Long-Term Land Leasing

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land leasing | agricultural policy | land use | tenure security

1. Introduction

Land, as a factor of production, has a vital role within the agricultural sector compared with other sectors [1][2]. Efficiently operating agricultural land markets are critical in determining efficient production systems and structures and in their contribution to wider sustainable development at a societal level [3][4][5][6]. Agricultural land markets supported by policies that guarantee tenure arrangements for farmers have been shown to contribute to the productive utilisation of land as a resource by facilitating the transfer of land from less productive producers to more productive producers [7][8][9][10][11]. In recent years, land mobility has become a significant issue around the world with increased concentration and competition for land ownership [12], limiting the overall competitiveness of the agri-food sector and constraining the potential opportunities for new entrant farmers to access land [13][14][15].

Generally, land can be accessed either by permanent or temporary transfer [16] and the distinguishing factor in the transfer of land is the power of control over the bundle of property rights [17]. Property rights determine the social relationship between actors in relation to a valuable property object, in this case agricultural land [18][19]. The permanent transfer of land through purchase, sale or inheritance/gift confers ownership of the land to the particular physical person/legal entity who then expresses the fullest bundle of property rights [20]. In this context, when the transfer of land is temporary, mainly through leasing, this represents a partial bundle of property rights [20].

The transfer of land through sale is usually very limited due to high transaction costs, credit market imperfections and can also involve complex legal requirements and family issues. [9][21]. For example, less than 2% of utilisable agricultural area (UAA) is typically being sold every year in European Union (EU) member states [16][22]. The value is even lower in the United States of America, where it is estimated that only about 0.5% of farmland is sold annually [23]. Hence, permanent transfer of land is achieved through inheritance/gift. However, this usually results in the ownership of land being concentrated in the hands of very few people excluding those who may have an interest in farming but do not have access to such opportunities [16].

Land leasing, as an alternative to the purchase of agricultural land, is increasingly being embraced as a mechanism for securing tenure of land. A major contributing factor to this trend is the high purchase price of

agricultural land due to an overall lack of land coming on to the market for sale each year [1][5][9][24].

In this study, we provide a comprehensive and systematic review of the justification for long-term land leasing. We also highlight the challenges to long-term land leasing and identify potential incentives that might be adopted to encourage long-term land leasing for both landowners and farmers who seek to rent land. An understanding of the benefits that long-term land leasing provides has the potential to improve the efficiency of the agri-food supply chain and enhance sustainable agricultural production. This study will provide an evidence base to inform the development of policies targeted at incentivising farmers and landowners to adopt long-term land leasing, thereby delivering a more efficient land market alongside providing greater financial security to landowners. In addition, the results of this study will be useful in the design of policies to support future land leasing schemes which can provide improved equilibrium between land owned and land leased over a longer period of time. It also has the potential to facilitate structural change, as improved stability in the land market in the long term can allow for better strategic decision making at farm level.

It is important to emphasize that the focus of this paper is mainly to provide justification for long-term land leasing by reviewing its benefits and challenges across different countries with a particular focus on developed countries and some selected developing countries in the context of commercial farming with more formal arrangements. It does not attempt to provide detailed analysis of land use and associated policies or traditions/norms around land tenure in distinct countries. This is because land markets and land use policies are quite diverse across different countries and can even vary within a single country [25].

2. The Concept of Land Leasing and Theoretical Background

A lease by definition is the transfer of possession and use of a physical asset for a time less than its expected useful life in return for economic consideration [26]. From an economic perspective, the terms lease and rent have many similar features, including having a duration less than the useful life of the asset and transferring the residual rights associated with the asset to the renter. However, technically they are quite different; rental refers to the short-term rights to use assets and is not regarded as transferring possession of the asset to the renter, but instead conveys only a temporary license [26]. Leasing is an instrument of investment finance through which the legal ownership of the good is dissociated from its economic ownership [27]. Lease performs an essential economic function of allowing a person or legal entity to acquire an asset at lower cost than what they would have to pay to own the asset [26].

A rural lease according to de Almeida and Buainain [28] is “an agrarian contract by which a person (lessor) is bound to allow another (lessee), for a fixed or undetermined period of time, the use of land or rural property, part or parts thereof, including or excluding other goods, improvements made and/or facilities, in order to exercise farming, cattle raising, agro-industrial, extractive or a combination of activities, via compensation or rent, subject to the percentage limits permitted by the law”. The lessor takes back possession of the land or rural property after the lease expires while the lessee is entitled to use the land or rural property free of interference from the lessor during the lease provided the lessee pays the rent and performs the other obligations of the lease [26].

Specifically, in the case of land, the lease agreement, which may be written or oral, transfers parts of the bundle of property rights from the landowner to the tenant in exchange for either a fixed rental payment every period (a fixed rent contract) or a predetermined share of the output (share-cropping contract) [2][5][17][22][29]. Land leasing contracts are regulated by a lease agreement which sets out the obligations of the parties involved during the period of the lease and so provides useful legal protection to everyone concerned [1][18][19]. The legally required elements are usually minimal which allows the parties greater flexibility in structuring the other aspects of their relationship using specific lease provisions tailored to their individual needs and circumstances [26]. The leasing is undertaken under a different set of conditions and level of protection for the lessee with different combinations of three groups of rights—user rights, occupancy rights, and owner rights [20][30].

Land leasing is an important tool for economic development and its growing use can be explained by its effects on generating liquidity, releasing equity capital and improving accounting ratios [26][27]. From a rural development point of view, land leasing performs social functions by enabling people who do not own land or possess only limited capital and income to access it, thereby providing conditions for entrepreneurship in the field of agriculture [5]. For the lessee, the leasing of land serves as a medium to obtain income from farming without having to commit a lot of money to the purchase of land. Whereas, for the lessor, land lease serves as a great opportunity to obtain incomes without cultivating the land [31].

Land leasing also functions to minimise the risk of owning land, by transferring the residual rights from the owner to the lessee for the duration of the lease, allowing the lessee to try out the use of the land without having to purchase the land with debt financing [9][26][30][32]. With this, both the lessor and the lessee bear less risk than if they held the land alone. Reducing risk is a benefit, for which the party who achieves the greatest reduction in risk will have to compensate the other. Leases provide a ready mechanism to do this through adjustments in rent [26].

Leasing land also comes with greater managerial flexibility, while meeting environmental restrictions, off-farm work obligations and can accommodate different forms of contracts. The flexibility allows it to serve as an important means of developing the required economies of scale for modern agriculture [33]. For example, a study by [9] among dairy farmers in Ireland showed that those farmers who rent land have higher outputs and are more profitable compared to those farmers who do not rent land. Serra et al. [34] also showed that farmers with a higher proportion of rented land are more productive, are more prone to invest in machinery and use more variable inputs than farmers who only farmed their owned land. Similarly, [30] also found that farms in Sweden with more leased land produced food more intensively compared to farms with a greater portion of owned land. In these studies, it is argued that the direct costs incurred in the form of land rentals creates stronger incentives for the farmers who rent land to work on the land more intensively, relative to the opportunity costs borne by owned fields. Similar conclusions were also reached by [35].

The choice of contract duration is an important component of contract design in agricultural land leases. According to [36], long-term land leases are chosen when the costs of transferring tenant assets attached to the land are high, or if the depreciation of assets beyond the contract period are difficult to assess and therefore difficult to price for transfer to the landowner. On the other hand, short-term contracts reduce the costs of enforcing contract

stipulations and the costs of renegotiation or tenant dismissal in the face of market uncertainties, poor tenant performance, or disputes over poorly defined rights to assets. When the tenant's land-specific assets are exhausted within the contract period or if the landowner provides the land-specific permanent assets, then short-term contracts become more viable [36][37]. However, it is often not the case that land-specific assets are exhausted within the contract period in modern agricultural production systems, particularly in developed countries where agricultural production requires the use of cutting-edge capital equipment and land management techniques to ensure increased productivity and the sustainable management of land. Fixed inputs used in agricultural production are provided directly by either the landowner or tenant and are often not readily shared. The extent to which the tenant or landowner becomes the residual claimant of the input productivity depends on the length of the lease term [37], in particular, if the productive life of the inputs extends beyond the contract period and if the post-contract transfer of asset rights is difficult [37].

The incentives of tenants to provide durable site-specific inputs are weakest for short-term contracts and stronger for longer contracts because the variable for investment incentives is the expectation of being able to appropriate future returns [37][38]. For instance, maintaining soil fertility to increase production requires investment in land management in the form of applying appropriate levels of fertilizer, but the effect of such an investment goes beyond the period in which the investment is undertaken. Tenants will choose the optimal level of investment if they anticipate that they will benefit from increased productivity in the future. Incentives to invest in land improvement can be provided by establishing contracts that are long enough to allow tenants to benefit from future potential productivity gains [38].

3. The Case for Long-Term Land Leasing

The duration of land rental contracts has a significant impact on the abilities of farmers to respond to changes in the external environment, including economic and production conditions. This is because farmers are often required to make long-term strategic decisions around land and other resource use, type of enterprise and capital investment towards farm expansion [30]. Short-term letting agreements are considered a barrier to these objectives [39]. Generally, countries with well-developed agricultural systems and strict rental market regulations, such as France and Belgium, tend to have a higher rate of agricultural land under lease [1][2][22][40]. Table 1 gives a summary of the proportion of utilisable agricultural area (UAA) under lease in some selected countries.

Table 1. Characteristics of farmland structure in some selected countries.

Countries	Average UAA/Farm (ha)	Owned UAA, % of Total UAA	Leased UAA, % of Total UAA	Share-Cropping, % of Leased UAA
France	58.7	38.3	61.7	1.5
Germany	58.6	38.7	61.4	2.6
United Kingdom	81.41	69.4	30.6	-

Countries	Average UAA/Farm (ha)	Owned UAA, % of Total UAA	Leased UAA, % of Total UAA	Share-Cropping, % of Leased UAA
Netherlands	27.4	58.8	41.2	34.2
Belgium	34.6	32.9	67.1	1.6
Italy	12.0	64.9	35.1	16.0
Spain	24.1	61.0	39.0	18.5
USA	216	60.0	38.0	34.8
Northern Ireland [1]	41.2	72.2	27.8 [2]	-

Sources: Léger-Bosch, Houdart, Loudiyi and Le Bel [40]; [1] DAERA [41]; [2] Land is taken under the conacre system of short-term lettings.

Land leasing can either be short-term, usually less than five years, or long term when the contract spans over five years and the farmer has the ability to access or use the land over a longer time frame. Long-term land leasing has been identified as important for the efficiency of the farmland lease market, with numerous advantages both to the lessee and the lessor compared to short-term land leasing [42]. While a lot of work is being done to encourage long-term land leasing, short-term land leasing is still very popular. The conacre system which is a short-term land rental system unique to Northern Ireland and the Republic of Ireland is a good example of such [43]. The system (nominally for 11 months or 364 days) permits land to be let to other farmers without the need for either party to enter a long-term commitment. Currently around one third (about 300,000 hectares) of agricultural land in Northern Ireland is being farmed under the conacre agreements. While short-term land leasing contracts might be flexible in relation to contract renewal and adjustment to external changes, such contracts lack long-term security to allow farmers to invest in land development and long-term planning [22][44]. In the following subsections, we explain the justification of long-term land leasing on a point-by-point basis.

3.1. Farm Productivity and Profitability

Farmland tenure security has a significant impact on the utilisation of land. Indeed, land tenure and secure rights in particular have an impact on a farm's profitability by reducing transaction costs relating to land rental renegotiation and through their effect on investment and access to credit. Moreover, by facilitating the reallocation of factors of production, effective land tenure mechanisms maximise allocative efficiency in resource use, allowing for economic diversification and growth [2][45]. For example, a study by Kumari and Nakano [46] in Fiji compared tenure security between three tenure types and found out that that lease tenure insecurity had a significant negative impact on farm productivity and investment. They found from their study that cane farmers with short-term leases (0–5 years) achieve lower productivity levels, 6.5–11 tonnes per hectare, and made less investment in newly planted cane, 0.14–0.25 hectares, compared to farmers on long-term lease and freehold. In a study by Geoghegan and O'Donoghue [16] in Republic of Ireland, they estimated that tillage farmers could potentially earn higher income

from leasing out land on a long-term basis, earning 37% less from farming as opposed to leasing out their land and entitlements. They highlighted that if cattle finishers opted not to actively farm and leased out their land and entitlements over a seven-year term, they would earn 44% more from leasing out compared to what they earned if actively farming. Marks-Bielska [1] found that the efficiency of leased land in Poland is comparable to the efficiency of owned land when stable long-term agreements are in place while Akram, Akram, Hongshu, Andleeb, Kashif and Mehmood [10] also found that crop yield in owner-cultivated and long-term contracts is significantly higher compared to yield in share contracts lands.

3.2. Farm Investment

The level of security, often linked to the temporality of lease, affects farmers' long-term perspective of planning production and investment in land [30][47][48]. With long-term land leasing, farmers are able to enter a long-term contract without losing the incentive to make long-term investment [11][49][50]. Generally, investment is usually associated with certainty. Long-term land leasing gives more certainty to the farm business and the scale of farming operations. It offers greater security in land and provides farmers with greater confidence and incentives to invest in land improvement initiatives such as roadways, fencing, reseeding, reclamation, water management and investing in precision agriculture equipment which might improve the long-term fertility and productivity of the land [51]. With secure leasing arrangements, farmers are emboldened to invest in soil and productivity improvements due to them being guaranteed that they can hold the land for a longer time to gain investment returns [10]. For example, Deininger and Jin [52] used a large data set from Ethiopia that differentiates tenure security and transferability to explore determinants of different types of land-related investment and its possible impact on productivity. They found that stronger transfer rights have a positive effect on terracing investment in which it is found to have a significant impact on productivity.

3.3. Farm Level Sustainability and Land Management

Lease terms—including lease length and type—have been identified as a barrier to the adoption of sustainable land management practices and the uptake of agri-environmental schemes [20][51][53]. Sustainable techniques of production, including conservation practices and organic methods, require long-term investments in management and sometimes equipment [54]. Long-term improvements such as drainage tiles, grassed waterways, contour farming and forage rotation crops are not feasible under the short-term leases and this is often an important consideration in farmers' decision to adopt conservation practices [55][56]. Ayamga et al. [57] analysed household farm investment decisions under varying land tenure arrangements in Ghana. They found from their analysis that duration of tenure security positively influenced households' decision to invest in soil improvement and conservation measures. This is linked to the fact that conservation practices are often considered as capital improvements with immediate costs but in which benefits accrue over the long-term. Greater security on the land through long-term leasing gives farmers more confidence to invest in soil and fertility management. This is evidenced in the study by [16] in which they found that land rented over a short rental period (conacre system) in Republic of Ireland often tends to be of poorer quality compared to farms under long-term lease or owner occupied. Also, a study by [58] in which they examined the impacts of participation in off-farm work and land tenancy contracts

on the intensity of investment in soil-improving measures and farm productivity in the Punjab province of Pakistan showed that tenure security increases the intensity of investment in long-term soil-improving measures and exerts significant and positive effects on farm productivity. Similarly, a study by [10] has shown that secured land tenure has a positive impact on soil conservation adoption in India. A study by [59] in China on the effect of land transfer quality on the application of organic fertiliser by large-scale farmers showed that the stability of transferred land management rights measured in terms of the “land lease term” has a significant effect on the application of organic fertiliser to land. Specifically, they found that an increase in lease term by one year increased the probability of organic fertiliser application by 2.3% and the intensity of application by 1.45 %. They also found that a break in the land transfer contract during the lease term decreased the probability of applying organic fertiliser by 12.89 %, and the intensity of application by 9.31 %. A study by [38] has also shown that the duration of land leasing contracts is strongly correlated with tree cultivation. In their analysis, they found that increasing the duration of a land leasing contract from one year to more than three years increased the probability of cultivating trees by 80 per cent. This supports the notion that when farmers are not certain of recouping their investment in land improvement they are more likely to adopt management strategies that maximise short-term benefits even if this gradually diminishes the sustainability of soil fertility, thus contributing to negative externalities and possibly leading to market failure [10][53][60].

3.4. Facilitate Structural Change and Encourage New Entrants to Farming

A key driver for improving productivity performance in agriculture is having people with the skills and entrepreneurial drive to implement new ideas in the sector. Access to land in the long term is becoming more difficult for younger and/or new entrant farmers wanting to set up a farming business. This adds to an increasingly aging farming population and limits opportunities for younger farmers and new entrants to get into the industry, who can bring new skills, ideas and innovation into the sector. Long-term land leasing has the potential to facilitate structural change and encourage a younger generation of farmers, with the requisite skills and knowledge, to take up farming and adopt modern technologies and best farming practices to stay competitive [9]. Longer-term tenancy agreements could provide a more secure opportunity for younger and/or new entrants to the farming business to gain knowledge and experience without the fear of losing their investment in the land which can happen in the case of short-term land leasing contracts [61][62]. Given the relatively high cost of purchasing land, long-term land leasing also serves as a viable alternative by allowing young farmers and new entrants to gain access to land by providing a cheaper means of long-term access to land.

3.5. Access to Credit

Access to credit is a significant part of the agricultural production system. In some countries, depending on the regulation, long-term land leasing has the potential to facilitate the use of land as collateral to access credit markets [1][8][63]. This is because most financial institutions provide credit only when they are confident that there is enough time for repayment and this is not normally possible with short-term land leasing [64]. In a study by [10] in which they investigated the impact of three land tenure arrangements on organic farming (OF) in Punjab, India, they provide empirical support for the assumption that farmers with secured land rights including long-term leasing

are more productive compared to those with insecure lease agreements because they have greater access to credits by using land as a collateral. Research by [22] in Saxony, Germany, has also linked long-term land contracts to investment credits by maintaining that farmers with long land rental contracts have greater access to credits.

3.6. Easy Retirement Decision

Finding a suitable successor is increasingly becoming a big challenge for farmers who are planning to retire due to a number of social and economic reasons. For example, 40 per cent of farmers over the age of 60 in the UK have no prospective successor [22]. Similarly, about half of farmers in Republic of Ireland have no identified successor and two thirds of those indicated that they did not intend to fully retire from active farming in the future due to their strong social and moral connections to the land and local community [22][39]. Research has shown that where no successor can be designated, or the successor is not ready to take over the farm, farmers tend to continue to gradually wind down their business rather than selling up or leasing the land out to younger farmers outside the family a phenomenon termed the ‘retirement effect’ [22]. Long-term land leasing offers landowners, who may want to retire from farming, the opportunity to earn stable and long-term income from their land while ensuring the maintenance of the land, machinery and associated farm buildings without any fear of disruption in their income stream [22][65]. Long-term land leasing also ensures ownership of the land is retained should a successor require it in the future. Thus, the landowner also benefits from the opportunity to contribute to the development of the society by making land available to be farmed by a new tenant and at the same time significantly reducing the cost of capital investments that would have be borne by the new entrant [15].

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