



# Agriculture as an asset class: reshaping the South African farming sector

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**Abstract** According to portfolio managers, agriculture in general, and farmland in particular, can be considered an emerging asset class. Specialized financial vehicles, such as private equity and mutual funds, are emerging and competing to attract potential investment in this asset class. In recent years, there has been significant development of such vehicles targeting South Africa's farming sector. These innovations are led by a group of market intermediaries (e.g. asset managers or consultants) who endeavour to “re-shape” South African farmland as an opportunity for institutional investors. These “pioneers” engage in a multifaceted mediation process between global financial investors on one hand, and the South African agricultural sector on the other. Drawing upon an empirical study of such intermediaries in South Africa, this paper analyses the concrete mechanisms that facilitate this particular form of commodification. The paper presents and compares the intermediaries, giving particular attention to their structure, governance mechanisms and asset allocations within this “market in the making”. It describes how intermediaries develop different paths of asset valorization to unlock the “financial value” of South African farmlands (i.e.

“liquifying”, standardizing, neutralizing, and depoliticizing agriculture as an asset). But, it also highlights some of the difficulties faced in the process of translating between international investors and local managers, questioning the “land-asset fiction” that is materializing through the subordination of farmland to the needs of financial society.

**Keywords** Investment funds · Private equity · Financial intermediaries · Financial asset · Commodification · Farmland · Agriculture · South Africa

## Introduction

According to financial professionals, from institutional investors to “alternative” portfolio managers,<sup>1</sup> agriculture is increasingly understood as an emerging asset class (Chen et al. 2013). The attraction of these assets is based on fundamental<sup>2</sup> and financial analyses by investors which all tend to underline the very same driving factors: strong long-term macroeconomic fundamentals; attractive historical returns on land investment; a mix of current income and capital appreciation; uncorrelated returns with the equities market; and a strong hedge against inflation (HighQuest Partners 2010; InvestAg-Savills 2011). Through the various options to take advantage of these different trends, such as commodity future contracts or public companies' equities related to agriculture (Goldberg et al. 2012), farmland is also recognised as an emerging asset class. Although this interest from financial industries in farmland and farming is

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<sup>1</sup> See, inter alia, “Farmland: Yield-starved investors go back to the land”, Euromoney, January 13, 2014.

<sup>2</sup> Based on macro-economic data (i.e. growing world population, rising incomes in the developing world, etc.).

not totally new—particularly in the United States (Gunnoe 2014)—its spread towards new geographical regions and the involvement of increasingly diversified types of investors, seems to announce a broader evolution within the financial sector and its procedures for capital allocation. Indeed, “the multiple food–energy–climate–finance crisis” (Margulis et al. 2013) opened a window for the promotion of alternative assets, such as farmland.

We define an asset class as anything carrying a value recognized by financial actors. To get such recognition, a particular good, service or activity must be framed to fit in financial market requirements and values. An asset is understood as something that can generate a positive cash flow in the future. It must be liquid (Orléan 1999), and it has to be possible for such assets to be evaluated and compared with others according to standardized benchmarks. Such financial valuations are not natural, but are produced by particular actors or groups of actors in a specific social environment (Vatin 2013).<sup>3</sup>

The promotion of farmlands as alternative assets must be understood as an uncertain process driven by specific entrepreneurs spatially and temporally situated, rather than a natural and ineluctable expansion of the financial realm. Indeed, farmland “brokers” (Bierschenk et al. 2000) play an active role in structuring and mediating demand and supply: They select and frame what farmland offers on one hand, and raise and channel the international and/or national demands on the other hand. In addition, they play a key role by converting and transforming capital and resources from these two different arenas. Through their actions, these intermediaries set up the instruments and cognitive frameworks for this “emergent” asset class (Bessy and Chauvin 2013). Rather than promoting an existing product, they tend to produce a new asset, converting farmland, already framed and considered as a commodity (Li 2012), into a financial asset.

In this paper, we analyze this “assetisation” process specifically in the South African context. Indeed, South Africa, which is both the most developed African economy and a stepping stone to the rest of the continent (Hall 2012), has lately seen a significant development of financial vehicles servicing agriculture, and farmland in particular. Focusing on this emerging sub-financial industry, and specifically the funds or companies’ managers dedicated to farmlands, this paper will analyse the concrete strategies and instruments mobilized to “unlock” the financial value of farmlands.<sup>4</sup> By

<sup>3</sup> These qualities of financial assets are described in further detail in “Investment funds in South African agriculture and agro-industries: the establishment of new financial channels” section of this paper.

<sup>4</sup> In its presentation, an investment fund specialized in South African agriculture states that “The objective remains to not only become the most successful food producer in SA, but almost more importantly, the most valued food producer”.

analysing fund managers’ daily management, their interactions with investors, farmers, workers and government, we aim at understanding the concrete mechanisms of financialisation in the South African farming sector.

Such “assetisation” processes are interesting cases complementing the financialisation debate. The notion of financialisation was diffused during the 2000s to indicate diverse social phenomena, all related to the expansion of the financial markets’ realm (proliferation of financial assets, evolution of shareholding structures in companies, and household debt); this diversity, as such, generates vagueness around this concept (Fine 2012). More recently, several works have focused on the financialisation of agriculture and of agricultural land. These works, embedded in political economy frameworks, cover a set of heterogeneous financial practices, integrated under the financialisation banner: The boom of agricultural future markets (Clapp 2014) and equity shares within agribusiness companies (Burch and Lawrence 2013), as well as the acquisition of farmland by institutional investors (Daniel 2012). These works aim at linking this “sectorial” financialisation process with structural transformations of global capitalism (Fairbairn 2014), particularly through “food regime” assessments (Clapp 2014). In addition, they focus on changes arising from the penetration of “financial capital” into agriculture (Isakson 2014). However, these approaches tend to consider the financialisation process as a homogenous and inevitable process without taking into account the different works, experiences and failures this process undergoes (Ouma 2014). Besides, these approaches minimize or render invisible the role of a plurality of intermediary actors engaged in this process, through the binary opposition between global (finance) and local (agriculture), in particular the actors situated at the margin of the financial and agricultural sectors (Williams 2014).

In line with Ouma’s (2014) writings, this paper mobilizes alternative approaches to analyse the financialisation process, especially the social studies of finance. This sociological approach to ‘financial markets in the making’ is characterized by its diversity of both the theoretical framework and the subject of the study (Godechot 2001). Indeed, some authors analyse how science and technology, especially economics and financial theories, frame and influence the financial market (MacKenzie 2006; Callon et al. 2007). Others mobilize an economic sociology framework in order to study either the “morphology” of financial activities (François 2008), i.e. the relationship between financial actors through different configurations such as networks or communities,<sup>5</sup> or the institutions mobilized during financial activities and daily work.<sup>6</sup> To do

<sup>5</sup> See for instance Godechot (2001), Bessy and Chauvin (2013).

<sup>6</sup> See Chambost (2013), Chiapello (2005).

so, it develops a meso-economic assessment articulating actors' strategies and practices with global transformations of contemporary capitalism. It focuses, on one hand, on the characterization of the different dimensions of the agricultural financialisation process by embedding it within national historical trajectories and long-term land dynamics (Chu 2013). On the other hand, the analysis centres on the daily activities that enable and embody the financialisation of agriculture and agricultural land. This work is based on the mobilization of actors and their specific technical and cognitive devices (Fairbairn 2014; Williams 2014), which guide the allocation of capital into agriculture (Ortiz 2014).

This paper is based on extensive empirical research. Firstly, through participatory observation, we analysed two different investment funds that were specifically set up to buy farms in South Africa. Several weeks of observations were spent with the managing companies of these funds, and were complemented with several interviews conducted with their staff, ranging from financial analysts to the farm managers. Secondly, we conducted interviews with several other investment funds identified in South Africa, as well as with the different actors directly and indirectly related, such as commercial banks, former cooperatives and farmers unions. Through such empirical analysis of these particular "mediators of financialisation" (Pezet and Morales 2010), we attempt to illustrate the innovative strength of the financial industry and its adaptive capacity.

The paper starts with a presentation of two investment funds and their specificities. As will be detailed, these financial products are structured from the interactions between the investor(s) and managers. Subsequently, the paper focuses on the production process of this emerging asset class, distinguishing the leverage strategies implemented to create value from such particular assets, the coding process into a standardized financial idiom, and the neutralization attempts of social "interferences".

### **Investment funds in South African agriculture and agro-industries: the establishment of new financial channels**

Both investment funds analysed, Fund A and Fund B,<sup>7</sup> raise capital on financial markets and channel it toward investment opportunities that they have identified, thus progressively building an "asset portfolio". To better understand these financial vehicles, their similarities as well as their differences, it is important to detail the character and trajectory of both the investors and asset

managers and to understand the relationship and interactions between these two sets of actors.

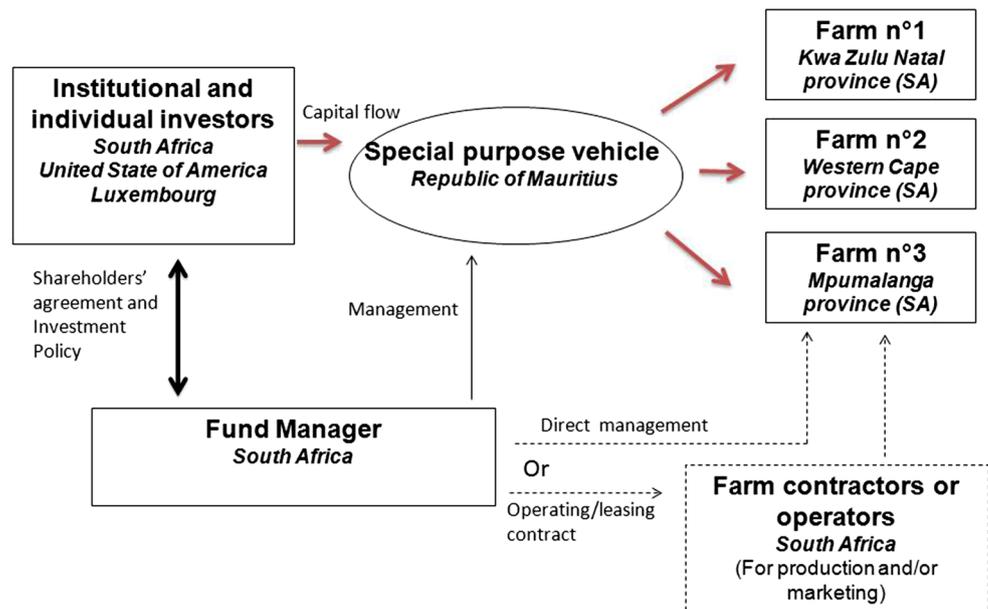
The profile of the investors is important for understanding these funds' capital allocation and governance. Indeed, the source of the capital, mainly related to their liability structures (Aglietta and Rigot 2009), weighs significantly on their investment policy, and thus on their choice and expectations regarding agriculture and farmland. Fund A was set up in 2008 with only one investor, an American endowment fund investing in this vehicle as part of its "natural resources" portfolio, which includes agricultural investments in other countries, as well as logging and renewable energy. In 2013, this natural resource asset class accounted for 13 % of a large and diversified portfolio including equities, bonds, real estate and hedge fund shares. Fund B started in 2010 with two major investors, both South African, i.e. a diversified insurance company and a public pension fund; then other minor individual and institutional investors joined the fund through a mutual fund registered in Luxembourg. Pension funds, endowment funds and insurance companies are all long-term investors looking for stable return investments to reward their subscribers (Aglietta and Rigot 2009). As such, they implement diversification strategies through investments in asset classes that are not correlated with one another (Campbell 2011). In such a framework, South African farms become an attractive investment for investors with diversification strategies.

These investors entrust their capital to a managing company, which is the implementer of the projects. A South African company manages Fund A on behalf of its investor. Initially dedicated to commodity trading, this company progressively became involved in farm management and other agro-industrial assets on behalf of foreign investors. Fund B is managed by a South African company specialized in farmland investments in Africa. They also manage, in parallel, another fund investing in farms and agricultural production in Swaziland and are currently developing an African fund with a similar mandate. Figure 1 illustrates the institutional set-up of such funds.

These companies claim field experience and a deep network in South Africa and its agricultural sector. Through the valorisation of this "indigenous capital", they affirm their essential role as gateway to the country and its agricultural value chains. Therefore, they are at the margin between this indigenous capital on one hand, and "finance capital" on the other hand, occupying a strategic position between "the bush" and the "financial industry". As they handle non-formalized and non-benchmarked assets, these diverse managing entities compete with each other, and with others in and outside South Africa in this design process to sell their specific product and capture investor flows. Related to the firms' path and their staffs' career,

<sup>7</sup> One of the conditions for the authors' direct observation is to preserve the anonymity of the actors engaged in these funds.

**Fig. 1** Institutional set-up of investment funds into agriculture in South Africa



managing companies implement different practices and strategies, mobilizing different instruments and repertoires. Indeed, these backgrounds largely determine their paths to farmland investment, i.e. the integration and perception of this specific product in their activities. They also position themselves on various financial sub-fields and asset classes, mobilizing different networks of investors and different persuasive registers to convince investors: One emphasises the contemporary consumption boom in Africa, while the other stresses land as a scarce resource and highlights the returns generated from similar investments in the United States.

An investment fund or company is basically the alliance of these two types of collective actors, the manager and the investor(s), each with their own interests and beliefs. Usually, the manager initiates the fund's project, defines its mandate and then raises capital from potential investors. The concrete aspects of the investment vehicle, the structure of the fund on one hand, and its strategy and practices on the other hand, are then specified through negotiations between the parties and formalized into an investment policy and a shareholders' agreement.

Such an agreement reflects the balance of power between these actors. Indeed, the balance of power and the room for manoeuvre of the actors change according to the number, the profile and the size of investors sitting on the board, and also according to the track record of the manager. The alignment of interests and the respect given to the investment policy by the manager are major concerns for the investors. Indeed, a trust, which is the legal structure of most of the funds, gives investors few means of control after the fact (Montagne 2006). That is why investors often

protect themselves through a set of legal and technical mechanisms, including manager's financial participation, side letters,<sup>8</sup> external audit, and remuneration system by profit sharing.<sup>9</sup> However, investors cannot practicably formalize everything in the fund's legal instrument and managers often empower themselves in their daily practices. For instance, managers usually take advantage from the diversity of investors by arbitrating between their expectations.

Looking at our two case studies, a set of relevant aspects can be identified that illustrate the similarity and diversity of such vehicles. They include the following.

### The status of the financial vehicle

Both vehicles are registered as special purpose vehicles (SPVs) with a limited life span ranging from 10 to 12 years, according to the private equity fund model. These SPVs are ad hoc structures owned by investors according to their contribution and governed by an investment committee, where the major investors are represented. Both SPVs of our research are registered in Mauritius.

<sup>8</sup> This is an agreement between the fund manager and an investor that outlines different terms that will apply to the investor's investment in the fund, giving the investor some flexibility to go outside the terms of the fund's legal document.

<sup>9</sup> The manager's remuneration standards in the private equity industry are usually referred as 20/80/20: 20 % of the asset value under control as management fee; a hurdle internal rate of return fixed at 80 %; and 20 % of benefits as profit sharing.

## **The fund raising process**

Because of its specific set-up related to its investor's exclusivity position, the manager of Fund A does not have to raise funds from additional investors. The fund manager submits a proposal to the investment committee which decides whether and how much to invest in specific projects. Conversely, Fund B is a closed-fund; during the fund raising period, the fund manager gathered slightly more than 500 million Rand (US \$41.5 million) from its investors.

## **Financial return benchmarks**

As the South African farm is a new asset class, the target return of these funds is not standardized. Therefore, they adopt different objectives for the fund to reach, based on different metrics. Fund B's target is the South African Consumer Price Index (CPI) + 10 %; while for Fund A, the target has been defined regarding the historical performances of farmland investments in the United States and targets 8 % of annual return.

## **The mandate of the fund and its frontiers**

Both financial entities are specialized investment vehicles only dedicated to South African farms and agricultural production, although we have observed other financial vehicles investing on one region (Southern Africa), on the entire continent, or on an unclear "frontier market" scale. The investors frame the type of asset and portfolio they want through investment bearings and ratios; as such, the second fund cannot invest less than 50 million Rand per farm and its final portfolio should include at least 4 farms. Such framing activities tend to privilege 'mature' farms and businesses, rather than 'green projects'. Indeed, both funds only acquired consolidated farms resulting from a previous grouping of family farms.

## **Type of crops and productions**

The two funds have different mandates. Fund B is focused on "permanent crops", i.e. fruits and vegetables. In 2014, this fund had 4 farms, representing 1490 ha under irrigation and producing mostly lemons and table grapes, but also pears, peaches and apples. Conversely, Fund A focuses on "cash crops", i.e. grains, such as maize, wheat and soybeans, on 16,342 ha on 9 farms, of which 3071 ha are irrigated and 1739 ha are drylands, with the remaining being pasture or grazing. In addition, even if it was not part of the initial mandate of the investor, Fund A acquired farms with both cash crops and cattle, and decided to keep this activity running.

## **Land ownership and operational activities**

While other studies mentioned investors leasing farmlands, especially in other African countries (Chu 2013), in our case studies, both funds directly purchase the farms and integrate land price increase expectations in their expected cash flow models. Fund A, so far, has only acquired farms at a 100 % equity, while Fund B set up two joint ventures with the former owners, but ensuring a large majority control for the Fund. They both set up expansion or improvement programmes on their farms in order to increase the property value and to achieve a higher margin at their exit. Such programmes focus on the productive capacities of the farms: for instance, on one of their farms, Fund B is currently increasing their production area from 12 to 73 ha.

Regarding the agricultural production, Fund B implemented contracts with operators, selecting only developed farming companies. Such contracts are signed on a 10-year basis with a remuneration corresponding to 8 % of the annual farm value, adjusting for inflation. Fund A directly manages the agricultural operations on its farms, through farm managers hired by the company. However, they increasingly contract external operators, often the former managers, who they sponsored to set up their own companies, while still coordinating the entire process. Therefore, those funds rely on different returns: while Fund A relies on its rents and its farms' value appreciation, Fund B bets on both property appreciation and agricultural operation incomes.

## **The environmental and social components**

Fund B, because of requirements from its South African investors, implemented social and environmental programmes, dedicating 0.5 % of the value of their farms for initiatives such as literacy programmes and health care for their workers. In addition, prior to the farm's acquisition, they conducted a social and environmental audit, according to private equity mainstream guidelines (i.e. IFC performance standards) and reassess the farms every year. Finally, they report every year on such initiatives through a dedicated report sent to the investors. Fund A, conversely, develops a different model through the implementation of a foundation, collecting external funding and using it for the development of "community projects" (e.g. purchasing bicycles for their workers).

Rather than constituting a unique and standardized financial channel to South African farms, these funds are thus diverse, built around a plurality of investor/manager relationships. However, they are both engaged in the same production process of a specific asset class: farmland. In

such process, managers play a key role at the interface of two different arenas, the agricultural and financial sectors.

### **Toward the production of the asset: from South African farms to a financial asset**

As defined in the introduction, an asset represents any value recognized as such by financial markets. Such financial value relies on the active work of shaping and promoting by intermediaries who aim to attract financial flows (Visser 2015). This work can be described as a translation process from a particular good, service or activity inserted in a specific environment, to a reliable and sustainable investment for financial markets and actors. For this translation, intermediaries mobilize a set of techniques and instruments (Lascoumes and Le Gale's 2004). It is a production process embedded in a broader social and political environment. Indeed, the ability to mobilize these instruments relies on specific policies and social structures, historically and spatially situated.

South African and African farms are currently the object of such a translation attempt. Therefore, the production of an emerging asset class through the specific case study of South African farms will be analysed, focusing on the intermediaries' role. Translating farmland into an asset class entails at least three modalities. Firstly, intermediaries have to manage the characteristics and constraints surrounding agriculture production to "unlock the value"; secondly, they must build an information flow toward investors that relies on recognized standards and benchmarks; finally, this shaping work is faced with social, political and cultural resistances that managers have to deal with.

### **Leverage South African farms: toward a profitable and predictable bundle of assets**

To become recognized as an asset, that is, a financial value, a good or an activity must be considered by financial markets as liquid (Orléan 1999) and as generating a predictable positive cash flow. South African farming faces several inherent risks, such as natural risks and market volatility, which have historically discouraged private investment from outside the sector because of its random returns. So, to attract financial capital, managers have to build a stable and positive cash flow on one hand, and to increase the liquidity of their farms, on the other hand.

The mitigation of agricultural risks relies on the mobilization of specific instruments, defined by Lascoumes and Le Gale's (2004, p. 15) as "a set of rules and procedures, more or less coordinated, which govern interactions and behaviours of actors and organizations (...) providing a

stable framework of anticipations which reduces uncertainties and structures collective actions".<sup>10</sup> Through our two case studies, we identified different instruments that seem to play a crucial role in the asset production process in the South African farming sector for both value creation and risk mitigation:

#### *The commodity future exchange*

In 1996, after the promulgation of the Marketing Act, the South African Futures Exchange (SAFEX) was created. SAFEX is a futures market wherein interested parties can purportedly hedge against adverse commodity prices and has been framed as a substitute for the previous regime's agricultural commodity price regulations and marketing boards (Vink and Rooyen 2009). Such "market-based price risk management" (Newman 2009) allows agricultural value chain actors to hedge the sales/purchases of their products, purportedly reducing price uncertainty in the absence of state interventions. In addition, this futures market creates a centralized, standardized, and publically available flow of information. Moreover, Fund A also uses SAFEX as a complementary source of income, at the margin of their operational incomes, as they manage a speculative account on behalf of their investor which is specifically dedicated to exploit the spread on maize price between the South African exchange and the Chicago Board—the corn spread trade.

#### *Geographical diversification*

To mitigate natural risks (i.e. flood and drought), both fund managers utilize geographical diversification rather than multi-peril/risk crop insurance. Geographical diversification relates to the acquisition of farmland in different areas in the country with different agro-ecological characteristics and different crops or varieties. As for the diversification of the "optimal investment portfolio" theory (MacKenzie 2006), the objective is to dissolve the specific risk from one asset by a global mitigation in the portfolio based on the complementarity between assets and the returning force to the mean (Aglietta and Rigot 2009). Therefore, Fund A holds seven farms in four different provinces, while Fund B has four farms in four provinces.

#### *Tax optimisation*

Compared to "traditional" South African commercial farmers, these two funds mobilize tax exemption mechanisms, especially through their own "off-shorization", to increase farming profitability. Indeed, as we mentioned,

<sup>10</sup> Translation by the authors.

both funds are registered in Mauritius. Mauritius is becoming a hub for investments in Africa, as it promotes a regime for global business companies—GBC1 regime—which offers a harmonized corporate and income tax of 15 %, tax exemption on dividends, and a set of bilateral double taxation agreements.<sup>11</sup>

### *The South African land market*

In post-apartheid South Africa, investment companies and funds benefit from the current structure of the South African farmland market, which is based on individual property title deeds and a constitutionally guaranteed freehold system. Such securitization of land rights supports a specific conception of the farm as a “bundle of assets” (Capron 2005) which has characterized firms’ design in the financial industry, especially in the private equity industry. The farm is considered here as the sum of independent assets: property title deeds, water rights, and a “biological asset”—i.e. the soil, and a flow of commodities. Each asset would be marketable, so managers “unlock” value from these farms through “bundling” and “de-bundling” strategies. For instance, they could either implement mergers and acquisitions between various farms, or externalize the real estate asset by selling and hiring back the farmland.

### *Farming corporization*

Fund managers develop “network organizations” (Goldberg et al. 2012) as they gather several farms, enabling economies of scale and facilitating management and risk control. As such, input costs (seeds, fertilizers, insurance, etc.) tend to reduce, since they are sourced centrally and then allocated between the units. In addition, labour on the farms tends to be both contracted and salaried. Indeed, Fund A implements a hierarchical organisation, reporting procedures and financial incentives on its farms, while Fund B contracts operating companies organised in the very same way. In South Africa, white family farmers monopolized farming production during apartheid; the models promoted by our two funds thus radically change the forms of agricultural production and the status of these farmers, from individual or family entrepreneurs, to farm managers.

### *Distant management*

The challenge for the funds is to manage and control these immovable assets from a distance. To overcome this challenge and ensure the efficiency of this centralized management, these investment funds and companies rely

on the utilisation of advanced technologies such as satellite monitoring. The software ‘Google Earth Pro’, thanks to its high resolution and the data it provides on farms’ natural characteristics (e.g. slope, soils), is used in both cases for the monitoring of operations and/or expansions. In addition, both funds rely on agronomists for both the technical due diligence exercises undertaken before the acquisition, and the subsequent supervision of agricultural issues through regular farm visits. Finally, Fund A formalizes reporting procedures through detailed Excel tables compiled on a weekly basis, summarizing the operational costs and the crop projections for each plot.

With all these elements combined, Fund A looks more like a private equity fund, buying a company and endeavouring to improve its cash flow in order to increase the firm’s value. However, it is worth noting that it does not use financial leverage as a tool for value creation. Indeed, it bought its farms for cash with its own capital. Such a finding illustrates the hybrid character of this financial vehicle, its staff and its instruments; but also, the lack of available funds from commercial banks for such particular assets. Meanwhile, Fund B seems closer to a real estate investment trust (REIT) that allows investors to purchase a share of the income streams generated from a portfolio of farmland properties (c.f. Fairbairn 2014; Gunnoe 2014).

Managers mobilize a set of devices from different sectors and areas. They benefit from post-apartheid liberalisation reforms in the agricultural sector (Vink and Rooyen 2009) and, more broadly, in the economy (Marais 2011; Mohamed 2009). However, they also capitalize on technical, managerial and financial instruments and know-how coming from financial sub-industry (e.g. private equity) or from the agribusiness industry. By combining these different instruments, they tend to create a predictable and fluid environment suitable for the involvement of the financial investors. As Chen et al. (2013) claim about the United States, Farmland has a value due in part to farm policies, technology, crop insurance as well as commodity prices, and macroeconomic measures. Likewise, the value of South African farmland, from a financial perspective, is derived from this complex combination.

### **The production of the information flow: farms as a standardized and benchmarked asset**

A financial asset is also seen in a set of standardized benchmarks with key indicators on its “historical” returns and its “beta”, or the market risk premium as measured by its variance and covariance. Such benchmarks allow institutional investors to compare and evaluate their profitability and their complementarity in their portfolio. This “commensuration”, i.e. “the translation of different qualities into a common metric that can support, for instance,

<sup>11</sup> Mauritius and South Africa are bound by a bilateral double taxation agreement, signed on the 20th July 1996.

decision-making” (Styhre 2013), is a central part of the managers’ work for attracting financial capital. In our case, managers apply the standards of financial analysis to South African agriculture from the specific “agencement” we described above.

These benchmarks and calculations are borrowed from corporate finance analysis and aim at modelling a specific investment in the medium-long-term through a discount cash flow, which allows for the valuation of transactions and assets over time (Capron 2005). Producing this information is a central part of the fund managers’ role, as they endeavour to translate a specific environment/investment into the language of global finance. Indeed, the managers’ skills and dexterity in dealing with these models and implementing them in new areas of activity are central to capturing flows of capital from institutional investors. Once validated by the investor(s), they guide the managers’ action and constitute the benchmarks of their evaluation.

This modelling is largely based on the Discounted Cash Flow (DCF) model, which actualizes in present value an investment cash flow over a discounted period (Dufumier 1996). This financial evaluation is realized before any investment is made, and re-actualized regularly during the project’s lifespan. It is used as support both for the decision by the manager/investor as to whether the investment is profitable, and for the evaluation criteria by investors in the asset markets. It is a representation device of the productive world, as well as a control device (L’Italien et al. 2011).

This DCF model is built on a set of assumptions regarding the discounted period, which includes macro-economic projections (i.e. inflation rate, interest rate, and taxes) and market data (i.e. price of commodities and inputs). Indeed, such actualization of a farm’s assets is done either according to the market value, when such value is available (e.g. agricultural commodities), or through an actualization of future income streams (Chiapello 2005). The present value discount rate is used to discount or actualize a future cash flow in present value. Such rates are dependent on market conventions regarding the future, as well as on managers’ arbitrage between several benchmarks.<sup>12</sup> With this model, managers diffuse a new valuation of risk, between macro-economic and financial parameters, which differ, inter alia, from raw macro-economic indicators (Valle´e 2011). In addition, by valuating farms as a sum of assets, such financial instruments support the specific design of a corporate entity as a “bundle of assets”. However, DCF engineers face different challenges, according to the asset class they endeavour to model.

The utilization of the DCF model is not new in agricultural primary production, particularly for the cash/grain crop sectors, of which the characteristics fit well with this modelling. Firstly, because the seasonality of such agricultural produce gives a predictable character to the operations/schedule (planting, fertilizing, spraying, and harvesting) and, therefore, the costs (seeds, fertilizers, irrigation, and labour). Secondly, there are futures contracts for such agricultural commodities and so the selling prices can be planned and guaranteed. For these specific crops, the “translation” work has not been too complex, which could explain why cash crops remain the main target for the financial investors. However, presently, the manager of Fund B is looking for an application of such calculations on its farms, as they considered that the “traditional” comparable sales methodology does not properly take into consideration the future stream of revenue and their potential improvements, i.e. their capacity to increase the farm’s value. Issues around the farm valuation methodology illustrate attempts to import valuation frameworks that directly participate in the value creation (Boussard 2013) and the legitimization of the financial actors processes.

The establishment of this framework, or its non-establishment, also constrains and frames the practices and strategies of actors. For instance, as we mentioned earlier, Fund A acquired farms with cattle and decided after several discussions between management and the investor to keep these activities running. However, they quickly faced unexpected difficulties, starting with the impossibility of building a dynamic cash flow model for cattle. Indeed, so far, the valuation of cattle remains based on productivity per capita or per hectare, maintaining a parallel accounting system in the Fund A balance sheet. Because of these difficulties, to translate cattle production into financial language, Fund A is currently trying to sell all its live-stock—a concrete illustration of the performativity of such financial model (MacKenzie 2006).

Finally, this DCF model also reflects the relationship between managers and investors, as it is produced through intense negotiations (Ortiz 2014). On one hand, the discount rate is built in a competitive environment where managers try to attract institutional investors who are looking for specific financial products based on risk/return profiles, a covariance, and other specific benchmarks. For instance, in the case of Fund A, the foreign investor imposes a requirement to express these calculations in their own specific currency (e.g. dollars). Sometimes, they request other market references for the DCF calculation, e.g. the Chicago Board of Trade grain prices, rather than the SAFEX prices. On the other hand, managers are directly interested by such internal ratios as their evaluation and their remuneration are based on them.

<sup>12</sup> For instance, Fund A chooses the South African R157 government bond as the risk-free benchmark for their calculation, which is only one option among other government bonds with different rates.

As noted, this standard modelling is primarily used by investors to arbitrate between different investment opportunities in agricultural value chains, and between different asset classes. Managers specializing in South African agriculture participate actively in the simultaneous movements of deepening the financial market by the inclusion of ‘hybrid goods’ (Aglietta and Rigot 2009) as new asset classes, and by connecting the different national markets through the production and diffusion of worldwide recognized benchmarks (Valle´e 2011).

### **Beyond modelling: ‘neutralization’ and ‘de-politicization’ of the asset**

A financial asset is structured on a standard flow of modelling and calculation. However, to unlock the financial value, asset promoters also have ‘to conform’ the social reality to these flows. Indeed, managers ‘neutralize’ or ‘de-politicize’ farms in order to fit them into the ‘bundle of assets’ conception. Such work is particularly visible when they have to deal with social or political issues surrounding their farms, as they often have to face actors or groups of actors who embody and defend other, often incompatible, conceptions of farmland value. This sometimes leads to a change in their approach and can interfere with the managers’ relationships with the investors. Such confrontation sheds light on the political dimension of the production of an asset and how the ‘ferryman’ (Pezet and Morales 2010) manager turns into a political entrepreneur.

Among others, a concrete example from the field is the case of occupiers on the farms. During the apartheid era, farmworkers, particularly in the Mpumalanga and Kwa-Zulu-Natal provinces, were allowed to live on the farms on which they worked as ‘labour tenants’. In 1997, the Extension of Security of Tenure Act<sup>13</sup> conferred formal residential rights to these (former) workers and their families. This Act includes a set of rights and duties for these ‘occupiers’ and for the owners (e.g. security of tenure, access to services, no commercial use of the land), while leaving a margin of manoeuvre for the two parties to negotiate and organize their daily cohabitation (Sibanda and Turner 1999).

Fund A had acquired several farms with occupiers in the Kwa-Zulu Natal province.<sup>14</sup> Gradually, such cohabitation generated tensions between the new farm owners and the occupiers.<sup>15</sup> Confrontations with the occupiers, in turn,

<sup>13</sup> RSA (Republic of South Africa). Extension of Security of Tenure Act 62 of 1997. Pretoria. Government Printers.

<sup>14</sup> Most of the farmers in the eastern part of South Africa have to deal with these occupiers’ issues.

<sup>15</sup> These occupiers own cattle which graze on the farm and managers have accused them of putting the cattle on their grazing land, threatening their own cattle with disease contamination. Furthermore,

strained the relationship between the American investor and the South African manager of the fund: the investor became increasingly anxious about the threats posed by potential mobilizations and contestations, especially after it was targeted by activist campaigns against land grabs (for other Southern African investments).<sup>16</sup> Managers of this Fund A tried to implement different strategies to ‘clean’ what they considered to be the fund’s best asset. They started by implementing an identification/registration system for all the occupiers and their family members on the farms and introduced a code of conduct which all occupiers should sign. They also implemented a ‘livestock permit’ to register the different owners and a three-step warning system in case of abuse of the code of conduct by the occupiers. Then, they proposed removing all the occupiers to another piece of land, outside the farm, with official property titles. However, occupiers refused the proposition, arguing that this land was far away from services and useless for grazing. Then, facing the increasing concerns from the investor, the manager proposed to group these farms and to list the grouping as a property fund on the Johannesburg Stock Exchange. They argued that in such a case, the international investor would become one shareholder, among others, in the listed fund. Such a strategy aims to dissolve the individual responsibility of the investor into the collective ownership of the market.<sup>17</sup> Regarding the manager’s perspective, it allows them to keep the control over the operation on one hand, and to balance the investor’s power on the other hand. This proposition was rejected by the investor, which was aiming at a monopoly strategy. It resulted in the manager being obliged to sell these farms and for the fund’s mandate to be reoriented toward smaller and more intensive farms.

This example illustrates some of the difficulties faced in the translation process between an international investor and a local manager, and the misunderstandings that may arise. While the manager attempts to valorize its indigenous capital to minimize such issues, the investor seems more concerned by reputational risk, especially in its home country. Such a gap reflects the different positioning of these actors and gives a concrete example of intermediation difficulties.

Secondly, through the implementation of various initiatives and policies to regulate the presence of occupiers

Footnote 15 continued

the access to their family graves, situated outside of their area, has become a source of tension when a manager endeavours to control and regulate this access.

<sup>16</sup> Oakland Institute, Vanderbilt University Divests from ‘Land Grab’ in Africa, 13th of February 2013. <http://www.oaklandinstitute.org/vanderbilt-university-divests-land-grab-africa>.

<sup>17</sup> Thereby, the financial markets’ notion of ‘public’ challenges the notion of ‘public good’ as a use by those who live or work on it.

on farmland (e.g. through a code of conduct and livestock permits), a fund manager tends to become a political entrepreneur. In fact, to “unlock the value” of an agricultural asset, they have to mitigate the political and the social issues surrounding farmland and agriculture in South Africa. Indeed, they push for a “disembeddedness” (Polanyi 1983) of their farms to materialize the “bundle of assets” conception. Paradoxically, even if they claim to present a purely financial approach through the “asset-fiction”, they find themselves engaged in particular forms of “cross-regulation” (Bessy and Chauvin 2013) alongside other public and private actors.

## Conclusion

Even though African/South African agriculture still represents a minor asset class, the investment funds and companies focusing on them are diverse. Their structures, their portfolios, and their strategies vary. This paper explained this diversity by focusing on the specific interactions and balances of power between investors and managers of portfolios.

Such innovations are spatially and historically situated. Indeed, these financial vehicles have mobilized specific institutions and instruments at the national (e.g. title deeds and water rights) and international (e.g. bilateral double taxation agreements) levels, and from financial industries (e.g. “bundle of assets” conception). From this specific configuration, or “agencement” (Callon et al. 2007), managers are able to implement financial analysis tools to produce a standardized flow of information. By conforming to these recognized benchmarks, managers allow institutional investors to evaluate these agricultural assets and potentially integrate them into their portfolios. However, these benchmarks are not enough to produce an asset, and managers also endeavour to “neutralize” the political and social issues related to agriculture and farmland in South Africa by “extracting” farms from their social fabric. Even if they claim a purely financial and corporate approach, they find themselves engaged as political entrepreneurs.

Since South African agriculture, seen as a financial asset, is relatively novel, more time is needed to better understand the implications of its development. So far, we have seen that the translation process is not a long, quiet river—several funds find themselves practising in dire straits, with many of their activities not being profitable, or even collapsing, particularly in other, less well-established African countries (Anseeuw and Boche 2012). Others are adapting, and implementing innovative schemes aimed at up- and down-stream opportunities and constraints.

Integrating South African farms into the financial markets as an asset class requires significant cognitive and

political work. These processes are especially visible in this case study because of the political and social conceptions and representations around farmland in South Africa. In describing the “land-commodity fiction”, wherein land is subordinated to the needs of industrial society, Polanyi (1983) underlined “society’s self-protection” movement which curbed such dynamics. Today, is this “land-asset fiction” fully materializing through the subordination of farmland to the needs of the financial society, or is there a viable countermovement?

**Acknowledgments** The authors thank Ryan Isakson and two anonymous reviewers for their comments and suggestions on an earlier version of the paper. The opinions expressed and any errors are solely those of the authors.

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