, the ability to acquire clear title to land is extremely challenging and varies by country. In certain countries, outright ownership of land is not possible. Instead, long-term concessions are negotiated with central governments which include commitments by investors to provide financial support for social projects over a 5 to 15-year period. Given the embryonic nature of the capital markets in this region and the complexity of land titles and concessions, a tiered corporate holding structure with subsidiaries at the country level overseeing subsidiaries at the farm operating unit is the typical approach used in order to mitigate operating and legal risks.

Assets under Management

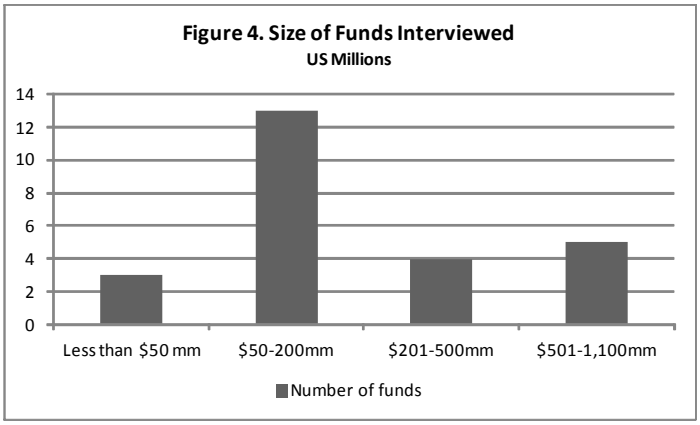
Assets of Survey Respondents

29. As a group, the 25 firms/funds/ companies we surveyed accounted for approximately USD 7.44 billion in Assets under Management (AUM) or the equivalent. To calculate AUM, we used the amount of capital raised for public and private funds and total capitalization (shareholders equity plus short-term and long-term debt) as a proxy for AUM in regards to corporations.

30. Based on our research, the total AUM for all 54 firms/funds/companies on HighQuest's list amounts to USD 14.242 billion. As the 25 firms which participated in our survey are representative of the larger universe of 54 private investment groups and that the groups we surveyed accounted for approximately 50% of the total number of firms/ funds/ companies active in the sector, USD 14 billion is a reasonable estimate of the amount of private capital currently committed to farmland and agricultural infrastructure investment globally.



31. When fund representatives interviewed were asked to estimate the amount of capital allocated to the asset class, 90% of them indicated that the amount of private capital currently committed to farmland was between USD 10 and 25 billion.

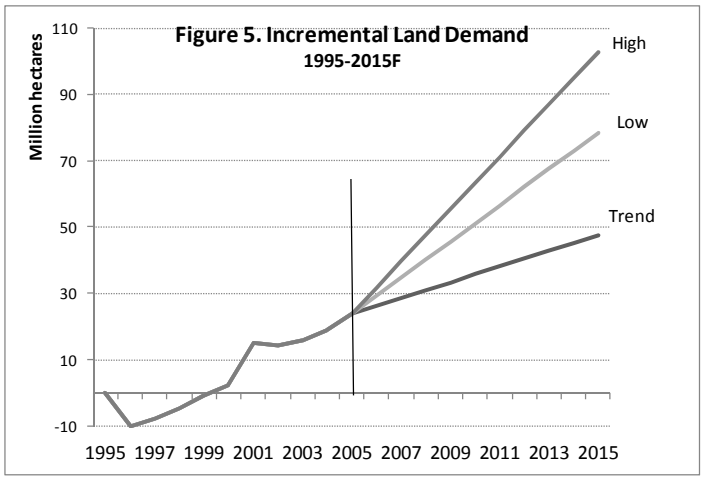


32. Of the private 54 funds which have been identified by HighQuest as focused on investment in farmland and agricultural infrastructure, 8 have raised less than USD 50 million, 13 have raised USD 50-200 million, 12 have raised USD 200-500 million and six or so have raised USD 500 million to USD 1 billion (see Figure 3). The funds interviewed for the survey mirror a similar distribution in terms of amount of funds managed (see Figure 4).

Estimates of Growth in the Asset Class

33. Most of the survey participants were either unable or unwilling to estimate the amount of capital which is likely to be attracted to the sector within the next three to five years. However, citing fundamental trends in the global economy, a majority of those who did provide an estimate indicated that they expected the amount of capital to flow into the farmland and agricultural infrastructure asset class in the near and long-term will dwarf the amount already committed, ranging from two to three times the current level of capital committed, or USD 28 to USD 42 billion.

34. This may be a conservative given estimates of farmland required to meet growing global demand for food, feed, fuel and industrial applications. Taking Brazil as an example, based on projections of raw land in the *cerrado* and northeast of the country as well as land currently used for grazing that can be transformed for crop production ranging from 40 to 70 million hectares and an average land acquisition and investment cost of USD 2000/hectare, the potential exists for USD 80 to USD 140 billion or more to be invested for the acquisition of farmland in Brazil alone over the next several years. This does not include the accompanying investment in infrastructure (storage, processing and transportation) that will be required to ensure efficient access to downstream markets which could raise the investment required in excess of USD 150 billion for Brazil alone.



35. Given the expected need for additional arable land to be brought into production on a global basis, the amount of capital that could enter the sector could substantially exceed USD 150 billion. Growing world population, rising incomes in the developing world and the increasing use of biomass for biofuels and for industrial applications is expected to drive unprecedented growth in demand for agricultural crops over the next decade and beyond. Even accounting for potential improvements in production yields resulting from improved genetics and agronomic practices, significant additional acreage will need to be brought into production. Based on HighQuest's demand projections for a basket of seven key crops (wheat, corn, soy, cotton, rapeseed, sugar cane and palm), a *minimum* of 75 million hectares of land on a global basis will need to be brought into cultivation by 2015 (see Figure 5). This is a potentially daunting challenge given that there is only ~1.4 billion hectares of land available for production worldwide, and less than 24 million hectares were brought into cultivation during the entire 10-year period ending in 2005.

36. The challenge of bringing additional land into crop production is compounded by the fact that agriculture competes with alternative land uses (especially in the developed world). Furthermore, the UN estimates that 12-19 million hectares of land are lost annually due to deterioration (expanding deserts and soil depletion). This scarcity of land is likely to continue upward pressure on prices of agricultural commodities and the value of farmland for the foreseeable future which should continue to attract private institutional capital to the sector.

Investment Activity

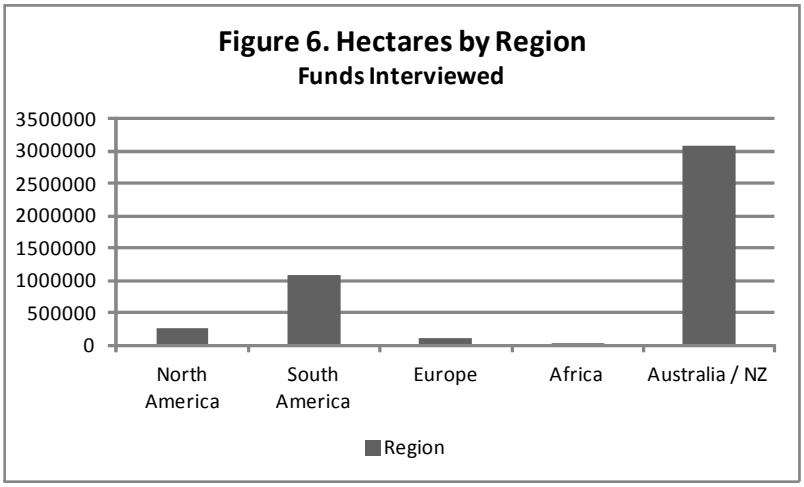
Geographic Focus of Investments

37. Investment activity in farmland amongst the private financial institutions surveyed has followed a distinct geographical trend. Most funds that started investing in the sector within the last decade did so in very mature or their home market with interest and investment spreading to growing or emerging markets only within the last five years or less. Historically, the majority of farmland held by private institutions has been located in the U.S., Canada, Australia and New Zealand with South America following up behind.

38. However, within the past several years, the geographic focus of investment activity in the sector has shifted noticeably toward South America (led by Brazil) and increasingly Africa. Both regions are attracting an increasing amount of capital being raised for investment in the sector.

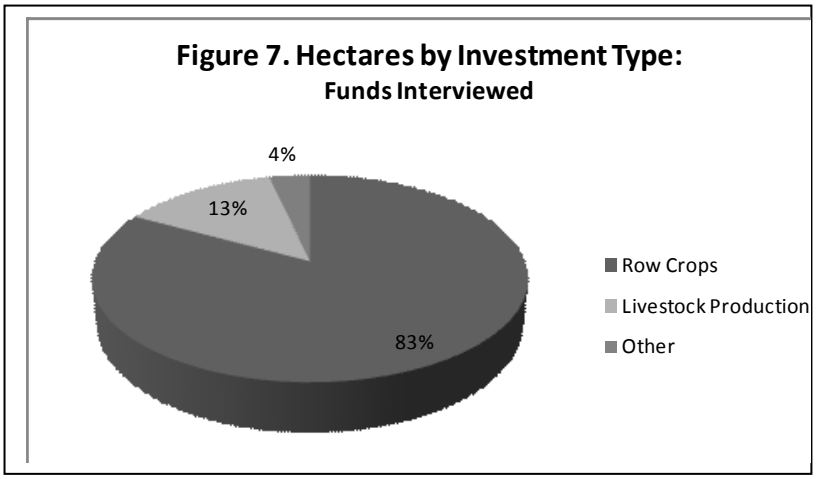
39. Brazil is now recognized as being the largest new frontier for new farmland development in the world. A convergence of availability of new land (estimated between 40 to 70 million hectares, though recent statements from the Brazilian Ministry of Agriculture indicate that only 10 million hectares of new farmland are likely to be brought into production in Brazil by 2050), increasing demand for row crops to feed and supply a growing world population, a legal system which facilitates investment by foreigners in farmland and a relatively clear legal and environmental regulatory system, has attracted foreign investment in Brazilian farmland. It is estimated that one-third of vehicles investing in farmland globally have committed funds to Brazil.

40. One theme that surfaced in a number of survey interviews was the nexus that is developing between Brazil and Africa. A fund manager with investments in Brazil is leveraging Brazilian production know-how in southern cone of Africa, where there are large-scale farming opportunities at a much lower land acquisition cost, to become a major player in oilseeds. In his opinion, Africa has the same potential for professional talent as that of Brazil but with a much lower land cost. Brazil land acquisition cost ranges USD 1500-3,000/hectare versus USD 300-500/hectare in Africa for long-term lease concessions. In addition to the arbitrage on land values, this investor's business model is based on leveraging transportation cost advantage of the east coast of Africa relative to Western Hemisphere to export oilseeds and derivative products to India and the rest of Asia.



41. The geographic distribution of farmland under management amongst the funds interviewed (see Figure 6) is concentrated in Australia/New Zealand and South America with Africa and Europe accounting for very small percentages of total farmland owned institutionally. In South America, Brazil followed by Argentina, accounts for the major focus of activity in the region (with Uruguay and Paraguay benefitting from some investor interest). In Europe, most of the activity to date has been in Russia, and Ukraine followed by Bulgaria. In Africa, most of the activity has been in former British and Portuguese colonies in southern Africa. It is interesting to note that there has been very little institutional investment activity in Asia.

Focus of Investments in the Sector



42. As shown in Figure 7, 83% of the farmland being acquired or leased on a long-term basis by survey respondents is dedicated to the production of major row crops (soft oilseeds, corn, wheat and feed grains), with 13% being invested in livestock production (typically grazing of beef cattle, dairy, sheep and swine) and 4% of farmland(referred to as "other" category) dedicated to permanent crops such as sugar cane and viticulture, agricultural infra-structure (primarily on-farm storage) and set-asides(reserves in South America). Capital being raised or funds in the development stage were also focused primarily on acquiring farmland geared towards the major row crop production, with minor amounts being dedicated to livestock production (beef cattle, dairy, sheep and swine), permanent crops and other uses (set-aside reserves and processing facilities, etc.).

43. Investment in water rights, infrastructure or other points along the value chain (either upstream for distribution of crop inputs or downstream for storage, transportation and primary processing for food and fuel/industrial applications) are of secondary importance. However, funds planning on entering emerging markets indicated that they would be open to these assets on a case-by-case basis as they evaluate specific acquisitions including parallel investments which would enhance the value of their farmland holdings(for example, investment in transportation and logistics infrastructure expanding market access would also result in higher prices for the crops they produce).

44. Each fund attempts to differentiate itself from its peers on the basis of geographic area of focus, ability to build a diversified portfolio of farmland holdings, ability to leverage scale and standardization in its operations, expertise in land acquisition and the experience and capabilities of its management team. They also promote the environmentally favorable conditions of the regions where they intend to focus their investment activity, pointing to the high potential for production growth, low production costs and opportunities for gains in scale and growth of their business platform.

45. One area where many of the survey respondents took pride in differentiating themselves from other participants in the sector was their ability to conduct due diligence on available parcels of land efficiently. A few emphasized that their internal procedures, which they consider to be proprietary, enabled them to get a head-start on their competitors. In one situation, a group had just finished due diligence on more than one million hectares of land in Brazil. Another indicated that it takes his fund only two to three years to present complete dossiers requesting permission to register native *cerrado* as farmland versus other companies which require up to five to seven years.

Deployment of Funds Raised

46. A sizable amount of capital that survey respondents have either raised or are in final stages of raising have yet to be deployed. Farmland acquisition due diligence is a time consuming and complex process which requires teams of seasoned experts (agronomic, farm management and legal) with deep field experience who spend months in the field conducting site visits, conducting soil tests and undertaking extensive land title research before beginning the bidding/negotiation process with private landowners and local and central governments.

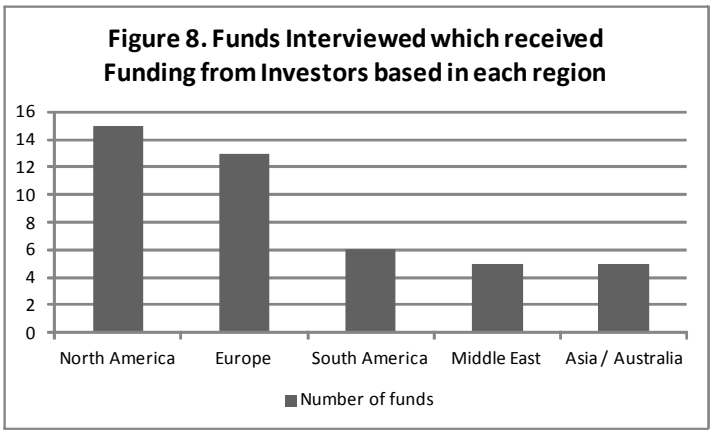
47. Based on anecdotal evidence gleaned during the survey interviews, while capital flowing into the sector is being allocated to projects located across the major agricultural regions of the world, a pecking order has emerged based on the perceived opportunity and risk inherent in each market. North America and Australia/New Zealand, which are perceived as relatively safe regions for investing as they assure high liquidity in land transactions, are benefiting from relatively easy access to capital. Brazil offers attractive opportunities for arbitrage on land values with other major producing regions and probably the most immediate opportunity for realizing superior returns. Africa is also beginning to attract strong interest from investors given the opportunity to realize substantial gains in land productivity. Eastern Europe, while offering great opportunity to return to its past position as the “bread basket of the world”, continues to pose legal and political challenges which to date have dampened the appetite of investors willing to commit large pools of capital.

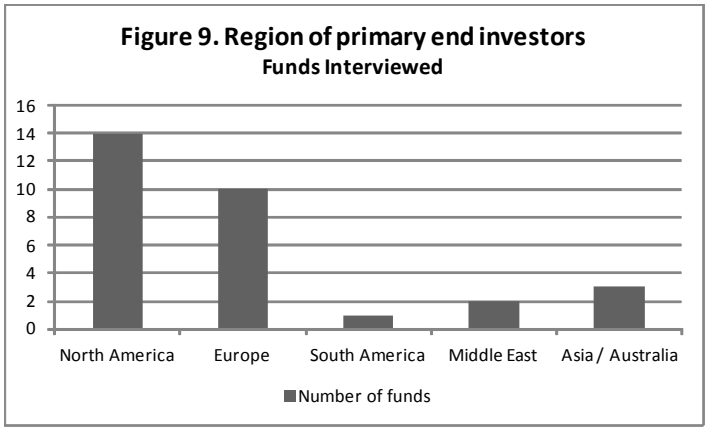
48. Of the 25 funds interviewed, 20 are currently raising capital and 21 indicated that they expected to be raising additional capital within the next three to five years.

Funding Sources

Geographic Source of Funds

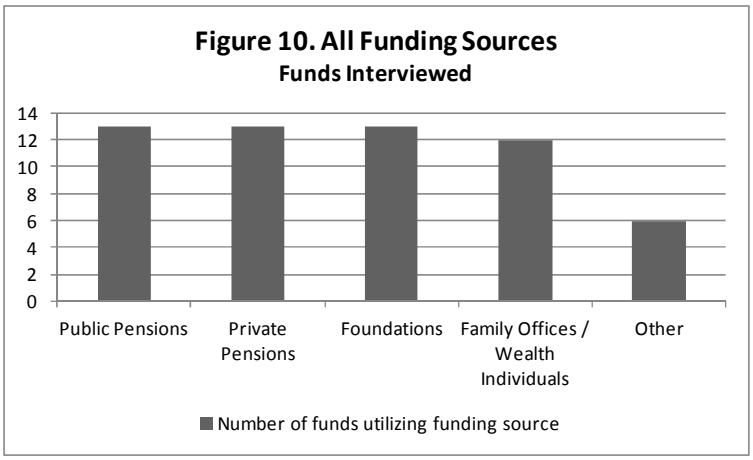
49. Survey interviews confirmed that most of the current investors in funds focusing on farmland investment are based in North America and the EU (see Figure 8). While a majority of those interviewed, about 80%, indicated that their investor base was global, they also admitted that in terms of funds allocated, end investors in North American and the EU investors accounted for their primary source of funds they have raised and committed to the sector (see Figure 9 below). While increased interest from North Africa, the Middle East and Asia has been noted, little real commitment of capital has yet to materialize from these regions. (It should also be noted that if and when investors from these regions pursue investments in farmland, they are likely to either sponsor their own funds or collaborate with co-managers based in Brazil and those countries in Africa which will be the recipients of investment, bypassing investment groups based in North America and the EU.) .



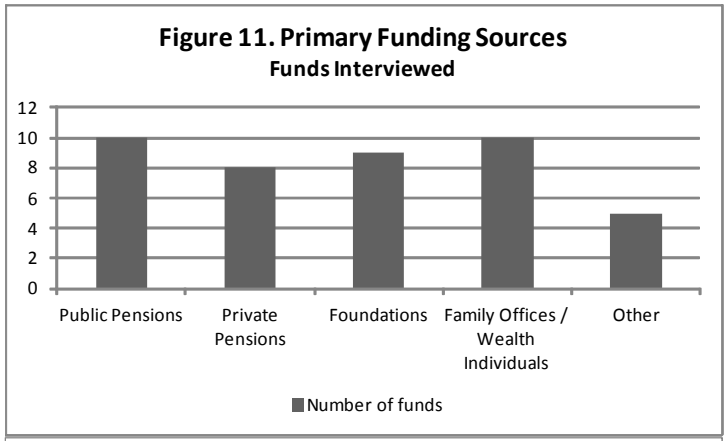


Investor Types

50. For reasons of confidentiality, survey respondents were reluctant to identify their investors and provide an exact breakdown of their funding sources. Yet, endowments and wealthy individuals and family offices were cited by respondents as historically being their principal source of funds (see Figure 10). There has been a noticeable shift in recent years with hedge funds and large institutions, including endowments and pension funds, entering the asset class by investing in existing funds, in some cases sponsoring their own vehicles to attract funds for the sector, as well as investing in publicly-listed companies active in the sector.



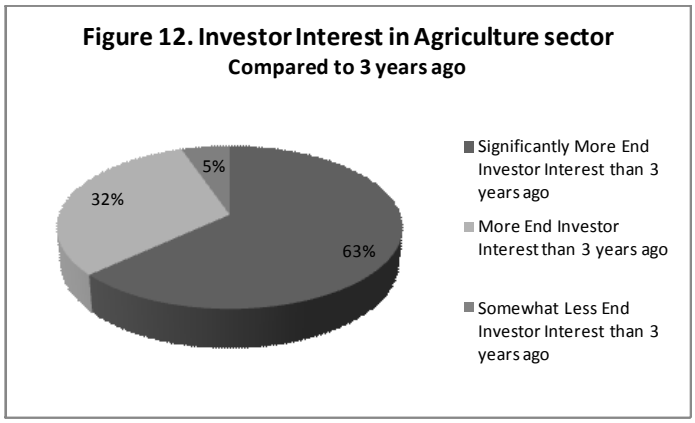
51. As indicated in Figure 11, funds identified more than one category of investor as a "primary source of funds" for their operations, reflecting the fact that the universe of investors committing capital to the sector is expanding.



Assessment of Trends in Sector

End-Investor Interest in Emerging Agriculture Class

52. Interviewees were queried about the general interest in the emerging agricultural asset class over the past last three years. With one exception, respondents indicated that they believed that there was either ***significantly more (63%)*** or ***more (32%)*** interest in the asset class than there was three years ago (see Figure 12), with the drivers cited for increased interest being similar in all geographic regions(both source of funding and target of investment activity).



53. One investor focused on Africa commented that end investors evaluating opportunities to allocate capital to the sector have become much more knowledgeable about opportunities and risks offered by the sector within the past three years. He finds this trend encouraging as it means that he can spend less time educating prospective investors. "For every 100 investors looking into the sector three years ago, with only five of them seriously considering allocating capital to the sector, today there may be only 20 doing so, but I can count on at least 15 of those being seriously committed to doing something. It's a big time saver for me."

Motivation for End-Investor Interest in "New" Agriculture Asset Class

54. Three main drivers of investor interest in farmland and agricultural infrastructure as an asset class were cited consistently by interviewees. They include:

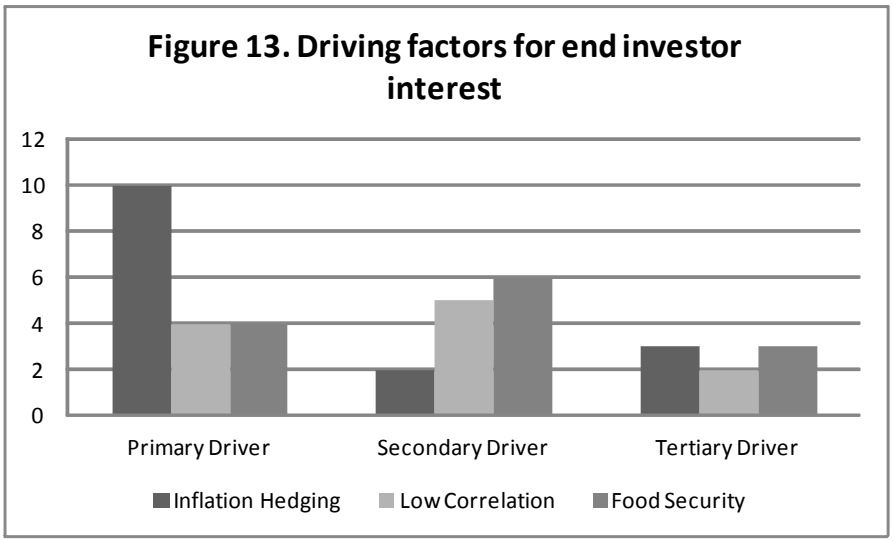
55. **Inflation Hedging**: Historically, farmland investments have provided an effective hedge against inflation, with returns in the U.S. highly correlated to the Consumer Price Index. Over the past 10 years, the correlation between the quarterly returns on the NCREIF[3] and the CPI has been 0.509. The return on the NCREIF has been higher than the inflation rate in each of the past 10 years. For competitive reasons, survey participants were reluctant to divulge actual returns achieved. In addition, as many of the investment groups were in the early stages of deploying capital raised and had yet to finish raising capital, comparable return figures were not available. However, as a point of reference, according to some estimates the value of Brazilian farmland has appreciated at a compound rate of 12% over the last 15 years, which in part explains why Brazil is attracting so much investor attention at this time.

[3] The National Association of Real Estate Investment Fiduciaries (NCREIF) is a non-profit trade association established to serve the institutional real estate investment community in the U.S. as a non-partisan collector, processor and disseminator of real estate performance information.

56. **Low/Negative Correlation to Other Assets**: A major attractive feature of farm land investing for long-term investors is the low correlation between returns on farmland investments and the broader markets. Over the past 10 years, the correlation of the quarterly returns on the NCREIF with the DJIA has been 0.107 and with the S&P 500 it has been 0.174.

57. **Food Security/Agricultural Fundamentals**: Growing world population, rising incomes in the developing world and increased use of biomass for biofuels and for industrial applications are expected to drive unprecedented growth in demand for agricultural crops over the next decade and beyond. Even accounting for potential improvements in production yields resulting from improved genetics and agronomic practices, significant additional acreage will need to be brought into production.

58. Respondents in the survey ranked inflation hedging as the biggest driver for committed investment, followed closely with low correlation to other assets (see Figure 13). While food security may have been a primary driver three years ago when interest in farmland investment was in its early stage and was driven by rather simplistic and inflammatory media reporting on food security concerns, as investors have become more knowledgeable and sophisticated about the sector, respondents cited it as a secondary or tertiary driver.



59. While food security and the media attention surrounding this issue has spawned interest in the asset category, as one fund manager commented , "Interest in investing due to food security issues has not yet resulted in actual and serious investment in agriculture from those sources." Several other respondents shared the same sentiment. However, media attention on agriculture has motivated fund managers to embark on what they consider a necessary 'education' for new investors interested in entering the sector. (It should be noted that most firms/funds/companies deploying capital to acquire farmland in developing countries scoffed at the notion that ownership of productive farmland would guarantee privileged access to food crops produced on that land for an investor's home market should a food shortage develop. In almost all cases, they agreed that off-take of food crops would be accomplished according to transparent, market clearing mechanisms and that it is unlikely that investment in farmland will provide a sustainable strategy for investors to ensure food security in their home markets.)

60. One respondent opined that three macro themes promoted early investor interest in land investment: food security concerns, food competing with energy and demand from China increasing global demand. In his opinion, the focus has shifted over time to farmland assets which provide a hedge against inflation. With more professional investors moving into the sector, he believes that the hedge against inflation and the opportunity to acquire real assets are increasingly the major drivers behind investor interest in the sector. He sees a major shift occurring with entry of professional investors who are dedicating more time to analyzing the asset class – realizing its complexity, identifying the attendant risks of investing in the sector and determining which fund managers are the best operators.

61. Liquidity in the farmland sector appears to be strong as evidenced by one respondent who was able to sell a farm in Brazil (defined as an illiquid asset) in the middle of the financial meltdown in October 2008 for 2x the fund's original investment and another parcel in January 2009 for + 2x his original investment. This same individual stressed that Brazil offers the most attractive long-term opportunities for investors interested in exposure to farmland compared to the Black Earth region in Eastern Europe which offers higher risk/return(because of political risk and corruption) and Australia, New Zealand and China which are facing water shortage problems.

62. An executive with a fund operating in South America recounted that hedge funds jumped into the market three years ago when they saw an opportunity to acquire large tracts of farmland at attractive prices which they cherry picked and then resold to investors who entered the market later. While the hedge funds have been inactive during the past year and a half, they are returning to the market in anticipation of making commitments. For this individual, it remains an open question whether or not Sovereign Wealth Funds from SE Asia, the Gulf States, Japan and China will actually commit capital in a meaningful way to the asset class.

63. A number of survey respondents argued that historical returns on farmland should not be viewed as good indicators of future returns that will be realized from this asset class. Whereas expected returns on farmland have been based on the ***Beta*** return for the asset class as a whole (derived from buying and developing farmland), many of the funds are seeking to realize an ***Alpha*** return specific to the transformation of the land they own and manage achieved through application of new sustainable technologies (biotech seeds, no-till farming and precision agriculture, etc.).

Local Impact of Investments

Impact on Local Employment

64. The issue of the impact that investing in farmland has on the local economy did not surface as a topic of particular interest or relevance during interviews with private funds operating in North America. A majority of funds in the region acquire land and than either lease back to local farmers (in which case they share in crop proceeds) or contract out management to a professional farm management firm (typically on a crop sharing arrangement or for a fee). There is little if any noticeable impact on the local economy.

65. In contrast, survey participants associated with groups active in Eastern Europe, South America and Africa indicated that their investment activities have led to the creation of new jobs, either newly created positions within their organizations or with companies providing services or products to their operation and other farmland owners operating within the same region. The number of staff they hired directly as company employees or retained as contract employees ranged from a couple of hundred to 2 000. The total number of employees employed on a fulltime basis on farms managed by the investment groups which participated in the survey was 4 116. In all cases, they confirmed that their investment activity led to the creation of new positions for local staff and opportunities for professional development of these hires.

66. A common metric for staffing farming operations surfaced in many of the interviews. The optimal size of a farm unit managed by one team ranges between 4 000 to 6 000 hectares in Brazil and Eastern Europe whereas in Africa the average size is ranges between a couple of hundred hectares and the lower range for Brazil and Eastern Europe. (This average size of farms managed by institutional funds in Africa is likely to increase as investment activity spreads to new countries within the continent with larger farm sizes.) Teams consist of an agronomist and field staff (either fulltime or seasonal contract hires). A regional manager is responsible for 15,000 to 30,000 hectares who in turn is supervised by a regional or country manager. While investing in capital equipment is necessary in developing markets such as Africa

and Eastern Europe, in more developed markets such as Brazil where established planting/harvesting contract services exist, a majority of investors subcontract planting and harvesting tasks to outside contractors.

67. With few exceptions, the respondents indicated that they prefer to hire and train local managers instead of bringing in expatriate managers. This results in a transfer of new technologies and professional skills to the local population.

68. As one investor active in Ukraine commented, the level of expertise in operating planting/harvesting equipment and managing farm operations has always been high in the country. This extends to the culture of the local population which has a tradition of trading in agricultural commodities which preceded the Communist era of the 20th century. Therefore, while this fund continues to bring in expatriates from the EU to work alongside local managers in order to assure the transfer of technology and management skills, over time the reliance on expatriate managers is expected to diminish over time.

69. In most cases, respondents were eager to refer to the investments and efforts they were making to transform the productivity of land they were acquiring. In one case, an investment group based in North Africa has partnered with a permanent crop company that will provide on-the-ground technical and agricultural expertise for the farms the investment group acquires as well as partner on the financing of agricultural infrastructure projects.

70. A global investment firm with global operations including holdings in Africa cites the higher wages and the better working conditions they provide their employees (compared to other local employers) as an important contribution to raising the bar on employment practices in communities where they operate.

71. An investor in Brazil stressed that their internal policies for employees exceed the local norms for wages, housing and community facilities. This includes assuring free transportation of all employee children to attend local schools.

72. One group active in southern Africa has 45 permanent employees, all local hires, who are seasoned agricultural specialists. The company does not use expatriates to staff its operations in the region. It also employs 500-1 000 contract employees on a seasonal basis. To develop managers for the company's field operations, the group hires local agricultural engineers and sends them to southern Brazil to work on farms for a period of six to nine months (travel, room and board provided) in order to learn best farming practices in Brazil. (Farms in southern Brazil are chosen for the training versus large-scale farms in the new frontier in the northwest of the country as they better approximate in size the farms found in southern Africa.) Once their training is completed, these individuals return to Africa to manage the company's farm operations.

Impact on the Local Economy

73. Survey respondents referred to the following benefits that their investment activity had on the local economy where they operate:

- introduction of more efficient agronomics and farming/business practices which are eventually adopted by the local population;
- generation of higher productivity in land use and improved crop yields;
- expansion of market access for neighboring farmers as increased scale of production leads to increased public and private investment in infrastructure and logistics and

- increased access to products and services in the agricultural sector and parallel sectors in the local economy.

74. The multiplier effect was cited as being the most important impact that investment activity has on local employment and the economy. Interviewees operating in different parts of the world cited examples of how their investment in transformation of land into productive farmland has created a new dynamism in the local economy. For example, following the breakup of the Soviet Union, rural towns and villages in Ukraine suffered a depression due to the dissolution of neighboring cooperative farms (kolkhozes) which also left much of the productive farmland fallow for over 15 years. The investment made to bring this farmland back into production has created new jobs and revitalized the cultural, social, and economic life of these population centers in Ukraine's rural regions.

75. Transformation of farmland was cited by a number of survey respondents as providing major benefits for local economies at all levels which interact with crop and food production as it will create demand for products and services in the following sectors:

- crops inputs;
- planting and harvesting equipment and services;
- labor;
- transportation(trucks, rail, barges and ships);
- primary processing of crops;
- export services and
- financing and credit for crop production and capital investment.

76. A fund operating in southern Africa is pursuing a business model which promotes development of regional clusters which will in turn create concentrations of demand for products and services. The objective is to attract other farmland investors to enter the market so that the resulting increase in demand for products and services will provide incentives for entrepreneurs to launch new businesses such as contracting of planting and harvesting and crop input distribution. This will enable the company to outsource non-key functions to 3rd parties and focus resources on its core business which is farm management and transformation of the land.

77. An investor active in southern Africa finds working with multilateral organizations to access capital time consuming and bureaucratic. He prefers to work through local African banks which assume responsibility for syndicating loans with multilateral organizations. This provides local banks with opportunities to generate fees and saves the investor time and effort. He also believes that it is in the company's long-term interest to develop strong relationships with a well-financed and increasingly sophisticated local financial sector which should have a positive spill-over effect for both the local and national economy.

Impact on Local Farmers

78. A fund sponsor currently expanding its farm acquisitions in Brazil has engaged in several community building projects as part of its efforts to build strong relationships with local communities. A few years ago, small-scale local fruit farmers located in a region adjacent to one of the fund's large farms encountered a series of setbacks and were being forced to sell their land within a short period of time in order to cover cash shortfalls. The fruit farmers and local community were facing the prospect of displacement and instability. While the fruit crop in question was not within the fund's scope of operations, nevertheless the fund agreed to acquire several tracts of land for the farming of the cash fruit crop from the

farmers which it subsequently leased back to the original owners and provided the necessary working capital to finance a full season of production in order to minimize the farmers' operating risk. With the stability provided by the fund's backing and financing, fruit processors, including one of the largest global processors of the fruit in question, were attracted to the region for the first time. The processors since have installed facilities to produce value-added products derived from the fruit which have led to the creation of many new jobs for the municipality which has a population of 10,000.

79. One investor active in Africa highlighted the fact that his group was able to introduce downstream partners to provide off-take agreements to local farmers who previously were limited to selling their production in the cash market to local buyers. The scale and reach this group has brought to local markets where it invests is helping to jump start the integration of local communities into the wider market economy.

80. This same individual emphasized that his group is focused on developing strong and endurable relationships with local populations and local governments. While they typically will use mechanization to maximize operating efficiency, on more than one occasion they have employed large number of laborers from the local population to engender goodwill when taking over a land concession. "Microeconomics needs to be aligned with interests of the local population." When negotiating land concessions with the central government, the fund commits to financing a series of social initiatives (healthcare, schools and cultural events) for a local population over a 5-10 year time horizon.

Impact on the Local Community

81. All respondents emphasized that ensuring that good relationships are developed and maintained with the local communities where they operate is a key element of their business models. Information on initiatives that funds undertake to support local communities is presented in great detail on many of their web sites.

82. When negotiating long-term lease concessions for farmland with the central and local governments, an investor in Africa commits to financing the construction and maintenance of schools and hospitals in the regions where they intend to set up operations. While committed by terms of the agreement to fulfilling their obligations, the investor emphasized that maintaining cordial and deep relationships with the local communities is something they dedicate a great deal of time and effort to as they view this as a critical factor for ensuring their success.

83. Parcels of farmland leased under long-term agreements by a publicly-traded company operating in Eastern Europe will typically include four to six villages. This company, which is the largest employer in the region, is also the biggest tax contributor to local communities in the region. It is very aware of the need to maintain good relations with local government and population and sponsors local sports teams and cultural events, a responsibility which it takes very seriously.

84. Survey participants active in all the developing markets pointed out that in many cases are the largest contributors to the tax base of local communities. The fact that they pay their taxes on time has created a tremendous amount of goodwill for them in the local community and has served as an example for other tax payers to in the community to emulate which in many cases has resulted in expanding the tax base for these communities. Raising the bar on tax compliance is a very important unintended consequence of private sector investment in farmland.

85. A private company operating in South America funded by European investors has as it standard operating practice to undertake goodwill projects in each region where it owns and manages farmland. This includes financing hospital expansions, school improvements and cultural/sporting events.

86. Another fund operating in South America has built and operates schools for the children of employees and neighboring children when public schools are located too far away from their farms. In conjunction with a nongovernmental organization, provide support for facilities which serve handicapped individuals as well as support local hospitals and other nongovernmental organizations. The respondent stated "in everyplace we farm we must invest in the local community."

Sustainability Issues

Performance Metrics Used to Monitor the Impact of Investment Activity

87. Most of the performance metrics that respondents were considering monitoring are focused on rather simple issues - production, yield and returns on investment - a few did track more sophisticated metrics. An investor operating in Brazil has engaged an outside firm to conduct quarterly appraisals of his fund's farmland investments in order to assess the impact it is having on the local region. This exercise is taken very seriously. The focus is on what they refer to as the "triple bottom line": e.g., financial, social and environmental concerns. "If you focus only on money, you will have negative effect on the local area, the goodwill is lost, and that is to your detriment. Clearly the case when you buy the land is that you must take care of it and [the community]."

88. A number of survey respondents indicated that their funds were in the process of developing internal procedures to track the impact that their investments were having on their local operating area. One group operating in South America referred to discussions they were having with the IFC regarding establishing a monitoring system to tack both its impact on the local economy and sustainability issues.

89. It is interesting to note that a transfer of technology and know-how is occurring between Brazil and Africa. A fund engaged in transforming and farming land in southern Africa applies Brazilian farming practices adapted for the African context and uses Brazil as benchmark for all activities which others in the local market are beginning to emulate. When it assumes control of a land concession, the company brings in Brazilian environmental engineer consultant to evaluate the land parcel and develop a strategy for bringing the land up to optimal productivity in sustainable way in accordance with Brazilian environmental regulations. This approach serves as an example for other producers in the surrounding region and raises the bar on farming practices in the country. The drive to be efficient and produce profits ensures that sustainable practices are pursued.

90. Many of the survey respondents indicated that sustainable farming practices are consistent with the drive for efficient and profit generation. For example, in southern Africa, as the local costs of fertilizer and other crop inputs is many times more expensive than those in Brazil, where a concerted effort is made to limit their use.

Defining Sustainability in the Emerging Asset Class of Agriculture

91. As many new investors and groups continue to enter the market, no consistent set of guidelines have yet been developed nor adopted as an industry standard.

92. While there is no single "gold" standard used by all funds, survey respondents indicated that they used the following schemes and certification practices:

- GAP
- FAO practices
- IFC (Environmental & Social Standards)

- 'Best practices'
- EUREGAP certification
- UNPI standards
- Utz Kapeh Certification
- ISO Certification for internal guidelines and procedures
- Social Cotton Institute(Brazil)

93. There were many conflicting messages on whether or not use of GMO products should be considered a sustainable practice.

94. Many of the large investors operating in South America also participate in regional trade associations and "think tanks" established to supports the industry's efforts to promote sustainability such as the Roundtable on Responsible Soy (RTRS), the Roundtable for Sustainable Biofuels and the Ethos Institute.

Transparency and Sustainability

95. Many survey respondents emphasized that they were very sensitive to the reputational risk associated with sustainability and transparency issues which are viewed as potential liabilities as reflected by the following comments: "Corporate farming is getting more scrutiny," and "Institutional investors can't afford not to operate in a sustainable manager due to the increased media coverage that follows their investments."

96. These sentiments were shared by many of the participants in the survey. Most reported a desire and commitment to ensure that sustainability was a key operating principle in all their activities. With few exceptions, most respondents would only consider acquiring land that had been previously exploited (whether farmed for crops or used for grazing) and would not consider acquiring forests or new lands to be converted into farming. A few were actually restricted by their board resolutions from investing in the Amazon and other environmental sensitive areas of Brazil due to concerns over sustainability.

97. An investor in Eastern Europe manages farmland under long-term (10 to 35-year leases with options to renew) negotiated solely with private individuals (with none leased from local or central government bodies). The consolidated parcels amount to 5,000 to 10,000 hectares each and include land which in most cases, while previously farmed had been fallow for the past five to ten years. Three to five years is required to bring the land back into its potential productivity ("the soil is like a muscle, it needs to be trained and developed"). "When the lessors of the land one is managing live in the local community, it is in one's long-term interest to make sure that the land is being farmed in a sustainable fashion so as to maximize profits for the long-term. This also creates incentives for working in total transparency with the local community."

98. The same investor emphasized that his group's operating model does not rely on leveraging subsidies in order to achieve profitability. To achieve optimal productivity which is sustainable that they are following a non-intensive production model rather than a model which maximizes production to take advantage of subsidies. which typically requires a significant investment in crop inputs.

Raising the Bar for Sustainability

99. A fund manager in operating in South America commented that the use of best practices raises the bar for local practitioners who imitate the farming, administrative and regulatory practices that private

investors are introducing to local communities when they transform farmland. For example, a private corporation operating in South America is view locally as a leader in the field of agricultural production and thus sets the precedent for best practices. It is referred to as a model to emulate and its presence in the market raises the bar for all participants in the value chain.

100. According to one fund operating in Brazil, "We have created an agronomic protocol (process) that has to be followed. Area managers and regional managers supervise to ensure that these protocols are being executed. We follow sustainable practices because we believe in them and also because they have a positive impact on the value of the land and the agronomic return which is for us is the base of value creation, basically ensuring that the productivity of our land is achieved in a sustainable way." This group uses Key Performance Indicators (KPIs) to track the cost of production, planting efficiency, VRT(variable resolution terrain), harvest efficiency, hedging versus average price and budget price based on self-imposed benchmarks.

Relationships with Multilateral Organizations and Governments

101. Most respondents did not perceive any negative issues with efforts by multi-lateral organizations to promote transparency and best-practices for the industry. They did find fault with certain media reports which they characterized as inflammatory, tending to focus on the negative and in many cases written by individuals with an anti-market bias who did not understand how farming is conducted and how the commodity markets function. In general they viewed allocation of capital to improve farm productivity as positive for the environment as it will promote sustainable farming practices which will promote the adoption of new practices around the world, thereby raising the bar on how farmland in managed for long-term sustainability.

102. Most survey participants indicated that they had nothing to fear from proposed new international protocols or norms that could be established to regulate investment in farmland. Many indicated that they have developed close working relationships with multilateral organizations such as the World Bank, the International Finance Corporation (IFC) and the Food and Agricultural Organization (FAO) on initiatives relative to adoption of sustainable farming practices and accessing financing to accelerate expansion of their operations. The consensus was that these organizations recognize the positive benefits that private investment can bring to local economies and communities.

103. In all cases, they indicated that local and central governments were favorably disposed to private capital entering their market to develop and transform farmland and invest in agricultural infrastructure. The benefits that these private investors provide to the local communities include: job creation; professional development; tax compliance; new demand creation for local services and products; sponsorship of local sport teams and cultural events and contributions to improvements in local infrastructure (school and hospital construction, etc.).

104. A number of investors active in Brazil suggested that the Brazilian government should focus its efforts on four fronts:

- promote public and private investment in large transportation infrastructure projects (railways, roads, rivers and locks to convey barges and export facilities);
- facilitate access to financing for agricultural operations and projects;
- promote adoption of new technologies by ensuring patent protection for technology developers;
- streamline bureaucracy ("which is different than cutting corners which is not in the interest of anyone"), making certain that laws and regulations are clear and will be enforced fairly over the long-term so that investors/businesses know what to expect and

- accelerate the approval process for requests to transform *cerrado* into farmland. ("Converting native *cerrado* into productive cropland using high technology farming practices (including no-till) is better for the environment than leaving it fallow as it creates more effective carbon sinks.").

105. Many of the survey participants commented that identifying and negotiating the purchase or long-term lease of farmland requires patience and the ability to work with a lot of bureaucracy. ("While frustrating at times, it is part of doing the business. Having the government enforce regulations strictly is viewed as a positive development. It keeps everyone on their toes and ensures that our staff has an incentive to do things properly, which often contrasts with local farmers and investors who are not as concerned at maintaining their reputation for integrity.") As many of the investors in these funds have reputations to protect, the operators of the funds are very serious about ensuring that their operations are always in strict compliance with the law.

106. Yet, one fund manager, while recognizing the positive benefits that private investment brings to rural communities and sustainable agriculture in Brazil, voiced the opinion that mounting political pressure is likely to result in government pressure to institute caps on the amount of farmland that can be acquired by pools of investment capital resulting in the creation of a barrier for continued development.

107. One fund active in Brazil stressed that his fund is on very good terms with local governments and environmental regulators. After having recently purchased a farm where structures and a small dam had been built without permits and environmental permits, the fund agreed with local authorities to destroy the offending structures and restore some of the land to forest by planting trees.

108. A number of the respondents indicated that because of the transparent manner in which they have been working with both central and local governments and local communities, they are now considered to be models for others to emulate in the local market.

Environmental Regulations

109. Several respondents commented on their ability and commitment to abiding by all environmental regulations required by each different country / government where they are investing and developing a close working relationship with the relevant regulatory agencies. For example, funds active in Brazil referred to their commitment to abide by regulations which call for 20 to 30% set-aside reserves for native forests or wetlands.

Local Laws/Customs

110. Because of the increased scrutiny private equity investments received from sources, they were extremely aware and committed to ownership restrictions, land titling and all local and national laws and environmental policies.

Conclusion

111. As of the date of this report, 54 private sector investment groups are raising and deploying capital to acquire farmland and finance agricultural infrastructure projects on a global basis. Based on the interviews conducted with key executives of over 50% of these groups, the amount of private capital committed to this emerging asset class on a global basis is estimated to be approximately USD 14 billion.

112. Because of strong long-term fundamentals in the global agricultural sector, increasing amounts of private capital to continue being allocated to the asset class. The potential growth of the sector will depend on how a range of public policy issues are addressed in key markets which offer the greatest opportunities

for deploying capital. These include debates over how much land should be transformed into productive farmland, the responsibility of the public sector in promoting and financing investment in agricultural infrastructure and the role that private capital should play in transforming land into productive farmland. Whatever the outcome of these debates, the amount of capital allocated to this sector will at a minimum double or triple over the next three to five years and most likely will achieve even greater rates of growth.

113. Funds are employing a wide range of legal/corporate structures to raise capital and operating strategies to transform farmland into a productive asset which will generate sustainable and attractive returns for their investors. This diversity in approaches is expected to continue as funds seek to differentiate themselves from their peers and experiment with novel operating strategies.

114. While funds based in North America and Europe have historically accounted for the majority of private groups committing capital to this asset class and the source of funds has also largely been raised from investors based in those two regions, private investment groups based in other regions such as South America, the Gulf States and North Africa are likely to account for an increasing share of capital invested in the sector in the future.

115. In terms of geographic focus, opportunities to develop and improve the productivity of farmland will continue to attract passive investments in North America. However, for investors seeking higher risk/reward opportunities, Brazil is clearly perceived as the major new frontier for farmland development in the world. Over one-third of capital being allocated into the sector on a global basis is estimated to be deployed in that country. At the same time, given strong demand for food and energy, development of farmland and agricultural infrastructure in other regions of the world, including Eastern Europe, Africa and Australia and New Zealand, will continue to attract capital.

116. While the bulk of private capital committed to the sector is currently being deployed to acquire and manage farmland, opportunities for investment in parallel infrastructure development and products/services for crop production will attract increasing amounts of capital in the future as well.

117. Efforts are being undertaken by private investors to track and quantify the impact that their investments are having on the local populations and economies where they are investing. Given the reputational risk that their organizations and end investors have, they are also very sensitive to the leadership role they must assume in the communities where they are investing capital, ensuring transparency in all their business practices and employing best operating practices based on sustainability. In many cases, they are collaborating with local NGOs and major multinational organizations such as the World Bank, the IFC and the FAO to monitor their performance.

118. All the funds confirmed that multinationals and governments have a positive role to play in promoting sustainable development of farmland and the agricultural economy. Without exception, they are intent on not only complying with the letter of the law but, more importantly, with the spirit of the law and building strong and enduring relationships with the local communities where they operate.

Appendix A: List of Funds Investing in Farmland and Agricultural Infrastructure

Firm	Home Office	Fund Structure	AUM	Website	Geographic Focus	Information
Adecoagro	Brazil	Private Company	$500	www.adecoagro.com	South America	Involved in the production of food and renewable energy in South America. Present in Argentina, Brazil and Uruguay, activities include the production of grains, rice, oilseed, dairy products, sugar, ethanol, coffee,
Advance Terra Fund	Bulgaria	Specialized Fund	$70	www.karoll.net/en/	Bulgaria	Largest landholder in Bulgaria other than the government.
Ag Capital	Canada	Specialized Fund	$100		Canada	Canadian farmland fund part of a larger group of funds that allows investors to add farmland to their investment. Primary investment in Saskatchewan.
Agrifirma	UK	Incorporated Company	$180	www.agrifirma-brazil.com	Brazil	Agrifirma was established to focus on world food supply by investing in Brazil due to its soil, climate, highly trained people in the agriculture sector.
Agro-Ecological Farmland Fund	UK	Specialized Fund	$160	www.agro-ecological.com	NZ, South Am, E Europe, Africa	Focus on organic farmland acquisition globally, starting with a focus in New Zealand.
AgroGeneration	France	Public Company	$180	www.agrogeneration.com	Ukraine	Fund is focusing on putting fallow farmland that suffered from under investment back into production.
ALOFMI	Bulgaria	REIT	$270		Bulgaria	A subsidiary of Mel Invest, this fund targets grain land production in Bulgaria.
Alpcot Agro	Sweden	LLC	$57	www.alpcotagro.com	Russia and CIS countries	Alpcot Agro is a limited liability company formed in 2006. Objective is to generate returns by acquiring and farming agricultural land in Russia and other CIS states.
Altima Partners	US	Hedge Fund	$625	www.altimapartners.com	Latin America and Russia	Fund was created to focus on ag land investing in emerging markets
AMERRA Capital	US	Credit Fund	$250		North and South America	AMERRA targets agricultural and some mining companies in the Americas.
Aquila Capital	Germany	Investment firm	$475	www.aquila-capital.de	Australia, Brazil, South America	Diversified fund with investments in cropland, proteins and infrastructure.
Assiniboia Farmland LP	Canada	Specialized Fund	$50	www.assiniboiacapital.com	Canada	Manages the largest farmland fund in Canada
Aston-Lloyd Agricommodities Ltd.	UK	Specialized Fund		www.astonlloyd.co.uk	Ukraine	Fund focused on Crimean peninsula in the Ukraine, with a focus on row crops.
Beltone Private Equity &	Egypt	Private equity firm	$200	www.beltonefinancial.com	Sudan	Partnered with Kenana to acquire sugar and row crop operations in Africa and Egypt.
Bidwells	EU	Investment firm	$45	www.bidwells.co.uk	EU	Launched the Pan European Farmland Fund in November 2009. Mostly focused on row crops in EU countries, with 20% to be focused on timber and infrastructure.
Black Earth Farming, Ltd.	Sweden	Private	$61	www.blackearthfarming.com	Black Earth Region of Russia	Operates crop farmland in Black Earth area of Russia, focuses on the area due to its high soil fertility and recent focus by government on land titles and solvency.
Black River Asset Mgmt	US	Hedge Fund	$250	www.black-river.com	Global	Subsidiary of Cargill that operates in 11 countries. Focuses on a variety of regions and crops.
BPT Farmland Fund	Luxemburg	Specialized Fund	$203	http://www.bptam.com	EU and Eastern Europe	Focuses on row crop land acquisition in Russia, secondarily the Ukraine.
Bramdean Asset Management LLP	UK	Specialized Fund	$150	http://bramdean.com/	Brazil	Capital being raised and set to close in second quarter of 2010. Will focus on Brazilian farmland.
BrasilAgro	Brazil	Public Company	$343	www.brasil-agro.com	Brazil	Subsidiary of Cresud (Argentinean agricultural production firm), and Tarpon, an asset mgmt firm specializing in private equity in Brazil).
Brookfield Brazil	Brazil	Private Company	$170		Brazil	Has been operating in Brazil for over 25 years, currently expanding to include structured funds for additional capital and land acquisition in Brazil.
Bulland Investments	Bulgaria	Investment Fund	$9	www.bulland.org	Bulgaria	Bulland Investments is an investment firm that specializes in agricultural land investments.
Calyx Agro	Argentina	Specialized Fund	$200	www.calyxagro.com	Latin America	Louis Dreyfus established Calyx Agro in 2007 as a fund for farmland acquisitions in southern Latin America. The fund focuses on identifying, acquiring, developing, converting and selling farmland in Brazil,
Casenave (CASA)	Argentina	Public	$100	www.e-cazenave.com.ar	Latin America	CASA was one of the first companies to offer public funds for investment in and operation of farmland in Argentina. It also selects and manages farmland for particular companies, including an operation for Glencore,
Ceres	Bulgaria	Specialized Fund	$45	www.ceres.bg	Bulgaria	One of the largest three agricultural land holders in Bulgaria. Looking to expand land holdings into other Eastern European countries. Utilizes a lease model for production.
Citadel Capital	Egypt	Private Equity Fund	$40	www.citadelcapital.com	Sudan, Africa	Ag fund is Sabina for agricultural farmland in the Sudan with focus on sugar cane. Also considering investments in Uganda, Kenya and Ethiopia.
Cresud	Argentina	Public Company	$400	www.cresud.com.ar	South America	Cresud is a diversified fund that operates both cropland, beef farms and dairy farms in Argentina.

ELANA Agricultural Land Opportunity Fund (ELARG)	Bulgaria	REIT	$32	braziliowafarms.com	Bulgaria	Set up in 2005 as first Bulgarian real estate investment trust for investments in ag land.
Emergent Asset Mgmt	Canada	Investment Management	$600	www.eaml.net	Sub-Saharan Africa	Partnered w/ Grainvest for a farm management team to manage the acquired farmland.
Full Harvest Agricultural Opportunities Fund	UK	REIT	$65	www.chesscapitalpartners.com	US	Established in 2006, it buys US farmland, taking cash and crops as rent. Its goal is to eventually go public as the first farmland-only real estate investment trust (REIT) in the US.
Galtere	US	Hedge Fund	$100		US, Brazil	Formed in 2007 as a joint venture between Galtere Ltd. and Harvest Capital Group LLC. Galtere is purchasing farmland in the US and Brazil. In Brazil it owns two farms, producing rice and soybeans.
Greenfield Agribusiness	NZ	Investment management	$43	www.greenfield.co.nz	New Zealand	This fund is primarily focused on pastureland and protein in New Zealand, and directly operates the its farm and pasture land.
Groupo Iowa	US / Brazil	Private company	$55	www.braziliowafarms.com	Brazil	Started in 2004, Grupo Iowa focuses on row crop farming in the Bahia region. With emphasis on cotton and rotation crops, they have also been involved with cotton infrastructure in the local area.
Gulamerah Fund		Investment management	$53	www.thegulamerahfund.com	Indonesia, Southeast Asia	The Gulamerah Fund was set up in 2008 with the aim of acquiring, through lease arrangements via a local partner, farmland in Indonesia to produce premium cacao for the global chocolate market, as well as palm sugar, vegetables and fruits.
Hancock Natural Resource Group	USA	Investment firm	$1,200	http://haig.jhancock.com	US, Australia	Hancock invests in both row and permanent cropland, acquiring properties typically valued at greater than $1 million. They both lease and directly operate their farmland, depending on the region and individual acquisition.
Insight Global Farmland Trust	Guernsey	Specialized Fund	$300		Global	Insight invests directly in farmland holdings, with global diversification as risk mitigation strategy.
Land Commodities	Switzerland	Investment firm		www.landcommodities.com	EU, North America, Australia, NZ	Focuses on mid-term investments on existing farmland in developed nations.
Lumix Capital Management	Switzerland	Fund	$20	www.lumixcapital.com	South America	Focuses on leasing farmland in South America with a wide range of countries and crops to diversify risk.
Macquarie	Australia	Investment Firm	$1,100	www.macquarie.com.au	Australia	Macquarie Australia manages 6 agricultural funds, focusing on pastureland, proteins, row crops and viticulture.
NCH	US	Investment Firm	$1,100	www.nchcapital.com	Eastern Europe, Ukraine	Launched in 2007, the NCH Agribusiness Partners focuses on row cropping in Eastern European countries and Russia.
Pergam Finance	France	Investment Firm	$120	www.pergamfinance.com	South America	Pergam Finance is a US$1 billion French private equity house, which has established a venture called Campos Orientales to invest in farmland in Argentina and Uruguay. Campos Orientales aims to purchase farms, modernize them and then sell them for a profit after 7 years or so.
Pharos Miro Agricultural Fund	EU	Hedge Fund	$75	www.pharosfund.com	Africa and Eastern Europe	Pharos Miros Agricultural Fund was launched in October 2009 , which will focus initially on rice farming in Africa and cereal cultivation in eastern Europe and former Soviet countries.
Prudential	US	Investment Firm	$100	www3.prudential.com	US	The Prudential Agricultural Investments serves institutional investors who seek portfolio diversification into the farmland asset class, with focus in North America.
Quifel Natural Resources	Portugal	Private Equity	$67	www.quifelresources.com	Lusophone countries	Quifel is a private equity fund established mainly to invest in plantations for biofuels in Lusophone countries.
RABO Farm	Netherlands	Close ended Fund	$200	www.rabobank.com	EU, Global	Rabo FARM intends to diversify its investment geographically and among crop and animal production. It will also focus on large-scale production.
Rural Funds Management	Australia	Investment Management	$359	www.ruralfunds.com.au	Australia	Largest institutional land holder in Australia with 6 operating funds in livestock, row crops and permanent crops.
SLC Agricola	Brazil	Public	$645	www.slcagricola.com.br	Brazil	Agricola focuses on farmland acquisition in Brazil, with emphasis on standardization of farming practices and improvements of yield and productivity.
Sollus Capital	Brazil	Fund	$125	www.solluscapital.com	South America	Sollus was founded by Touradji Capital Management and Los Grobo Group, one of the largest companies in the South-American agribusiness industry. Focuses on row crops with management by Sollus.
Terra Firma Capital Partners	UK	Investment Management	$290	www.terrafirma.com	Australia	In 2009, Terra Firma started cattle station acquisition in Australia.
UBS- Agrivest	USA	Open end comingled fund	$521	www.ubs.com	US	Diversified portfolio across the US in 25 row crops, vegetables and permanent crops. Utilizes leasing strategy for operational management.
Westchester/Cozad Asset Management	USA	Private Equity	$500	www.cozad-westchester.com	US	US focused fund that focuses on row and permanent crops. Focus on highly experienced, qualified operators for leased farm operations.

APPENDIX B

Interview Guideline for Farmland and Agricultural Infrastructure Investment Survey

Name: _____
Title: _____
Firm: _____
Date: _____
Interviewer: _____
Fund / Vehicle: _____
Structure (Fund, Sep Accts; REIT; Public Co.; etc.) : _____
Total AuM (Assets under Management) for Fund / Vehicle: _____
Sponsor: _____ [note the sponsor is the firm, the fund is a specific legal entity ... a sponsor may have multiple funds/vehicle]
Other Ag-related vehicles of Sponsor: _____
Investment Activity:

1. What is the investment focus of the Fund?

   - Crop land
   - Animal protein (livestock /livestock / dairy / aquaculture)
   - Infrastructure
   - Other points along the value chain (seed, inputs, processing, distribution, water, etc.)

2. Total $ (estimate OK) for global crop land investment : $_____

3. Approximately how much of the Capital has been deployed: _____%

4. Where has the Capital been invested in terms of geography and crops:
   a. What is your total global acreage?_____

[Note, we will have to get them talking and then fill this in as we go – suggest get the geography first, then ask for each geography where they are active what they are growing] needs space for protein – how about infrastructure like storage?

- Region / Country _____ total acreage _____
  - Crop _____ acreage _____
  - Crop _____ acreage _____
- Region / Country _____ total acreage _____
  - Crop _____ acreage _____
  - Crop _____ acreage _____
- Region / Country _____ total acreage _____
  - Crop _____ acreage _____

  - Crop _____ acreage _____
- Region / Country _____ total acreage _____
  - Crop _____ acreage _____
  - Crop _____ acreage _____
- Etc.

5. Where do you anticipate investing in the next 5 years? [open ended]

6. What are the major sources of funding for your vehicle? [Open ended]

7. Geographically, what % of your funding comes from?

- Europe
- North America
- South America
- Middle East
- Asia

8. Who are the major investors?

- Public Pensions
- Private Pensions
- Foundations / Endowments
- Wealthy Individuals / Family Offices

9. Are you currently raising capital?

- If yes, for what vehicle: _____ / What structure: _____
- How much Capital are you targeting? $_____ (range OK)
- What will be the focus of this vehicle (region/country; crops; protein; infrastructure) _____

10 . Do you anticipate raising capital in the next 3-5 years?

- If yes, for what vehicle: _____ / What structure: _____
- How much Capital are you targeting? $_____ (range OK)
- What will be the focus of this vehicle (region/country; crops; protein; infrastructure) _____

11 . In general, relative to 3 years ago, what level of end-investor interest do you see in the market?

- Significantly less interest than 3 years ago
- Somewhat less interest than three years ago

- About the same interest as 3 years ago
- Somewhat more interest than three years ago
- Significantly more interest than three years ago

12. What is driving this interest (check all that apply / then get interviewee to rank them – this is a great opt to get them talking about the market)?

- Food Security / agricultural fundamentals
- Inflation hedging / real assets
- Low / negative correlation with other asset classes
- Other [please list]_____

13 . How much capital do you think there is in the asset class globally today?

14. How much capital do you think will come into the asset class globally within the next 3-5 years?

Prompts if they do not give a quantitative answer

- < $10 Billion
- $10 - $25 Billion
- $25 - $ 50 Billion
- $50 - $100 Billion
- $100 Billion or more

15. What percentage of crop land globally do you expect will ultimately be held by institutions?

<u>We now would like to ask your opinion on the development impact of your investments in the local economy</u>

16. Are your farm operations managed by employees or by third-party farm management groups working under contract?

17. How many people does your farming operation employ either directly or under contract?

- Globally
- For each region / country

18. Are these new jobs created by you or positions that existed prior to your ownership? (get them to discuss this – we need to press here a bit to make sure that responses add up)

19. What benefits has your investment / activity had any on the local economy where you are active?

- Improved agronomics / farming practices
- Higher productivity / improved yields
- Market access for local farmers
- Infrastructure
- Access to inputs
- Etc.

20. What performance metrics do you track to monitor the impact of your investment activity in the different regions where you operate? Do you use outside resources to provide these services?
21. Are assuring transparency and the use of sustainable production practices integrated into your operating practices and how do you ensure that they are being followed?
22. What experiences have you had working with local communities and government officials/regulators?
23. What need is there, if any, for multinational institutions and governments to oversee /regulate investment in this sector?