Contents lists available at ScienceDirect

## Land Use Policy

Land Use Policy



# Land leasing and sharecropping in Brazil: Determinants, modus operandi and future perspectives



### Patrícia José de Almeida<sup>a,\*</sup>, Antônio Márcio Buainain<sup>b</sup>

<sup>a</sup> Department Economics, Accounting and Administration/University of Taubaté–UNITAU, Rua Expedicionário Ernesto Pereira, Portão 2, Taubaté, São Paulo CEP 12020-330, Brazil

<sup>b</sup> Economics Institute/University of Campinas–UNICAMP, Rua Pitágoras, 353, Barão Geraldo, Campinas, São Paulo CEP 13083-857, Brazil

#### ARTICLE INFO

Article history: Received 8 July 2014 Received in revised form 15 September 2015 Accepted 22 December 2015

*Keywords:* Land lease Sharecropping Brazil Determinants and operation

#### ABSTRACT

Ceding the use of land can have a positive impact on the unequal allocation of resources in rural areas. In Brazil, although the practice is nationwide, leasing and sharecropping are not widely employed. The objective of this article is to describe how these contracts work in the country, using 2006 Census Data. It was noticed that, on the one hand, the more advantageous contracts involve producers with higher levels of income and qualification, located mainly in the Southeast, South and Midwest. On the other hand, there is an expressive number of poor, small producers in the Northeast whose productive activity barely provides subsistence for the family. It is unlikely that these contracts will be a viable option to access land while there is still instability surrounding property (better definition of property rights) and the employment of incentives for the beneficiaries themselves.

© 2015 Elsevier Ltd. All rights reserved.

#### 1. Introduction

The idea that land leasing and sharecropping could contribute to agricultural inclusion and reduce land disputes, economic inefficiency and social inequality is not new, nor unknown in the economic literature (Vogelgesang, 1996; Deiningere and Jin, 2002).

Although broadly discussed and accepted by the literature, the empirical data shows a reduced adoption of these practices in Latin America,<sup>1</sup> particularly when compared to Europe, Asia and Africa.<sup>2</sup>

Brazil, in particular, is known for its unequal distribution of land ownership, with two notable characteristics: large tracts of unused land and a large number of rural workers that claim rights to the access of land. Despite the coexistence of unused land and producers that do not have the necessary amount of land to earn a living, land leasing and sharecropping are still relatively unknown and underused as alternatives to promoting access to land. Highly unequal distribution of ownership continues to be a major problem in the country.

Reydon and Plata (2006) analyzed the leasing of land and sharecropping in Brazil in order to understand why these systems were not used as adjustment mechanisms in the land market. They concluded that, generally speaking, the main answers lie within the institutional regime which is marked by the insecurity of land ownership and facilitates the maintenance of unused land for speculative ends.

The main objective of this article is to explore this line of thinking and analyze land leasing and sharecropping in Brazil in order to understand the principle key determinants that drive these contractual relationships. We argue that the past and present institutional framework of property rights and contracts negatively interferes with land leasing and sharecropping in the country, particularly when poorer producers are involved. Despite the existence of legislation to regulate contractual relationships, the terms of the contracts are largely not complied with. The shorter contract terms, for example, are adjusted in accordance with the interests of the



<sup>\*</sup> Corresponding author at: Rua Luiz Vicentin, 494, Jardim Santa Genebra II, Barão Geraldo, Campinas, São Paulo CEP 13084-754, Brazil.

E-mail addresses: almeida\_03@yahoo.com.br (P.J. de Almeida),

buainain@eco.unicamp.br (A.M. Buainain).

<sup>&</sup>lt;sup>1</sup> De Janvry et al. (2000) found that between 1950 and 1990, the use of land leasing decreased in all Latin American countries. Considering the total area, participation varied from 1.5% in Bolivia (1984), 1.6% in Paraguay (1990), 1.1% in Mexico (1991) to 8.2% in Chile (1980). In Uruguay, however, 20.6% of the land was leased in 1980. This relatively high participation of land leasing can be explained by the fact that the country does not have a legacy of agrarian reform interventions (pg. 10). In Central America, however, specifically El Salvador, Guatemala and Costa Rica, an increase in leased land was noted between 1950 and 1970. According to the producer's profile (i.e., landowner, settler with no final land titles, tenant, sharecropper, occupant or farmer with no land), as given by the 2006 Agriculture Census, leasing and sharecropping made up 7.2% and 3.3% respectively, considering the total number of establishments and areas of land dedicated to farming.

<sup>&</sup>lt;sup>2</sup> See, among others, Deininger and Jin (2006), Banerjee et al. (1998), Boadu (1992) and Arnalte et al. (1986) for information about the use of land leasing and sharecropping in Ethiopia, India, Ghana and the European Economic Community, respectively.

landowners. Legal restrictions surrounding land use as well as the limits regarding payment for the lease are also often ignored.

There is also evidence of contractual dualism in Brazil. On the one hand, there is the small tenant and/or sharecropper, for whom it is difficult, for a number of reasons (such as restricted access to different markets, level of wealth and qualifications, and experience) to sustain a satisfactory production level, generating marketable surplus sufficient to overcome the level of poverty and to pay the land rent. This group is facing serious difficulties to survive as farmers, and for many, particularly the younger members, rural migration continues to be the best option. On the other hand, there are the more experienced tenants/sharecroppers, who have more capital and better financial and productive conditions. They can be found in the more complex and structured agri-industrial chains (such as sugarcane, soya, maize and cattle raising) and have managed to preserve contracts that are more favorable and sustainable for both parties (Almeida, 2009).

In order to meet the proposed objectives, the article presents, in addition to this introduction, the following structure. The following section will identify and analyze the key factors that determine land leasing and sharecropping in Brazil. The third section provides a general overview of the practice and regional differences in the country based on data from the 2006 Agricultural Census. The final section will provide conclusions about the study.

#### 2. Land leasing, sharecropping and transaction costs

One author characterized farming as an island in a sea of risks (Wedekin and Sant'Ana, 2008). In this sense, the sharing of risks between the landowner and the tenant presents a strong incentive to lease land. Stiglitz (1974) argues that risk sharing involves a combination of rent contracts and mixed wage contractsok. Rent contracts offer incentives such as deadlines, payment method and profitability. Thus, the tenant assumes all of the risks in the productive process. Regarding wage contracts, the landowner assumes the risks and hires rural workers.

It is unlikely that one contract alone can minimize the risks that come with using labor and the land. It is possible, however, to design a contract that will minimize the total transaction cost<sup>3</sup>. This question was central for Murrell (1983), Datta et al. (1986), Roumasset and Uy (1987) and Barzel (1989). They argued that because the worker's income was independent of production, with a fixed salary stipulated in the contract, there would be greater incentive to avoid effort. When the worker is a residual claimant, i.e., will earn a percentage of the production, his interest in the final production will be greater, thus providing him with incentive to work harder.

Eswaran and Kolwal (1985) consider a different type of moral hazard that would arise when the owner avoids the managerial or administrative work. The authors analyzed leasing with tenancy share rent as a society in which the landowner lessees the land and manages the business, while the tenant provides the labor and the supervision of the work. In this arrangement, the landowner, who has a higher level of education and more information about market conditions, has an absolute advantage in the administration (decision-making) of the business. In turn, the tenant would have a similar advantage regarding the supervision of the labor force and the production process itself, given that the majority of the labor would be supplied by his family. If the owner hired salaried workers to carry out the work, he would face moral hazard issues, as the workers would avoid work and the owner would never be able to completely supervise them. If the tenant organized the work under the terms of a fixed rent contract, he would encounter moral hazard as the owner would have no reason to worry about the business and he himself would not possess the skills necessary to run the business. Under a tenancy share rent contract, the incentive of any tenant to avoid work would not be eliminated, however it would be reduced, given that with this contract the owner and tenant are both residual claimants. Reducing the "effort" problem could result in the tenancy share rent becoming more productive than any other arrangement - in terms of using the land - for both parties.

Allen and Lueck (2001) developed a model of contract choice based on the theory of transaction costs. The model ignores risk sharing and assumes that both parties are neutral to risk. The model considers that one determined area of land would be cultivated under leasing. The crucial decision is whether a cash rent contract or cropshare/sharecropping contract should be used. According to the authors, in this type of model, it is important to understand the incentives embedded in each contract.

In a cash rent contract, the producer pays an annual fixed amount (liquid) for the use of the land and has the right to the entire harvest. As a result, the producer provides the optimum quantity of his own factors of production, but tends to over-utilize any resource owned by the landowner. The producers can increase their wealth if they do not produce within the adequate rotation, if they use excessive quantities of chemical substances and fertilizers that damage the land, or if they use cultivation practices that increase current production, but have a negative impact on the future productivity of the land. In addition, the producer can increase his own returns if he manages the cultivation time, the application of fertilizers and the harvest. For example, if hail or storms are forecast, a producer can bring forward the harvest date of his own production.

In a sharecropping contract, the producer shares the harvest with the landowner. Since he will not receive the total harvest, the producer uses fewer factors of production and thus reduces the global distortion of suboptimal choices of the factors. As a consequence, the benefit of this type of contract is the limited incentive of the producer in overusing the landowner's factors of production, such as irrigation and soil nutrients.

It can be assumed that only the producer chooses the factors of production in the sharecropping contract, and the moral hazard characteristics of the model fall on the producer. Even though these contracts reduce the distortions of total factor use, there are additional costs resulting from the division of total production that are not present in cash rent contracts. A corollary of this model is the producer's incentive to underestimate both the quantity and quality of the production, generating a monitoring cost to the owner. For example, even if the quantity produced is not underestimated, the producer can keep the best hay for himself or choose the wheat with fewer weeds.

Transaction cost analysis models aim to uncover the determinants of the contract chosen. These models, however, implicitly assume exogenous risks related to production. If, in agricultural production, the stakeholders had symmetric and perfect information, it would be possible to precisely calculate both the factors of production that both the tenant/sharecropper with more knowledge (about the production process) uses, and the other tenant, who it can be assumed has less knowledge, uses. However, the exogenous risk and imperfect information make the contract extremely expensive and not viable, given the difficulty to calculate the quantity of factors of production that will be (or need to be) employed. It is therefore necessary to design contracts that minimize the cost of preparing and utilizing the factors of production used (Williamson, 1979; Murrell, 1983; Allen and Lueck, 1993).

In summary, the transaction cost theory offers a basis to understand how land leasing and sharecropping contracts work. The transactions between the agents result in relative costs to establish,

<sup>&</sup>lt;sup>3</sup> With the contracts come costs associated to their outline, implementation, monitoring, and principally, costs related to resolving disputes that arise from not complying to contractual relationships established (Almeida, 2002).

Download English Version:

# https://daneshyari.com/en/article/6547455

Download Persian Version:

https://daneshyari.com/article/6547455

Daneshyari.com