

Land property rights and economic development in urban areas: a systematic literature review

Key words:

Land property rights, land titling, literature review, economic development

SUMMARY

We perform a systematic literature review on the effects of land titling interventions on several economic and social outcomes. We examine theoretical studies on subject and identify most relevant outcome variables and suitable study designs. We identify six quantitative studies and evaluate their findings in order to gain knowledge on mechanisms through which land titling interventions affect economic development in urban areas. We find that according to empirical evidence, effects operate mainly through higher perceived tenure security and increases in investment incentives. Low number of eligible studies emphasizes the need for further research on economic and social outcomes of land property rights in urban areas.

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1. INTRODUCTION

1.1 Background

Secure property rights have been traditionally considered as a key determinant of economic development. In his seminal paper Demsetz (1967) argues that weak property rights lead to underinvestment on individual level since a substantial risk exists that someone else will capture the returns of one's investment. Investment and land property rights may also be connected through the so-called credit channel. Feder et al. (1988) were among the first ones to suggest that better land rights make it easier to use land as a collateral, which in turn diminishes the constraints on funding investments and lowers the interest rate that the bank charges¹. The main premise is that a better access to credit markets helps to transform wealth into capital and, therefore, increases the labor productivity and income. In addition, it has been argued that formal land rights can enhance possibilities for gains from trade because transferable rights make it easier for individuals to either rent or sell their land (Besley, 1995).

Evidently the evolution of formal land tenure in developing countries is still in its early phases compared to Western Europe and North America. Cai, Selod and Steinbuks (2015) connect this to differences in timing and pace of urbanization. Also Feder et al. (1988) state that the evolution of individual land rights and mechanisms to enforce such rights is closely related to the population density, especially in the rural setting. Urbanization has been continuous in Western Europe and North America since the Industrial Revolution (1760-1840). For developing countries the urbanization started only in the twentieth century. Also the pace of urbanization has been recorded to be much higher in developing countries at similar stages of urbanization. The growth in urban population is mostly due to migration from rural areas to cities and decline in urban mortality. Often people arriving from rural areas end up living in squatter settlements. Still today, the scope and persistence of squatting remain as unsolved, puzzling issues. Most explanations point to some external constraints or market imperfections as causes of squatting but no univocal solution exists.

Evaluating the causal effects of property rights, i.e. performing empirical studies on subject, is by no means straightforward. The problem lies in the fact that allocation of property rights is typically endogenous: in many instances the emergence or reform of property rights institutions responds to the changing economic context. Many historic examples illustrate this pattern. For example Acemoglu, Johnson and Robinson (2005) show in their study that the pressure exerted by Atlantic traders in Western Europe post 1500 to improve institutions that

¹ From a lender's point of view, a person without secure legal title is, other things being equal, a riskier client, and thereby the interest rate has to reflect a higher risk premium. However, due to asymmetric information and adverse selection problem interest rates cannot be allowed to rise to a point where supply and demand equate. Land Property Rights and Economic Development in Urban Areas: A Systematic Literature Review (8539) Pauliina Krigsholm, Juhana Hiironen, Karin Kolis and Kirsikka Riekkinen (Finland)

facilitated their activities. Also from a micro-perspective it has been argued that reverse causation is an issue that should be considered, since many studies report that investments on a piece of land can secure the owner's right to the land (Besley, 1995).

Though the theory predicts that formal property rights will emerge once the gains exceed the costs of maintaining a titling system (e.g. Miceli and Kieayh, 2003), the evidence shows that this has not happened in many developing countries. Some authors argue that this lack of formal land property rights in informal settlements further immobilizes capital that is 'locked' and cannot be used for productive activities (de Soto, 2000). On the other hand, some have argued that land registration and titling have no potential to improve production in poor countries (Atwood, 1990; Bromley, 2008). Hence understanding the dynamics between land property rights and economic development is a question of great importance - both for researchers and policymakers.

Despite the vast amount of literature on topic, there are very few systematic reviews on the relationship between land property rights and economic development, measured either in terms of productivity or welfare gains, or particularly in urban setting. We aim to fill this gap with this study.

1.2 Aims of the study

The overall aim of this review is to identify and analyze the existing empirical evidence on relationship between land property rights and economic development, particularly in urban areas. More specifically, we state two objectives for this study:

Objective 1: To identify empirical studies that have estimated effects of land titling interventions in urban areas.

We note that the outcome variables vary a lot in empirical studies. Thus we acknowledge that examining theories identifying channels through which land rights can affect socio-economic outcomes is a necessary starting point. For example Feder and Nishio (1998) provide a conceptual framework for relationship between secure tenure and productivity in rural setting. To summarize, they present that with a secure title, a farmer obtains credit at a lower cost and higher amount, which enhances demand for investment. Increases in investment and input use in turn lead to higher productivity per unit of land. In theory, this framework extends also to urban settings. Like in rural setting, fear of eviction in urban squatter communities implies discounted returns to investment in housing and infrastructure (Field, 2005). Therefore both the quality and quantity of housing is predicted to rise with secure tenure. Moreover, we give special attention to study designs and methodology and critically evaluate studies in this regard.

Objective 2: To understand better the mechanisms through which land titling interventions affect economic development in urban areas.

Gaining knowledge of how land titling interventions have had a positive impact on study areas should be useful to many development actors, such as international organizations,

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In order to achieve both objectives, a thorough mapping of the research field is required. In addition, given the relatively broad nature of the topic, it is important to systematically search and select studies for further analysis with clear selection criteria. We explain criteria for searching studies in Section 2. In Section 3 we present results. Finally, Section 4 concludes.

2. METHODS

In this study we use a systematic review methodology (see e.g. Anderson et al., 2014). We start by presenting the strategy for study selection as well as methods for synthesis.

2.1 Criteria for searching studies

Following Lawry et al. (2016), the eligibility of a study is evaluated in terms of population investigated, intervention types, comparison group types, outcome variables and research design.

2.1.1 Population

This review is restricted to studies of low and middle income countries. We use the time of land titling intervention as a benchmark year. Due to the nature of research objectives almost all relevant studies focus on specific countries instead of group countries, which makes the classification of population type a fairly straightforward task. As explained earlier, we acknowledge that differentiation between studies in rural and urban settings is important, and focus on studies conducted in urban settings.

2.1.2 Intervention type

Only studies that examine such land titling interventions that recognize individual tenure rights for holders of urban land were included.

2.1.3 Comparison group type

We expect that treatment and control groups are clearly defined. In the context of land property rights, this translates to a setting where treatment group is subject of formal activities to strengthen land rights, whereas for control group, same activities are not undertaken.

2.1.4 Outcome variables

We accepted studies that estimated the effects of formalization or land titling on various economic or social outcomes. We rely on theoretical studies in choosing outcome variables (see e.g. Feder and Nishio (1998) for theoretical framework). Namely, the final and intermediate outcome variables we were looking for included effects on income or consumption of land tenants (final variable), access to credit, labor market participation, perceptions of tenure security and housing investments (intermediate variables). Especially housing investments and access to credit were considered as important intermediate variables.

2.1.5 Study design

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In this paper we focus solely on quantitative synthesis of previous studies. Consequently, only studies using quantitative methods are to be accepted. Considering the endogenous nature of land and property rights as described in introduction part, we accepted studies that used *randomized experiment* or *quasi-experimental design*². That is, we were looking for studies that use an appropriate counterfactual that allows reliable estimation of effects of land titling intervention.

We require that data used in study is drawn from a representative household survey covering all of the relevant population. By relevant population we refer to certain state or locality within a country.

2.2 Data collection

The search included all major academic literature databases, journals and working paper series in the field of economic development. In addition, we searched ‘grey literature’ on websites of institutions working on land and tenure rights, such as World Bank, FAO and UN-Habitat.

After preliminary search we collected general information on the interventions, study design, variables used and their estimated effects (Appendix 1). Even with clear selection criteria, the search results are likely to include unsuitable studies. Reasons for rejecting studies in our case are mainly twofold. Either the study does not present clearly defined tenure intervention or the study design is not acceptable. To minimize the ‘risk of bias’ in selecting studies for further analysis, all studies are evaluated following seven-step criteria introduced by Campbell Collaboration IDCG Risk of Bias Tool (see e.g. Anderson et al., 2014).

Ideally one would include only studies with low risk of bias. However, especially in our case when the total number of studies is low to begin with, this would force us to continue with a very small group of studies. The overall process of data collection is presented in Figure 1.

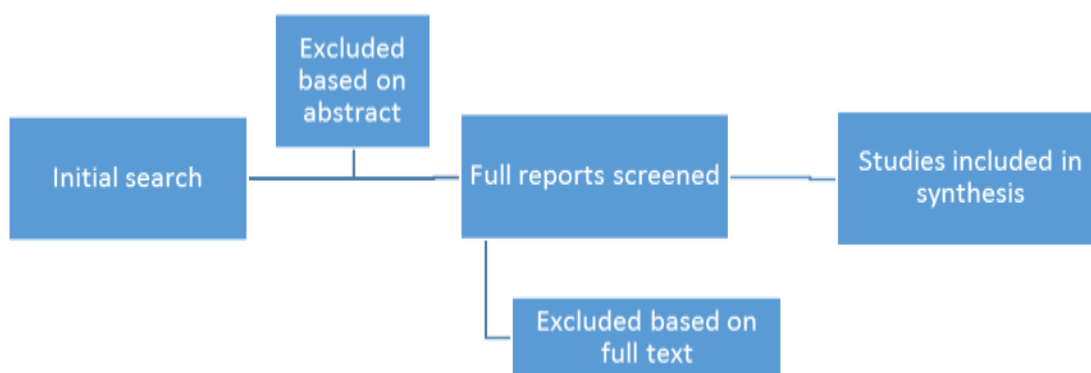


Figure 1 Flow chart of study identification process

²See e.g. Property Rights and Description of study designs for an example in Systain and Pischke (2008) (8539)
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3. Results

Based on our selection criteria, we identified six studies for further evaluation. General information on studies is presented in Appendix 1. Five out of six studies are conducted in Latin America – thus the evidence we obtain does not have a full geographical coverage. Moreover, Field and Torero (2003), Field (2005) and Field (2007) estimate the effects for the same intervention over the same period in the same location. That being said, our sample is too small for any statistical synthesis of estimated effects, such as meta-regression of comparably measured outcomes.

Most of the identified studies have estimated the effect of land titling on housing investment among urban households. Theoretical prediction says that both quality and quantity of housing increases with expected duration of tenure. However, as Field (2005) points out, two potentially important distinctions emerge in empirical settings. First, since most urban squatters reside illegally on public land, it is expected that investment incentives increase greatly with secure tenure. Additionally, the reverse effect of investment on household tenure security may be stronger in urban than rural areas due to the political nature of ownership rights. The estimated effects vary from no impact (Piza and Moura, 2016) to quite strong positive effects (Field 2005; Hailu and Rooks 2016). Field (2005) further notes that most housing renovations are financed without the use of credit, which indicates that changes over time reflect an increase in investment incentives related to lower threat eviction.

Among our selected studies, employment outcomes have only been studied by Field (2007). She examined the labor market effects of increases in tenure security under the Peruvian land titling program. The underlying theory predicts that if untitled households expend human resources maintaining tenure security through informal means, shifting the burden of protection away from individuals will reduce the opportunity cost of employment and enable households to make unconstrained decisions about time allocation across labor activities. Field (2007) found that titling results in a substantial increase in labour hours, a shift in labor supply away from work at home to work in the outside market, and substitution of adult for child labor. Hence she was able to depict an additional channel of welfare gain that is particularly relevant to urban households (the opportunity cost of spending time at home is expected to be higher in non-agricultural settings).

Finally, the thin evidence base provides no clear insight of the importance of access to credit mechanism. This view is emphasized in Field and Torero (2003) who found only moderate positive effect for access to credit in the Peruvian setting. Moreover, Galiani and Schargrotsky (2010) found evidence that formal titles substantially increased housing investment, reduced household size as well as enhanced the education levels in families relative to the control group. However, according to Galiani and Schargrotsky (2010), these effects take place mainly through the channel of increased physical and human capital investment. Access to credit, in contrary, was not recognized as an important driver of housing investment.

4. Conclusions

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The usefulness of comparing and contrasting empirical studies is in any case susceptible to many factors. We argue that this issue culminates in the context of land property rights since realization of benefits from land registration depends on variety of factors, such as the socio-economic and governance environment. However, some general qualitative conclusions can be made. First, increases in housing investment have been identified as the main channel for beneficial impacts of secure tenure/ land titling in urban areas. Second, access to credit has not been found to have such a clear effect on the rate of investments. This result points towards conclusion that credit effects are contingent on many other factors as well. For example Deininger and Feder (2009) present that liquidity of land markets and the presence of credit-worthy projects are important interpreters of positive credit effects. Third, the results that Field (2007) obtains about the impacts of government property titling on labor supply and employment are interesting and encouraging. Overall, a review of the literature indicates that while land titling interventions usually have some positive outcomes, they do not always live up to their expectations.

The number of studies providing evidence for urban areas is still in deficiency compared to studies conducted in rural areas. While it can be seen as a constraint for this study, it also allows us to identify potential future areas of research. Most obviously, the impact of land titling on other economic variables besides housing investment, credit access or labor market outcomes is yet to be examined. For example education and health outcomes in urban settings would be an interesting study subject, as pointed out also by Piza and de Moura (2016).

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Appendix 1.

Region	Country	Study	Comparisons used	Type of estimated effects: Housing Investment	Access to credit	Household size	Consumption	Perceived security	Labour supply	Income			
Latin America	Peru	Field 2007	Urban households that received formal property titles as part of the program versus those who did not.					positive effect	positive effect				
	Peru	Field 2005	Urban households that received formal property titles as part of the program versus those who did not.	positive effect				lower threat of eviction					
	Peru	Field and Torero 2003	Urban households that received formal property titles as part of the program versus those who did not.		moderate positive effect								
Latin America	Argentina	Galliani and Schargrödsky 2010	Entitled households that acquired full property rights after occupation by government versus the untitled households	positive effect	No effect to informal sources of credit, moderate effect on access to mortgage markets	Decreases with titling	No effect on durable goods			No effect			
Latin America	Brazil	Piza and de Moura 2016	Households in community where all received land titles versus households in nearby community where titling was scheduled to take place few years later.	no impact	Heterogeneous effects								
Africa	Ethiopia	Hallu and Rooks 2016	Households that occupied their landholdings before 1996 and received land titles versus households that occupied their landholdings between 1996 and 2004 and are waiting for intervention	positive effect	non-significant effect								

Summary of studies

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