

Bridging demand and supply of private investment capital

FOR SMALL AND MEDIUM AGRIBUSINESSES

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Commercial Agriculture for Smallholders and Agribusiness

The CASA programme is a flagship programme of the UK Foreign, Commonwealth & Development Office (FCDO) and is intended to increase global investment in agribusinesses which trade with smallholders in equitable commercial relationships, increasing smallholders' incomes and climate resilience.

The programme aims to help agribusinesses to scale up and trade in larger commercial markets. As part of its work CASA generates new evidence and analysis that supports a stronger, fairer and greener agribusiness sector.

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Abbreviations

ACFTA	African Continental Free Trade Area
AfDB	African Development Bank
AUC	Africa Union Commission
AuM	Assets Under Management
CAADP	Comprehensive African Agricultural Development Programme
CASA	Commercial Agriculture for Smallholders and Agribusiness
CSO	Civil Society Organisation
DFI	Development Finance Institution
DFID	Department for International Development
DREA	Department of Rural Economy and Agriculture at African Union Commission
ESG	Environmental, social and governance investing (also “socially responsible investing”)
EU	European Union
FAO	Food and Agriculture Organisation of the United Nations
FAOSTAT	FAO Statistics
FBO	Farmer Based Organisation
FCDO	Foreign, Commonwealth and Development Office
FDI	Foreign Direct Investment
FISP	Farm Input Subsidy Programme
GDP	Gross Domestic Product
GMO	Genetically Modified Organism
HKMA	Hong Kong Monetary Authority
HKSE	Hong Kong Stock Exchange
IFDC	International Fertilizer Development Center
Mt	metric tonne
NGO	Non-Governmental Organisation
PPF	Project Preparation Facility
SHF	Smallholder Farmer
SME	Small and medium-scale enterprise
SSA	Sub-Saharan Africa
USAID	United States Agency for International Development
WB	World Bank

Executive summary

Motivation

The UK Foreign, Commonwealth and Development Office's (FCDO's) Commercial Agriculture for Smallholders and Agribusiness (CASA) programme is working to increase economic opportunities for smallholders to step up and trade in growing commercial markets. The aim is to increase investment in agribusinesses that source from smallholder farmers, and to provide evidence-based guidance for creating synergistic relationships between agribusinesses and smallholders in ways that promote smallholders' productivity and commercial potential.

This study is motivated by an apparent contradiction: suppliers of capital report a lack of investible opportunities in Africa, while demanders of capital cannot find willing partners to provide capital to them. In spite of significant amounts of private capital being available for investment worldwide (World Economic Forum, 2013; Vitón, 2018), institutional and impact investors have found it difficult to mobilize large amounts of private investment for agribusiness opportunities in Africa. This study identifies strategies for development and impact investment actors to bridge the gap between the risk–reward demands (or adjusted risk returns) of investment capital and the available supply of agribusinesses for investment. The study assesses whether what is needed is different forms of capital, or greater work to provide the pre-conditions for private investment in agri-food systems, or both of these. The resulting analysis addresses the needs and interests of both investors and investment support stakeholders.

Objectives

The objectives of the study are the following:

1. **To analyze how investors identify investment targets**, by analyzing the key criteria, evaluation mechanisms and sources of information they use to identify and select investible small-scale and medium-scale agribusiness enterprises (agri-SMEs).
2. **To analyze current financing for agricultural small and medium-sized enterprises (SMEs)**, by identifying examples and analyzing effective models and commercial terms for providing innovative financing for agri-SMEs.
3. **To analyze and appraise effective models of technical assistance for agri-SMEs**, by identifying and analyzing approaches that have helped increase the intrinsic value and performance of agri-SMEs against key investment criteria, thus successfully improving their access to private investment capital.
4. **To draw high-level conclusions.** Is there a lack of agribusinesses available for investment that can meet investors' risk–reward requirements? Are the most common lending mechanisms inappropriate for the agribusinesses that investors are targeting? Or are investors' approaches to identifying agribusinesses for investment unfit for purpose?

5. **Develop recommendations for the impact-investment community.**¹ These should help to identify agribusinesses and establish the connections needed between investment-ready agribusinesses and investors, innovative financing models (including those targeting women-led SMEs) and technical assistance modalities that improve the readiness of agri-SMEs for private investment.

Methods

The study utilized three modes of evidence creation: (i) a detailed review of published studies on the topic; (ii) existing surveys of agri-SMEs in Africa; and (iii) the primary mode – Delphi method interviews² with key stakeholders, including a range of impact investors, private equity investors and development finance institutions. The basis of the Delphi method is that deep understanding and insight can be obtained by interviewing individuals with extensive experience and successful track records in a field or profession. The Delphi technique is especially suitable where data is unavailable or where issues are too complex to use quantitative data based on pre-coded responses.

Main findings

Insight #1: Investor reservations about sustained political commitment to achieving agricultural sector targets may be depressing private investment in African agriculture. Private agribusiness investment in Africa could be accelerated by a clearly articulated strategic vision at the pan-African level, backed up by credible commitment to, and effective implementation of, the plan at regional and national levels. This would include a transparent process for prioritizing and selecting a pipeline of bankable agriculture projects.

Insight #2: There is limited demand by agri-SMEs to take on third-party private debt or equity ownership. This can be effectively addressed over a medium- to long-term horizon. The number of agri-SMEs operating in Africa rose by 800% between 2000 and 2017, but these farms and agri-SMEs are financing their operations mainly from family equity. This suggests that **the effective demand for finance by agri-SMEs may be substantially lower than the amounts impact investors are willing to supply.** However, changes in investor and bank behaviour could increase agri-SMEs' effective demand for finance.

Insight #3: There is great potential for improved policies to mobilize equity capital from SME agribusiness firms themselves. Trader surveys in Sub-Saharan Africa (SSA) reveal that

¹ The term 'impact investors' encompasses a broad set of organizational types, including multilateral and bilateral agencies, development finance institutions (DFIs), foundations, NGOs, social investors, and others. While all of these have in common that they seek both social and financial returns, some are much more risk adverse than others while some may focus on a different set of financial instruments ranging from purely subsidized to more concessional and blended finance arrangements. Social investors (also referred to as impact investors) are mostly private entities and are closer in terms of risk appetite and financial instruments to commercial banks than they are to grant-oriented foundations. The roles that each of these entities can play in promoting an efficient agri-SME financing landscape can vary widely.

² See Delphi interview details and process background document - <https://www.casaprogramme.com/wp-content/uploads/Delphi-Interview-questionnaire-and-process.pdf>

many SME agri-entrepreneurs start as farmers. They tend to have superior knowledge of clients in their local area and social connections with them, facilitating the development of a client base. Most smallholders do not have enough capital to become viable SMEs, but about 10% do. Since there are roughly 125 million farm households in SSA, 12 million farm households have the potential to develop into SME agribusinesses in Africa. But only a small percentage of these actually become SME agribusinesses. Why not more? And how can conditions be modified to incentivise more of them? The fundamental constraints are a lack of incentives and the behaviours of other actors, including governments and impact investors, that indirectly depress resources from reaching the majority of SME agribusinesses that operate outside their programmes.

Insight #4: For institutional investors to provide more capital to impact investors working with African agri-SMEs, the systemic sources of risk and transaction costs in African agricultural markets need to be addressed, as do smallholder farms' high costs of production. Suppliers of private debt and equity face high risks and variable returns. Impact investing intentionally seeks to create both financial and societal returns. Pension funds and insurance companies represent 48% and 39% of global assets, respectively. These asset owners are rarely able to manage and pay their future financial liabilities (long-term payments) or to accept the unpredictable cashflow generation typically associated with agriculture. In other words, the world's biggest capital providers, representing 87% of global assets, face a huge constraint on working with impact investors in African agriculture.

Few impact investors are producing both market rates of return *and* sustainable social impact (the definition of impact investing). Supporting agri-SMEs to achieve even one of these outcomes usually requires a long term, patient capital approach, which tends to be unattractive to investors who insist on a five- to seven-year exit strategy. To increase the supply of capital available to impact investors – and to increase agri-SMEs' demand for debt and equity – the following systemic areas need to be addressed: (i) ensuring a sufficiently stable macroeconomic environment; (ii) establishing a sectoral policy-enabling environment that is predictable and transparent; (iii) encouraging surplus-producing zones and ensuring low production costs; and (iv) implementing blended finance and de-risking mechanisms.

Insight #5: There tends to be a discrepancy between impact investment funds' target rates of return and those expected by investors. This expectations gap and the inability to generate required returns might explain the difficulty in expanding funding from impact investors. Some 83% of US-based pension funds surveyed believe that impact investment funds have unestablished track records. Until fund managers develop track records and deep experience of working with impact enterprises, institutional investors will remain apprehensive. The shortage of funds for impact investors in African agriculture reflects the current high risks in African agriculture. Government commitment to strengthening African government institutions (rule of law, anti-corruption, free flow of foreign currency, property rights), will lead to a greater supply of funds becoming available.

Insight #6: The sector's fragmented nature means that deal sizes remain small. This constrains the number of mainstream intermediaries in the impact investment sector. The Delphi interviewees indicated that in any given African country, there are typically fewer than 10 viable agribusiness firms that could have a minimum deal size that would be suitable for most impact investors. Most institutional investors want an exit timeline, but investors need to work closely with firms over time till they reach a size at which they can absorb larger amounts of debt or equity capital. Some interviewees stressed the need to be on the ground, so as to understand agri-SME clients and innovate products to match their needs.

Insight #7: More rigorous methods of measuring social impact may increase the supply of funding from institutional investors to impact investors. Institutional investors need to trust what is being reported to them. Some may be discouraged by perceptions of unrealistic assessments of social impact. Many investments produce externalities, i.e. impacts on other parts of a system that are not necessarily taken into consideration by the investor. For example, some recipients of impact investment provide subsidized services and inputs to promote project objectives, which could unintentionally erode the market for commercial operators. Greater rigour in measuring social impact may lead to more confidence in social impact claims.

Insight #8: Human capacity development will be required to generate more profitable agri-SMEs and expand financing for agri-SMEs. Limited human capital is a major impediment to private investment in SME agribusiness. A systemic approach is needed. African universities contribute by far the greatest numbers of undergraduate and masters-level workers in African countries' labour forces. The workers graduating from African universities then influence the quality of the rest of their countries' workforce, through the training that they provide to others – in primary and secondary schools, in agricultural training colleges, in technical and vocational education and training schools, in public sector jobs, in civil society and in the private sector. A one-year increase in average tertiary education levels is estimated to raise annual GDP growth in Africa by 0.39 percentage points, and eventually to yield up to a 12% increase in GDP (Darvas et al., 2017). Agri-food systems development in Africa, including private investment in agri-SMEs, is likely to co-evolve together with the upgrading of African countries' workforces. Fortunately, the pace of educational improvement in Africa is faster than in any other region of the world.

Recommendations

Section 4 consists of proposals for consideration by African governments, impact investors and development partners and donor organizations. The proposals for African governments and pan-African organizations are oriented to (i) produce national/continental agricultural investment plans and initiatives that move from aspirational documents to concrete implementation plans with budgets and task calendars specifying the activities and time frames for implementation, in order to raise investor confidence about African government commitment to agricultural transformation plans; and (ii) improve the “enabling environment” to raise the expected returns to private investment in African small and medium-scale agricultural firms. Proposals for impact investors are drawn from Delphi experts' views of approaches that have been effective in the past or gaps that must be addressed. Proposals for development partners are also drawn from Delphi experts' perceptions of effective and ineffective past donor-funded activities.

Conclusions

In response to the main questions motivating this study, i.e., *“is there is a shortage of agri-businesses available for investment that can meet investors' risk-reward requirements, or are the most common lending mechanisms inappropriate for the agri-businesses that investors are targeting?”*, this study concludes that both are true, with most Delphi experts

emphasizing the first point. The final section of the report presents six main conclusions, all emanating from the Delphi expert process and additional sources as cited.

First, there is no evidence of a shortage of investible funds for African agribusiness. In fact, over \$12 trillion was invested in alternative real assets³ globally in 2017. Only 2.3% (\$267 million) of this was in food and agriculture and forestry, and only 4% of that was invested in Africa (0.35% of global alternative real asset investments). Even if only 1% of total alternative assets were to be reallocated to African agribusiness, the result would be a 12-fold increase in private investment food and agriculture assets under management. **The current slow – or lack of – reallocation reflects an inability to find bankable investments** (Vitón, 2018).

Second, the policy and enabling environment remains highly risky. Sustained government commitment will be needed to attract substantially more private investment in the foreseeable future. The flow of private investment to SSA agriculture may rise dramatically in countries where the state has a clearly articulated vision and implementation plan for agri-food systems development. The restructuring and rehabilitation of distressed state-owned assets into new enterprises has been common in relatively developed countries for many years but has yet to become a major feature of SSA agriculture.

Third, many investors' most common products may be inappropriate or insufficient for the agribusinesses that investors are seeking to target. Roughly half of the Delphi respondents emphasized the need for investors to adopt different approaches, such as working with smaller firms, with deal sizes in the \$100,000 to \$1 million range, and taking a long-term perspective. According to the respondents, investors should learn about the widely different circumstances of African agri-SMEs and develop more innovative products. Delphi experts often identified the following options for consideration: relatively simple digital platforms for lending to smallholders, project preparation facilities, addressing property rights and titles to land, cooperative models for achieving scale economies in engaging with smallholder farmers, partnerships with sub-national banks that are closer to the end clients, and in some cases, approaches relying on blended finance and de-risking mechanisms.

Fourth, scale is important. While the geo-strategic need to feed a planet of 10 billion people is an investment proposition, the re-organization of smallholders into alternative commercial and economic structures will likely be required as a catalyst for investment flows. Holding company models, in which smallholders have a financial interest through equity, can harness and aggregate investment capital, which then flows down to smallholders.

Fifth, diversified enterprises can reduce risk. Agricultural commodity prices tend to be relatively unpredictable, especially in landlocked African markets. Outside a few countries, including Russia, Ukraine, Brazil, Malaysia and Indonesia – price risk and unpredictability prevented the development of a deep pool of sophisticated capital prepared to invest in primary producers. Capital-intensive primary agriculture has remained fragmented, and the investment opportunities have taken place further along the value chain. Integration strategies have to be considered in order to establish a pool of equity capital for smallholders.

³ Alternative assets are those which cannot be categorized as stocks, bonds, or certificates. Some examples of alternative assets include certain real estate, commodities, farmland, agribusinesses, foreign currency, insurance products, derivatives, venture capital, private equity, hedge funds, and distressed securities.

Sixth, parallel strategies are not mutually exclusive. The success of Brazil's agribusiness sector over the past 20 years is often seen as a template for other developing countries. Brazil runs what can almost be considered as parallel strategies. One is a large-scale, efficient international corporate agriculture sector with operations that span a variety of value chains. This sector represents 1% of the country's farms but uses 44% of its farmed area. Simultaneously, a Brazilian government strategy focuses on hunger, nutrition and the resettlement of small-scale farm families, as well as other rural development and social programmes targeted at the poor. Brazil highlights conclusively that a model which supports both has certain advantages.

1 Introduction

In countries where the majority of the workforce is still involved in farming, agricultural growth is a precondition for raising incomes and expanding employment in the rest of the economy (Mellor, 1976; [IFAD, 2019](#); [Fuglie et al., 2020](#)). Farming and small-scale and medium-scale agribusiness enterprises (agri-SMEs) provide the majority of jobs in Sub-Saharan Africa (SSA), especially for women and young adults. Farming employs roughly 50% to 60% of the labour force, while agribusiness SMEs employ roughly 12% in countries such as Malawi, Tanzania and Zambia, and as much as 25% in Ghana and Nigeria (IFAD, 2019; Yeboah and Jayne, 2018). The ability of other sectors of the economy to grow depends on continued agricultural productivity growth because of the sector's extensive forward and backward linkages with the rest of the economy (AGRA, 2016; African Center for Economic Transformation, 2017; IFAD, 2019).

Access to finance remains one of the key factors limiting agricultural growth in Africa. Most smallholder farms use very small quantities of fertilizers, improved seed varieties, crop protection chemicals, machinery and other cash inputs that are required to raise agricultural productivity in SSA. Nationally representative farm surveys in SSA consistently show that less than 10% of smallholder farmers or traders obtain loans for agricultural activities. Adjognon et al. (2017) found that, among farmers purchasing modern inputs in six SSA countries, 94% of them financed these purchases with cash from non-farm activities and crop sales. Moreover, most agribusiness firms that service the needs of smallholder farmers are also small, and more than 80% of them finance their operations exclusively from their own limited working capital (Kiriimi et al., 2011; Sitko et al., 2018; Ochieng et al., 2019). At the same time, surveys of both smallholder farmers and agri-SMEs report a lack of finance as a major impediment to purchasing cash inputs and expanding their business operations (Chirwa and Dorward, 2013; Sitko et al., 2018). It is widely recognized that much greater private investment in African farmers and agri-SMEs could greatly accelerate Africa's agricultural growth.

1.1 Motivation

This study is motivated by an apparent contradiction: suppliers of capital report a lack of investible opportunities in Africa (CASA, 2019), while demanders of capital cannot find willing partners to provide capital to them. In spite of significant amounts of private capital being available worldwide (World Economic Forum, 2013; Vitón, 2018), institutional and impact investors have found it difficult to mobilize large amounts of private investment for agribusiness Africa.

The UK Foreign, Commonwealth and Development Office's (FCDO's) Commercial Agriculture for Smallholders and Agribusiness (CASA) programme is working to increase economic opportunities for smallholders to 'step up' and trade in growing commercial markets. The programme is designed to increase investment in agribusinesses that source from smallholder farmers, and to provide evidence-based guidance for creating synergistic relationships between agribusinesses and smallholders in ways that promote productivity and the commercial potential of smallholders.

To support these goals, FCDO has commissioned this study to identify strategies for how development/impact investment actors can bridge the gap between the risk–reward

demands (or adjusted risk returns) of investment capital and the available supply of agribusinesses for investment. The study assesses whether what is needed is different forms of capital, or greater work to provide the pre-conditions necessary to promote private investment in agri-food systems, or more of both of these. It highlights gender-targeted investment cases that ensure investment for, and an available supply of, agribusinesses led by both men and women. The resulting analysis speaks to the needs and interests of both investors and investment support stakeholders.

1.2 Objectives

The objectives of the study are the following:

1. To analyze how investors identify agribusinesses for investment, by analyzing key criteria, evaluation mechanisms and sources of information used by private investors to identify and select investible agri-SMEs.
2. To analyze models and terms of agricultural small and medium-sized enterprise (SME) financing currently in use, by identifying examples and analyzing effective models and commercial terms for providing innovative financing for agri-SMEs.
3. To analyze and appraise effective models of technical assistance for agri-SMEs, by identifying and analyzing technical assistance modalities and approaches targeted at agri-SMEs that have contributed to increasing these businesses' intrinsic value and performance against key investment criteria, thus improving their access to private investment capital.
4. To draw high-level conclusions about the nature of the challenge. Is research finding that there is an absence of agribusinesses available for investment that can meet investors' risk and reward requirements? Is it finding that the most common lending mechanisms are inappropriate for the agribusinesses that investors are seeking to target? Or is it finding that investors' approaches to identifying agribusinesses for investment are unfit for purpose?
5. To develop recommendations for the impact investment community on the following: how to identify agribusinesses and establish the connections needed between investment-ready agribusinesses and investors; innovative financing models (including those targeting women-led SMEs); and technical assistance modalities that improve the readiness of agri-SMEs for private investment.

1.3 Approach and methods

The study utilizes three modes of evidence creation:

- i. A detailed review of published studies on the topic.
- ii. Existing surveys of agri-SMEs, including surveys from Kenya (Kirimi et al., 2011), Zambia (Sitko et al., 2018) and Malawi (Otchieng et al., 2019). These surveys address the various constraints faced by small-scale and medium-scale grain assembly traders, brokers, wholesalers and retailers in entering the market, accessing finance, expanding their operations and remaining in business.

- iii. [Delphi method⁴ interviews](#) with key stakeholders, including a range of impact investors, private equity investors and development finance institutions. Because this approach is the main source of insight underlying the study's findings and conclusions, we provide some detail on the Delphi approach below.

1.4 Delphi interview description

The Delphi interview method was developed and introduced at the RAND Corporation, based on studies on decision making. The basis of the method is that deep understanding and insight can be obtained by interviewing individuals with extensive experience and successful track records in a particular field or profession. The Delphi technique is especially suitable in contexts where data is unavailable or where issues are too complex to yield insights from quantitative data based on pre-coded responses. As an interview method, it distinguishes itself from traditional key-informant and group interviews by reducing the influence of dominant individuals, noise (potentially resulting from vested interests) and peer pressure for conformity.

[Our Delphi interview structure](#) followed four steps: (1) The team interviewed the experts individually and recorded their responses to 10 open-ended questions. (2) All of the experts' recorded comments were listed anonymously and shared with all experts individually for their feedback (iteration and controlled feedback). (3) In the final round, a statistical group response was formed: the individual responses were aggregated and summarized, noting whether or not the viewpoints represented a full consensus, a majority view, a collection of minority views ([Dewar and Friel, 2013](#); [Zahendi 2013](#)). (4) Finally, the summaries of each question obtained from step 3 were again shared with the group for their further review, elaboration or clarification, if necessary. We adopted the Chatham House rule for these interviews and informed each interviewee of this in advance to reassure them that the responses provided would not be attributed to any individual.

The 10 questions explored with experts in this Delphi process were designed to shed light on the apparent paradox of supply- and demand-side imbalances for private investment in SSA. They were also intended to rank the importance of various actions to accelerate the mobilization of capital for agri-SMEs in the region. For the purposes of the expert group interviews, an agribusiness was defined as any operation along this value chain that is conducted on a commercial basis (Faye et al., 2013). According to this definition, agribusiness firms are part of agricultural value chains and, more broadly, agri-food systems.

The eight main insights presented in Section 3 can be traced to the majority responses of the Delphi respondents.

1.5 Organization of the report

The remainder of the report is organized as follows. Section 2 briefly identifies emerging megatrends affecting SSA that will greatly affect the incentives of investors working in

⁴ <https://blog.mesydel.com/what-is-the-delphi-method-and-what-is-it-used-for-feb2d26f917a?qi=312fe54a2759>

African agriculture, and agri-SMEs in particular. Section 3 describes the main findings of the study as derived from the Delphi interview process. Section 4 makes suggestions and recommendations for impact investors, African governments, and investment support stakeholders. Section 5 concludes by summarizing responses to each of the study's original objectives, as defined in the study terms of reference.

2 Major trends affecting the agribusiness outlook in Africa

Private investment in African agri-food systems is being affected by six emerging megatrends:

1. **Rapidly increasing demand for food:** The population of SSA is estimated at 1.1 billion people in 2020 and is projected to double by 2050. Roughly 96% of the world's population growth between now and 2050 will be in SSA. Moreover, inflation-adjusted per capita incomes increased by 30% on average in SSA between 2000 and 2014, and they doubled in some countries (Barrett et al., 2017). Rapid population growth, rising per capita incomes and urbanization are all fueling a rapid rise in demand for food in SSA. The region's food import bill rose from \$7 billion in 2000 to \$45 billion in 2018, and is projected to rise to \$80 billion by 2030 under current trends. Based on current projections, the main growth in demand will be for staple grains such as wheat and rice, soybeans and oilseeds, and animal proteins such as frozen poultry. Rapidly rising demand for food provides considerable untapped potential for import substitution, specifically for private investment in African agri-food systems to encourage the development of domestic and regional value chains to efficiently substitute for imports, where this is a realistic possibility. Achieving this goal will require African food value chains to become more internationally competitive, by expanding on-farm production while lowering the costs of production and distribution to cities and small towns.
2. **Continued strong agricultural growth in SSA:** Real agricultural growth rates in SSA have averaged 4.63% a year since 2000 – the highest of any region in the world (World Development Indicators, 2020). Roughly 75% of the region's agricultural growth over the past two decades has been driven by expansion of the area under cultivation, with only 25% from yield growth (Fuglie et al., 2020). Medium-scale African farms of between five and 50 hectares (ha) have become more important in recent years. They accounted for over 40% of the additional value of national farm output over the past decade in three of the four African countries that were analysed in Jayne et al. (2019). Input suppliers and off-takers tend to invest in areas with a high concentration of medium-scale farms, which tends to improve market access conditions for nearby smallholder farmers (Burke et al., 2020; van der Westhuisen et al., 2018). After two decades of strong agricultural growth, there was an eightfold increase in the number of agri-SMEs operating in SSA between 2000 and 2016 (Muyanga et al., 2019). The vast majority of these agri-SMEs finance their operations from their own equity and extended family networks. Because SSA has roughly 60% of the world's remaining unutilized land suitable for crop production, and will account for much of the world's additional food demand over the next several decades, SSA agriculture could be ripe for massive increases in private investment if other challenges identified later in the report can be effectively addressed.
3. **Long-term decline in real food prices:** African agriculture benefited from a six-year period of relatively high world food prices between 2008 and 2014. But world (and hence

African) food prices have gradually returned to lower historical levels, which may reduce the flow of foreign direct investment (FDI) to African agriculture, at least until prices rise again for a sustained period. Projections of world food prices over the next decade mostly point to a return to relatively low food prices, reflecting continued technological progress in yields, marketing and transport. But there are also likely to be episodes of instability due to increasing climate variability and global shocks (USDA, 2020). Low and unstable food prices may inhibit the returns on private investment in African agriculture, and in agri-SMEs in particular.

4. **Inter-country regional food trade in Africa is growing:** African countries' food imports are rising dramatically; the average share of these imports coming from other African countries rose from 6% to 17% between 2000 and 2018. Much of this is attributable to the success of South African agriculture in penetrating other African countries' markets. The African Continental Free Trade Area (ACFTA) has great potential for increasing intra-Africa food trade and private investment in African agri-food systems, but the ACFTA negotiations have been postponed and are not expected to start until 2021 at the earliest. This is one of many examples of how political commitment and leadership will be decisive in influencing the potential for agri-SMEs in Africa.
5. **Development of agricultural land markets:** Nationally representative household surveys across Africa are pointing to rising participation in land rental and purchase markets (Holden, 2020; Chamberlin and Ricker-Gilbert, 2016; Jayne et al., 2019). Before 2000, the sale of customary land was generally taboo but rising land scarcity has initiated a gradual change in the institutions governing land transfers, especially in areas with good commercial potential close to urban demand centres. Land prices have skyrocketed in many of these areas, leading to a large number of transfers by smallholders to others. These include wealthier and capitalized smallholders expanding their operations ("stepping up" in Dorward's terminology⁵), urban-based entrepreneurs and professionals seeking to enter commercial agriculture ("stepping in") and other African investor farmers. Evidence indicates that those acquiring land through purchase markets tend to be more productive and better capitalized and educated than those who are selling the land (Jayne et al., 2019). The upshot is that the rapid development of land markets is hastening the transfer of land to productive and commercialized African farmers, providing additional incentives for private investors and large agribusiness companies to develop agri-SME partners.

Most of these trends point to rapidly expanding potential for private investors to achieve high rates of return and social impact by investing in African agri-food systems.

3 Main findings

Based on the [views](#) expressed by a majority of the Delphi respondents, we have consolidated these perspectives and associated evidence into eight insights. These fall under three major themes: (i) the policy-enabling environment; (ii) challenges facing

⁵ <https://core.ac.uk/download/pdf/2789108.pdf>

suppliers of private capital; and (iii) human capacity.

3.1 The policy-enabling environment

Insight #1: Investor reservations about sustained political commitment to achieving agricultural sector targets may be depressing private investment in African agriculture

The Comprehensive African Agricultural Development Programme (CAADP), the Malabo Declaration, the Africa Union Agenda 2063 and the UN Agenda 2030 are among the pan-African initiatives that provide a continental framework for the region's agricultural development. Agenda 2063, for example, consists of seven aspirations and 20 goals.

Several of the Delphi respondents questioned whether these initiatives have in practice the necessary high-level political commitment to move from aspirations to implementation, and therefore whether these plans are convincing enough for institutional global capital to seek to contribute to them.

As an example, 45 African leaders met in Maputo in 2003 and affirmed their commitment to allocate 10% of their governments' national budgets to agriculture under the CAADP in order to achieve an agricultural productivity growth rate of at least 6%. Leaders met again in Malabo in 2014 to take stock of the situation and reaffirm their central 10% budget commitment to agriculture. Even though most African governments officially adopted the CAADP in 2003, after 17 years only five of 45 SSA signatory countries have achieved the 10% agriculture target allocation. The Delphi interviews indicate perceptions of a great variation in the extent to which African governments have taken ownership of the development of national agricultural investment plans and implemented them. Most respondents indicated that these continental frameworks consist of many goals and targets but generally lack specifics about how programmes will be funded and implemented to achieve these targets, monitor progress, and make mid-course corrections if necessary, etc.

One respondent suggested that impact investors and governments needed to give greater attention to identifying countries' unique competitive positions in agriculture and broader agri-food systems, how the various components of an agri-food system strategy fit together, and how programmes can be designed and implemented to achieve the strategy. This observation follows the famous article by Porter (1996) emphasizing the distinction between strategic positioning based on the drivers of competitiveness of a country or company vs. the more tactical operational plans that leaders sometimes mistake for a strategy.

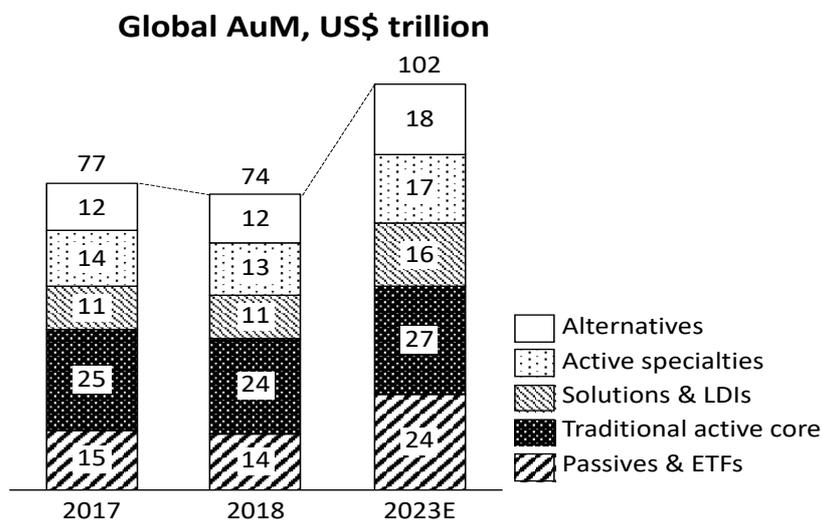
Moreover, and notwithstanding the efforts made in Malabo, a fragmented situation has emerged, with a myriad of programmes, agendas and agencies from various partners – the African Development Bank, the Department of Rural Economy and Agriculture at the African Union Commission, Alliance for a Green Revolution in Africa, multilateral development partners, foundations, regional economic consortia etc. This has created uncertainty over governments' true intentions regarding budgetary commitments and programmes for implementation. In spite of the availability of significant amounts of private capital worldwide, investors' reservations regarding African governments' commitments to their agricultural development plans hinder the successful mobilization of investors to consider agribusiness opportunities in Africa.

Perhaps the most compelling evidence that significant amounts of private capital could be mobilized if conditions were suitable is the magnitude of global assets under management in comparison to the amounts invested in African agriculture.

Food and agriculture and forestry assets have traditionally been defined as “alternative real asset” investments. Real assets ultimately determine the productive capacity of an economy through the creation of goods and services. Examples of real assets are farmland, buildings, equipment, factories, intellectual property and knowledge. In contrast, financial assets, such as bonds and equities, do not contribute directly to the economy’s productive capacity; these assets only provide their holders with a legal claim to the profits generated by real assets (Bodie et al., 2014). A real asset is understood as something that can generate positive cashflow in the future and that has liquidity (Ducastel and Anseeuw, 2017).

Alternative real assets under management totaled \$12 trillion in 2018 (Figure 1). Of these, only \$262 billion (2.2%) were in food and agriculture and forestry (Figure 2). Most of this \$262 billion was in forest assets; real assets under management in food and agriculture totaled approximately \$87 billion, or less than 1% of global alternative real assets under management (Figure 2). However, alternative real assets under management are expected to rise in value from \$12 trillion in 2018 to \$18 trillion in 2023 (Figure 2).

Figure 1: Global assets under management by class, \$ trillion



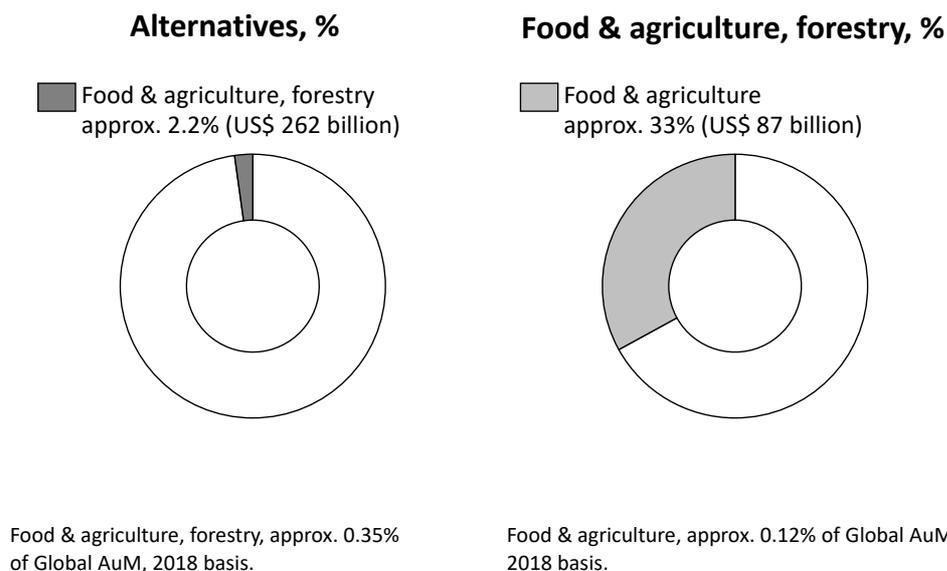
Sources: Valoral (2018), BCG (2019).

Food and agriculture and forestry constituted only 2.2% of alternative real assets under management in 2018. Forestry accounted for twice as much of real assets under management as food and agriculture.

Figure 2: Sector comparisons of assets under management

Left panel: Percentage of alternative assets under management

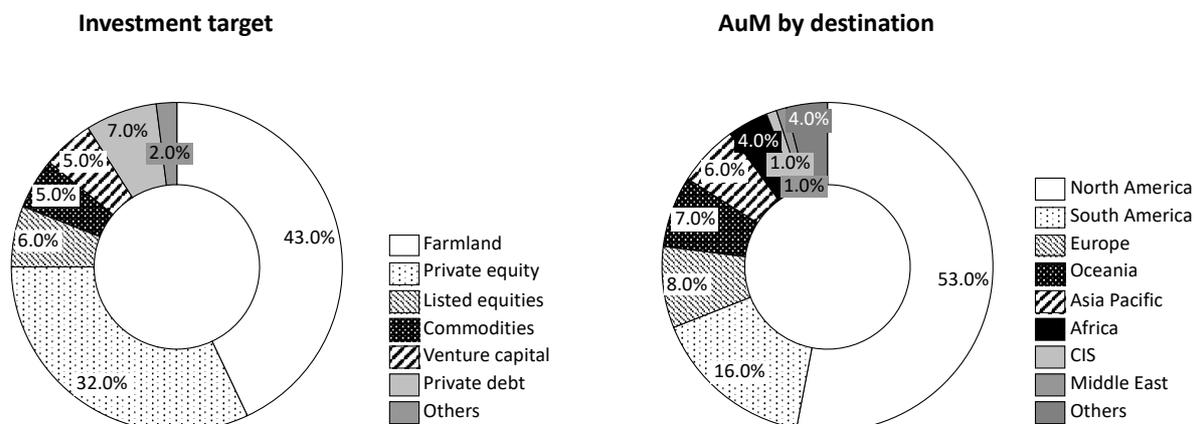
Right panel: Split between food and agriculture and forestry



Sources: Valoral (2018), 2017 basis.

In spite of commodity price volatility, private investors have shown tremendous resilience in targeting farmland, private equity and listed equities, which represented approximately 81% of all the food and agriculture and forestry assets under management in 2018 globally. The right panel of Figure 3 indicates that only 4.0% of total food and agriculture and forestry assets under management were in Africa in 2018, roughly \$10.5 billion. In summary, the 2018 share of real assets under management in African food and agriculture and forestry as a proportion of total alternative real assets under management (\$12 trillion in 2018) was less than one-tenth of 1%. Even if only 1% of total alternative assets were to be shifted into Africa, the continent would experience a 12-fold increase in food and agriculture assets under management.

Figure 3: Split by investment target and geographical location, %



Sources: Valoral (2018), 2017 basis.

Sources: Valoral (2018), 2017 basis.

Hallam (2011) provides a number of observations regarding FDI in developing country agriculture. One is that it has been increasing over time, although it still accounts for a very small percentage of the total investment flows into most countries. Agricultural FDI constitutes less than 2% of total FDI in Africa. The main form of investment has been the acquisition of agricultural land for food production, with investments of more than 10,000 ha, and in some cases more than 500,000 ha. Investments also occur in infrastructure development, such as transportation, irrigation and power generation.

The investors are primarily from the private sector, but governments and sovereign wealth funds also provide finance and other types of support. **In alignment with the analysis of Vitón (2018), private investors are often investment or holding companies, rather than food and agriculture businesses, which means that they lack the necessary expertise in managing complex agricultural investments, and need to acquire it.** Finally, Hallam concludes that there is a pattern of private investors seeking resources (land and water) to export back to their own countries, rather than seeking to develop a local market. Although this kind of activity might raise concerns, host countries have generally been fully aware of the risks but nevertheless keen to attract such investment. According to Hallam (2011), African governments may consider alternative approaches beyond land sales and long-term leases to foreign investors, such as tax concessions, local financing and a more positive investment climate created by policies to lower transaction costs and reduce investor risks. Other policies, such as trade-related benefits, could also be leveraged in lieu of long-term leases and land purchases. However, some of the alternatives remain rather incipient and difficult to reconcile with investors' objectives. More important than the actual alternatives offered to investors by a host country is the implementation of FDI policies as part of agribusiness development.

In summary, private agribusiness investment in Africa could be accelerated with a clearly articulated strategic vision at the pan-African level, backed up by credible commitment to, and effective implementation of, the plan at regional and national levels. This would include a transparent process for prioritizing and selecting a pipeline of bankable agriculture projects endorsed by the African Union or African Development Bank. Rodrigues de Albeid and

Wong (2015) give an example of a powerful and effectively implemented agricultural vision and development plan.

Insight #2: In spite of many favourable fundamental trends and some successful impact investments in African agriculture, there is limited demand by agri-SMEs to take on third-party private debt or to sell equity stakes. With concerted efforts from African governments and private investors, this lack of demand can be effectively addressed over a medium- to long-term horizon.

We refer back to the apparent paradox presented in the introduction: a shortage of capital deployed to African agri-food systems in spite of a significant amount of funds for potential investment. Other studies have highlighted this contradiction in other sectors. In infrastructure, for instance, there have been significant differences in perceptions between investors and governments, both as regards governments' expectations regarding private investment and as regards their understanding of investors' mandates and preferences (see Drexler and Wong, 2014).

With regard to African agri-food systems, it may seem ironic that private investment in African agriculture remains relatively small even as agriculture is growing more rapidly in percentage terms in Africa than in any other region of the world. And the number of agri-SMEs operating in Africa grew by 800% between 2000 and 2017 (Muyanga et al., 2019). As has been established already, these farms and agri-SMEs are financing their operations mainly from their own family equity. These figures suggest that **the effective demand for finance by agri-SMEs may be substantially lower than the amounts that impact investors might be willing to supply**. However, it is also likely that changes in investor and bank behaviour could increase agri-SMEs' effective demand for finance.

Some of the Delphi respondents reported that some impact investors display a degree of naivete or a lack of effort to understand the needs of agri-SMEs and smallholder farmers. Other respondents stressed that family-owned businesses may have different and possibly conflicting incentives and objectives compared to most impact investors. For example, an impact investor might aim to enhance rural employment, while an agri-SME could be more concerned with maintaining family control, tax liabilities, and the addition of capital in order to reduce labour costs.

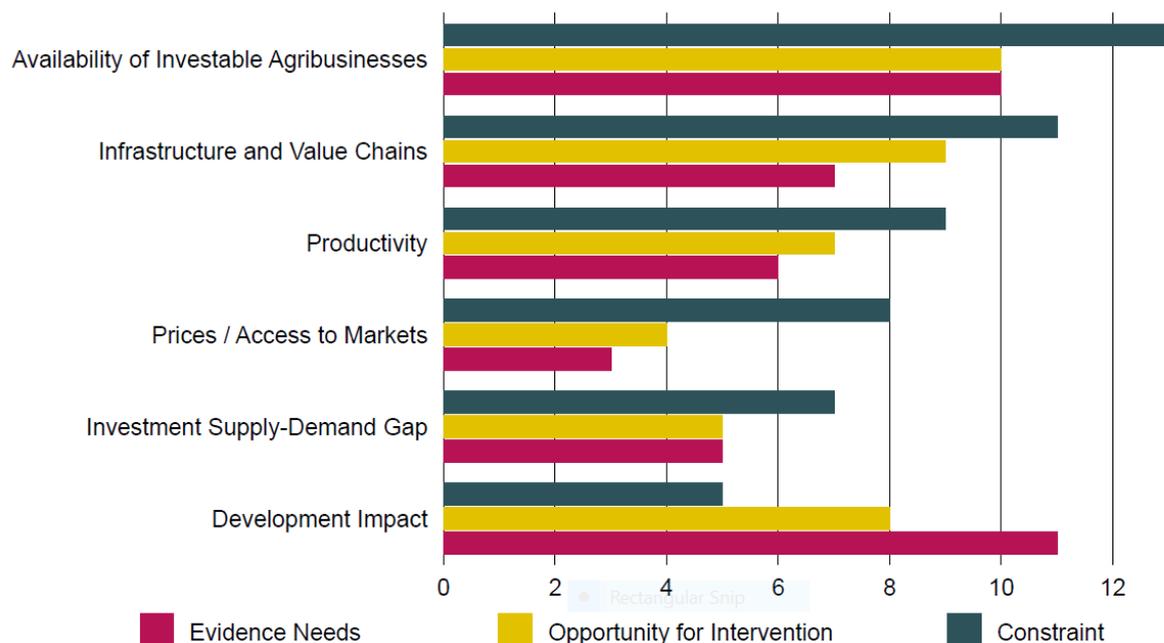
It may be worth questioning the assumption that insufficient investment capital is a major factor limiting the operations of agri-SMEs, especially since these enterprises appear to be growing rapidly in most African countries (Muyanga et al., 2019; Reardon et al., 2019). At first glance, this may seem paradoxical considering the shortage of capital facing most agri-SMEs' operations. However, most agri-SMEs realize that taking on debt exposes them and their businesses to high risks, especially when they have few forms of collateral to put up in case of default. Equity arrangements are not an option for the majority of agri-SMEs, as they are not formally registered or listed as public companies. Other studies of SMEs find that marginal returns on capital can be well above market interest rates at low levels of capital but decrease rapidly at higher levels (Göbel et al., 2013). Studies of firm entry and exit show a high frequency of agri-SME exits in any given year (Mead and Liedholm, 1998). Moreover, agri-SMEs' commitments to take on private equity or debt to expand operations are impeded by high risks and transaction costs. These are caused by factors such as the following: poor transport and communications infrastructure; frequent power disruptions (especially relevant for agri-SMEs relying on cold chains); the high transaction costs of trading with smallholder farmers; and weak arbitration and legal systems for resolving disputes. Other challenges include the unpredictability and *ad hoc* nature of agricultural trade policies, marketing board

activities, input subsidy programmes, price controls and the like. While some African countries have made great strides in promoting a policy-enabling environment that is more favourable to private agribusiness investment, others still have great challenges before them. **For all of these reasons, agri-SMEs' demand for debt financing may be lower than is commonly believed.**

Some impact investors note some confusion amongst agri-SMEs in terms of their understanding of financial products. agri-SMEs may indicate a need for financing, yet more detailed reviews reveal that they are actually looking for grant capital. As such, the reported need for agri-SME financing may be over-inflated as a result of this confusion.

agri-SMEs have fewer tools at their disposal to manage these risks and transaction costs than do many suppliers of private capital, which have access to guarantees, blended finance and de-risking tools. **Moreover, agri-SME operations are made less profitable not only by high transaction costs in commodity markets but also by high production costs for smallholder farms,** which reflect weak agricultural R&D, poor extension systems and high-cost input-delivery systems. Most of the Delphi interviewees stressed that there are very few investible agri-SMEs in any given country. This is consistent with the conclusions of the 2019 CASA investor survey (see Figure 2 of the CASA 2019 brief, reproduced below).

Figure 4: Investor themes in CASA 2019 Investor and Investment Support Stakeholder Survey Brief



Source: CASA, 2019

Lastly, there are psycho-social attributes that constrain SME willingness to take on debt. Many SMEs, at the end of the day, are not entrepreneurial and are hesitant and risk averse when approached with an opportunity to expand into larger business operations. Societal conceptions that success breeds jealousy inhibit individual initiative. One Delphi expert pointed to the many colloquialisms and proverbs in the local vernacular that indicate significant cultural constraints to successful business expansion.

Insight #3: There is great potential for improved policy to mobilize equity capital from SME agribusiness firms themselves.

Trader surveys in SSA reveal that many SME agri-entrepreneurs start as farmers (Kirimi et al., 2011). They tend to have superior knowledge of their clients in the local area, and social connections with them, which develops their client base for entering SME agribusiness. **Most smallholders do not have enough capital or other necessary traits to become viable SMEs, but about 10% of the better-capitalized farmers do (Jayne et al., 2019). There are roughly 125 million farm households in SSA, so 10% means that 12 million potentially have the attributes and wherewithal to expand into SME agribusiness.** But only a small percentage of these 12 million farm households actually do expand into SME agribusinesses, raising the question of why more do not do so and how conditions can be modified to incentivize more of them to do so. The constraints can be categorized as: (i) a lack of incentives, and (ii) agri-SME access to working capital relying on other actors who may exit the market in the presence of government and philanthropic programmes.

- **Incentives:** To enter into aggregation and assembly, trading, processing, retail input distribution and service provision, entrepreneurial rural people often require nearby supply chains to link up with. These can be, for example, larger traders operating in nearby towns, which provide working capital to rural assembly traders to purchase

crops from farmers in remote areas and then resell the crops to them. A systems perspective is required to understand how the incentives for and ability of households to enter SME agribusiness depend on the ability to link up with others in input and commodity value chains.

- ***Agri-SME access to working capital often relies on other actors operating in the market, who may be harmed by government or philanthropic programmes:*** Trader surveys reveal that aggregators and retailers often require working capital from wholesalers to make their businesses viable. In particular, crop aggregators in rural areas often obtain working capital from wholesalers. They essentially become procurement agents, purchasing crops in remote areas with working capital provided by larger traders. They clear their loans by delivering commodities to those traders. The same applies to cash inputs such as fertilizers. Large traders and input distributors are a source of the finance needed to make these systems work.

Problems arise when, for example, crop marketing boards offer above-market prices to farmers and below-market prices to urban processors. Most wholesalers cannot operate within such margins. They therefore stop providing loans to local assembly traders, which in turn impedes farmers' access to rural buyers operating in villages. Farmers become more dependent on transport services to transport their crops to the marketing board, which is generally located in a district town.

Analogously, considerable evidence indicates that input subsidy programmes providing cheap inputs to farmers – some of whom would otherwise have purchased these inputs – erode input distributors' commercial markets. An analysis of four input subsidy programmes in SSA estimated that every tonne of fertilizer distributed through government subsidies was accompanied by a loss of commercial fertiliser sales by private agri-dealers of between 200 to 600 kilograms (Jayne et al., 2013). This in turn reduces the commercial sales of large distributors and causes them to stop providing fertilizers on credit to retail dealers in rural areas. These examples highlight how well-intended subsidy programmes may adversely affect agri-SMEs operating outside the subsidy program and hence weaken farmers' access to commercial fertilisers in remote areas (Kaiyatsa et al., 2019).

In another example, some larger seed and input companies are often on the brink of bankruptcy due to delays in government payments for goods delivered under subsidy programs, which critically reduces their cashflows.

Some evidence indicates that some philanthropy-funded projects may provide valued services to intended beneficiaries but prevents other agri-SMEs outside the program from operating in that space and may lead to existing firms to exit the market. To the extent that impact investors fund programs that require new funds each year to continue operating, this may create an un-level playing field that prevents truly commercial actors from entering the developing a particular market (Edwards, 2011).

Insight #4: Persuading institutional investors to open up significant amounts of capital to impact investors working with African agri-SMEs will require addressing the systemic sources of risk and transaction costs in African agricultural markets, as well as smallholder farms' high costs of production.

Suppliers of private debt and equity face high risks and variable returns on their operations. Pension funds and insurance companies represent 48% and 39% of global assets, respectively. **These asset owners are rarely able to manage and pay their future financial liabilities (long-term payments) or to accept the unpredictable cashflow generation associated with agricultural goods.** In other words, the biggest capital providers, representing 87% of global assets and with a desire to create a social impact, face huge constraints on working with impact investors in African agriculture. (Impact investing is an approach that intentionally seeks to create both financial and societal returns.) The remaining 13% of global assets come from family offices, foundations etc., leaving a relatively small proportion available for impact investing.

Three primary types of instrument are used in impact investing: (i) private equity, (ii) private debt, and (iii) equity-like debt. Public equity is not frequently mobilized in impact investing, but there are reasons to believe this might change soon, with more and more publicly traded companies meeting the criteria of social impact businesses. On the other hand, there is still a widespread misunderstanding regarding which asset class impact investing falls into, although it generally ranges across venture capital, private equity, public equity and alternatives.

Some impact investors have found successful strategies to generate market rates of return, but with questionable social impact. Others may be producing social impact, at least temporarily while their programs can be sustained, but questionable rates of return on institutional investors' capital. Few are producing both market rates of return *and* sustainable social impact – the definition of impact investing. Supporting agri-SMEs to achieve even one of these outcomes usually requires a long term, patient capital approach, which tends to be unattractive to investors who insist on a five- to seven-year exit strategy. Increasing the supply of capital available to impact investors – and increasing the demand for debt and equity by agri-SMEs – will depend on addressing the following systemic areas:

- a **Ensuring a sufficiently stable macroeconomic environment**, e.g., stable, market-based exchange rates and interest rates, low to moderate inflation rates and transparency in macroeconomic management. African agri-SMEs have benefited greatly from improvements in governments' macroeconomic management since the 1990s (e.g., foreign exchange controls, repatriation of funds etc). But worrying signs are reappearing as government debt balloons again in some countries. Even at a time when global financial borrowing rates are between zero and 4%, most local banks in Africa are offering rates closer to 20%. These rates are almost prohibitively expensive for agri-SMEs seeking to expand their operations.
- b **Establishing a sectoral policy-enabling environment that is predictable and transparent**, e.g., no unpredictable trade policies or price controls that undercut private firms' scope to operate and where key public goods are in place (e.g., sufficiently developed and stable electric power supply, communications, road and port infrastructure etc). Some kinds of private capital will enter African markets even in countries without favourable enabling environments because of the rapid growth in demand for food caused by rapid population growth, urbanization and rising per capita incomes – mainly local agri-SMEs using their own limited private equity. Value chain upgrading that attracts agri-SMEs providing services sought by consumers and work conditions valued by workers will require predictable and supportive policy environments with consultative private–public sector engagement.

In addition to the many well-known sources of policy and regulatory uncertainty, the Delphi interviewees also referred to myriad small and little-known regulatory voids. For example, one large, well-known agribusiness company lends to aggregators but apparently does not report this to credit bureaus. In some cases, there are no functioning credit bureaus and there are weak national identification systems. As a result, investors typically lack information about the debt that firms may already be holding. This creates obvious costs for impact investors, and one interviewee mentioned that 30% of some investors' operating costs are devoted to monitoring compliance. A lack of readily accessible and accurate market information also raises the cost to investors of determining whether to invest in agri-SMEs in a particular market. It is not just a case of cumbersome regulations that need to be streamlined: there is sometimes an absence of regulation and public information, which needs to be put in place to make the market more transparent. Some of these voids signify a need for the private sector actors to coordinate more effectively among themselves.

- c** ***The creation of surplus-producing zones and low production costs.*** Farmers provide by far the greatest amount of private investment capital in agri-food systems and determine where and how small, medium and large agribusiness firms can invest. **agri-SMEs will thrive in areas where large volumes of surplus farm production can be sourced at low cost.** Research evidence has documented the rise in many African countries of local medium-scale farmers who are investing in cash inputs, creating demand for private sector extension and support services and encouraging the development of tractor rental markets. **These emergent investor farmers are also investing in long-term productive assets to raise farm productivity. Moreover, they tend to produce relatively large marketed surpluses, thereby attracting large-scale crop buyers.** Because they purchase farm inputs and produce marketable surpluses, areas where these medium-scale farms are concentrated tend to attract crop buyers and small, medium and large agri-input suppliers and services. Market access conditions are thereby improved for small-scale and all other farmers in the area, promoting farm productivity and livelihoods.⁶ Policies to further encourage commercialized medium-scale African farms may also attract agri-SME investment and improve market access conditions and the quality of service provision to smallholders. **While evidence is thin, studies have shown that the greatest benefits to smallholder farmers in this way come from medium-scale farms operating between five and 20 ha (Chamberlin and Jayne, 2020).** Smallholder households may interact differently with nearby commercialized farms of five to 10 ha than they do with much larger farms for many reasons, not least their tendency to share common social, ethnic and family connections. Many medium-scale investor farmers go back to their rural home areas to acquire land, and they may have extensive social and economic interactions with local communities (Jayne et al., 2016). In contrast, large farms in the region are commonly owned and/or operated by individuals who are perceived as being outside the local community. **The size and strength of spill-over effects between smallholder farms and large farms**

⁶ For example, a [forthcoming study](#) from Tanzania (led by BFAP/South Africa) shows that in districts with a high concentration of medium-scale farms, 25% or more of smallholder farms utilize tractor rental services for land preparation, thereby freeing up family labour for off-farm activities that tend to provide higher returns on labour. See also a [recently published article](#) on the causes and consequences of the rapid rise of medium-scale farms in Africa.

may therefore depend on the size and characteristics of the large farms; how far this is the case remains an important unresolved empirical question.

- d **Implementing de-risking mechanisms** to attract private equity capital. Given the various sources of risk in markets in developing areas, efforts to de-risk the system are likely to be critically important for attracting transformational private investment that will lead to the sustainable expansion of agri-SMEs. Because local commercial interest rates are typically 20% or higher in African countries (even while global rates are mostly between 4% and 6%), blended finance mechanisms with impact investors may be important in order to reduce capital borrowing costs. But this approach will work only for activities that represent bankable investments in all other respects, such as generating sufficient cashflow and high returns on investment over the medium term. **Research evidence indicates that de-risking mechanisms can be a very effective way to get finance to smallholder farmers and to leverage greater investment in the system by a wide range of small, medium and large agribusiness firms.**

3.2 Challenges facing suppliers of private capital

Insight #5: There tends to be a discrepancy between the target rates of return of impact investment funds and those expected by investors.

This expectations gap and the inability to generate required rates of return might explain the limits encountered in attempts to expand funding from impact investors. **Some 83% of US-based pension funds surveyed believe that impact investment funds have not got established track records (World Economic Forum, 2013).** A range of specialized skills are required to ensure financial performance and to measure social and environmental outcomes. For example, most agri-SMEs operate in local currency while international impact investment funds expect returns in international currencies. Pushing hedging costs of 4% to 10% (depending on currency and inflation) onto the investee creates a further discrepancy. These conditions imply that the limited flow of private capital into African agri-SMEs may reflect African agriculture's current high risks and low returns, a conclusion also reported in the 2019 CASA survey of impact investors. This may change in countries where governments demonstrate a commitment to strengthening public institutions related to rule of law, anti-corruption measures, the free flow of foreign currency, and property rights.

Insight #6: The sector's fragmented nature means that deal sizes remain small. This constrains the number of mainstream intermediaries in the impact investment sector.

The Delphi interviewees indicated that in any given African country, there are typically fewer than 10 viable agribusiness firms with the potential for a deal size suitable for most impact investors. **Impact investing involves a higher cost of due diligence than traditional investing. Many institutional investors point out that the due diligence time required for a \$1 million investment is the same as the time required for a \$100 million investment.** Some of the Delphi interviewees noted that most institutional investors want an exit timeline but emphasized that **investors need to be in the game for the long term** and should not focus on exit strategies. Rather, they should work closely with firms and nurture them over time to a size at which they can effectively absorb relatively large amounts of debt or equity capital. In short, there is a timeframe mismatch.

Other interviewees stressed the need for impact investors to be on the ground in the country of operation, where they can develop strong ties with agri-SME clients, understand their needs and innovate their product offerings to match these needs. One interviewee recounted another investor lamenting, “I’m just not seeing the deals in X country” – but noted that the investor was living 7,000 miles away from that country.

Insight #7: More rigorous methods of measuring social impact may increase the supply of funding from institutional investors to impact investors.

Institutional investors need to trust what is being reported to them. Some may be discouraged by perceptions of unrealistic assessments of social impact. Accurate measurement of social impact is difficult, especially in a system as complex as an agricultural value chain. Many investments produce externalities, i.e., impacts on others in the system whose interests are not necessarily taken into consideration. For example, our interviews with impact investors revealed examples where recipients of impact investment provided subsidized services and inputs to promote project objectives. This could unintentionally erode the market for commercial operators that do not receive similar access to subsidies, guarantees and other de-risking tools (WEF, 2013). These effects may not be considered in assessments of social impact. **Processes for producing greater rigour in measuring social impact may give institutional investors greater confidence in the accuracy of social impact claims.**

3.3 Human capacity for private investment in agri-food systems

Insight #8: There is a need to develop human capacity in order to generate more profitable agri-SMEs, and hence expand both the demand for and supply of finance for agri-SMEs.

Almost all of the Delphi interviewees identified limited human capital as a major impediment depressing private investment in SME agribusinesses. A systemic approach is needed to address this issue, recognizing the role of African education systems, and African universities in particular, in driving the region’s agricultural transformation.

African universities contribute by far the greatest numbers of undergraduate and masters-level workers in African countries’ labour forces. The workers graduating from African universities then influence the quality of the rest of their country’s workforce through the training that they provide to others. This is carried out in primary and secondary schools, agricultural training colleges, technical and vocational education training schools, public sector jobs, civil society and the private sector. Returns on investment from African higher education are estimated at 21%—the highest in the world (Africa-American Institute, 2015). A one-year increase in average tertiary education levels is estimated to raise annual GDP growth in Africa by 0.39 percentage points, and eventually to yield an increase of up to 12% in GDP (Darvas et al., 2017). Universities also play an important role in creating knowledge-based goods and services that have potentially transformational impact. For example, the activities of universities may have important effects on government policy and the practices of private sector firms, as well as creating a more informed citizenry and contributing to the democratic process (Shulock, 1999). Growing evidence shows that indicators of educational achievement (e.g., secondary school test scores) are highly correlated with long-term per capita economic growth rates (e.g., Altinok, Angrist, and Patrinos, 2017). Economic

development in Africa is likely to co-evolve with the upgrading of African countries' workforces.

Fortunately, in recognition of the strong correlation between education and socio-economic development, SSA governments have increased public spending on education by an average of more than 6% each year since 2000. The percentage of Africans over 25 years of age who have completed lower secondary school climbed from 23% in the 1980s to 43.7% in 2017, and is over 75% for both men and women in rapidly developing countries such as Ghana (World Bank, 2019). Student enrolment in tertiary education grew from 1% in the 1970s to 10% in 2014 (Darvas et al., 2017). African countries' average public expenditure per university student in 2006 was \$2,000 per year — more than twice as much as non-African developing countries invested in tertiary education. There is also growing diversity in the fields covered by these institutions, including greater focus on technical education and entrepreneurship. **The pace of educational improvement in Africa is more rapid than that experienced by any other region in the world since 2000.** While decades behind the rest of the world, Africa is starting to catch up. A better-educated workforce means decision making in the private sector, which includes millions of micro-entrepreneurs, is becoming more effective and competitive, thereby contributing to economic growth (Adusei, 2016). It also means better-informed public policymaking.

Agricultural higher education institutions will be called upon to play a transformative role in promoting Africa's economic transformation in general, and agricultural agri-SME development in particular (Swanepoel et al., 2020). Even though the majority of agri-SME managers are in the informal sector and will never set foot on a university campus, they are still likely to receive training from, and be influenced by, university graduates in the form of primary or secondary school teachers, private sector training programmes, agricultural training programmes, vocational and extension schools, family members, friends, colleagues and mentors. Through their diffuse effects on workforce quality, higher education institutions exert a profound effect on the pace of a country's development (World Bank, 2009).

4. Proposals and recommendations

The proposals in this section are grouped into considerations for: (i) African governments; (ii) impact investors; and (iii) development partners and donor organizations.

4.1 For African governments

- Create a long-term all-of-government commitment to attracting private investment to African agri-food systems, and a plan to disseminate information about it. Several of the Delphi respondents contended that investor confidence would be enhanced in countries where governments make credible commitments. While many countries have national agricultural investment plans, they often lack funded programmes to implement them, and even those that are funded are not benchmarked for goal achievement. Much could be achieved by a new state culture demonstrating a strong all-of-government commitment to a well-conceived agricultural investment programme that is backed up by detailed implementation plans, timeframes for implementation and impact, and high-level national commitment. Brazil's experience with EMBRAPA is an important example of how national commitment and planning can be highly effective (see Annex for a description).

- Make a concerted effort to make agri-food systems and agribusinesses more conducive to private investment. Perhaps the most important point highlighted by the Delphi interviewees is that the policy-enabling environment needs to be more conducive and predictable. Even without outside private investment, a more predictable policy-enabling environment will create new SME agribusiness investment and expand the operations of many agri-SMEs already operating.
- Periodic public and private sector consultations in agricultural markets can improve co-ordination and reduce risks. **The goal is for government to be as transparent as possible about potential policy actions** in order to build investor confidence.
- Such consultative processes should not be confined only to large, registered firms. Informal (unregistered) agri-SMEs account for the vast majority of agribusiness firms in African countries, and they play an important role in providing access to markets for smallholder farmers.
- Focus on promoting on-farm productivity growth. Many Delphi respondents identified low productivity, low prices and low profitability for smallholder farming as major barriers to raising the returns on impact investing in small- and medium-scale agribusiness firms. Imports account for a growing share of food consumption in many African countries. However, low productivity, low prices and low profitability are outcomes of more fundamental causes, including chronic under-investment in public goods, such as the following: agricultural R&D; bi-directional extension services for smallholder farmers; access to reliable energy, communications and physical infrastructure; and public education systems. According to soil science research (reported in Deininger, 2011), South Africa is the only SSA country that realizes more than 25% of its crop yield potential. At least one Delphi interviewee noted that the massive unmet productivity gaps imply enormous potential to raise the returns on investing in agri-SMEs, and the profitability of the farmers they serve.
- A lack of readily accessible and accurate market information also raises the cost to investors of determining whether to invest in agri-SMEs in a particular market. **It is not just a matter of streamlining cumbersome regulations: there is also often a need to put in place the regulations and public information needed to make the markets more transparent.** An example provided earlier is the absence or weak functioning of credit bureaus and the lack of participation in such bureaus by some agribusiness companies. As a result of this, it is difficult for other investors to accurately access the balance sheets of agri-SMEs that they are considering partnering with. Some of these voids signify a need for more effective co-ordination among private sector actors.
- Particular attention should be given to public investments in hard and soft infrastructure (including ports, transport sector, electrification, internet development) and also to flows of public resources into labour force upgrading, such as entrepreneurship, university/technical/vocational education, and efforts to enhance financial and digital literacy (related to insights #4 and #8).

4.2 For impact investors

- Broadening the supply of investor capital available for impact investment may require innovative ways of engaging with governments and promoting multi-stakeholder co-ordination. One of our main conclusions – already well-known – is that government actions can profoundly influence the rate of return on most kinds of investments in agri-SMEs that support smallholder farmers. **Impact investors are**

vulnerable to government actions, and yet they rarely have close working relations and trust with government officials and line ministry staff. Impact investors need willing partners who can liaise with governments to improve the policy and regulatory environment. They may need to support and embrace multi-stakeholder consultation processes, realizing, as most do, that improving the policy environment is generally a long-term process, with many hiccups along the way. With prudent public investments to support agricultural productivity (in the form of crop science, animal science, bi-directional extension systems, infrastructure and regulatory streamlining), the risk–reward balance will become more favourable for impact investing in agri-SMEs, and in African agri-food systems more generally. Institutional investor funding will then rise commensurately.

- The systems nature of agriculture requires that many diverse actors co-ordinate their activities to ensure the performance of a commodity value chain. Governments are the decisive actors because – through their policy and expenditure choices, the functioning of national agricultural institutions and the quality of governance – they greatly influence the scope for private investment in agri-food systems. For these reasons, the demand for finance by agri-SMEs may be increased over time by transparent dialogue between the public and private sectors, civil society and development partners. Such dialogue can engage all major stakeholders and can lead to the development of solutions to problems. Therefore, it can be effective to encourage periodic, transparent and consultative **multi-stakeholder discussion platforms** to identify policy and regulatory problems that inhibit agri-SME activities. Coalitions of support should be mobilized, including support to governments to ensure a sense of government ownership in the solutions. The World Bank’s Enabling the Business of Agriculture project, which each year identifies major regulatory barriers based on interviews with agribusiness firms, provides an effective foundation for an organized multi-stakeholder public–private dialogue. It may be useful to conduct a review of prior attempts to initiate multi-stakeholder platforms to develop best practices to guide future efforts.
- Relatedly, impact investors are well positioned to support the development of digitized multi-stakeholder market platforms, farmers registries, and credit information bureaus as a means to support public-private collaboration.
- Commit to transparency and accuracy. As stated by the World Economic Forum (2017), “some funds are promoting market returns but not achieving them; this is a disservice to the sector.” Those funds that make investments that result in a trade-off between financial and social returns should articulate clearly their investment thesis, expected returns and more-compelling evidence of social impact (e.g., by engaging independent research to assess economic outcomes and impacts). **Investors will need clarity on what different funds *actually* achieve across sectors and geographies, in order for products to emerge at scale** (WEF, 2017).
- **Strengthen or, where necessary, create transparent credit reporting bureaus** to allow investors to acquire knowledge about agri-SMEs’ debt and equity positions. This will reduce the monitoring and compliance costs that impact investors incur to determine which agribusiness companies to partner with.

- Several of the Delphi respondents stressed the need for a **long-term time horizon** in regard to working with agri-SMEs, so that agri-SMEs can grow into long-term partners that are capable of absorbing the scale of finance that most impact investors want to provide. Many investors envision a three- to five-year time horizon and exit strategy, but given the existing size structure of agribusinesses in most African countries this timeframe may not be sufficient to develop partners that are capable of absorbing the scale of capital that many investors will want to invest. Therefore, investors who can accommodate smaller deal sizes to begin with, growing their clients over time with a patient-capital investment approach, may fit well with the current realities of agribusiness in most of Sub-Saharan Africa.
- Another common point stressed by several of the Delphi respondents was **the need for greater innovation in the type of products offered by investors and banks, in order to suit agri-SMEs' circumstances**. An associated point was the need for investors to get closer to, and to better understand the heterogeneous needs of, agri-SMEs, so that they are in a position to identify agri-SMEs' needs, something which cannot be done from afar.
- Consider the Project Preparation Facility (PPF) model for agribusiness investment, which was prepared in 2017 under the auspices of the G20 in collaboration with the African Development Bank, the International Monetary Fund and the World Bank Group. Outlined in the G20 Compact with Africa (G20, 2017), the PPF approach aims to make Africa more attractive to investors. It includes a range of measures, such as setting up reliable regulations and institutions, by means such as strengthening legal and regulatory frameworks to reduce uncertainty; establishing investor protection and dispute resolution mechanisms; providing political risk insurance; improving project preparation; and standardizing contracts, including the clauses and provisions of public-private partnership contracts. The PPF approach also presents a financing framework that aims to increase the availability of financing at reduced costs and risks. This financing framework supports efficient risk-mitigation instruments to effectively attract and sustain private investment; develops domestic debt markets, including an appropriate regulatory and supervisory framework and support for the development of a domestic institutional investor base; and broadens private finance by relaxing unnecessary restrictions on investment in Africa and creating instruments for institutional investors. The PPF model is extensively described in Samans et al. (2018). **The overarching concept is to directly fund project preparation to bring projects to bankability.**

The PPF approach is mainly a capability- and capacity-building exercise, similar to the approach of EMBRAPA in Brazil (see Annex.) The primary role of a PPF is to attract private investors to mobilize their capital at the project preparation stage. This will allow them to prioritize and select the best opportunities to invest, once studies demonstrate technical viability and bankability. The PPF approach is fully compatible with impact investing and is likely to be successful and in line with the risk return profiles of capital providers, whether these are investing directly or indirectly. The use of PPFs could attract investors by generating a pipeline of technically viable and bankable projects. The private sector may need to support this PPF model in the early stages of project preparation (Samans et al., 2015).

4.3 For development partners, donors and foundations

- Impact investors are generally compelled to focus on high-value high-return crops because of the need to reach returns on investment near to market rates over a fixed timeframe, **but over 60% of African cropland is devoted to relatively low-value staple crops. Risks are also higher in staples because government interventions tend to focus on staples.** Hence, this is a high-risk business activity that is most suited to grant financing, such as the United States Agency for International Development (USAID) and FCDO. Moving staples from high-risk and low-return to higher-return investment areas will require government progress on: (a) the policy environment; (b) institutional development, such as agricultural R&D institutions, extension systems and institutions that manage energy supply, communications infrastructure and physical infrastructure; and (c) governance, including creating a market that is perceived to be neutral and impartial to all actors. Research evidence from SSA confirms that agricultural policy reversals and unpredictability have been very damaging to investment and economic growth (Yago and Morgan, 2008).

All this implies that African food staple value chains are important long-term endeavours that will still require grant financing, blended finance, technical support, and de-risking guarantees if they are to be considered fertile ground for impact investors. As usual, there are some exceptions, but this will be the case in most areas of SSA for at least a while. Philanthropists and foundations are well suited to lower investment risk by providing **grants to early-stage impact enterprises.** For enterprises that serve the destitute and working poor in sectors where commercial capital is largely absent, early-stage risk capital may be required for the business model to scale up and to be better positioned for larger investments.

- Grant-based interventions have to be designed carefully in order to avoid crowding-out private sector spending or under-cutting long-term system-wide philanthropic efforts (Edwards, 2011). The best prospects for long-term benefit will involve coordination among many stakeholders, including governments, IFIs/DFIs as well as foundations and impact investors, to avoid inadvertently working at cross-purposes and to create the financing solutions needed to attract additional capital from commercial banks and institutional investors.
- However, knowing when to exit is a key challenge when providing grant capital on a continuous basis (WEF, 2013). Philanthropy can play a role by kickstarting investment, but it can also distort the real performance of a company. In such cases, philanthropy can risk subsidizing businesses that should fail. It is thus best used on sector-level investments and not to artificially create winners.

5. Conclusions

The main purpose of the study was to identify how impact investment actors can bridge the gap between the risk–reward demands of investment capital and the available supply of

agribusinesses for investment. The study aimed to assess whether what is needed is different forms of capital, or greater work to provide the pre-conditions necessary to promote private investment in agri-food systems, or more of both of these.

Our study used the Delphi expert process to address these questions, augmented by analysis of agribusiness survey data and a review of relevant literature. The Delphi process entailed detailed interviews with seven very experienced investors from the private sector and from development finance institutions. Based on the findings so far, we highlight six main conclusions:

First, there is no evidence of a shortage of investible funds for African agribusiness.

In fact, there was over \$12 trillion invested in alternative real assets globally in 2017. Only 2.3% (\$267 million) of this was in food and agriculture and forestry, of which only 4% was invested in Africa (representing 0.092% of global alternative real asset investments). Even if only 1% of total alternative assets were to be reallocated to African agribusiness, the continent would experience a 12-fold increase in private investment food and agriculture assets under management⁷. The fact that this reallocation is occurring slowly, if at all, reflects an inability to find bankable investments, rather than a shortage of funds available for investment in African agribusiness. This is the view of most but not all of the Delphi respondents, who generally concluded that there are very few agribusinesses in any given country that can meet investors' risk-reward requirements and that are large enough to absorb most investors' minimum deal sizes, including those of impact investors.

The conclusion that there is no shortage of investible funds, but rather a limited number of investible deals, highlights the second main conclusion. The policy and enabling environment remains highly risky, and sustained government commitment will be needed to attract substantially more private investment in the foreseeable future. About half of the Delphi respondents stressed the weakness of government systems and lack of credible state commitment to agri-food systems development. The corollary is that the flow of private investment to SSA agriculture may rise dramatically in countries where the state has a clearly articulated vision and implementation plan for agri-food systems development, as well as a high-level commitment to making good on implementation. This raises the possibility of considering the restructuring and rehabilitation of state-owned distressed assets into new enterprises. (These assets may have been created in previous decades, when circumstances were different to those of today.) The restructuring of state-owned assets has been a common feature of the market landscape in relatively developed countries for many years but has yet to become a major feature of agriculture in SSA. Passive government equity participation can align the commercial and financial interests of external parties and smallholders with governments' social and economic goals.

Third, many investors' most common products are inappropriate for the agribusinesses they are targeting. Roughly half of the Delphi respondents emphasized the need for investors to adopt different approaches, such as working with smaller firms with deal sizes in the \$100,000-to-\$1 million range; taking a long-term perspective so that these firms can go large enough to be attractive to investors with larger minimums; jettisoning the idea of a five-year exit plan, learning more about the widely different circumstances of

⁷ The 0.092% number is \$10,680,000,000 per year of investment in African agriculture and food. A 1% increase of total assets under management would amount to \$120,000,000,000, or roughly a 12-fold increase compared to \$10,680,000,000.

African agri-SMEs; developing more innovative products that can attract their interest; and utilizing available mechanisms for blended finance and de-risking. There may increasingly be promising opportunities arising from regenerative, climate-smart and resilient agriculture, renewable energy and farm modernization for more tech-savvy youth in rural areas that venture capital and responsible investors are seeking to target.

The fourth conclusion is the importance of scale: While the geo-strategic need to feed a planet of 10 billion people is an investment proposition, it will mostly likely be necessary to re-organize smallholders into alternative commercial and economic structures that can act as catalysts for those investment flows. We have considered some capital-raising mechanisms within this study and we conclude that holding company models, in which smallholders have a financial interest through equity, can harness and aggregate investment capital, which then flows down to smallholders. The success of some palm oil companies in Southeast Asia, including Felda, demonstrates that models do exist for a parent company to disburse capital to large groups of smallholders. Other examples include the Wood Foundation's efforts in the Rwandan tea industry to engage smallholders as investor-shareholders in enterprises that have global offtakers such as Unilever as buyers.

Fifth, diversified enterprises can reduce risk. Agricultural commodities tend to exhibit substantial great deal of price volatility and risk, owing to the seasonal, weather-dependent aspects of farm products and long distances between international ports and inland markets. In some African countries, food price risks are exacerbated by unpredictable marketing and trade policies. Outside a few countries, including Russia, Ukraine, Brazil, Malaysia and Indonesia, high market risks has prevented the development of a deep pool of sophisticated capital prepared to invest in primary producers. One consequence is that capital-intensive primary agriculture has remained fragmented while the investment opportunities have taken place further along the value chain. Vertical and horizontal integration strategies have to be considered if a pool of equity capital – or another form of capital – is to be established for smallholders. The relatively sophisticated co-operative models of the European and North American dairy industries could be adapted to developing countries. Vertical and horizontal food value chains, the well-known farm-to-fork strategy, are more common in developing markets such as Brazil and Russia. In these countries, economic uncertainty and structural reform from the 1980s onwards have driven greater integration – a contrast with many developed markets, where specialisation along parts of the value chain is more common.

Sixth, parallel strategies are not mutually exclusive. Brazil's successful agribusiness sector over the past 20 years is often seen as a template for agribusiness investment in other developing countries. (See Annex.) While there is acknowledgement that Brazil's success holds many lessons for developing-country peers, it is worth highlighting that it almost runs parallel strategies. One is a large-scale and efficient international corporate agriculture sector with operations that span an assortment of value chains. This sector is commercial and driven by the dictates of the markets; it represents 1% of the country's farms but 44% of the country's farmed area. Simultaneously, the Brazilian government runs a strategy focused on hunger alleviation, nutrition and resettlement of small-scale farm families, as well as many rural development and social programmes that target the rural poor. An either-or approach that focuses on large-scale agribusiness or smallholders has economic ramifications if one is ignored at the expense of the other. Brazil highlights the potential for a model that supports both approaches simultaneously. At the same time, however, it seems important that solutions are country owned/driven, taking account of

specific circumstances including history, and to recognize the huge potential of small-scale producers in local/regional markets contributing to jobs and incomes for the rural population and for disadvantaged groups (women, youth, and indigenous people).

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Annex: Alternative international models of co-ordinating SME agribusiness investment in value chain development

1. The Investment Support Facility (ISF) model

As part of a broader strategy to help diversify Malawi's economy away from its current dependence on tobacco, the Agricultural Transformation Initiative launched the Investment Support Facility (ISF) for Smallholder-Inclusive Transactions for Malawi in 2019 to unlock capital for agricultural and economic diversification. Over three years, the ISF seeks to facilitate the identification, packaging and closure of a diversity of debt, equity and blended finance transactions, while supporting the development of inclusive business models that integrate smallholder farmers and micro/small enterprises (MSEs).

The ISF focuses on agricultural diversification away from tobacco, as well as broader transformation of Malawi's economy into one that is competitive, efficient and growing. As such, the ISF has adopted a value chain approach to driving investment. The ISF considers transactions anywhere along a given value chain, including not only production but also processing, transport, logistics, cold chain storage and beyond, as well as adjacent sectors such as eco-tourism.

The ISF considers supporting transactions that: (i) include no direct investment in any aspect of tobacco (ii) are a minimum value of \$500,000 (iii) are commercially oriented and commercially viable; and (iv) have a positive impact on smallholder farmers or MSEs. The ISF forges relationships, builds connections and leverages existing networks to drive investment. Actors the ISF works with include:

- Investors such as commercial banks, development finance institutions, impact and private equity investors, firms or other entities looking to invest in Malawi
- Transaction advisory service providers. These service providers facilitate transactions from inception to closure for client investees or investors
- Investee Malawian firms seeking finance/investment for business expansion or improvement

The two main targets of the \$3.9 million fund are: (i) mobilize \$75 million of capital into supported projects; and (ii) reach 25,000 smallholders/MSEs. ISF transactions are originated either by the ISF, through its direct relationships with investors or investees, or by transaction advisory service providers, through their direct relationships with investors or investees. At the origination stage (pre-approval), each transaction is measured against ISF's eligibility criteria for approval to move on to the next stage. Transaction advisory service providers are contracted by the ISF and by the client (whether investor or investee) to provide transaction advisory services to move the specific transaction to close. The ISF contributes to the overall fee for transaction advisory services and provides quality assurance and oversight, simultaneously moving transactions that have the potential for transformational impact and supporting the market development for transaction advisory services in Malawi.

2. Chinese capital markets: How developing markets can create conduits to capital

Ultimately, the challenge for investment in the agriculture sector in developing markets is how best to create a conduit for capital.

China's progress over the past four decades provides a template of how best to create conduits to capital at different stages of the development cycle. A key difference between China and Africa is that, relatively speaking, the agribusiness sector has not featured heavily as a definable asset class in China's capital market development, in contrast to its industrial and commercial sectors.

This is not to suggest that China lacks agribusiness investments – quite the reverse. However, these enterprises have featured less prominently than their industrial and commercial peers as China's capital markets have developed.

There are, however, broad lessons that can be learned from the development process and which can be applied to agricultural investment opportunities in other developing countries.

China's liberalization process began in 1978, with the ascension to power of Deng Xiaoping. In the absence of domestic capital markets, China's early investment focus was on FDI and joint ventures. The establishment of special economic zones (SEZs) and, particularly, their location, was a crucial feature of Chinese development. This is an issue to which we shall return.

The development of the SEZs was reinforced with the opening of two stock exchanges in Shanghai and Shenzhen in November and December 1990. Shares on both these exchanges were split into two classes: RMB-denominated A-shares, which were reserved for domestic citizens in China; and B-shares, which were denominated in \$ (Shanghai) and HK\$ (Shenzhen). Broadly, the A-share market was seen as a way to lure China's excess RMB savings into capital markets, while B-share markets sought foreign investors.

Each exchange was built upon the cluster of development that had arisen in the SEZs and the growing industrial base of the Pearl River Delta, which attracted industrial manufacturing entities from neighbouring Hong Kong.

In the early 1990s, Chinese companies seeking foreign capital would look to the B-share market as the only means to raise capital. However, like many agribusinesses in Africa today, these businesses were fragmented and lacked the skills – managerial, technical, governance – that would allow them to flourish as sustainable entrepreneurial enterprises.

Consider this issue of fragmentation. In 1993, Shanghai Industrial Sewing Machine tapped the B-share market on the Shanghai Stock Exchange for approximately \$30 million for a hastily cobbled together enterprise which four months prior to its capital raising consisted of six separate companies which comprised 18 factories in Shanghai alone. All of this was conducted in an industry already riddled with over-capacity.

Many dozens of these enterprises sought to raise capital. As the chart below demonstrates, China managed to access some \$1.1 billion on international capital markets in 1993. This almost doubled the following year to \$2.2 billion but subsequently collapsed in 1995 and 1996. This approach of taking fragmented, underperforming, barely restructured assets and

raising capital for them indicated that, while there might be a pool of capital available to invest in Chinese assets, the assets themselves were inadequate vehicles for that purpose.

The A-/B-share markets were forerunners to two new classes of vehicles: H-shares and Red Chips. These vehicles were mainly, although not exclusively, owned by arms of the state or part of the provincial governments' asset bases.

These two vehicles differed in one key respect: H-shares were Chinese enterprises incorporated in China, while their assets were listed on the Hong Kong Stock Exchange (HKSE). Red Chips were incorporated in both Hong Kong and listed in China, with assets in Hong Kong.

H-shares	Red Chips
Incorporated under the laws of China	Incorporated under the laws of Hong Kong
Listed on HKSE	Listed on HKSE
Assets in China	Assets in Hong Kong and China
Owned by mainland Chinese parent company	Owned by mainland Chinese parent company

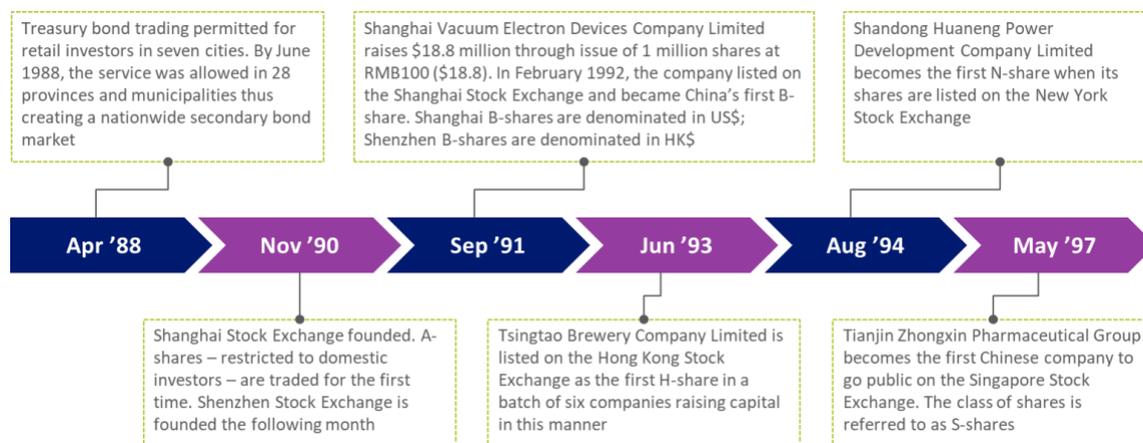
The use of these two models was instrumental in reshaping Chinese capital markets in the 1990s. We aim to demonstrate how these models could be reshaped into an African model and reconstituted for the agribusiness sector.

In their legal corporate form, H-shares and Red Chips followed slightly different paths but both ended at the same destination, as Chinese-controlled entities capable of raising external capital for their operations. In the case of Red Chips, the mainland Chinese entity would acquire a shell listing in Hong Kong, into which it would inject assets or acquire assets in mainland China. H-shares were assets listed directly on the HKSE.

Over time, as the HKSE became increasingly dominated by Chinese-controlled enterprises, these original distinctions were eroded. The use of alternative capital markets to Hong Kong also resulted in two subsets of equity: N-shares represented enterprises listed directly on the New York Stock Exchange, while S-shares represented those mainland Chinese entities listed on the Singapore Stock Exchange. N-shares and S-shares, however, share all the hallmarks of H-shares and can be classified under the latter banner. What is worth highlighting is how these entities accelerated capital raising for Chinese enterprises by the mid-1990s, and how these techniques could be adapted for African agribusinesses.

The first listing of an H-share took place in June 1993 with the IPO of Tsingtao Brewery, which was one of a batch of six companies listed on the HKSE. The first N-share IPO took place in August 1994, with the listing of Shandong Huaneng Power Development on the New York Stock Exchange, but it was almost another three years – May 1997 – before Tianjin Zhongxin Pharmaceutical Group became the first Chinese enterprise to be listed on the Singapore Stock Exchange.

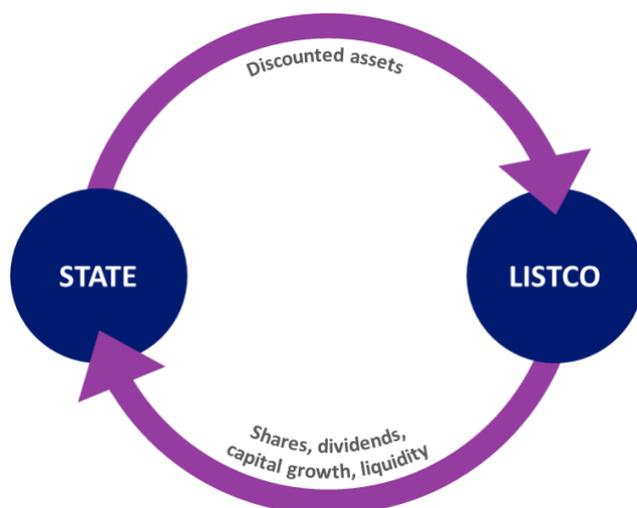
Opening up to the outside world – China’s capital markets timeline



Source: *The China Securities Regulatory Commission (CSRC), The Stock Exchange of Hong Kong (HKSE), company annual reports*

In 1997, the direct listings of Chinese enterprises on the HKSE nearly quadrupled to \$4.7 billion, a doubling of the previous peak in 1994. Overwhelmingly, these were in the form of conventional H-shares and represented a broad range of industrial and commercial businesses. The key to their popularity as an investment class is worthy of more detailed investigation.

Asset injections and how they work



Source: *Ferguson Cardo Ltd*

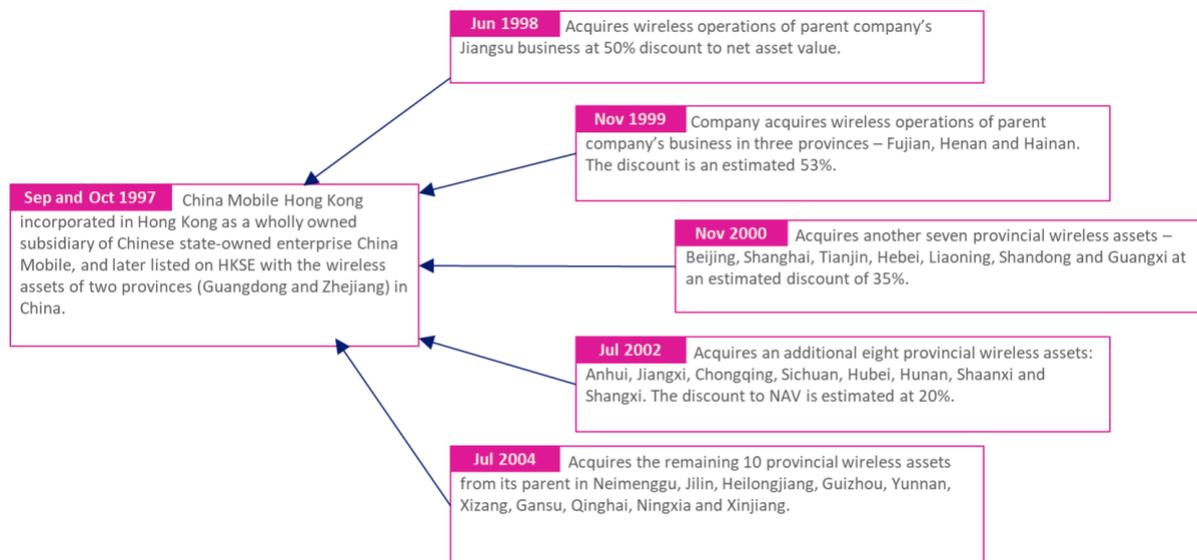
A new feature transformed the China/Hong Kong investment landscape in 1997: the use of “asset injections”. The investment thesis is highlighted in the graphic above. The state takes a range of illiquid and undercapitalized assets and restructures them into a corporate form. This new company and its deeply discounted assets are then listed on the HKSE. The connectedness and proximity of the company to growth opportunities in mainland China has been, historically, a positive investment case. However, the added investment attraction is that the assets have been injected at a discount to their stock valuation (or perceived investment potential). This is reflected in the share price. Meanwhile, the parent company of these assets remains a major shareholder within the enterprise and is the beneficiary of dividends, capital growth and liquidity.

In summary, a virtuous circle of investment is created. The illiquid assets become liquid and the ability to inject discounted assets into the listed entity drives up the stock price.

Consider two practical case studies, both of them from 1997. The first is China Mobile Hong Kong (CMHK), which was incorporated in September 1997 in Hong Kong as a wholly-owned subsidiary of the Chinese state-owned enterprise China Mobile. Two wireless assets based in Guangdong and Zhejiang provinces were injected into this Hong Kong-based business. The following month, October 1997, CMHK was listed on the HKSE in a fundraising which raised \$4.2 billion.

Eight months later, a new wireless asset – this time based in Jiangsu province – was injected into the listed vehicle. This process continued with four additional fundraisings and asset injections until the final stage in July 2004, when the last 10 remaining wireless licenses were injected into CMHK.

Case study 1: China Mobile



Source: Company annual reports, SEC filings

A factor worth noting about the CMHK case study is the deep discounts at which the state-owned wireless assets were injected into the listed vehicle. These ranged from 20% in the July 2002 fundraising for the penultimate eight wireless assets to 53% for the three assets acquired in the November 1999 fundraising.

Despite these deep discounts, CMHK was able to raise additional capital from investors based on a combination of growth prospects and the discounts relative to the prevailing share price offered. Crucially, however, the parent company – in effect, the Chinese government – was able to maintain a consistent 75% equity stake in the company over each of the subsequent fundraising rounds.

This model cut across industries and commercial sectors and eventually became a fundraising vehicle for many of China's 31 provinces and autonomous cities.

Another prominent vehicle was the 1997 listing of Beijing Enterprises, which followed the 1992 listing of Guangzhou Investment. Shanghai Industrial also listed in 1997 and mirrored the corporate and financial experience of Beijing Enterprises, but we will focus on the latter for this case study.

Beijing Enterprises represented a variety of assets owned by the municipality of Beijing, one of four self-governing cities within China (Shanghai, Tianjin and Chongqing are the other three). These assets ranged from consumer businesses, such as Yanjing Brewery, Sanyuan Foods and Style Foods, to tourism and retail businesses, including Wangfujing Department Store, Jianguo Hotel and Badaling Tourism, and other assets including the Beijing Airport Expressway and Beijing International Switching System, a telecoms joint venture with Germany's Siemens.

Case study 2: Beijing Enterprises

<p>Yanjing Brewery was the largest beer producer in the PRC in terms of both production volume and sales in 1996. It had an 85% market share in Beijing.</p>	<p>Sanyuan Foods produced a wide range of dairy products. Its plastic-bagged milk had a 90% market share in Beijing. It also owned a 50% share of McDonalds in Beijing.</p>	<p>Style Foods consisted of two units: one produced high-quality Western-style processed meat and seafood products while Xinjing Food was a meat processing company.</p>	<p>Beijing Airport Expressway managed a toll road that connected the Capital Airport and central Beijing.</p>
<p>Badaling Tourism owned and operated the exclusive franchise to collect entrance fees and operate tourism services at the Badaling Great Wall.</p>	<p>Wangfujing Department Store was a Beijing-based retailer and one of the most profitable department stores in the three years before Beijing Enterprises was listed. It was also in the process of expanding across China.</p>	<p>Jianguo Hotel was the first Sino-foreign hotel in Beijing, which had an occupancy rate of 80% in the decade before the parent company was listed.</p>	<p>Beijing International Switching System was a JV with Siemens of Germany, which produced EWSD digital switching systems for public telephone networks. It was the second-largest producer of programmable switching systems in China.</p>

Source: Company annual report

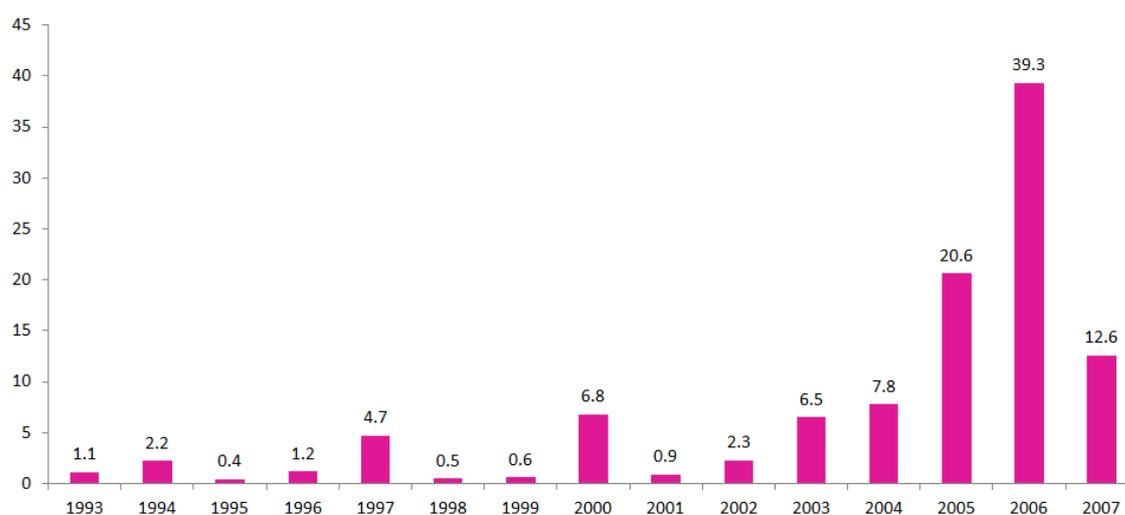
A key feature of the Red Chip capital-raising experience was ensuring a balance between income-generating assets and capital-intensive businesses. In the case of CMHK – and its other peers in telecoms, oil and gas and finance – the growth prospects of these businesses could be valued against international peers and their earnings visibility could be years into the future.

For diversified enterprises, such as Beijing Enterprises, Shanghai Industrial and others, it was important to have several assets which could drive profitability in the short to medium term. Hence the use of residential and commercial property assets as well as hotels and local utilities as a means to provide earnings streams in the early years of growth. The inclusion of a brewery, a hotel, a toll road, food businesses and retail businesses within the original range of listed assets of Beijing Enterprises indicated the extent to which income-generating assets played a role in the early Red Chips. The capital-intensive telecoms joint venture with Siemens played on longer-term growth prospects where capital expenditure in the early years was high while corresponding earnings visibility was low.

With regards to the capital-intensive businesses, the importance of business plans and a strategy for development of its assets were crucial if the enterprise was to flourish as a publicly traded company. This meant that plans had to be published which would indicate which state-owned assets might be injected into the listed vehicle in the years ahead. For the likes of a China Mobile, the intention was to acquire wireless assets, so the intention did not require too much explanation. In the case of these new diversified enterprises, such as Beijing Enterprises, detailed plans were published as part of the IPO prospectus as to how the IPO proceeds would be deployed among its various business units. This is normal for any IPO and should not be seen as a unique feature of Chinese Red Chip capital raisings.

In addition, the Red Chips were often beneficiaries of favourable tax treatment in the run-up to their capital raisings. In the case of Beijing Enterprises, it was entitled to refunds of state and local income taxes paid by its principal subsidiaries and associate companies in excess of 15% of their taxable income. Specifically, Yangjing Brewery, Sanyuan Food and Capital Expressway were exempted from state income taxes in 1997 and 1998, and from local taxes between 1997 and 2001. In addition, these three subsidiaries were permitted a 50% reduction on the 24% state income tax for three years from 1999 to 2002, and a 50% reduction from the 3% local income tax rate from 2002.

Funds raised by Chinese companies via overseas listings (\$ billion)



Source: HKMA, HKSE

This raft of fiscal incentives was crucial to the underlying success of the investment. Overall, the results of these adapted models were positive. In 1995 and 1996, Chinese overseas equity capital raisings amounted to a paltry \$1.6 billion, less than the \$2.2 billion raised in 1994. However, in 1997, when Beijing Enterprises and Shanghai Industrial were listed on the HKSE, overseas capital raisings rose almost fourfold, to \$4.8 billion.

Two terrible years followed the success of 1997, as a result of the Asian Financial Crisis and its aftermath. However, in 2000, the acquisition of more unlisted China Mobile assets and the IPO of a second carrier, China Unicom, saw \$6.8 billion raised.

With the collapse of the dotcom boom and the September 11th attacks on the US in 2001, capital raisings generally were muted, and Chinese overseas listings were not exempt from this downturn. However, in 2003, the market accelerated dramatically as China raised capital for a raft of state-owned companies, including oil and gas giants Sinopec, CNOOC and PetroChina, and a number of state-owned banks. In 2006, capital raised amounted to almost \$40 billion of equity. This year alone represented almost 40% of the amount of overseas equity raised since 1993.

However, funds raised by these enterprises is not the only critical measure of their success. Investor demand is also a crucial feature of the capital raisings. Note the table below, which highlights the IPO subscription data of key Red Chips. Demand for equity far outstripped the supply of candidates available. In 1997, the IPO of Beijing Enterprises was oversubscribed 1,276 times, to the extent that the Hong Kong Monetary Authority had to put special measures in place to ensure that the Special Autonomous Region's banking system continued to function while its money supply was wrapped up in subscription applications.

IPO subscription data of key Red Chips

Company	Sector	Base	Listed	No. of times oversubscribed
China Resources	Office property	Beijing	1992	125
China Overseas land	Property	Beijing	1992	99
China Travel HK	Theme parks	Beijing	1993	412
Guangnan Holdings	Food distribution	Guangzhou	1994	51
Guangzhou Investment	Conglomerate	Guangzhou	1992	230
GZI Transport	Toll roads	Guangzhou	1997	528
Ng Fung Hong	Food distribution	Beijing	1995	110
Shanghai Industrial	Conglomerate	Shanghai	1997	158
Beijing Enterprises	Conglomerate	Beijing	1997	1,276

Source: CMRC, HKMA, HKSE

The lesson here is that an investment frenzy attracts both market participants and other companies looking to raise capital. It is worth emphasizing that the market demand was already *in situ* and “pent-up” in the sense that there was a shortage of candidates available to raise capital.

Consequently, enterprises were created. CMHK did not exist as an enterprise two months prior to its first fundraising in September 1997. Similarly, this was the case with Beijing Enterprises and its other municipal and provincial peers. Consider how the raft of oil and gas enterprises which came to market in the early years of the 2000s were tied into market conditions at that time. In short, the sharply accelerating oil price made oil and gas assets more attractive to investors. Meanwhile, the great credit expansion that preceded the 2008 financial crisis provided capital raising opportunities for a number of large Chinese financial institutions.

What lessons can Africa learn from the Chinese model?

The commercial and economic history of China’s capital market development might seem to bear no relation to African agricultural development. However, we see a number of lessons for economic development in Africa.

- 1. Scale is important.** The ability of Chinese enterprises to raise capital improved significantly once the small fragmented capital raisings in Shenzhen and Shanghai were superseded by larger transactions on the HKSE. The aggregation of capital in a holding company vehicle does not mean that smaller business units remain unfunded. Note the Beijing Enterprises case study: the company ran a range of businesses into which funds were invested. Can smallholders be re-organized into business structures which can aggregate capital and disburse funds across the smallholder base?
- 2. Re-organizing the asset class is important.** International investment requires comparables for valuation purposes. The asset class of primary agricultural producers is mostly limited to companies operating in Russia, Ukraine, Brazil, Malaysia and Indonesia. Consider Felda, a Malaysian palm oil producer with substantial smallholder operations. The access to capital comes from Felda, the parent company, rather than going direct to the smallholders themselves.
- 3. The state can play a role.** The Chinese state – for good or bad – plays a continuing key role in its overseas listings. Note how, through the asset injection model, the state can use its own asset base to maintain key or controlling interests in these enterprises. This can mean an alignment of the commercial and financial interests of investors and the government with the latter’s social and economic goals.
- 4. The use of overseas exchanges can play a role.** China’s proximity to Hong Kong, with its rule of law, strong governance practices and deep capital market capabilities provided a platform for Chinese companies to raise capital. London, Johannesburg and Mauritius are three locations which can fulfil a similar role for African agricultural enterprises to raise capital.

5. **Diversified enterprises can reduce risk.** The cyclical nature of agricultural commodities has, outside of the few countries noted above, prevented the development of a deep pool of sophisticated capital prepared to invest in primary producers. One outcome of this situation is that capital-intensive primary agriculture has remained fragmented while the investment opportunities have taken place further along the value chain. Vertical and horizontal integration strategies have to be considered if a pool of equity capital for smallholders is to be established.
6. **The private equity model is too short-term.** Private equity only has a three- to five-year time horizon before investors seek to exit their investment. A small company in a developing country cannot operate on such short time frames. The absence of permanent (“evergreen”) companies is an issue which has to be overcome if the cyclical agricultural market is to attract sufficient capital and liquidity.

This last issue is worth some additional investigation. An equity investor will consider two overall landscapes before investing: the macro landscape and the company’s position within its industry. With regards to the macro landscape, the investing terms will be based on the effectiveness of the rule of law, the ability to write enforceable contracts, the independence of the judiciary, the effectiveness of the monetary and exchange rate regimes, fiscal discipline, track record and so on. The availability of capital will decline as these conditions worsen and the expected return, i.e., the cost of capital, will increase accordingly.

For companies within the local landscape, a private equity investor will be looking for the following characteristics (many of which are not evident in the fragmented agribusiness sector):

A leading market position and long-term competitive advantages. Are there high barriers to entry? Is the firm an industry leader? Are customer relationships strong? While there will be market leaders with long-term competitive advantages, they tend to be concentrated further along the value chain than primary producers. Primary producers remain fragmented and incapable of attracting private equity investment.

Different avenues of growth. A single line of business carries additional risks for an investor. Are there multiple revenue streams or product lines? In the case of agriculture, it is unlikely that smallholders can offer multiple business lines. At most, they will do two to three core crops, all of which will be, most likely, highly correlated.

Stable, recurring cash flows. Volatility in cashflows is an unattractive feature for private equity investors. Even businesses with high operational leverage and lengthy lead-in times towards profitability are more attractive investment propositions than those which display inconsistent cashflows. Again, primary production is highly cyclical and therefore tends not to provide the stable, recurring cash flows required by private equity investors. The recurring nature of cash flows among processing and consumer-packaged goods companies confirms why private capital will aggregate further along the value chain, beyond primary production.

Low capital expenditure requirements. A low capex requirement means more flexibility in terms of options open to management with regard to returns to shareholders, earnings visibility, acquisition strategy, investment strategies and so on. This characteristic can be complex, almost a paradox. Smallholder agriculture is, almost by definition, a non-capital-intensive business but only because land is overwhelmingly inherited. Moreover, what detracts from agriculture as an asset class is the absence of capital intensity.

Positive industry outlook. Are growth prospects strong? Is there a risk of technological obsolescence? Is regulatory and environmental oversight likely to accelerate? Will consumer habits change? The cyclical nature of primary agriculture means that growth patterns can be erratic. Lengthy downturns in crop prices can be the norm.

Control. An equity investor usually looks to take or control through in initial investment or, more likely, through a series of investments where the owner-managers are diluted. This sits in sharp contrast to the need for smallholders to control their own land.

Track record. What is the company's track record across its operations and finances? This type of information is rarely available in the case of smallholders.

Strong management team. The key to everything. Does the management team have strong track records? The fundamental lack of management capacity among smallholder farmers indicates the challenge of building strong management teams.

Exit routes. Private equity investors will always seek an exit route, whether by selling their stake to management, an external acquirer or public sale. A smallholder farmer will seek to maintain control of a land asset. In the case where formal title is collective or uncertain, this would prevent investment because of the absence of a potential exit route.

These remain the key focus areas for a private equity investor and they cut across all industries. Therefore, when addressing the availability of equity funding for agribusiness enterprises, we also have to address what exactly constitutes a small or medium-sized agribusiness. Thus, a smallholder farm is likely to fail on most of the above characteristics. An equity investor will invest in an online retailer but is unlikely to do the same with a corner shop. In agribusiness terms, an equity investor is likely to consider a vehicle that offers scale and satisfies the other investment criteria outlined above. This does not apply to smallholders unless there is scope for possible aggregation driven by entrepreneurship.

This would indicate that there might be two ways smallholders can attract external equity capital: either via consolidated ventures which include additional parts of the value chain beyond primary production, or an aggregation of primary producers/smallholders into alternative investment structures which are attractive to partners and equity investors.

3. The Brazil/EMBRAPA experience

The transformation of Brazil's agriculture system can be attributed to a number of factors, some of which are relevant to the promotion of private agribusiness investment in Brazilian commodity value chains.

However, what is worth emphasizing about this transformation is that the role of the private sector, which came to the fore in the 1990s, was underpinned by decades of government planning, wide-ranging – and difficult – land reforms, a dedicated focus on science and technology, accompanied by strategic decisions shaped by internal demands and external forces. In short, the platform which allowed private sector enterprises to flourish over the past two decades was driven by strong and adaptable policymaking and shrewd but difficult strategic decisions taken by governments in the four preceding decades.

The original policies which drove agricultural strategy began as far back as the 1930s under the Vargas administration. Even in that era of growing urbanization, the alleviation of hunger and malnutrition, and the need for foreign exchange earnings, shaped policymaking. These

overarching needs drove a need to open up new sources of supply, most prominently the sparsely populated savannahs of the Mato Grosso region.

The government's early food subsidy programmes endured from the 1930s until the 1960s. The role of government changed in this decade, but it continued to play an important role in shaping Brazil's agricultural sector. Government incentives for agricultural producers were wide-ranging and contributed significantly to growth in the sector. These included preferential credit, tax exemptions, financing for agricultural research, marketing and infrastructure improvements, as well as an array of Federal, State, and local subsidies.

The widening of agricultural activity across the Mato Grosso region had an obvious impact on overall output. This step-change in supply also favoured large-scale mechanization and helped to create a new class of large-scale farmer whose activities would stretch across hundreds of thousands of hectares. It should be emphasized that this was not a fair and equitable process. The emergence of large-scale operations across this part of Brazil, with all its attendant efficiencies and economic gains, was made at the expense of indigenous populations – and many migrants too.

If the rise of agriculture on the Mato Grosso drove overall output, it was the establishment in 1973 of a broad-based research body focused on agricultural science and development called EMBRAPA (*Empresa Brasileira de Pesquisa Agropecuária*), which drove productivity. From its inception, EMBRAPA became the hallmark for the deployment of the most advanced technologies in tropical agriculture, including nitrogen fixation, multiple varieties of soybeans, no-till farming and new livestock breeding methods. A notable feature of EMBRAPA was the decision to develop its human capital by sending 1,200 scientists to the US and Europe to do masters degrees and PhDs in the 1970s.

The protectionist nature of Brazilian agriculture, with its high tariffs and quotas, also promoted the development of a domestic sugar-to-ethanol industry on the back of the OPEC oil crisis in 1973. The availability of cane-growing areas and a government desire to reduce its growing needs for oil imports in a rapidly industrializing country helped the development of a new commodity value chain in Brazil.

However, in the 1980s, the effectiveness of agricultural credit in expanding output began to weaken, with a series of debt crises beginning in 1982. Consequently, the rural credit system was increasingly regarded as wasteful and distorted. In the second half of the 1980s the incentives and subsidies of credit policies were replaced with those provided by the minimum price policy. The minimum price policy, together with the currency devaluations of the 1980s, brought about a considerable expansion and diversification of agricultural exports.

Although this response to the fiscal crises of the 1980s proved to be necessary, they were not sufficient. The early-1990s witnessed the elimination of export taxes and price controls, deregulation and liberalization of commodity markets, with the abolition of sugar, wheat and coffee marketing boards, the unilateral reduction of trade barriers, the sale of some agricultural assets, the removal of minimum price supports, the termination of government purchases of beef and milk, and the introduction of private instruments for agricultural financing.

The years of preferential treatment for farmers which had given rise to a new commercial class across areas like the Mato Grosso meant that the private sector was now, at once, forced to seek new markets in the absence of government-sponsored programmes and funding, but was able to take advantage of newly competitive exchange rates.

This need to diversify from previously protected domestic markets into international markets was also shaped by the need for the agriculture sector to earn foreign exchange earnings. Throughout the 1990s this strategy paid off as Brazil's agriculture sector delivered \$10–15 billion of surpluses per annum throughout the 1990s, during a period when overall deficits were the norm. This export-driven boost was accelerated by another devaluation in 1998. By 2007, Brazil became the leading global producer and exporter of sugar, ethanol, coffee, orange juice and tobacco, and was well on the way to achieving dominant positions in beef, poultry and soybeans. Overall, exports rose fourfold between 1990 and 2007.

All of this was done with little government support. Public expenditure on the agricultural sector accounted for only 1.5% of total government expenditure in the period between 2003 and 2005, compared to 5.9% in the period between 1985 and 1989.

One paradox remains, however: what has been good for the industrial farmer – a background of wide-ranging government support followed by international export opportunities – has not necessarily been experienced by smaller-scale farmers. Worth highlighting in this regard is the fact that the policymaking frameworks based on hunger and nutrition in the 1930s have continued to play a part in more recent policymaking. In 2003 the government launched the Zero Hunger Programme, and in 2011 followed this with the Brazil Without Extreme Poverty Plan of 2011. Both these plans reflected the fact that the development of an agricultural superpower had possibly come at the cost of domestic and individual food security, and small-scale farmers.

This shift had already been heralded by the introduction of significant policy changes in the mid-1990s, which diverted the priority from export-led growth towards land reform and family farming. The government created a new ministry, the Ministry of Agrarian Development, to run programmes targeted at these areas. It also adopted policies targeted at family agriculture (known as PRONAF), including subsidized credit lines, capacity building, research, and extension services. Federal government expenditure on land reform increased from 6% of total farm programme spending during the Sarney administration (1985–1989) to 45% during the first Lula administration (2003–2005). The number of agriculture-related programmes increased from 30 before 2000 to 100 in 2003.

Thus the process of resettlement of smaller-scale farmers continued apace as Brazil underwent an export-driven phase led by large-scale farmers. Between 2003 and 2009, some 600,000 families were re-settled on 48 million hectares of land under “free-of-charge” settlement. Under this policy, established and newly-settled small-scale producers received substantial concessions and benefited from a range of other rural development and social programmes targeted at the rural poor.

At the heart of this transformation is the fact that Brazil would seem to have run parallel strategies over the past 20 years: on the one hand is a highly efficient international corporate agriculture sector with operations spanning an assortment of value chains. This sector is the one which exported a record 16 million tonnes of soybeans and soymeal in April 2020 alone. This sector accounts for 1% of Brazil's farms by number but 44% of farmland by area. On the other hand, by 2006, the year before the boom in soft commodity prices, the Brazil Agricultural Census revealed that 44% of the farms by number accounted for only 5% of the farmland by area.

This conflict highlights how external economic forces and well-considered policymaking can provide the incentives for the private sector to invest but these are not enough to address fundamental structural imbalances and systemic inequalities that exist elsewhere in the

agricultural economy. A combination of two policymaking approaches would appear to have served the needs of Brazil well.

A brief history of the Brazilian agriculture sector

	1965 – 1985	1985 – 1995	1995 – 2005	Proposed agenda
Macroeconomic conditions and policy	<ul style="list-style-type: none"> • High inflation • Controlled exchange rates • High growth rates • Increased government expenditures in farm policy 	<ul style="list-style-type: none"> • Uncontrolled inflation and low growth • Debt crisis • Lower government expenditure on farm policy 	<ul style="list-style-type: none"> • Control of inflation • Volatile exchange rates • High real interest rates • Modest growth rates • Privatization 	<ul style="list-style-type: none"> • Low inflation • Structural reforms and fiscal balance • Less volatile exchange rate • Lower interest rates • Sustained growth • Investment in infrastructure
Agricultural policy goals	<ul style="list-style-type: none"> • Food security 	<ul style="list-style-type: none"> • Deregulation • Liberalization 	<ul style="list-style-type: none"> • Land reform programmes • Family farming and social inclusion 	<ul style="list-style-type: none"> • Competitiveness • Sustainability (economic and environmental)
Price support and government storage	<ul style="list-style-type: none"> • Massive intervention – public agencies, government purchases and storage, price controls • Commodity price support 	<ul style="list-style-type: none"> • Lower intervention • Agricultural commodity market deregulation 	<ul style="list-style-type: none"> • Modest and selective intervention 	<ul style="list-style-type: none"> • Modest and selective intervention
Rural credit	<ul style="list-style-type: none"> • Government supply of credit financed by treasury • Negative real interest rates 	<ul style="list-style-type: none"> • Decreased government supply of credit • Interest rates less subsidized 	<ul style="list-style-type: none"> • Credit lines targeted to family farms (PRONAF) • Specific programmes for investment credit (BNDES) • Agricultural credit crisis and debt rescheduling 	<ul style="list-style-type: none"> • Crop insurance • Private instruments for agricultural finance • Targeted credit lines to family farms • Credit co-operative development

Agricultural trade policy	<ul style="list-style-type: none"> • Closed economy • High tariffs • Import substitution model • Export taxes on primary commodities 	<ul style="list-style-type: none"> • Unilateral openness to trade • International integration (MERCOSUR) • Elimination of export taxes 	<ul style="list-style-type: none"> • Aggressive policy against agricultural trade barriers • WTO dispute panels • Leadership in G20 • Negotiation of regional agreements (FTAA, EU-MERCOSUR) 	<ul style="list-style-type: none"> • Aggressive trade policies – negotiations etc • Increased emphasis on non-tariff barriers – technical, sanitary and social barriers • Conclusion of regional and bilateral trade agreements
Agricultural research and extension	<ul style="list-style-type: none"> • High investment in public research (EMBRAPA) • Development of public extension service network 	<ul style="list-style-type: none"> • Levelling-off of public investment 	<ul style="list-style-type: none"> • Crisis of public research and extension services 	<ul style="list-style-type: none"> • Renewed public commitment to agricultural R&D, including genetically modified organisms • Increased role of public–private partnerships • Intellectual property rights
<i>Social policies (family farms and land reform)</i>	<ul style="list-style-type: none"> • Minimal 	<ul style="list-style-type: none"> • Initial stage (Extraordinary Ministry of Land Reform) 	<ul style="list-style-type: none"> • Ministry of Agrarian Development • Distributive programmes – land reform, “Bolsa Família”, rural retirement, PRONAF 	<ul style="list-style-type: none"> • Policy evaluation and monitoring • Retarget programmes to different types of family farms • Farm co-operative development and modernization

Source: American Agricultural Economics Association

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