IDS Bulletin

Transforming Development Knowledge

Volume **54** | Number **1** | February 2023

FRONTIER TERRITORIES: COUNTERING THE GREEN REVOLUTION LEGACY IN THE BRAZILIAN CERRADO

Issue Editors **Lídia Cabral, Sérgio Sauer and Alex Shankland**

Transformations of the Agricultural Frontier in Matopiba: From State Planning to the Financialisation of Land*

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Abstract This article explores how the agricultural frontier in Brazil is conceived and how it has been historically shaped by broader socioeconomic changes. It considers the planning process linked to the Cerrado occupation during the military dictatorship (1964–85). The article analyses understandings of the frontier that connected it to concerns about 'demographic gaps' and shaped an agenda of state-led 'national integration' that neglected local populations. This analysis is linked to recent transnational real estate activities in Matopiba to document how control over the territory persists but is now driven by different protagonists and logics. We document how Brazilian agribusinesses, in association with transnational capital, have created transnational agricultural real estate companies and acquired land in frontier areas such as Matopiba. Although the violence of expropriation and deforestation persists, there are new financial mechanisms that condition the agricultural frontier and exert control over territory, quite unlike previous forms of state-led occupation.

Keywords Cerrado, agricultural frontier, land grabbing, financialisation, real estate, Brazil.

1 Introduction

Agricultural frontiers have been subject to significant transformations across the globe, shaped by the intensification of farming and mining activities. The World Bank's *Rising Global Interest in Farmland* report (Deininger *et al*. 2011) highlighted the staggering growth in farmland acquisitions around the world, mainly concentrated in a few African countries. The report explained how this was driven by the rise in food prices in 2007–08, which was in turn stimulated by growing demand for food

The *IDS Bulletin* is published by Institute of Development Studies, Library Road, Brighton BN1 9RE, UK
This article is part of *IDS Bulletin* Vol. 54 No. 1 February 2023 **'Frontier Territories: Countering the Green Revolution Legacy in the Brazilian Cerrado'**; the Introduction is also recommended reading.

associated with urbanisation and strategic moves by countries like China. The report considered these capital investments to be beneficial to mitigating a potential food crisis and creating jobs and income through the purchase or lease of land. It took little account of the institutional and social fragilities of most countries and regions targeted by this 'race'.

Arguments about the benefits of the Green Revolution are renewed in the report and, despite numerous critiques (White *et al.* 2012; Li 2011; Hall *et al.* 2015; De Schutter 2011), appear to be underpinned by a new articulation of crisis narratives. These narratives seem to express a new moment in the production of agricultural frontiers that goes in tandem with the financialisation of agriculture and land:

> The justification for large-scale land investment is often presented around a series of 'crisis narratives', linked to growing scarcity and impending catastrophe. The underlying assumption is that the solution to such food, energy and climate 'crises' lies in capturing the potentials of so-called 'marginal, empty and available' lands across the globe. (White *et al.* 2012: 631)

Borras Jr *et al.* (2012) reiterated this critical perspective emphasising the convergence of multiple crises – food, energy, climate, and financial – as investment in land was presented as a new and safer opportunity driven by the growing needs of the newest conglomerates of the world's capital market, particularly in the group of major emerging economies (Brazil, Russia, India, China, and South Africa – BRICS) and some powerful middle-income countries (MICs). In this context, the emergence of temporary crops with different uses (flex crops) provided the possibility of varying productive investments according to the new and dynamic needs of the market and its crises. These broad and interrelated features distinguish this new moment of land grabbing from previous movements of land control.

> In short, contemporary land grabbing is the capturing of control of relatively vast tracts of land and other natural resources through a variety of mechanisms and forms involving large-scale capital, which often shifts resource use to extraction, whether for international or domestic purposes, as capital's response to the convergence of food, energy and financial crises, climate change mitigation imperatives and demands for resources from new hubs of global capital. (Borras Jr *et al.* 2012: 405)

With this resumption of the Malthusian discourse on the spectre of hunger and how to combat it through intensified production, a new level of financial order emerges to determine the places of less risky investments (Fairbairn 2015; Clapp 2014). In Latin America, for example, the World Bank report suggests the potential availability of 123,342,000 hectares of land (Deininger *et al*. 2011: xxxiv–xxxviii), with Uruguay, Argentina, and Brazil as attractive locations. In addition to land, these countries had other 'factors attractive to potential investors' (*ibid*.: xxxvii), including 'high levels of technology and human capital, competitive land markets and a favourable investment climate' (*ibid*.). Brazil's earlier experience of productive occupation of the Cerrado, from the 1980s onwards, is thus also presented positively.

This article draws on this experience and offers a contrasting interpretation of the past and present of Brazil's Green Revolution in the Cerrado. It looks at the development of the agricultural frontier and compares the measures of authoritarian state planning associated with the national industrialisation process with more recent changes in a particular section of the Matopiba 'region' between the Northeast and the Amazon. This is an area where the recent prominence of transnational real estate agencies suggests a connection between land markets and the financialisation of agriculture, a new form of domination that contrasts with the previous historical moment of state control.

The authors have been conducting field research in the Matopiba region since 2013. This has included semi-structured interviews with different actors, including peasants, workers, religious leaders, farmers, politicians, judges, and representatives of rural unions and other civil society associations. Interviews were also held in São Paulo and Minas Gerais with farmers and investors operating in the respective states of Matopiba. This article summarises some of our research achievements in dialogue with a wide review of literature regarding the agricultural frontier in Brazil.

2 A historical perspective on the occupation of the Brazilian agricultural frontier

The nationalistic and modernist vision of Brazil as a 'country of the future' has a long history. It dates back to the occupation of the *sertões* (hinterlands), which were seen as a 'territorial background' covered by pristine nature and subject to regulation, as in Land Law No. 601/1850,[5] which aimed to contain its free appropriation during the transition from slavery. Another key milestone was the Marcha para Oeste (March to the West) of the Vargas era (1930–45), which envisaged 'national integration' amid the industrialisation process. Such 'geographical ideologies' (Moraes 1988), which emerged from the old colonialism, expressed the task of colonising the territory, updating social relations of production in an authoritarian manner, and through the subjugation of the local population.

After a period of rapid economic growth in the early 1970s, which became known as the 'economic miracle', and in the face of a highly unfavourable international environment, especially after the 1973 oil crisis, the military government designed a comprehensive plan for territorial occupation. The economic strategy outlined in the National Development Plan II (PND, 1975–79) explicitly supported the formation of financial conglomerates to centralise capital so that national enterprises could compete in the new international order, having the provision of cutting-edge technologies and investment by foreign capital (Brazil 1975: 47–55). However, that process was explained at the national level as a stage in the unfolding of its own industry – in particular, the Department of Consumer Durables of National Industry (Oliveira 1977).

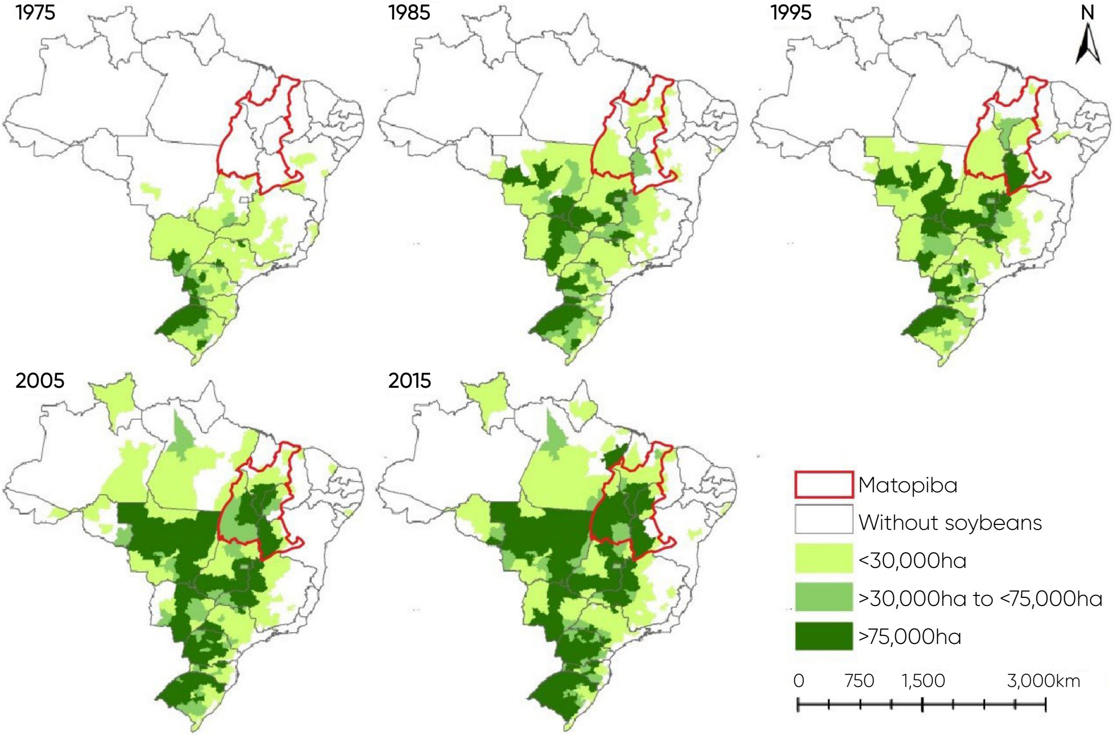
This industrialisation policy was linked to the national integration agenda, which involved the occupation of the 'Brazilian universe' (Brazil 1975: 56), underlining the false assumption by state policy that these hinterlands were unoccupied and represented a large 'demographic vacuum' (*ibid*.: 7). The occupation of the agricultural frontier was therefore framed as a population policy that would promote the creation of new jobs in these areas, but also as a policy to stimulate the production of food and raw materials through 'integrated investment blocks in hubs, agro-industrial districts or other forms that would allow the establishment of clear priorities and the control of results physically, by area' (Brazil 1975: 60). To promote large investments, a policy of territorial colonisation was added, probably to avoid 'economic regression' (Furtado 2000: 90):

> It is expected that the settlers and small producers programme will have a greater focus in the Northeast and certain limited areas in the Central-West and the Amazon, given the population density of the region and its physical-climatic characteristics. Distortions will be avoided in the implementation of enterprise programmes, such as the allocation of feudal rights to such farms and the restriction of land concessions to what is strictly necessary for production activities. Efforts are also made to prevent attempts to use the land primarily as a land investment by monitoring the effective implementation of projects within well-defined deadlines. (Brazil 1975: 61)

Thus, the policy of modernising Brazilian agriculture by encouraging investment from domestic and foreign companies, especially in soybean production, but also through extensive cattle ranching, mining, and the production of other agricultural commodities (maize, sugar cane, etc.) promoted the transformation of the Cerrado from the 1970–80s onwards. This policy deepened processes of expropriation – with the direct eviction of squatters, cattle-ranching aggregates, indigenous peoples, and small producers who lived in the areas – and accentuated concentration and centralisation of land ownership in the Cerrado.

It also encouraged the concentration and centralisation of capital in a small number of increasingly integrated industries and trading companies (Mendonça 2013). The results of this policy, supported by research conducted by the Brazilian Agricultural

Figure 1 **Area planted with soybeans by microregion (1975, 1985, 1995, 2005, and 2015)**



Notes Bold line indicates Matopiba region; ha – hectare.
Source © Grupo de Estudos em Mudanças Sociais, Agronegócio e Políticas Públicas (GEMAP), based on Wesz Jr's data from IBGE (Municipal Agricultural Production). Addition of the Matopiba area by Gabriel Lopes and Viviane Coutinho. Reproduced with kind permission.

Research Corporation (Embrapa) and co-financed with Japanese investments (JICA 2015), are visible, for example, in the expansion of the soybean production area (see Figure 1).

The large expansion of production across the Cerrado, particularly in the states of Mato Grosso do Sul and Mato Grosso from the 1970s onwards, led less productive soybean farmers and cattle ranchers to sell their land and production and migrate to cheaper land not yet occupied by agro-industrial production. This promoted an expansion of the agricultural frontier to both the Amazon rainforest and the Cerrado of the Northeast region, including the so-called Matopiba.[6] At the same time, large-scale producers also began to expand their production to those areas motivated by the same state policies, causing inexpensive land to rise in price afterwards.

As research by Alves (2015, 2006) shows, the high and flat areas, the so-called *chapadas*, were the first to be occupied. There, crop production could rely on an adequate rainfall, besides being the exact location of the headwaters/springs of the Cerrado rivers in the region. The *chapadas* were also suitable for mechanisation (planting, crop care, and harvesting) because they were flat and, in some cases, even allowed irrigation through centre pivots. As these lands were once shared by peasants and cattle ranchers but were rarely inhabited by locals, the discourse that they were unoccupied became widespread.

However, it is clear that the *chapadas* were of paramount importance for the social reproduction of the local population, as they gathered fruits and herbs there, and hunted and released cattle at certain times of the year, depending on the temperature and the rainy and dry seasons. The occupation of the *chapadas* for the expansion of soybean and maize cultivation was often illegal because it arose from document forgery. This occupation made the use of these lands by peasants unprofitable, and they were eventually expropriated. Several communities ceased to exist. Their members migrated permanently to urban peripheries to seek job opportunities, often settling in the *favelas* (slums) of large urban centres (Alves 2006).

The communities that inhabited the so-called *baixões* (lowlands), which were areas with rugged topographies and less conducive to mechanised agriculture, often retained possession of their land, but there were also cases of evictions and migration. Those who remained lived on land that was no longer sufficient for their social reproduction, as the *chapadas* were no longer available for common use. Members of these communities began to seek job opportunities as temporary migrant workers. In times of agricultural harvest, for example, they migrated to areas of agro-industrial production under precarious working conditions, as in the case of sugar cane production in South-Central Brazil and the work of sugar cane cutters, called *boias-frias* (Alves 2015).

During the military dictatorship (1964–85), rural modernisation became one of the flagships of public development policies. Since the creation of the National Rural Credit System (SNCR 1965), the contradictions of the development model adopted became increasingly evident. Its limitations became more visible given the increasingly unfavourable international economic context, which worsened after the 1973 oil crisis, and plunged Brazil into an unprecedented debt and inflation crisis (Davidoff 1984). Such a severe economic context increased the exploitation of the labour force (both urban and rural). Meanwhile, the expansion of the agricultural frontier and the privatisation of common land exacerbated tensions and conflicts in the countryside (Leite 2015).

With the militarisation of the agrarian problem in the context of the Green Revolution, the agrarian frontier thus took on a new meaning. Access to land in these areas became shaped by regional planning and the emergence of a new production model (Clements and Fernandes 2013). Agricultural science also played a major role, especially the work of Embrapa under

Prodecer (the Development Programme for the Cerrados) which drove the 'pioneerism' that built Matopiba, by designing seeds better adapted to that environment and also by developing techniques to improve soil conditions (Alves 2006; Boechat, Pitta and Toledo 2019).

3 Financialisation of agriculture and land

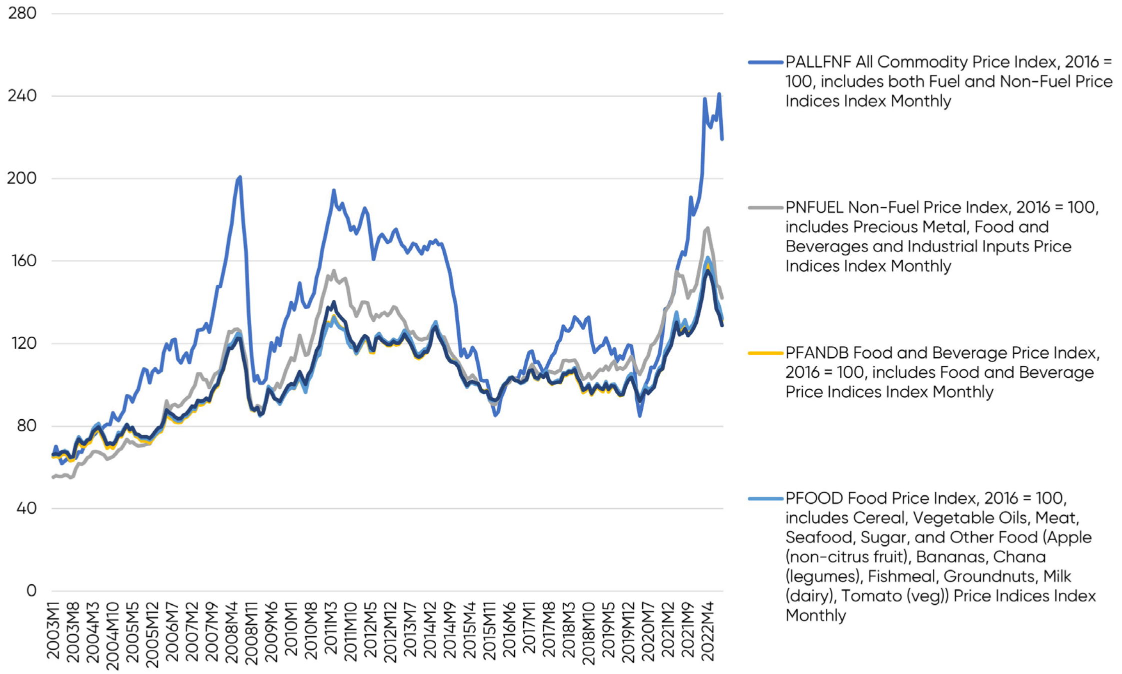
Ongoing research and an extensive review of the literature indicate that the dynamics of territorial control in the frontier are changing, both in terms of how land is taken and who drives these processes. Recently, the activities of corporate agriculture (Bühler, Guibert and Oliveira. 2016) or agribusiness (Frederico and Bühler 2015) have become fundamentally shaped by transnational capital. This capital invests in the production of soybeans, maize, eucalyptus, and other crops with an intensive use of technology and machinery to replace labour, especially in *chapada* areas. They see land as a financial asset.

These new aspects of the agricultural frontier are not limited to Brazil or Matopiba. They reflect processes of financialisation of agriculture and land or as part of land grabbing (Fairbairn 2015; White *et al.* 2012; Borras Jr *et al.* 2012; Ouma 2014; Leite 2020; Sauer and Borras Jr 2016). Clapp (2014) points to a broad movement of financial deregulation in financial and commodity markets since the 1980s, but especially in the 1990s, that ties the futures market for these commodities to index funds that receive contributions from investors who place their reserves with banks and do not know where their investments are going, and thus are not accountable.

Fairbairn (2015) notes that commodity index funds became popular in the early 2000s, especially among institutional investors. Visser (2015) identified a wide variety of commodity and farmland investment actors and instruments that have emerged since the 2000s. These include large investment banks, hedge funds, private equity funds, listed agricultural companies, and real estate investment trusts (REITs) in which large family businesses, endowment funds, pension funds, and international development banks started to invest. In parallel, major food traders, such as the so-called ABCDs (the acronym for the group of corporations comprising Archer Daniels Midland, Bunge, Cargill, and Louis Dreyfus) and others have established financial subsidiaries to advise their clients, mobilise capital, centralise production, and maintain their own hedge funds (Fairbairn 2015; Isakson 2014).

Borras Jr *et al*. (2012) point to a new context for land grabbing that began in the 2000s with rising prices for food and mineral commodities. From 2002–03 onwards, a 'cycle' of high commodity prices on international futures markets began, which encouraged the expansion of production and productivity, expanded production areas, and changed the production processes of the main commodities produced in Brazil. This cycle was associated

Figure 2 **Indices of non-fuel commodity prices, 2000–20**



Source Authors' own, based on **IMF data**.

with a speculative international price surge that relied on, among other things, China's economic growth as a justification to leverage financial returns that came from their bullish feedback in derivatives markets (Pitta 2016).

From 2008 onwards, with the global 'financial' and capitalist crisis (Kliman 2012), there was a sharp decline in these speculative prices (see Figure 2). These prices recover due to a new international 'liquidity cycle', but show a downward trend from 2012 onwards, lasting until 2016/17 and remaining reasonably stable at lower levels since then until the recent inflation. In this context of a multitude of crises (Borras Jr *et al.* 2012; White *et al.* 2012), some companies had moved to invest in land as their core business. Since 2008, Radar S/A, SLC LandCo, BrasilAgro S/A, Insolo Agropecuária, and Vision Investimentos, to name a few, have been created, resulting from the merger of large Brazilian agribusinesses with transnational financial capital to invest exclusively in the business of land speculation.

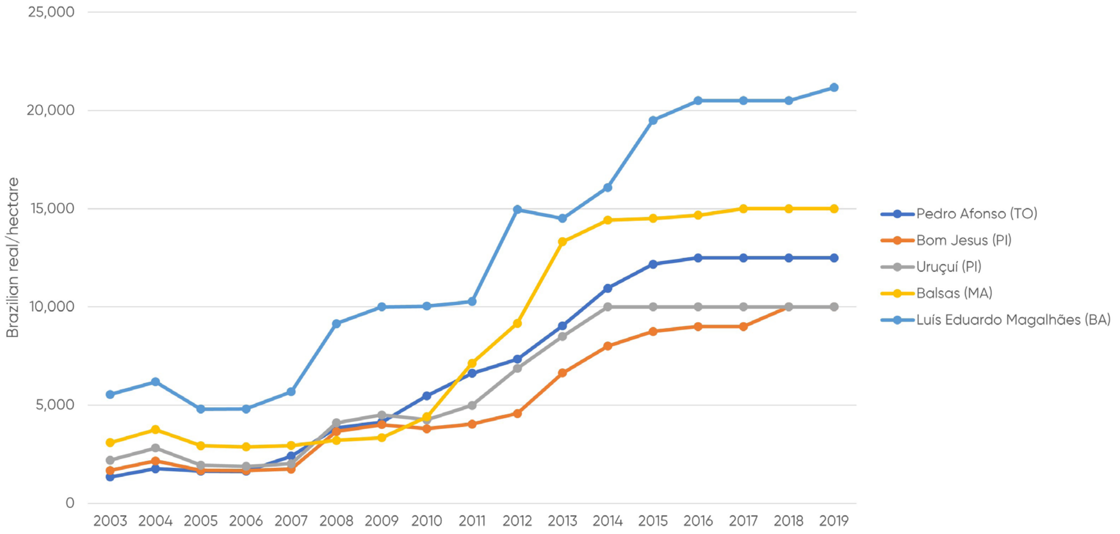
Analysing the nature of the current land-grabbing phenomenon, Daniel and Mittal (2009) had already pointed out that, contrary to initial interpretations that it originated from Asian governments concerned with inflation, it was mainly driven by private investors. For De Schutter (2010), commodity investments have become a way to minimise risks in institutional investors' portfolios, which also seems to translate to purely land-based investments. Visser (2015) found that the financial sector was mainly targeting agricultural land in emerging economies with large-scale agriculture and better-developed rural infrastructure, especially in Latin America (mainly Brazil and Argentina) and Eastern Europe (Romania, Ukraine, and Russia), confirming the World Bank's (Deininger *et al*. 2011) expectations.

Oliveira (2010) critiqued the idea of land grabbing in Brazil through the notion of 'foreignisation', highlighting the need to understand how land grabbing works through the practices of domestic actors. However, we have observed how some Brazilian agribusinesses, in association with transnational capital, have created transnational agricultural real estate companies and acquired land in frontier areas such as Matopiba. At the same time, however, they worked with local middlemen to acquire land, much of which was unduly appropriated. Indeed, in Brazil, since Law No. 5.709[7] was promulgated in 1971, the legal framework imposes a restriction on land acquisition by foreigners up to the maximum of 25 per cent of the territory, which, while arguing for liberalisation, effectively conditions the establishment of middlemen (Pretto 2009; Oliveira 2010; Leite 2020).

The company Radar S/A is a case in point. Pitta and Mendonça found that this company resulted from the merger between Cosan S/A (the largest sugar, ethanol, and electricity conglomerate in the country) and TIAA (Teachers Insurance and Annuity Association), a US teachers' pension fund with over US$1tn in assets (Mendonça and Pitta 2018; Pitta and Mendonça 2015). Radar S/A bought farms in Balsas (Maranhão), Alto Parnaíba (Maranhão), Santa Filomena (Piauí), and other towns in Matopiba. These purchases were in areas that had nothing to do with the expansion of sugar cane production although sugar was the original asset produced by Cosan S/A until then. They acquired very cheap land, farms that had recently been created through land grabbing, expropriation, and direct deforestation of the Cerrado. Agricultural land that was meant to be an autonomous financial investment became a questionable business.

In the states of Piauí and Maranhão, SLC LandCo, Radar S/A, and Insolo Agrícola, with investments from Harvard University (GRAIN and Rede Social de Justiça e Direitos Humano 2018), own farms that grow soybeans and maize, but also have a large part of their land covered with Cerrado vegetation that has not yet been deforested (Valor Econômico 2013). The process of clearings of the Cerrado and the settlement of these specific farms is recent. At the same time, and symptomatically, at the end of 2016, Cosan S/A sold most of its shares in Radar S/A to the TIAA Fund (it kept 3 per cent of them), thus realising the capitalised land rent in relation to the prices it had paid when it acquired its land at the time of the company's creation (Valor Econômico 2016).

Figure 3 **Land price in municipalities of the Matopiba (2003–19)**



Note MA – Maranhão, TO – Tocantins, PI – Piauí, BA – Bahia.
Source Débora Lima, based on data from **InformaEconomics**/**FNP**. Prices adjusted by the IGP-M (General Index of Market Prices) for April 2015. Update for the years 2015 and 2016 by Tim Steinweg and Hilde van Dijkhorst (AidEnvironment-Holland).

In relation to SLC LandCo, Insolo Agrícola, and BrasilAgro, it is worth noting that the transnational capital from which their investments originate comes from both the soybean and maize agro-industry, as well as from international finance capital. As commodity prices rose, there was an expansion of production, productivity, and acreage for soybeans and maize production, as well as speculation, mostly in soybeans on the international futures markets. Only then were transnational agricultural real estate companies established, focusing on investments in land as a financial asset (Rede Social de Justiça e Direitos Humanos 2018).

As a result, agricultural land prices, which these agribusiness groups regard as a financial asset, have risen unceasingly, especially since 2007 (Flexor and Leite 2017; Sauer and Leite 2012). Data in Table 1 and Figure 3 indicates that land has been one of the most important financial assets for investment in the last decade, especially in Matopiba. Although the data in Table 1 is limited to 2016, and in Figure 3 to 2019, since then, in the current scenario of low interest rates that prevailed until recently, specialised reports and newspapers have been documenting that farmland prices have reached a 20-year record (De Chiara 2021; FNP 2021).

The balance sheets of the companies cited here indicate that income from land has become more important as a financial investment than the actual production and marketing of

Table 1 **Comparison of financial asset inflation in Brazil (2013–16 and 2006–16)**

Indicator	Valuation over the period (three years) (%)	Valuation over the period (ten years) (%)
US dollar ($)	39.00	52.70
Fixed income (CDI)	43.51	183.00
BOVESPA	28.95	38.10
Gold	30.33	164.00
Farmland	15.66	220.00

Source Collated by Cássio A. Boechat, based on SLC (2017: 62).

the commodities on which they had hitherto focused their investments. Thus, land prices become somehow independent of future commodity prices (Brenner 2003; Kurz 2011) – which in theory should only capitalise a land rent linked to these prices (Delgado 1985: 204). Land becomes a separate business that can feed back into the process of its price inflation if demand persists.

Investments in land by companies that became known at the time of the Brazilian economic crisis (especially since 2013/14 – see Pitta 2021 for details) have existed in recent years. The process we wish to highlight here is the possibility of rising land prices, as in the logic of a speculative bubble, for example (Kurz 1995), driven by the creation of transnational companies that are particularly specialised in this type of investment.

4 Conclusion

The World Bank's (Deininger *et al*. 2011) benevolent read of the rise in land acquisition by investors around the world is challenged by observed practices of transnational real estate companies in Matopiba. The only apparent trend towards the separation between land and commodity markets suggests that the maintenance of a Green Revolution model in the Cerrado is becoming a means of 'valuing' land that influences both markets. While it continues to mobilise narratives such as that of combating world hunger through food production, it also highlights the ways in which food is primarily a means of making money as part of the financialisation of the global food system (Burch and Lawrence 2009; Clapp 2014; Niederle and Wesz Jr 2018).

However, like the ideology of the 'demographic vacuum' that justified the violence during the agricultural frontier expansion of the military regime, these narratives also promote their acts of violence today, benefiting farmland investors from the distancing inherent in the financial market (Clapp 2014). This is evident when TIAA investors, retired professors from North American universities, show that they are completely unaware of the practices of land grabbing and deforestation that the money from their pensions encourages in Matopiba communities. Thus, although the violence of expropriation and deforestation persists, veiled by persisting and renewed developmental narratives, there are new financial mechanisms that condition the agricultural frontier. Moreover, the state-driven model of territorial control of the frontier masquerading as an industrialisation project has now been replaced by transnational (mainly private) financial groups driven by profit-making, regardless of its environmental and social consequences.

Notes

* This *IDS Bulletin* was supported by the Newton Fund Researcher Links Workshops grant, ID 2019-RLWK11-10177. The grant was funded by the UK Department for Business, Energy and Industrial Strategy and the Fundação de Apoio a Pesquisa do Distrito Federal (FAPDF) in Brazil, and delivered by the British Council. Some material was developed under the project Green Revolutions in Brazil, China and India: Epic Narratives of the Past and Today's South–South Technology Transfers, funded by the UK Economic and Social Research Council (ID ES/R00658X/1). The opinions expressed are those of the authors and do not necessarily reflect the views or policies of IDS or the funders.

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5 **Brazil's first land regulation**, issued 18 September 1850.

6 Matopiba is an acronym made up of the first letters of the Brazilian states of Maranhão (MA), Tocantins (TO), Piauí (PI), and Bahia (BA). This is how it has become known in media reports and government projects. Academically, Bamapito (Alves 2006) has been more commonly used as it refers to the historical process of the arrival of the soybean in the Cerrado plateau areas of these states. In May 2015, the Brazilian government made the Matopiba region (comprising 337 municipalities in these states) official through **Decree No. 8.447** (issued 6 May 2015), which established the Matopiba Agricultural Development Plan and its Management Committee, brought together the aforementioned states and various ministries, and confirmed the existence of a state-planned region so named, whose 'development' is explicitly linked to agriculture and livestock.

7 **Brazil regulation 5.709**, issued 7 October 1971.

References

Alves, V.E.L. (2015) *Modernização e regionalização nos cerrados do Centro-Norte do Brasil*, Rio de Janeiro: Consequência

Alves, V.E.L. (2006) *Mobilização e modernização nos cerrados piauienses: formação territorial no império do agronegócio*, São Paulo: Faculdade de Filosofia, Letras e Ciências Humanas, Universidade de São Paulo (FFLCH-USP)

Boechat, C.A.; Pitta, F.T. and Toledo, C. de A. (2019) '**Pioneiros do Matopiba: a corrida por terras e a corrida por teses sobre a fronteira agrícola**', *Revista NERA* 47.22: 87–122, DOI: 10.47946/rnera.v0i47.6267 (accessed 30 January 2022)

Borras Jr, S.M.; Kay, C.; Gómez, S. and Wilkinson, J. (2012) 'Land Grabbing and Global Capitalist Accumulation: Key Features in Latin America', *Canadian Journal of Development Studies* 33.4: 402–16

Brazil (2015) *Decreto n. 8.447, de 06 de maio de 2015*, Brasília: Presidência da República, Casa Civil, Subchefia para assuntos Jurídicos

Brazil (1975) *II Plano Nacional de Desenvolvimento (1975–1979) [II Plan of National Development (1975–1979)]*, Brasília: Serviço Gráfico do IBGE

Brenner, R. (2003) *O boom e a bolha: os Estados Unidos na economia mundial*, Rio de Janeiro: Record

Bühler, E.A.; Guibert, M. and Oliveira, V.L. (2016) ***Agriculturas empresariais e espaços rurais na globalização: abordagens a partir da América do Sul***, Porto Alegre: Editora da Universidade Federal do Rio Grande do Sul (UFRGS) (accessed 14 September 2022)

Burch, D. and Lawrence, G. (2009) '**Towards a Third Food Regime: Behind the Transformation**', *Agriculture and Human Values* 26: 267, DOI: 10.1007/s10460-009-9219-4 (accessed 30 January 2022)

Clapp, J. (2014) '**Financialization, Distance and Global Food Politics**', *Journal of Peasant Studies* 41.5: 797–814, DOI: 10.1080/03066150.2013.875536 (accessed 30 January 2022)

Clements, E.A. and Fernandes, B.M. (2013) 'Land Grabbing, Agribusiness and the Peasantry in Brazil and Mozambique', *Agrarian South: Journal of Political Economy* 2.1: 41–69

Daniel, S. and Mittal, A. (2009) *The Great Land Grab – Rush for World's Farmland Threatens Food Security for the Poor*, Oakland CA: Oakland Institute

Davidoff, P. (1984) *Dívida Externa e política econômica: a experiência brasileira nos anos 1970*, São Paulo: Brasiliense

De Chiara, M. (2021) '**Preço de terras dispara no Brasil e atinge o maior valor em 20 anos**', *Terra*, 11 July (accessed 5 June 2022)

Deininger, K. *et al.* (2011) *Rising Global Interest in Farmland: Can it Yield Sustainable and Equitable Benefits?*, Washington DC: World Bank

Delgado, G. (1985) *Capital Financeiro e Agricultura: 1965–1985*, São Paulo: Ícone

De Schutter, O. (2011) '**How Not to Think of Land-Grabbing: Three Critiques of Large-Scale Investments in Farmland**', *Journal of Peasant Studies* 38.2: 249–79, DOI: 10.1080/03066150.2011.559008 (accessed 30 January 2022)

De Schutter, O. (2010) *Food Commodities Speculation and Food Price Crises*, Geneva: United Nations Special Rapporteur on the Right to Food

Fairbairn, M. (2015) '**Finance and the Food System**', in A. Bonanno and L. Busch (eds), *Handbook of the International Political Economy of Agriculture and Food*, Cheltenham: Edward Elgar, DOI: 10.4337/9781782548263 (accessed 25 February 2022)

Flexor, G. and Leite, S.P. (2017) 'Land Market and Land Grabbing in Brazil During the Commodity Boom of the 2000s', *Contexto Internacional* 39.2: 393–420

FNP (2021) ***Terras seguem apresentando valorização*** (accessed 22 April 2022)

Frederico, S. and Bühler, E.A. (2015) 'Capital financeiro e expansão da fronteira agrícola no oeste da Bahia', in V.E.L. Alves (ed.), *Modernização e regionalização nos cerrados do Centro-Norte do Brasil*, Rio de Janeiro: Consequência

Furtado, C. (2000) *Formação econômica do Brasil*, São Paulo: Companhia Editora Nacional, Publifolha

GRAIN and Rede Social de Justiça e Direitos Humano (2018) *Harvard's Billion-Dollar Farmland Fiasco*, São Paulo: GRAIN and Rede Social de Justiça e Direitos Humano

Hall, R. *et al*. (2015) 'Resistance, Acquiescense or Incorporation? An Introduction to Land Grabbing and Political Reactions "From Below" ', *Journal of Peasant Studies* 42.3–4: 467–88

Isakson, S.R. (2014) 'Food and Finance: The Financial Transformation of Agro-Food Supply Chains', *Journal of Peasant Studies* 41.5: 749–75

JICA (2015) ***Development for Sustainable Agriculture: The Brazilian Cerrado***, Basingstoke, Palgrave Macmillan (accessed 2 October 2022)

Kliman, A. (2012) *The Failure of Capitalist Production: Underlying Causes of the Great Recession*, London: Pluto Press

Kurz, R. (2011) ***O fim do boom das matérias-primas***, Lisboa (accessed 1 July 2017)

Kurz, R. (1995) *A ascensão do dinheiro aos céus: os limites estruturais da valorização do capital, o capitalismo de casino e a crise financeira global*, Lisboa (accessed 1 July 2017)

Leite, A.C.G. (2015) *O campesinato no Vale do Jequitinhonha: da sua formação no processo de imposição do trabalho à crise da (sua) reprodução capitalista*, São Paulo: USP

Leite, S.P. (2020) 'A questão da financeirização da agricultura e da terra na América Latina: evidências a partir do caso brasileiro', in M. Guibert and É. Sabourin (eds), *Ressources, inégalités et développement des territoires ruraux en Amérique latine, dans la Caraïbe et en Europe*, Paris: Institut des Amériques/Agence française de développement/Fondation EU-LAC

Li, T.M. (2011) '**Centering Labor in the Land Grab Debate**', *Journal of Peasant Studies* 38.2: 281–98, DOI: 10.1080/03066150.2011.559009 (accessed 30 January 2022)

Mendonça, M.L. (2013) *Modo capitalista de produção e agricultura: a construção do conceito de agronegócio*, São Paulo: FFLCH/USP

Mendonça, M.L. and Pitta, F.T. (2018) 'International Financial Capital and the Brazilian Land Market', *Latin American Perspectives* 45.5: 88–101

Moraes, A.C.R. de. (1988) *Ideologias geográficas: espaço, cultura e política no Brasil*, São Paulo: Hucitec

Niederle, P.A. and Wesz Jr, V. (2018) *As novas ordens alimentares*, Porto Alegre: UFRGS

Oliveira, A.U. (2010) 'A questão da aquisição de terras por estrangeiros no Brasil – um retorno aos dossiês', *Agrária (São Paulo)* 12: 3–113

Oliveira, F. de. (1977) *A economia da dependência imperfeita*, São Paulo: Graal

Ouma, S. (2014) '**Situating Global Finance in the Land Rush Debate: A Critical Review**', *Geoforum* 57: 162–6, DOI: 10.1016/j.geoforum.2014.09.006 (accessed 5 October 2022)

Pitta, F. (2021) *Le Brésil dans la crise du capital au XXI[e] siècle. Bulle des matières premières, capital fictif et critique de la valeur-dissociation*, Paris: Éditions Crise & Critique

Pitta, F.T. (2016) *As transformações na reprodução fictícia do capital na agroindústria canavieira paulista: do Proálcool à crise de 2008*, São Paulo: FFLCH/USP

Pitta, F.T. and Mendonça, M.L. (2015) *A empresa Radar S/A e a especulação com terras no Brasil*, São Paulo: Outras Expressões

Pretto, J.M. (2009) *Imóveis rurais sob propriedade de estrangeiros no Brasil*, Research Report for technical co-operation programme *'Apoio às políticas e à participação social no desenvolvimento rural' (PCT IICA/NEAD)*, Brasília: NEAD

Rede Social de Justiça e Direitos Humanos (2018) *Imobiliárias agrícolas transnacionais e a especulação com terras na região do MATOPIBA*, São Paulo: Outras Expressões

Sauer, S. and Borras Jr, S.M. (2016) ' **"Land Grabbing" e "Green Grabbing": uma leitura da "corrida na produção acadêmica" sobre a apropriação global de terras**', *Revista Campo-Território* 11: 6–42, DOI: 10.14393/RCT112301 (accessed 30 January 2022)

Sauer, S. and Leite, S.P. (2012) 'Agrarian Structure, Foreign Investment in Land, and Land Prices in Brazil', *Journal of Peasant Studies* 39.3–4: 873–98

SLC (2017) ***Relatório de Sustentabilidade 2017***, Porto Alegre: SLC Agrícola (accessed 1 July 2017)

Valor Econômico (2016) 'Cosan vende parte de suas ações na Radar para Mansilla por 1,065 bi', 30 September

Valor Econômico (2013) 'Dez grupos têm um terço da nova fronteira da soja', 1 April

Visser, O. (2015) 'Finance and the Global Land Rush: Understanding the Growing Role of Investment Funds in Land Deals and Large-Scale Farming', *Canadian Food Studies* 2.2: 278–86

White, B.; Borras Jr, S.M.; Hall, R.; Scoones, I. and Wolford, W. (2012) '**The New Enclosures: Critical Perspectives on Corporate Land Deals**', *Journal of Peasant Studies* 39.3–4: 619–47, DOI: 10.1080/03066150.2012.691879 (accessed 30 January 2022)