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Financialisation of agriculture: an analysis of land issues

The takeover of agricultural land by financial players is controversial. In order to clarify the issues associated with this phenomenon, the *Centre d'études et de prospective* (Centre for Studies and Strategic Foresight) conducted a study involving several experts from outside the Ministry. This note presents the main findings of this work.

The term "financialisation" is polysemic and sometimes used in an ambiguous way. For G. Epstein,[1] it is characterised by "the growing importance of financial incentives, financial actors, financial markets and financial institutions in the functioning of economies and the institutions that govern them". The financialisation of agriculture thus refers to a multitude of phenomena: speculation on agricultural markets; farm financing; the influence of financial actors on the organisation of value chains, etc. This note focuses on one particular aspect: the takeover of agricultural land by financial players.

This phenomenon began in the 1990s in the United States,[2] but its beginnings were uncertain, as the profitability of investments in agricultural land was low at the time. The financial crisis of 2008 and the subsequent surge in agricultural prices changed the situation and made these investments more attractive. From then on, the phenomenon grew and became more widespread, before seemingly coming to a halt in the mid-2010s. Nevertheless, it continues to raise questions: who are the investors involved, what are their motivations and strategies? What is the role of public policies in the emergence of this phenomenon? What are its consequences for targeted territories? Finally, what are its prospects for development?

To answer these questions, the *Centre d'études et de prospective* formed a small working group, composed of four experts on the subject in different parts of the world: Saskatchewan[3] (André Magnan), Mozambique (Mathieu Boche), New Zealand (Mickaël Hugonnet) and Uruguay (Maëlle Gédouin). The aim was to draw general lessons on the financialisation of agricultural land through a comparative analysis of these case studies. The selected regions are well advanced in the financialisation process and are *a priori* representative of a large number of situations. The working group met three times in June 2021, and unless otherwise stated, the results presented here are based on its reflections.

The first part of this note proposes a categorisation of the investors involved in the financialisation process, as well as the strategies they implement. The second part analyses the conditions that have allowed this phenomenon to develop, as well as its consequences for the targeted territories. Finally, the last section discusses some prospects for the future.

1 - A large range of actors and investment strategies

Diversity of investors

Five types of investors have been identified through case studies. The first type, which was systematically encountered, includes institutional investors (pension funds, investment funds, hedge funds, etc.) and large individual fortunes. Their investment decisions are driven by the motivation to take advantage of favourable prospects for land and agricultural prices, to diversify their investment portfolios and to protect themselves against the risk of inflation.

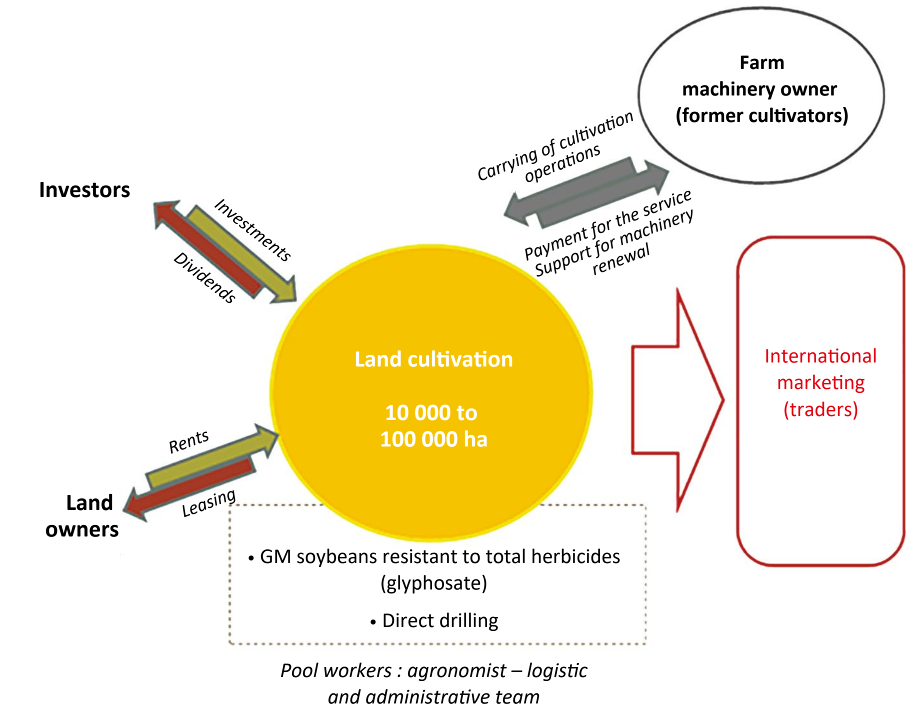
A second category is made of Chinese investors,[4] who are well represented in New Zealand. They follow similar logics to the institutional investors and individual fortunes, but also benefit from support from their national government, in a food security perspective.[5]

Another category includes agribusiness firms. As part of vertical integration, they seek to control and plan their supplies by anticipating the level of harvests in the world's main production basins. This information is then valued on the agricultural commodities futures markets (equity investments, investment advice, etc.). In this category are the main grain trading firms (ABCD),[6] including Cargill in Uruguay.

Rural entrepreneurs are a special category, on the borderline between farmers and investors. Most of the time, they are farmers who initially owned a farm and who were able,

1. Epstein G. (dir.), 2005, *Financialization and the World Economy*, Edward Edgar Publishing.
2. Fairbairn M., 2020, *Fields of Gold. Financing the Global Land Rush*, Cornwell Press.
3. Province of the Canadian prairies.
4. Also mentioned in the literature, the sovereign wealth funds of the petro-monarchies of the Persian Gulf follow the same logic, but are not present in the cases studied here.
5. Chaumet J.-M., 2015, « Nourrir la Chine : géopolitique d'un défi alimentaire », *Hérodote*, n° 156.
6. Acronym for the four largest international grain trading firms: Archer Daniels Midlands, Bunge, Cargill and Louis-Dreyfus Commodities.

Figure 1 - **Organisation of cultivation pools**



Source : Gédouin, 2017, *Agrobusiness du soja et de la viande en Uruguay. Financiarisation des systèmes agraires et nouvelles différenciations sociales et productives en agriculture*, thèse de doctorat, AgroParisTech.

often by joining forces with non-agricultural capital providers, to considerably expand their production unit and buy others.

Finally, a last category, present in New Zealand and Saskatchewan, concerns individual savers. In the case of New Zealand, these are wealthy individuals (financial sector executives, independants) wishing to make their savings grow through limited and low-risk investments.

It is difficult to assess the importance of each of these categories in the current phenomenon of financialisation, as there are no global statistics on the matter. Nevertheless, it seems that institutional investors are the main actors. For example, between 2005 and 2017, the number of funds specialised in agricultural land increased from 38 to 436, with USD 73 billion of investments in total.[7] Our case studies suggest that rural entrepreneurs are also central in this process. However, there is no data to assess their importance. Regarding Chinese investments, the *Landmatrix* platform, which tracks large-scale land transactions (acquisition or lease) around the world since 2000, estimates that they control 16 million hectares (probably an underestimate). This represents 10% of the transactions recorded by the platform, which is not negligible. For agribusiness firms, only 800,000 ha of transactions have been recorded on the *Landmatrix* platform, which seems to be a very underestimated figure given the observations made in the field. Moreover, this is only one facet of the involvement of firms, which support financialisation through the outlets they offer, for example by creating processing infrastructures in regions that previously lacked them. Finally, the importance of individual savers seems marginal.

Contrasting investment strategies

Agricultural land is an asset that generates income through agricultural production (productive logic) and by increasing its value (financial and speculative logic). The profitability of investments in agricultural land depends on these two forms of income, in varying proportions depending on the case.

The case studies make it possible to identify four investment strategies. The first is for the investor to buy land and then rent it out ("own and lease-out"). The investor does not participate in production. He/she is remunerated by the rental income and any capital gains that may be realised at the time of resale. These investments are therefore exclusively financial in nature. This strategy is not very risky because rents varie little from one year to the next, and land generally tends to appreciate over time. However, profitability is limited (IRR[8]<10%). This strategy is predominant in Saskatchewan.

The second strategy is based on the acquisition of undeveloped land, which is resold after improvement work (drainage, irrigation, consolidation, etc.) has been carried out. These investments are of limited duration (a few years) and are made profitable by the increase in land value following these transformations. They have a strong financial and speculative dimension, and are potentially very profitable (IRR>20%).

Other investors acquire land for direct use, generally through asset management companies. In these "own and operate" strategies, the productive and financial logics are mixed. They contribute in comparable proportions to the profitability of capital. These investments are riskier than in the previous case, as they are subject to the hazards associated with agricultural production. In a favourable economic context, they allow for an intermediate profitability (IRR between 10 and 15%). This strategy is found in all the cases studied.

Finally, some investors prefer to rent land and then farm it by contracting with agricultural entrepreneurs. Cultivation pools (Figure 1), which are very common in Uruguay, are the emblematic figure of this "lease and operate" strategy, which is potentially very profitable (IRR>20%) if prices are satisfactory, but subject to the hazards inherent in agricultural production. These are liquid investments because the capital tied up is almost nil. Investors therefore adopt opportunistic behaviour (capital injections when agricultural prices are high, withdrawal when they fall).

Until the end of the 2000s, the involvement of financial players in the agricultural sector was based almost exclusively on "own and lease-out" strategies, with investors not getting involved in production, which was considered unprofitable. The specificity of the financialisation movement, since 2008, lies in the development of "own and operate" or even "lease and operate" strategies, with investors seeking to take advantage of the increase in agricultural prices observed since that date and until 2015.

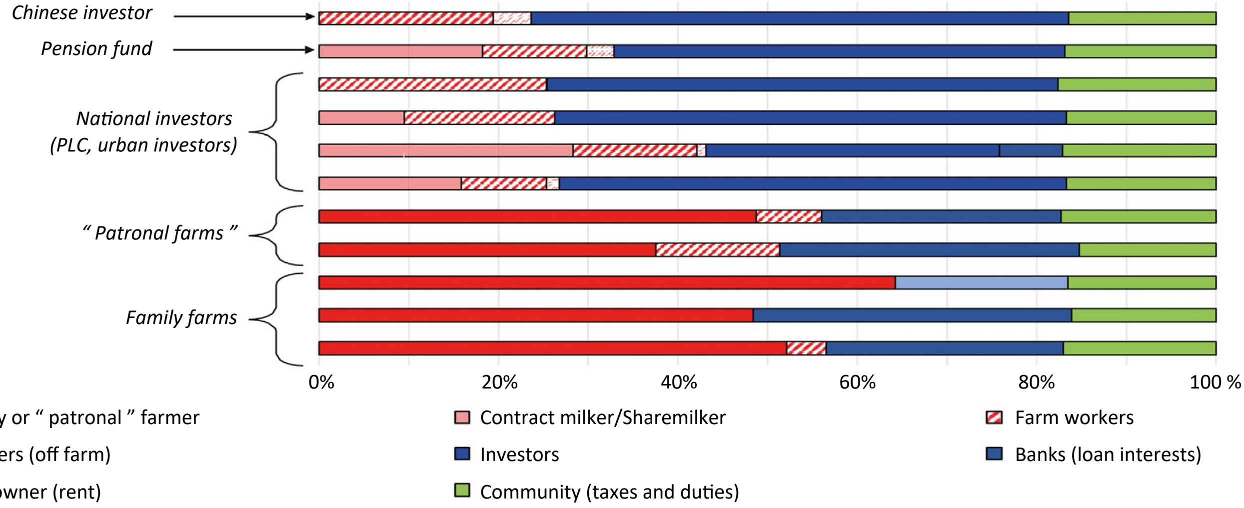
2 - Conditions of financialisation operations and consequences for the targeted territories

After characterising the actors involved in financialisation, this section analyses the conditions of its development and its consequences.

7. Valoral Advisors, 2018, *2018 Global Food&Agriculture Investment Outlook. Investing profitably whilst fostering a better agriculture.*

8. Internal rate of return: the discount rate that negates the current net benefit of an investment project.

Figure 2 - **Distribution of the value added created on Canterbury dairy farms (South Island, New Zealand) between economic agents**



Source : Hugonnet M., 2018, *Transformation des systèmes de production du lait en Nouvelle-Zélande : perte d'autonomie et financiarisation*, thèse de doctorat, AgroParisTech.

The economic, technical and political conditions of farmland financialisation

The financialisation of agricultural land requires certain conditions to be met. The case studies first highlight the decisive role of the economic context, and the way investors anticipate it. The decision by certain actors to turn to agricultural land, from 2008 onwards, is explained by their expectation of rising agricultural prices, in a context of unstable financial markets. It is also the consequence of the favourable outlook for agricultural investments in the long term. Many investors anticipate, for the decades to come, both an increase in global food demand (due in particular to population growth) and tensions on the supply side (due, among other things, to climate change). Under these conditions, agricultural land appears to them as a profitable and secure financial asset.

It also appears that farmland financialisation takes place in parts of the world where the land tenure structure allows the constitution of large production units, and where agricultural development is based on highly productive and standardised technical packages (GMO seeds / glyphosate / direct seeding in Uruguay, pivot irrigation / automated rotary milking parlours / subcontracting in New Zealand, etc.). For investors, these prospects of high production on a large scale are a guarantee of satisfactory profitability.

Public policies also play a role in the financialisation of agricultural land. In the four cases studied, the liberalisation undertaken since the 1980s has created a favourable context: opening up access to land (authorisation of acquisition by non-residents in Saskatchewan and by public limited companies in Uruguay, access to land for investors in Mozambique even though the land is the inalienable property of the State); fiscal and macro-economic incentive policies (lowering of corporate tax in New Zealand, tax credits and devaluation of the peso in Uruguay); programmes aimed at reducing the cost of labour (lowering of social minima and recourse to immigration in New Zealand), etc.

Questionable economic relevance and important social issues

Financialisation raises questions about its economic and social consequences for targeted territories. Several elements can be drawn from the case studies.

It is systematically presented as a means of supporting an agricultural development that requires large amounts of capital, which agricultural credit alone cannot provide. It sometimes accelerates changes in land use, that can lead to greater value-added. This is the case in Uruguay, where the arrival of institutional investors is associated with the expansion of soybean cultivation in areas previously dedicated to extensive livestock farming. Similarly, in New Zealand, the massive influx of financial capital into lowland areas previously devoted to sheep farming has accelerated their conversion to dairy production, generating more wealth. Even if this process is not exclusively the consequence of financialisation and if it still relies largely on family farmers, it is undeniable that the influx of capital over the last twenty years in this country has significantly accelerated it.

However, the economic performance of the new forms of production resulting from financialisation is questionable. In Mozambique, field surveys have estimated that half of the projects launched failed within five years of their launch. In New Zealand, where financialisation mainly concern the dairy sector, it appears that financialised structures do not generate significantly higher net value added per worker than conventional ones. This is because the production methods (techniques, equipment, biological material, etc.) of farmer-owned and investor-owned farms are quite similar.

The fact that investors are often foreign to the territories in which they operate means that part of the wealth produced leaves the territory and does not participate in its economic activity. This capture of a significant proportion of the wealth created is highly critical. In New Zealand, investors capture 50 to 60% of the added value created on financialised dairy farms, compared to 25 to 35% for the farm manager (contract milker or sharemilker) and employees. In comparison, in the case of family or "patronal" structures, the farmer and his employees receive 45-65% of the value added created[9] (Figure 2). A similar observation was made in Mozambique.

The effects of financialisation on agricultural employment and young farmers' installation are also debated. In Mozambique, the workforce required on financialised structures are very low (10-100 jobs per 1,000 ha according to surveys), as in Uruguay (only 2 jobs created per million

9. These figures reflect the distribution of value added between the different economic agents. However, they cannot be interpreted as reflecting the distribution of value added between capital and labour, especially because family and " patronal " farmers bring both labour and capital to the productive process, and it is difficult to distinguish the two.

dollars invested from abroad).[10] Conversely, financialisation leads to land use changes, as mentioned above, which can increase labour requirements (New Zealand). With the exception of qualified and well-paid farm managers, these jobs are rather precarious and poorly paid. This low remuneration, which is not specific to financialised structures, since the same can be observed on family and "patronal" farms, is one of the conditions for the profitability of investments. Farm managers or farm workers jobs often do not correspond to the qualifications, skills and aspirations of the local population. Therefore, recourse to immigrant labour is frequent. Finally, the influx of capital into targeted territories leads to land pressure and an increase in land prices, which makes it very difficult for prospective farmers to access land. For example, in Saskatchewan, the amounts offered by investors for land acquisition are 39% higher than those offered by farmers.

Environmental consequences to be clarified

It is difficult to assess the consequences of financialisation on the environment. Most of the time, this phenomenon is accompanied by standardisation of agricultural practices, made necessary by the large size of the agricultural operations. This goes against agro-ecology, which assumes an adaptation of practices to the specificities of ecosystems. Furthermore, the acquisition of land by investors often results, as in Saskatchewan, in land consolidation and the removal of hedgerows and other landscape features, to optimise motorisation and mechanisation. However, these observations are not specific to investor-owned farms; they can also be observed on large family or "patronal" farms. In addition, the changes in land use, to which financialisation contributes, although not solely responsible, can have significant environmental consequences. This is the case in Uruguay, where the expansion of soya cultivation has led to increased soil erosion. In New Zealand, the very rapid development of milk production thanks to irrigation is resulting in the overexploitation of water resources and degradation of ground and surface water quality.

3 - What developments in the coming years?

A slowdown observed since 2015, which is expected to continue

From 2015 onwards, investment in agricultural land has stalled. Two factors may explain this.

First, from 2010 onwards, many of the countries most affected by the phenomenon of financialisation have introduced more or less restrictive regulations. In New Zealand for example, access to land by foreign investors has been reduced on several occasions, and they must now demonstrate that their project will generate "substantial and identifiable" benefits for the country. In Saskatchewan, the acquisition of agricultural land by pension funds or public limited companies with more than ten employees has been prohibited since 2015. At the same time, certain social or environmental regulations, which hamper the profitability of investments, has contributed to slow down the process. In Uruguay, for example, farmers have now to lengthen their crop rotations in regions prone to soil erosion, which means introducing crops that are less profitable than soybeans. In addition, the price of labour is tending to increase, as a result of proactive social policies: raising workers' wages, controlling working conditions and working hours, etc. In New Zealand, restrictions on the use of water for irrigation have been introduced, and the use of often poorly paid immigrant labour has been limited.

The other factor is the downward trend in international agricultural commodity markets after the 2012 peak, which has turned a number of investors away from agricultural land. This is particularly the case for those with the highest profitability requirements (pension and investment funds). However, this slowdown in investment could be called into question if the political and, above all, economic context were to evolve in a different direction. In particular, the rise in agricultural prices observed in 2021 and 2022 could, if durable, lead to a recovery.

Beyond the lowdow, a reconfiguration of the phenomenon started

The slowdown in land-investments since 2015 has not been uniform across all investor categories. Institutional investors (pension and investment funds) and agribusiness firms are experiencing the most marked slowdown; in Uruguay, a partial decline is even being observed. This is because these investors have high profitability requirements that are difficult to meet if agricultural prices are not high. It is easy for them to invest their capital elsewhere, especially in the stock markets, which are now more buoyant than they were a decade ago.

In contrast, other categories are less affected by this slowdown. This is the case of rural entrepreneurs, who generally have relatively limited profitability requirements, which are easier to meet. Their alternative investment opportunities are also more limited, and they are hardly targeted by the regulatory policies.

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This study of the financialisation of agricultural land, taking into account several countries, shows the complexity of the phenomenon, which involves investors with varied profiles, motivations and strategies. While the influx of financial capital makes it possible to support the agricultural development of the territories concerned, the economic performance of the resulting production structures raises questions and its social limits appear: sometimes less equitable distribution of added value, limited support for local development, ambivalent effects on employment. Finally, the environmental consequences for the target countries remain to be clarified.

Financialisation is a dynamic phenomenon that evolves over time: after the boom of the 2008-2015 period, a slowdown has since begun, as well as a reconfiguration of the phenomenon. It is possible that the current post-covid context, marked by very strong tensions on raw materials, will lead to new dynamics. Nevertheless, the institutional situation has changed and climate change is likely to affect agricultural yields in the medium term.

Mickaël Hugonnet
Center for Studies and Strategic Foresight

Mathieu Boche
CIRAD[11]

Maëlle Gédouin
AgroParisTech/CIRAD[11]

André Magnan
Regina University (Canada)

10. CEPAL, 2014, *La Inversion Directa Extranjera En America Latina Y El Caribe. 2013.*
11. At the time of the work presented here.

Ministry of Agriculture and Food
General Secretariat
Department for statistics and strategic foresight
Centre for Studies and Strategic Foresight
3 rue Barbet de Jouy
75349 PARIS 07 SP
Websites: www.agreste.agriculture.gouv.fr
www.agriculture.gouv.fr
Director of publication: Corinne Prost
Editor: Bruno Hérault
Email: bruno.herault@agriculture.gouv.fr
Tel.: +33 1 49 55 85 75
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