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Rent of Agribusiness in the Amazon: A Case Study  
from Mato Grosso. Ioris, A.A.R.

In: Land Use Policy (2016)

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## Rent of Agribusiness in the Amazon: A Case Study from Mato Grosso

*“The mobilization of rent and real estate wealth  
must be understood as one of the great extensions of  
financial capital within recent years”*

Henry Lefebvre, *State, Space, World* (2009)

### 1. Introduction

The expansion of agriculture in the Brazilian State of Mato Grosso, in the centre of South America, is a subject of growing scholarly attention, and much controversy. The rapid transformation of Mato Grosso offers a paradigmatic example of the late stages of the long-‘Green Revolution’ (as defined by Patel 2013), of the conversion of Amazon forest and savannah vegetation into large-scale farmland (e.g. Laval 2015; Rausch 2014; Richards 2015) and, ultimately, of the encroachment of globalized capitalism upon agriculture (e.g. Goodman and Redclift 1981; Martins 2010; Peine 2010). In the last few years, a growing literature on Mato Grosso’s intense agriculture activity, the history of rural colonization, and the idiosyncrasies of agribusiness entrepreneurship has become available (e.g. Arvor et al. 2013; Desconsi 2011; Oliveira and Hecht 2016; Richards et al. 2014; Weinhold et al. 2013). Yet, there is still a clear demand for critical studies that go beyond land use change, the contradictions of productivism and the failures of government interventions, but that focus on other issues such as intersectoral exchanges, racial discrimination, household and personal repercussions and the ideological biases of hegemonic science. Departing from the majority of existing narratives and interpretations, the intention with the present article is to question the trajectory of agribusiness in the region from a politico-economic perspective and, in particular, weigh up production versus the economic role of rents. (For analytical and explanatory purposes, rents are considered here as additional sources of income beyond direct production activities; see more below.) The motivation of the research was to interrogate the productivist argument commonly presented by the agribusiness sector in support of calls for more favourable public policies and state concessions.<sup>1</sup>

Our analytical strategy was to examine the significance of rent extraction for the consolidation of commodity production in Mato Grosso, which has been since the 1970s one of the most important frontiers of agricultural expansion in the country (according to Jepson 2006, agricultural frontiers are geographical areas with zero, but imminently positive, rents). A qualitative case study was carried out and drew upon 28 semi-structured interviews, longitudinal observation of practices and cross-sectoral interactions, analysis of documentation, newspaper articles, reports and secondary data. The research involved three fieldwork campaigns conducted between 2013 and 2015 (with around six weeks each) that consisted of visits to cropping areas, private companies, research centres (such as the unit of Embrapa in Sinop)<sup>2</sup>, indigenous communities and subsistence farming communities, attendance at public meetings and interviews in the municipalities of Sinop, Cláudia, Lucas do Rio Verde and Sorriso (located in the Upper Teles Pires River Basin, where most of the agribusiness production is located), as well as in the

<sup>1</sup> The concept of agribusiness was famously introduced by Davis and Goldberg (1957) in relation to agroindustry and entrepreneurial agriculture, as well as all the operations involved in the manufacturing and distribution of farm supplies and the storage, processing and distribution of farm commodities. Interestingly, due to promotional campaigns and influential public policies, the term ‘agribusiness’ has a particularly positive, and strategic, meaning in Brazil, where it is commonly used in reference to all large farms (and, to a lesser extent, to food processing and trading companies)

<sup>2</sup> Embrapa is the public and national agricultural research corporation, under the aegis of the Ministry of Agriculture. It currently has 63 research centres in Brazil and seven units abroad

capital city Cuiabá. With the help of local academics, interviewees and informants were identified, initial contacts were set up, and the research then followed a snowball approach targeting different sectors, from farmers and businesspeople to politicians and public authorities. Interviews and other qualitative material were transcribed, coded and examined in Portuguese; only the extracts reproduced in this paper were translated into English. The analysis of historical documents served to consider the importance of rent-forging during the period of frontier expansion (1970s-1980s), while interviews and site observations were particularly helpful to understand the more complex flows of rent in the recent and ongoing phase of neoliberalized agribusiness (since the 1990s).

After revisiting the literature on rent, the next sections will demonstrate that, rather than a pre-given and easily definable concept, rent encapsulates the spatial transformation and the political complexity of new agricultural frontiers. The final part is an attempt to summarize the findings and propose a new conceptualisation of the rent of agribusiness.

## 2. Agrarian Capitalism and Rent Extraction

The politico-economic concept of rent, despite the controversies it generates, constitutes one of the most invaluable tools to understand old and new features of the capitalist economy. That is because rent remains “one of the most powerful and contradictory aspects of the political economy of capitalism” (Swyngedouw 2012, 314). Rent is typically understood as all payments based on the fixed nature of resources, that is, “rent is a distinguished feature of every resource whose price increase does not alter the demand” (Tratnik et al. 2009, 105). It is basically an ‘extra’ payment for a factor of production – such as land and natural resources– in excess of the cost needed to bring that factor into production. This is classically the case with ground-rent, which is related to payment for using someone else’s land (i.e. landowner’s). Rent also includes the income gained by those who have privileges or patents or are beneficiaries of other contrived exclusivity, such as protection due to favourable policies and legislation. In this case, the seeking of rents involves the attempt to increase one’s share of existing wealth without creating new wealth. Already for Adam Smith (2008, 217), “rent is the produce of those powers of nature, the use of which the landlord lends to the farmer”. Smith depicted it as a relational phenomenon, insofar as the rent of food producing land ‘regulates’ the rent of other cultivated land. The realization of the relational and differential basis of rent was later expanded by Ricardo (2004), who argued that ground-rent derived from the incorporation of lower quality land into production. Although Ricardo’s analysis is quite schematic, it is possible to learn something here about the opportunistic and exploitative behaviour of landowners in a situation of increasing land scarcity and capricious fertility.

Also Marx was intrigued by the function of rent in the relations of production and that he emphasized the socio-political attributes of rent in his frontal critique of the ‘sanctity’ of private property (without ever producing a comprehensive rent theory). According to Lefebvre (1991, 324), Marx recognized the impossibility of reducing capitalist economy to the polarization between bourgeoisie and proletariat, because landed property and landowners showed no signs of disappearing, nor “did ground rent suddenly abandon the field to profits and wages.” For Marx, all categories of bourgeois economics, such as wage, rent, exchange, profit, are ultimately derived from the alienation of labour and the conversion of everything into a sellable object (Mészáros 2005). In the final part of his *opus magnum* [i.e. *Das Kapital*], land and agriculture re-emerge emphatically and Marx delineates the dialectics capital-land-labour as essential to comprehend the reproduction of capitalist relations and, ultimately, the production of the spaces of capitalism. While Ricardo focused on accumulation, Marx shifted his attention to production. According to Marx (1991), “the monopoly of landed property is a historical precondition for the capitalist mode of production and remains its permanent foundation” (p. 754) and whatever “the specific form of rent may be, all types have this in common: the appropriation of rent is the

economic form in which landed property is realized” (p. 772). Marx significantly extended the concepts of extensive and intensive rents proposed by Ricardo, calling these respectively ‘Differential Rent I’ (equal amounts of capital invested) and ‘Differential Rent II’ (unequal investments).

Marx (1991, 772) argued that all ground-rent is essentially surplus-value or “the product of surplus labour” (i.e. the additional time worked by farmers to pay the rent, beyond the time required to reproduce themselves). According to Harvey (2006), Marx shared the same impression of most political-economists of the time that rent is paid to parasitic landowners, who simultaneously drain on both capitalists and labourers. Ground-rent, thus, should not be confused with profit, which involves productive human action and the appropriation of surplus-value by the capitalist, but is a gain acquired at the expense of the privileged position of the landowner. Marx’s main insight was to more directly relate rent to production and profitability (both involving the payment to landowner or not, as in the cases where the producer is the landowner) and, crucially, refer to the ways in which the mobilization of land and other resources affects the value of commodities and the redistribution of surplus-value (Swyngedouw 2012). Marx concentrated on the historically specific form of landed property rehabilitated by the intervention of capital and capitalism, especially the transformation of surplus profit into ground-rent. To achieve that, Marx considered four types of rents, ‘Differential I’ and ‘II’, and ‘monopolistic’ (associated with the unique character of land or location) and especially ‘absolute’ rents from the extraction of surplus-value by landlords (related to the value of agricultural products is higher than their price and the fact that agriculture has lower average organic composition of capital compared with industry). Absolute and monopoly rents are more directly related to production costs, while differential rent demonstrates the dynamics of expanding land-use and the connection between production areas.

Rent theory evolved very little over the next half a century or so after Marx’s death, a period increasingly dominated by a focus on marginal utility and marginal use of land, basically treating land as merely another form of capital. Some noteworthy exceptions were the work of Lenin, in 1901, on the agrarian question, Hilferding, in 1910, on cartel rents, Schumpeter, in 1934, on entrepreneurial rents and Sraffa, in 1960, on a neo-Ricardian theory of value. The study of rent re-emerged, to some extent, in the 1960s mainly because of rapid increase of land and housing prices in the USA. Neoclassical authors, such as Alonso, in 1964, advanced the concept of rent-paying ability and the allocation of rent across different urban sites, which could lead to the most efficient land-use pattern. Such economists, who operate within the marginalist paradigm, maintain that rent arises when the supply of a factor is inelastic or less than elastic, for example, the supply of land cannot be increased when demand, and its price, rises. As it is well known, mainstream economic theory focuses on market forces (ignoring class-based relations, the sources of revenues, surplus values and their distribution, cf. Lefebvre 2016) and assumes that farmland values are determined by the discounted stream of expected income returns (which stands for land rents, in this case); however, farmland values and land rents are only partially explained by agricultural returns, as there are other, non-agricultural attributes that contribute to market values (such as location and natural amenities) and therefore help to increase the value of (differential) land rent (Czyzewski and Matuszczak 2016)

Haila (1990) correctly observes that this debate has evolved in multiple directions since the 1970s, with the complication that the protagonists have discussed disparate questions. One important concept of this decade was ‘rent seeking’, related to the unproductive behaviour of some societies or groups due to the introduction of protection systems (tariffs, quotas) and industrial support (licences, permits). Krueger (1974) is the main author here as she argues that the formulation of policies is greatly affected by business players trying to influence the political process to obtain favourable outcomes or avoid unfavourable ones at the expense of the misallocation of resources to wider society. The perverse side of rent seeking activities is the extra, unsolicited costs on the economy, because it means private gains without increasing

production (Schmitz et al. 2002). Costs rise because “the creation of rents by state intervention and the allocation of rents to political supporters invite other social players to engage in rent seeking” (Ngo 2009, 40).

While mainstream economists emphasized the relevance of rent as extra production costs, leftist authors, such as David Harvey, have considered rent as part of the contested production of space and the actual, lived injustices of contemporary capitalism. The author found, “deeply buried within Marx’s writings”, elements to understand the co-ordinating role of the circulation of capital in search of rent and the resulting spatial reorganization of activities and the influence on land use (Harvey 2006, 331). Consequently, Marx’s theory of ground-rent is inseparable from his theory of capitalist production and reproduction. Marx elaborated on the four types of rent aforementioned as the result of the very evolution of capitalism and the legacy from pre-capitalist, feudal times (as in the case of the legitimacy of large private estates). If the magnitude of rent influences directly the price of land, investments, interventions and state policies affect especially the magnitude of Differential Rent I (Swyngedouw, 2012). At the same time, Differential Rent II is a crucial mechanism for the insertion of agriculture into capitalist relations, and it is directly connected with the application of technology (see Friedland et al. 1981) to increase the productivity of agricultural labour and maximize surplus-value. Furthermore, profit (surplus-value) and rent (excess surplus-value appropriated outside production) dialectically complement each other, given that surplus-value is the product of agricultural labour set in motion by the institutionalization of rent yielding private property.

Although rent can be a drain on immediate capital accumulation (as it diverts value extracted from the exploitation of labour-power), it plays other very important roles in capitalist relations of production and reproduction. Rent influences the relocation of surplus value and decisions about what and where to invest and produce (in both urban and rural areas). Furthermore, rent provides legitimacy to commodification and private property, regulates capital circulation and accumulation and coordinates investment and the flow of capital across different sectors (Harvey 2006); rent also shapes conflicts between different land users, for instance, subsistence farming, land for resource exploitation, agribusiness farming and land as financial assets, which require active state coordination and the mediation of land markets (Swyngedouw 2012). For critical ecological economics, rent seeking attitudes are important elements to explain the unsustainable use of natural resources and ecosystems, given that rent represents the redistribution of surplus value derived from the monopolization of nature (Burkett 2014). Rent is also a worthy concept to clarify the sudden richness of oil-rich countries controlled by a rentier elite (such as Angola, Russia and Saudi Arabia), the inescapable destruction of socio-ecological systems and the conversion of biological flows into commodities (as in the case of the so-called ‘ecosystem services’).

Figure 1 summarizes the interpretation of ground-rent along the lines of the critical politico-economic tradition; the figure represents the centrality of private rural properties and the exploitation of labour-power and socio-nature for the extraction of rent, as well as the endorsement of the state apparatus in close political alliance with landowners. Ground-rent is the material advantage obtained by landowners from the exploitation of workers and from the transformation of socio-ecological systems into resources (i.e. essentially, the appropriation of surplus-value), but it incorporates and relies on other institutional mechanisms beyond the mere payment made by a leaseholder (tenant) to the owner of the land (landlord). It is possible because of wider economic, political and ecological conditions and it is an integral component of the general processes of production and reproduction of capital that are historically and geographically situated. Although the landowner is the direct and main beneficiary, the advantages associated with ground-rent are also shared with their political allies through, and with the assistance, of the state apparatus. The state plays a key role in the enforcement of labour and environmental regulation, in the organization of agricultural production and the land market, and in the preservation of economic relations based on private property. Figure 1 is an attempt

to respond to the interpretative challenge posed by Lefebvre (2016, 67) that rural sociologists have to work with political economists on “the theory of *ground rent* [*rente foncière*]”, a concept that is incredibly useful to explain extremely complicated realities “shaken by contradictory movements” and with “structures that are disintegrating, mixed with new forms and structures.”

Figure 1

Based on Figure 1, we can easily recognize that ground-rent processes have evolved together with the evolution of capitalism, from the early industrial period, to the monopolist phase and, more recently, to the neoliberal policy paradigm. Moreover, it is still necessary to bring this discussion to 21st century’s agrarian dilemmas and, as recommended by Guthman (2002), theorize how rent and surplus-values are translated into meanings. A renovated usage of the rent as an analytical category of agribusiness must necessarily explain where rent comes from, who benefits or losses out, and its part in production, accumulation and politics of globalized agri-food markets. And it should specifically help to address the difficulty the original Marxist rent theory to convincingly explain the advance of agrarian capitalism – primarily employing absolute rent – and the removal of biophysical obstacles that prevent the increase of surplus-value (Ghosh 1985; see Marx 1968, 20-21). In that regard, areas of agriculture frontier such as Mato Grosso offer an experimental opportunity to study the organization of agrarian capitalism and, crucially, the transition from Keynesian to neoliberalized policies. In the first moment, in the 1970s/80s, the prospect of rent extraction worked as an incentive for the opening and consolidation of new private properties with the strategic help of the state; later, since the 1990s and under an increasing influence of the private agroindustrial sector, regional agribusiness became highly integrated into the national economy and connected to globalized markets. Over the last four decades, various mechanisms of rent extraction were put in place and these have evolved according to the modernization of Brazilian capitalism and its current dependency on primary commodity exports. The persistent relevance of rent extraction in new areas of agriculture-cum-agribusiness in Mato Grosso is analyzed next.

### 3. Forging Rents through the State

Mato Grosso, as most of the Amazon, was for several centuries a sub-continent with countless natural riches but major accessibility and operational difficulties. What is now the territory of Mato Grosso was an area long disputed by the imperial ambitions of Portugal and Spain. The extraction of precious minerals after the discovery of gold in 1719 (Siqueira 1982) represented a source of high, concentrated rents that entailed the settlement of the colonial frontiers and the organization of the first towns (Prado Jr 1977). The ‘gold rush’ was short lived and soon Mato Grosso underwent a period of economic and social marginalization, which only saw some modest improvement after the Paraguay War (1864-1870) with the gradual revival of production and the commercialization of rubber, mate leaves, sugar and cattle (Ioris 2012). After the civil and military uprising led by President Vargas in 1930, national-developmental policies were put in place followed by resolute efforts to fill the ‘large voids’ in the Brazilian map. A well-orchestrated March for the West was launched with the mission of contacting and pacifying the indigenous groups (still largely ignored by the state and disconnected from the rest of society). The March for the West was boosted with the foundation of a new capital Goiânia in the neighbouring State of Goiás, in 1937, and the new national capital, Brasília, in 1960. At the same time, the provincial (state) administration of Mato Grosso was encouraged to put for sale vast areas of ‘untouched’ land – in effect, rent-income assets inhabited by indigenous peoples – often bought by public and private colonization schemes and real estate speculators (Moreno 2007).

The process took a dramatic turn during the military administrations that ruled the country between 1964 and 1985. The emphasis was then on the Cold War ideology of ‘national

security' and the promotion of state-led economic development. Initially the dictatorial government pursued orthodox, liberal policies that primarily favoured the great international capital (Ribeiro 2016), but soon the regime had to make also increasing concessions to national and international private companies (Branford and Glock 1985). The conquest of the Amazon was considered a golden geopolitical opportunity and soon the federal government was granting land, providing incentives and boosting the regional infrastructure (i.e. roads, ports, communications, etc.); in addition, poor family farmers and landless groups in the rest of the country could be relocated northwards to placate socio-political turbulences elsewhere in the country (Torres 2005). Because most of Mato Grosso is contained within what is considered 'Legal Amazon' (an official designation introduced in 1953) – including areas of both forest and *cerrado* [savannah] – it was eligible to take part in the megalomaniac plans of the generals. A large-scale process of land grabbing and socio-ecological transformation was vigorously promoted by the authoritarian state (largely funded by foreign loans and supported by northern governments) in the name of progress and international development. Those who arrived first could, to some extent, occupy the best lands and receive greater support from public agencies, something that Delgado (2012, 111) describes as 'gain of pioneer' (in effect, the appropriation of Differential rent I). Heavy investments funded by the government were put to work and, as Marx (1973, 252) had long ago observed, capital is the "presupposition" of modern landed properties.

With the establishment of an official agency (SUDAM) in charge of developing the Amazon in 1966, large farms were opened by business groups established elsewhere in the country, which basically wanted to secure easy money from subsidies, tax exemptions (e.g. on timber), duty-free machinery imports and interest-free loans (which were often forgiven and never paid back, cf. Kohlhepp 2001).<sup>3</sup> "The Brazilian capitalism, of patrimonialist tradition, discovered an extremely fertile terrain for development, in which the authoritarian state concentrated resources in order to distribute discretionarily to those privy to the [military] regime" (Tavares and Assis 1986, 30). Not by chance, during the bloodiest phase of the political repression, the government launched the first and second National Integration Plans (respectively in 1970 and 1975) with the primary goal of expanding the agriculture frontier towards the centre-north of the country (the first plan included the construction of the important motorway BR-163 connecting Cuiabá to Santarém, concluded in 1976, that provided access to north of Mato Grosso, including the Teles Pires basin). Along the lines of national development plans, specific initiatives mobilized resources for the Centre-West region, as in the case of Plan for the Development of the Cerrado (POLOCENTRO), in 1975, with a US\$ 250 million budget to incorporate new 3.7 million hectares of pasture (1.2 million), cropland (1.8 million) and forest (0.7 million); in practice the programme reached 2.06 million hectares, which was nonetheless an impressive accomplishment (Müller 1989). Thousands of projects were approved during the implementation of POLOCENTRO (around 1/5 in Mato Grosso) to assist, primarily, large scale landowners, who controlled 58% of the projects and were the receivers of 76.5% of the money (Silva 1985). It was the case that "the state here takes a 'pioneer' role in opening up sectors and areas initially unattractive to certain capitals" (Goodman and Redclift 1981, 149). In addition, PROTERRA (1971-1979) provided loans with negative interest rates for land purchase, especially for private colonisation, while PROCEDER, since 1976 and financed by the Japanese government, invested in agriculture research and new colonisation projects. Also a sophisticated, nationwide agriculture research network, coordinated by the aforementioned Embrapa, was inaugurated in 1973 and soon developed significant new technologies, particularly focused on the cultivation of the acidic lands of the Centre-West region.

The irony is that such intense national mobilization was less about agricultural production than other political and socio-economic goals related to the creating and release of

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<sup>3</sup> One main scheme was the investment of 50% of corporate tax liability in Amazon projects (basically, transforming taxes into venture capital)



new streams of rents from freshly promoted agribusiness. Agricultural development opened up a 'speculative front' that had little to do with production, but rather with large landowners greatly benefiting from the intensification of the land market and for the availability of public incentives. Land was rapidly becoming a commodity, regardless of its productivity and of the production of agricultural commodities. As calculated by Almeida (1992), the transference of subsistence farmers to the Amazon was marginally viable (in the sense that paid for the opportunity costs of capital and labour), but the price paid by the small-scale settlers (to buy their land) and by nature (deforestation) was very high and the economic success of the whole process will take time to be confirmed. The secondary importance of production is also demonstrated because the transfer of family farmers to the areas was by and large a failure, at the same time that new business companies were established "more as land traders than production units... The more interesting fact for the new companies was not the low price of the land, but its rapid appreciation" (Sawyer 1984, 22-23). The value of Amazonian lands increased at 100% per year (in real terms) in the 1970s (with an exponential rise between 1973 and 1975) due to the expectation of future returns and public incentives (Mahar 1979). The speculative basis of the frontier is related to the fact that the price of land in Brazil is directly related to potential territorial rent and inversely related to the rate of interest, which was relatively low in the period (Rangel 2000), an important correlation early identified by Marx (1991, 761).

The prospects of easily accessible land and financial support from the government in the new areas of Mato Grosso helped to mitigate social dissatisfaction among poor family farmers in the rest of the country and help to address agrarian problems in the original places. Thousands of poor farmers and landless groups – especially from the three southernmost Brazilian states, mostly descendants of Italian and German migrants who moved to Brazil in the end of the 19<sup>th</sup> century – were attracted or encouraged to move to the numerous private or public colonization schemes in Mato Grosso. However, after a few years trying to settle in the agricultural frontier, most of them ended up as employees in the larger farms and, therefore, producers of surplus-value then converted to rent. The whole process confirmed the observation of Mandel about the tendency to reproduce absolute rent in countries, such as Brazil, where capitalist agribusiness penetrated belatedly (in Marx 1991, 68). In that turbulent process, the most central player was (and still is) the state and its power to create properties and unleash rents from new politico-economic arrangements (despite the fact that the state is ignored in most studies on the sociology of agriculture cf. Buttel et al. 1990). For instance, in the year 1978 alone, there were around 170 separate lines of rural credit available and the national volume of credit reached US\$ 16 billion, roughly the same as the net value of Brazilian agricultural production; most of the operations were concentrated in the Centre-South of the country (IBRD 1979, in Goodman and Redclift 1981, 144). Pereira (2012, 39) adds that fiscal incentives powerfully increased rent and boosted other production factors, "among those it is noticeable the process of agrarian concentration." The new farming land was primarily concentrated in large properties, a pattern that was maintained almost unchanged during the expansion of the frontier and despite the fact that more than 400,00 migrants moved to the state, although excluded from decisions that affected their own interests (Wood and Wilson 1984): between 1970 and 1996, the total area of properties with less than 100 hectares in Mato Grosso remained the same (3.3% of the total agriculture area), while the area in properties with more than 1,000 hectares reduced marginally from 85.2% to 82.2% (cf. IBGE, quoted in Ramminger 2008).

Agriculture and food production were not much more than mere excuses of official plans and political speeches, because the main game was around securing subsidies, concessions and incentives from the state, often through the use of illegal mechanisms (such as false land titles) and the violent removal of any obstacles (such as the presence of squatter-peasants or indigenous groups). Rice was the main crop cultivated in Mato Grosso in this period, but the area of production dropped from 780,000 hectares in the 1977/78 season to 404,000 hectares in 1984/85 (Cunha 2008). Other crops, such as maize, cotton and sugar-cane had comparable poor

performances (at the same time, soybean started to expand significantly after 1985, especially because of propitious export opportunities, as discussed in the next section). Those disappointing results were normally attributed to inadequate technologies and, in the 1980s, to declining state funds; nonetheless rents from Mato Grosso agribusiness played a crucial role in the wider expansion of capitalism in the country (regardless of frustrated production and low productivity). Instead of profits from commodity production, rents were obtained from the newly created properties and then transferred to finance urban-industrial activities in the south and southeast regions. It involved a process of spatial dislocation as long as the rent from Mato Grosso agribusiness intensified production and accumulation elsewhere in the country. If it is true that the productivity of labour increased (when compared with traditional latifundia), the main goal and the main source of income was not production, but the release of rents that were forged through the creation of the agriculture frontier. The rent-forging mechanism gain momentum and the opening of the new areas continued after the end of the main government programmes; in total, between 1970 and 1990, 35 private enterprises organised 104 settlement projects and agriculture cooperatives that settled 3.9 million hectares of land in Mato Grosso (Jepson et al. 2010).

The new agricultural frontier, as a large spatial phenomenon, was ultimately both rent-forging and rent-dependent. The extraction of ground-rent (related to the appropriation of land and the exploitation of labour-power) was the most immediate goal, but it was organically connected with the appropriation of state incentives, concessions and subsidised loans. In that sense, the alleged success of the frontier was predetermined in advance and it only depended on its simple existence: it was seen as inherently successful by politicians and many others, an entire new, brave world bequeathed by the military to Brazilian geography. From the perspective of the main economic and political centres, the realization of the agribusiness frontier neither depended on the amount grain produced, nor on productivity rates. Moreover, the vitality of the agricultural frontier was severely affected by the macroeconomic turbulence, hyperinflation and exhaustion of public funds throughout the 1980s. The established channels of rent flow could not continue to operate and alternatives were urgently needed. The result was that from the early 1990s, the state assumed a more strategic, indirect role in terms of rent-forging, such as coordination of the insertion into global markets and looking after logistics; for instance, rural credit funded by the National Treasury was 64% in 1985, 22% in 1994 and only 3.5% in 1996 (and around 8% in 2008). At the same time, soybean (*Glycine max* (L.) Merrill) became the undisputed king of Brazilian agribusiness and Mato Grosso, the ice on the cake, because of a combination of more favourable exchange rates, the boom of commodity prices (in general terms, between early 2000s to 2014) and the competent mobilization of farmers. It means that soybean was the ideal crop to allow the reorientation of the rents obtained from agribusiness, as discussed below with the assistance of the interviews conducted in Mato Grosso.

#### 4. Consolidating Rents through Markets

The economic turmoil of the 1980s, which coincided with the end of initial pattern of agricultural expansion in Mato Grosso, were primarily consequence of the exhaustion of the authoritarian-developmental platform introduced by the military dictatorship and its excessive reliance on international loans. The first period was marked by the production of a new spatial order by concerted state interventions and the mobilization of a range of social groups to the region, which paved the way for the extraction of agribusiness rents from a web of politico-economics relations created around new rural private properties. Significant rents were extracted from putting land into agriculture, from real estate speculation and from the siphoning off government incentives for use elsewhere in the country. However, this model of rent extraction had necessarily to evolve in tandem with the macroeconomic transition to more flexible mechanisms of production and capital accumulation. Especially with an acute financial crisis

initiated in 1985-1986, it was necessary to reorganize the basis of agribusiness. As stated in an interview with a farmer, “the game now is more on the business and less on the time we spend talking to the manager of the *Banco do Brasil* branch [Brazil’s main public bank and historically the main provider of loans to agriculture]” (Sorriso, 05 Dec 2014).

In the new context, the role and the partnership between the big grain TNCs (Bunge, Cargill, Dreyfus and ADM) and seed and agrochemical TNCs (Monsanto, Syngenta, Basf, Bayer and Dow) became even more strategic, as these were no longer only buying crops, but increasingly financing production and farm infrastructure. Numerous technological adjustments were also put in place, but the prevailing monoculture systems, including the intense use of agrochemicals, digital technology and heavy machinery, were largely maintained. Production became highly specialized on soybean and few other crops, which further attracted resources away from the production of staples. Soybean-based agribusiness actually provides a good example of the rapid growth of power, influence and control over the supply, processing and trade of food by transnational agribusiness (Bernstein 2011). TNCs – which in Mato Grosso are called ‘tradings’, which is a short form of ‘input/trading companies’ – operate with very low risk and have a strong bargain position, what confirms that when the opportunities for primitive accumulation diminish, capital starts to cannibalize itself through the subordination of some capitalists to others (Harvey 2006).

Because of the specificities of the Brazilian economy, since the 1990s there has been a growing political relevance of the rents extracted from the renovated agribusiness sector of Mato Grosso to attend macroeconomic demands, and in that process corporations and landowners have also managed to further consolidate their political and economic status. It had basically to do with the heterodox attempts adopted to control inflation and strengthen the currency. After more than a decade with spiralling rates of inflation, in 1994 the federal government introduced an ingenious economic strategy, known as the Real Plan in 1994, which launched a much stronger currency, curbed hyperinflation and paved the road to further reforms. Political support to the Real Plan was further achieved with the facilitation of credit to the general population to consume goods and services (O’Dougherty 1999). On the other hand, the country started to face serious balance of payment difficulties due to the overvalued currency, deindustrialization and heavy debt service obligations. With growing public and private deficits, one of the main sources of foreign currency was exactly the export of soybean and a few other primary commodities (Hall et al. 2014). In a situation with challenging macroeconomic adjustment, the rent of agribusiness greatly helped to maintain the Real Plan and fund growing government expenditures. It was also helped by the introduction of tax exemptions, as the 1996 Kandir Law<sup>4</sup> that removed provincial (state) taxes on the export of primary commodities, such as soybean, under the need to mitigate the growing federal deficit created by the Real Plan (although it has penalized the state administrations). Agribusiness exports became even more attractive when Brazil floated the national currency (Real) in 1999, which sent a shock across its economy that set Brazil’s soybean boom into motion. This leverage effect of agribusiness rents was facilitated by the favourable market prices in the first decade of the century, which is often described as the ‘commodity boom’ due to the rising demand (particularly from China). Between 2000 and 2005, the area of soybean production doubled in Mato Grosso (from 3.12 million to 6.20 million hectares, cf. Cunha 2008) and continued to expand throughout the decade. All that represented a shift from ‘big-state’ agribusiness to the current ‘big-market’ agribusiness.

In a context of major political and economic tensions, agribusiness is described as an island of prosperity and the leaders of the sector in Mato Grosso didn’t hesitate to say that the national and state economy has been “saved by agribusiness” (IMEA 2016). However, agriculture is notoriously cyclical and a few good years are normally followed by a spell of negative returns. In 2005, there was another severe crisis when soy prices dropped, oil and input

<sup>4</sup> Complementary Law No 87/1996, named after the socio-democratic Congressman Antonio Kandir

prices rose, together with high interest rates and credit restrictions. Soybean farmers organized widespread protests, famously in April, 2006 and specifically targeted the state for their problems and for market failures, that is, the state failures were perceived as the main cause of their distress (Peine 2010). The leaders of the farming sector formed strategic, and lasting, political alliances with municipal and state authorities in order to put pressure on the federal administration. As explained in one interview,

“...agribusiness was going very well within the fences of the property, but we needed a lot more. The government had to absorb our problems, in one way or another, had to resolve the situation.(...) And we still today need a lot from the government, roads and better logistics, for example” (Sorriso, municipal secretary, 13 Jul 2015)

Because of the costs and risks involved, farmers expected to receive at least a baseline agribusiness rent (regardless of the vagaries of the market and the climate) equivalent to their effort to move to the region and their conformity with state calls to create new agricultural areas. As the area with soybean declined from 6.197 million hectares in 2005/06 to 5.125 in 2006/07 in Mato Grosso (cf. Cunha 2008, 18), the government had to intervene in the form of debt renegotiation, new lines of credit and other concessions. In actual fact, in moments like 2005/06, the federal state had to act to maintain the rent of agribusiness flowing both to appease the rural sector and also to secure one of its main sources of foreign currency (soybean export).

Soybean production in Mato Grosso reached staggering 28.5 million tons and occupied in 9.2 million hectares in the season 2014/15 (information provided by IMEA<sup>5</sup>). As in previous decades, production pressures again triggered higher land prices and, consequently, higher agribusiness rents coming from production (absolute rent) and from real estate speculation (i.e. monopoly rent). The Centre-West region saw the highest increase of land prices in the country, 16% per year between 2003 and 2012 (according to the National Agriculture Confederation, CNA).<sup>6</sup> In the best areas of Mato Grosso, the cost can reach 700 bags of 60 kg of soybean grain per hectare or even 1,000 bags (normally, land purchase is calculated in bags). As land values rose, landowners consolidated their claims on land by deforesting or opened their land to increase their property values (Richards 2015). In a good year, production can leave a profit of 5 bags, which means that it would take 140 years just to pay for the investment; the evident conclusion is that new land is not acquired for production only, but to store accumulated profits (surplus-value) and to gain from price increases.<sup>7</sup> The land market in the region could not be better for the landowners, but it has increasingly squeezed farmers without their own land (i.e. those farmers who by definition pay monopoly rent): “Land rent is increasingly more expensive, can reach 10 bags per hectare [per year], and the small farmer cannot pay, more to new areas or to the cities.” (Sorriso, 21 Jun 2015). Interestingly, there is an equivalent phenomenon in the opposite direction: the squeeze of small and medium-size landowners by companies (e.g. Amaggi, Bom Futuro, etc.) that cultivate vast areas (e.g. 30,000 hectares or more) with the application of capital from external investors. “Now, literally hundreds of thousands of farm units are operated by a handful of companies that manage millions of hectares across South America” (Oliveira and Hecht 2016, 265). In this last case, although these small number of

<sup>5</sup> IMEA is the Mato Grosso Agricultural Economics Institute; it was established in 1998 by the main representative organizations of the agribusiness sector in the state.

<sup>6</sup> Published in the magazine *Dinheiro Rural*, No. 103, May 2013 (available at <http://dinheiorural.com.br/secao/agronegocios/corrida-pela-terra>, accessed on 16 Mar 2016).

<sup>7</sup> The non-agricultural component of land demand is clearly prevalent in Brazil, but land rent markets are seen as underperforming because of unreliable property rights and the lack of effective dispute resolution mechanisms (Assunção and Chiavari, 2014).

operators pay rent to the landowners, but in return benefit hugely more from the (almost monopolist) conditions of agribusiness production in Mato Grosso.

It is important to mention that the growth of production and investment were not followed by equivalent gains in productivity; on the contrary, agribusiness remains essentially a rentist activity that expands production due to the incorporation of new areas and the exploitation of labour-power. Helfand and Rezende (2004) demonstrated that most than two thirds of the output growth in the Brazilian agriculture, up to the early 2000s, used to come from input growth and not from increases in productivity or technological change; the simple fact that the least productive farmers systematically leave the activity and that the least productive land is often withdrawn from production (when market prices are less favourable) also explained apparent technological gains when there were none (or very little). The situation changed with the biosecurity legislation introduced in 2005 (Law 11,105/05), which authorised the cultivation of GMO crops; additional legislation approved in the same year included biodiesel in the 'national energy matrix' (Law 11,097/05) and served as additional incentive for the production of crops such as soybean, cotton and sunflower. The favourable legal and policy landscape, together with good market prices, attracted new soybean growers and helped to increase productivity and, in particular, raise the productivity of the Centre-West region to the national average (Castro et al. 2015). As in other parts of the world, the technology of soybean production has improved with new, high yield varieties, efficient input use, improved nodulation and nitrogen fixation ability, as well as tolerance to biotic and abiotic stresses (Pratap et al. 2015). In Mato Grosso, the agribusiness sector even created an independent research facility (called MT Foundation), which competes with the official research structure of Embrapa and the universities.

On the other hand, it is hard to expect significant additional performance gains over the next few years. The potential levels of productivity obtained at research stations, and by a small number of growers, are difficult to achieve by the vast majority of farmers (Gazzoni 2010). As noted at Table 1, Brazil has expanded the area of production and total output, but yield has been affected (or is at least problematic to maintain, which is a serious issue in other countries as well). Most technological improvements are, in effect, small adjustments in the existing technological package brought to Brazil by foreign companies that sell agrochemicals. Furthermore, bad weather in the Centre-West region may have affected the productivity of 2015/2016, when compared with the previous season, but there is also the impact of new and more resistant diseases and weeds. In our interviews, some farmers mentioned one additional pesticide application every year, which demonstrates the sanitary risks of monoculture farming. Since 2008, Brazil is the champion in terms of pesticide use in the world (Carneiro et al. 2015), which is related to the cultivation of GMO crops and to the growing importance of agribusiness in the country. Therefore, the apparent success of agribusiness is not directly related to production or productivity improvements, but it is first of all derived from the reinforcement of a specific institutional arrangement that in recent years has tried to ameliorate its image, as in the case of the incorporation of the symbolism of sustainability (Lacerda 2011). Needless to say that in the European Union, 'political rents' associated with the adoption of the Common Agricultural Policy (CAP) have been systematically legitimized under food security and environmental protection claims (Spoerer, 2015).

Table 1

Other perverse side of the more recent phase of agribusiness rent extraction is that TNCs and similarly influential companies became even more active in the financing of production and, later, capture of the agribusiness rents. In a context of very favourable commodity prices in international markets and the need to mitigate the national trade deficit, was the increasing influence of international grain TNCs and the growing role of emerging Brazilian equivalents, as in the case of Amaggi, in terms of commercialization and funding the production.

Such companies own most of the warehouse capacity in Mato Grosso (190 units, capable of storing 5.84 million tonnes) and the four international TNCs control 95% of soybean export and charge interest three times higher than public financing (Recompensa Joseph et al. 2011). In the season 2015/16, the TNCs increased production funding, especially because of easier access to international loans with lower interest rates. Variable costs in Mato Grosso increased by 10% in production season 2015/16, compared with the previous season and the contribution of TNCs and private banks, in terms of financing, increased from 15% to 28%, while the contribution of public funds declined from 19% to 15% (IMEA, 2015). A main contradiction here is that the risks associated with production, including phytosanitary and market uncertainties, remain basically with the farmers and are only partially mitigated by the state in moments of acute crisis. For instance, since 2011, the prices of agriculture commodities have declined in global markets, at the same time that the costs of production have increased for farmers in Mato Grosso putting the profitability at risk.

The growing dependence of farmers upon credit “represents the transformation of rent into the form of interest; their receipt of state support signifies rent in the form of a subsidy... and dependence upon the ‘technological treadmill’ of seed mechanical and other chemical inputs, represents a system of landed property in which rent potentially accrues to industrial capital despite its separation from ownership of the land” (Fine, 1994 532-533). According to IMEA (Bulleting No. 384, 18 Dec 2015), in 2015 the production was record in Mato Grosso (9.02 million hectares, 28.08 million ton), but total production costs increased to R\$ 2,468.39/ha due to higher input prices; the overall profit in 2014/2015 is lower than in previous years. From an interview:

“More productivity is not enough to cope with rising costs and the harsh demands of the ‘tradings’ [TNCs]. We have all the risks and their risk [of the TNCs] is minimum. (...) The state does not interfere in the relation between farmers and ‘tradings’, and when interferences on the side of the ‘tradings’.” (Lucas do Rio Verde, 11 Dec 2014)

In the end, whenever it was possible during the research to have a good and reflective interaction with farmers and other locals involved in agribusiness, it was not difficult to detect a sense of uneasiness intermingled with pride and contentment. Many of those interviewed expressed the view that rent extraction has been a real element of regional development since the early years of public and private colonization in the early 1970s (as mentioned above, the region has relied on the persistent flow of migrants from the south, as well as workers from other parts of Brazil, in particular from the northeast), but it does not necessarily work in their favour:

“Mato Grosso does not accumulate rent, only produces rent, then it goes elsewhere. A lot of money circulates, farmers deal with a lot of money, but only a small proportion stays here.” (Sinop, 21 Jun 2015)

Taken as a whole, mechanics of agribusiness rent extraction evolved from the 1970s/80s to the 2000s/10s, following an increasingly relevant involvement of national and foreign companies and the ambivalent participation of the state apparatus (highly dependent on foreign currency accrued from commodity exports, but also ready to intervene when there is a risk of collapse due to market instability). Rent not only increased in terms of the amount of money involved (due to significantly higher production), but it is also more asymmetrically distributed and primarily flows to the pockets of the government and large corporations, at the expense of the gain secured by farmers, labourers and local society. That is why Amin (1987) and others mistake when claim that the capitalization of agriculture intensified since the expansion of the imperialist phase of capitalism and the elimination of land rent; in effect, capitalist agriculture is intrinsically rentist and the production and extraction of rents is an integral element of the

extraction of surplus-value and accumulation of capital though and in relation to ‘agriculture-cum-agribusiness’.

## 5. Discussion and Conclusions

The previous two sections demonstrate that rent extraction has been an important politico-economic phenomenon since the establishment of the new agriculture frontier in Mato Grosso in the 1970s. Rent mechanisms were forged by concerted state interventions and have evolved in tandem with the expansion, modernization and intensification of production. It has also worked as an additional source of income to landowners, agroindustrial companies and the state apparatus (the main rent-collectors) beyond the realm of production and commercialization, and even represents a safety net against the market and agro-climatic vagaries of agriculture. A comprehensive agrarian transformation was launched by the militarized state primarily to create large-scale properties (as a rule, subsidiaries of companies based in the southeast of the country and instrumental in attracting further government incentives) and to attract peasants and workers to the region (the majority of these would become employees in farms and cities and not be able to maintain their own property). In the first moment, the main provider of rent extraction conditions was the federal state which triggered flows of ground-rent (as in the form of rising land prices and land speculation) and ultimately paved the road for the subsequent consolidation of the rent of agribusiness (as the interconnected, highly politicized rent that is extracted by the stronger groups from the totality of agribusiness activities).

If the agricultural frontier was a region where the level rent was zero, it was soon converted into an entirely new spatial order in which rent extraction was the main economic engine. Such politico-economic arrangement underwent a significant crisis in the 1980s due to the inadequacy of agricultural techniques, low profitability and high vulnerability of the crops then cultivated (as rice, guarana and coffee) and, especially, the exhaustion of government funds. The agribusiness sector in Mato Grosso was then reorganized with the concentration of rural properties, the expansion of soybean and a few other crops (cotton, maize, etc.) and a stronger and more aggressive intervention of TNCs and agroindustries. Since the late 1990s (a few years after the introduction of the macroeconomic Real Plan), the rent of agribusiness became more reliant on strategic alliances between landowners and private companies – which is certainly not without tensions and disputes – with the endorsement of an increasingly neoliberalized state apparatus. The reason for the support and political leniency towards agribusiness is that the state became increasingly dependent on the rent coming from the sector in the form of exports of primary commodities, which was needed to fund a growing current account deficit. The metabolism of rent-yielding processes in the new agricultural areas of Mato Grosso is summarized in Table 2. It should be noted that authors, such as Walker (2014), are wrong when claim that the first phase was characterized by ‘rent capture’ in the 1960s-late 1980s, followed by ‘global market integration’ from the late 1990s. In reality, rent was and remains a decisive element of agribusiness production and agrarian relations in the region.

Table 2

Building upon the empirical results from Mato Grosso and upon the politico-economic literature, it should be possible to organize our findings around three main conclusions. First, the extraction of rent results from the convergence of different and highly politicized processes. Rent is not merely the payment to the landlord by those who work on agricultural production, but it embraces a range of class-related processes that make possible its extraction. It is essentially the attainment of gains from a situation of unequal power and private (exclusive) ownership of an economically valuable asset. Therefore rent reflects the ability to mobilize social forces and reconfigure existing social institutions according to privileges accumulated over time

and maintained in the course of class struggles. Marx (1988, 55) had early observed that the “rent of land is established as a result of the *struggle between tenant and landlord*”, which is a hostile antagonism that is “the basis of social organization.” Where the landlord is also the farmer, this tension is transferred to struggles between the agriculture sector and the rest of society.

Second, rent goes beyond the extraction of value from private property only, but more fundamentally it is the appropriation of value from circumstances historically and geographically given for the production and reproduction of capital. Harvey (2009, 170) describes “class monopoly” rents with respect to the power of landlords over low-income tenants, which is a notion that can be expanded to incorporate the unfavourable position of food consumers and wider society concerning agri-food businesses. In this case, if the labour-force is exploited for the immediate creation of rent, wider society and agri-food customers are also paying rent to companies and transnational corporations (TNCs) because of their power position (something described by Fishman 2007, as the ‘Wal-Mart effect’) and their ability to operate as quasi-state agencies. Rent is thus a relational phenomenon between different players and different moments and locations in the process of production and capital circulation. It means that the more immediate economic gain derived from ground-rent is only the final result of the thicker configuration of class-based disputes that make rent workable. Third, such contested mechanics of rent extraction also require a sustained, pro-active intervention of the state in order to control the spaces of production and coordinate such societal forces beyond the market. The apparatus of the state plays a crucial role in the legitimization and collection of rents derived from the unevenness of power between landowners, workers and food customers. Large-scale state interventions create a pool of economic rents in the form of subsidies and facilitated permits, while a core part of business strategy is to capture these income effect rents or at least avoid taking hits to existing asset values (Helm 2010). At the same time, the state is a political and economic beneficiary of broad agribusiness rents – from commodity production to landowners, and also to companies and TNCs – in the form of strategic alliances, payment of taxes and dynamization of the economy.

For all those reasons, and because of the intensification, financialization and integration of agribusiness across multiple activities, more than simply ground-rent, there is today a much wider mechanism of rent extraction from the sector as a whole. The *rent of agribusiness* is not only the convergence of the four components of ground-rent (mentioned above), but it means a qualitative, ontological conversion into deeply interconnected flows of rent between landowners, the apparatus of the state and, crucially, a small number of agri-food companies, including the powerful agroindustrial sector, such as TNCs (see Figure 2). Ground-rent continues to play an important role in terms of capital accumulation by landowners, but the ‘rent of agribusiness’ is a wider and useful concept to capture the complexity of agro-neoliberalism. The materiality of rent continues to be the exploitation of labour-force and the appropriation of socationature (the main rent-payers), but rent derives from the creation of new private properties and from the organization of a network between state-landlords-agroindustry that guarantees and intensified the extraction of rent. (It should be noted that the state apparatus continues to be central for the realization of rent under neoliberalizing policies and globalized market transactions.) Figure 2 represents this crucial network that guarantees the extraction of the ‘rent of agribusiness’, as it operates to stabilize production, reduce risks (although in favour of the stronger players) and maximize the extraction of surplus-value from the working force and profits from the consumers of agri-food goods.

More importantly, because of the economic shield offered by rent, agribusiness has been able to flourish and even managed to prevent the prospects of more ecological, less capitalist patterns of food production. The rent of agribusiness provides strong incentives for the maintenance of rural properties and attracts investments in production (which in the end trigger additional rent gains). Rent is therefore not a barrier to agrarian capitalism and agribusiness, but operates as a safeguard mechanism against market instabilities, credit restrictions and bio-climatic



risks. It is essentially a cost paid by workers (in the form of surplus-value), by socionature (in the form of deforestation, soil and water degradation, etc.) and the whole society (in the form of profit) to those in control of private rural properties and eventually state agencies and corporations.

Figure 2

Overall, it is possible to conclude that the widespread claim that agribusiness in Mato Grosso constitutes a history of success due to its high productivity and growing production is only partially true. A great deal of the success of agribusiness also derives from the creation of rent extraction opportunities in a context of violent spatial reconfiguration. The above analysis demonstrates that rent is not a mere economic instrument or a social institution for private gain, but it essentially provided the baseline conditions necessary to maintain and boost the agribusiness sector. Agribusiness became so vibrant and widely praised in Mato Grosso because it emerged as a rent-forging activity, at the same time that it has always been rent-dependent. In the end, the case study in Mato Grosso shows that the rent of agribusiness is an integral feature of the highly technified, contemporary agriculture and, more importantly, has helped to clear away some of the main obstacles for the powerful advance of capitalist relations in the rural periphery of the Global South.

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