



Department
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Secure property rights and development: Economic growth and household welfare

Property rights evidence paper

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Executive summary

Property rights and economic growth

There is a medium-sized body of high-quality evidence which **supports an association between secure property rights and long-term economic growth.**

The literature focuses on the impact that secure property rights have on encouraging investments by companies and firms. However, there remains debate: some critique the methods of analysis used in studies which find an association between property rights and economic growth; some argue that the link is not observed in important case studies; and others query whether strengthened property rights are the most important determinant of growth.

Only one study examines the relationship between secure property rights and the capacity to raise collateral-based finance at macro (regional/national) level. This study found that secure property rights lead to increases in credit which in turn promotes higher incomes per capita. A much larger and diverse body of evidence looks at this relationship at household level and is discussed in the chapter on rural household welfare.

There are no macro-level (firm, national or cross-country) studies which examine the role of secure property rights in increasing the mobility of assets so that all land is fully utilised and productive. There is also no evidence of the impact that land titling has on the distribution of property ownership between different groups (and hence on the distribution of growth). However, there is evidence to support the broader idea that unequal property distribution may have a negative impact on the security of property rights (e.g. a high degree of social polarisation, measured by the inequality of land holdings, increases the likelihood of extreme policy deviations thus making property rights less secure); this can have a negative knock-on effect on growth. There is also some evidence that a highly unequal distribution of assets can affect the development of institutions generally, where institutions evolve to protect the privileges of the elites and thereby set levels of inequality.

Property rights and rural household welfare

The range of contexts and types of investment studied, and the methods used to analyse them, result in inconsistent findings about the effect of strengthened property rights on increased household-level investment in land (e.g. agricultural improvements, tree planting, short-term inputs like fertilisers, etc.): some studies identify an association, while others do not. While some studies have shown that differences in tenure security have positive impacts on investment in specific settings (e.g. adoption of stone terraces in Ethiopian studies), others have found no impact. Nor has the evidence consistently pointed to a link between reduced risk of expropriation and higher levels of investment.

The relationship between strengthened property rights and household-level investment can vary. Specific geographical, social and cultural contexts may have an important role in modifying outcomes. In some instances, other variables, such as access to credit, are more important to increasing investment than strengthened property rights. In other instances, the reasons for the absence of an association are not clear.

The evidence for the effects of land sales and rental markets on allocative efficiency¹ and productivity is inconsistent. In areas where land markets did not exist at all (e.g. Ethiopia) there is some evidence that more active land markets lead to higher efficiency of land distribution; in other contexts, customary systems provide well-functioning markets. Whether land markets lead to more equitable distribution is similarly unclear; examples of both more and less equitable results are presented in the literature.

There is no evidence in the rural African literature which directly investigates the hypothesis that stronger property rights lead to factors of production being reallocated from 'guard activities' to productive functions. Nor does the evidence support the view that titled rural African households gain access to credit more regularly or easily than other households. Several factors may prevent this effect from being observed across countries. These include the absence of deep formal credit markets in many rural areas, or the presence of other forms of lending which allow credit provision without requiring land as collateral (including informal lenders and inter-household loans).

There is inconsistent evidence about whether individual private tenure provides better conditions for women's economic empowerment than alternative systems, including customary tenure: both positive and negative effects have been observed. Again, context is important: the social and cultural context in which women operate may influence the extent to which they are able to benefit from legal changes in property rights. However, there is a consistent body of evidence pointing to the benefits of substantive participation by women in local land consultation and decision-making initiatives. For example, key differences in the adoption of legal clauses considered beneficial to women in four case study countries were dependent on the transparency and high level of involvement of women in the decision making processes.

The evidence indicates that large-scale land acquisitions have occurred more often on land on which the rights of local users are not formally recognised. The growing evidence on recent land acquisitions suggest that communally-held lands under customary tenure systems may be at a higher risk than individually- or communally-titled lands, as the low level of statutory protection offered to them under national laws makes it relatively simple (from a legal perspective) for the state to appropriate and lease them to commercial interests.

¹ Producing goods and services that are most wanted by consumers, using the least possible resources.

Property rights and urban household welfare

There is a medium-sized body of consistent evidence which shows that titling can stimulate investment (in their own property, in housing for rent, or in small home-based enterprises) among some poor urban households: homeowners perceive their tenure as more secure which encourages them to make investments. However, titling may not necessarily be essential to encourage investment, especially where homeowners already feel secure enough to invest.

In addition, titling does not strengthen the tenure of a large proportion of poor urban households. A large proportion of households are renters so cannot share the benefits of titling and many others cannot afford the expenses of titling. A small number of studies show that the occupiers of many properties cannot be given titles because they violate land use and construction rules and so are illegal. Finally, a small number of studies suggest that some developing countries lack the professional and administrative capacities to execute large-scale urban titling programmes.

While the evidence is consistent that titling can stimulate investment by some poor urban households, these studies do not provide evidence of the extent to which these investments are typically financed with credit from banks. Two studies examine this issue in detail and both fail to find any correlation between obtaining titles and obtaining credit from private sector banks. Instead, a small body of evidence indicates that banks use other criteria in loan decisions, especially the repayment capacities of loan applicants. There is a medium-sized body of moderate quality evidence which suggests that poor urban households generally prefer not to put their properties at risk by using their newly acquired titles to secure bank loans. Instead, they tend to make incremental housing improvements without using credit.

On the relationship between improved income levels and welfare in poor urban households, there is a small body of moderate quality evidence which shows that investments mostly go towards improving housing conditions. Very few studies examine the link between titling and other welfare outcomes: only one study of moderate quality associates titling with moderate improvements in the health of children and education; evidence in one study found that titling had an effect on the number of working hours (and hence increased household incomes); and, a small number of studies found a link between titling and increased empowerment of women by giving them more control over household property rights.

There is some evidence of moderate quality showing that benefits from titling may not be sustained. For example, the new regular expenditures caused by titling can drive some owners (and renters) out of their homes, while other owners are encouraged by property value increases to sell and depart, with unknown consequences for the family welfare and production. There is also some evidence that governments take property despite titling.

Looking at the question of whether formal titling in urban areas is gender neutral, the evidence suggests that gender discrimination does occur. Ownership is often registered in the name of a single household member, with preference given to men. However, there is insufficient evidence to draw any conclusions about the extent, strength or impact of this discrimination.

1. Introduction

Property rights and development

The ‘golden thread’ of international development is a central theme in the UK Government’s vision for growth and poverty reduction in middle and low-income countries. The ‘golden thread’ refers to the common institutional enablers of economic growth found across all successful development narratives. The protection of property rights is at the heart of the golden thread.

This Evidence Paper reviews evidence on the relationship between secure property rights and development. It focuses on recently-generated evidence from Africa, and identifies evidence gaps. It critically reviews the strength and quality of the available evidence in three specific areas:

- Property rights and economic growth at a macro level
- Property rights and rural household welfare
- Property rights and urban household welfare.

1.1 Defining the terms

“Property”

Throughout this paper, “property” means immobile, fixed assets; specifically, housing² and land.

“Rights”

This paper defines a property right as:

- the control over assets;
- the “return to the assets that are produced and improved” (Rodrik 2000); and
- “residual rights³ of control (over assets)” (Grossman and Hart 1986; Segal and Whinstone 2010).

² In much of the literature, housing refers to “house + land”.

³ Where the owner is entitled to the use and fruits of the asset except insofar as (s)he has contractually agreed to limits on those rights (say, by transferring them to others).

This control can take various forms. It is based on the institutions of law, regulation, policy and social norms that define, negotiate, monitor and enforce property rights in particular contexts.

“Security”

A property right is secure when its holder perceives it to be stable and predictable over a reasonable period of time and protected from expropriation or arbitrary change. Protection is enforced by some form of recognised authority. Security typically implies the ability to appropriate benefits arising from a particular property right.

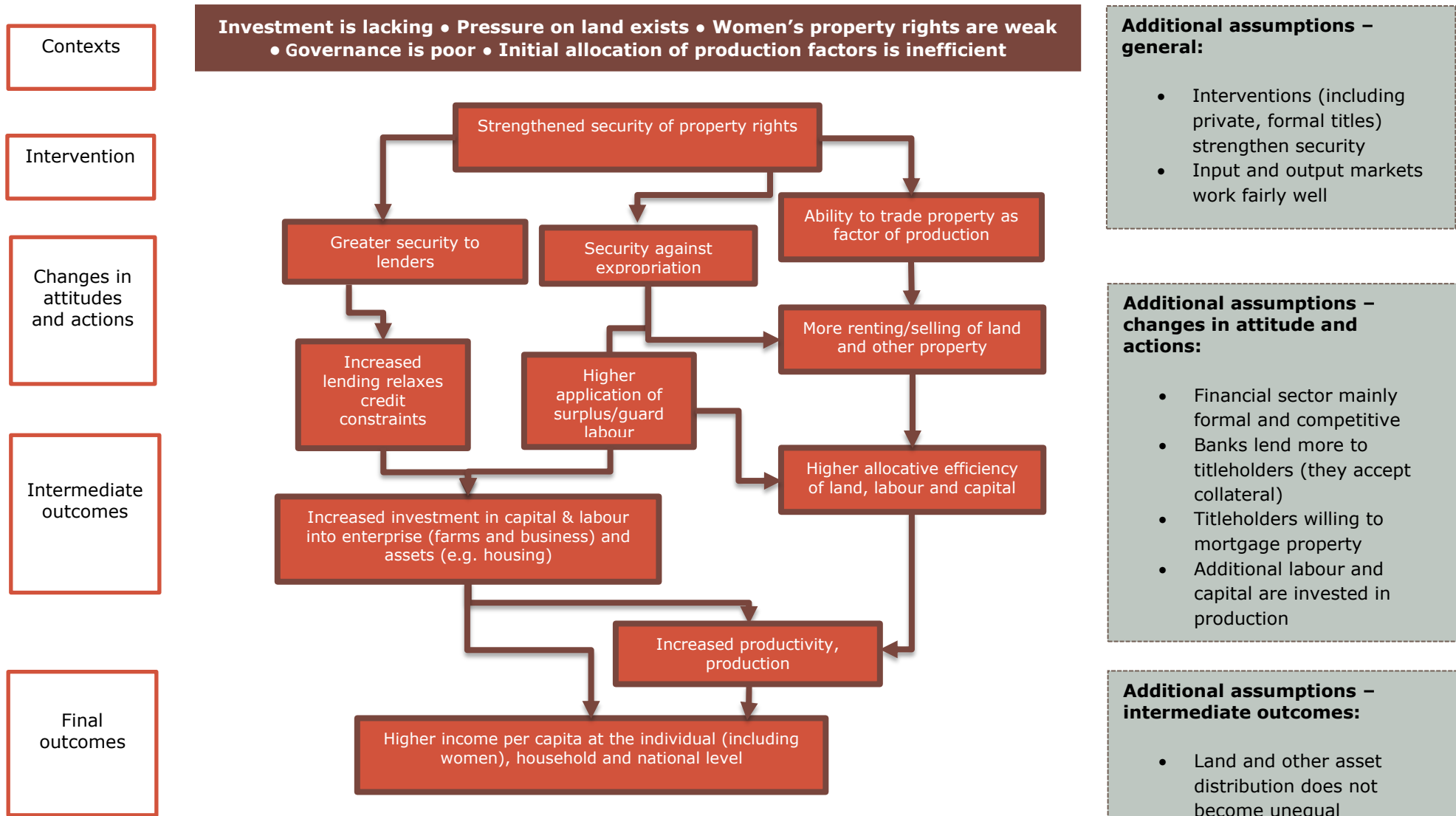
1.2 Conceptual framework

The broad conceptual framework for identifying the different links between secure property rights and growth, rural household welfare or urban household welfare are all measured, at least partially, through income per capita levels. The framework adopted in this paper is drawn from Besley and Ghatak (2009) who identify four main channels through which secure property rights influence economic activity and resource allocation:

- **Security** channel, whereby investment is expected to lead to a flow of income which needs to be protected against expropriation through secure, well-defined property rights. Such protection provides incentive to invest. By implication, insecure property rights could mean that firms or individuals may fail to realise the fruits of their investment and efforts.
- **Efficiency** channel, enhancing the mobility of assets through transactions such that assets are transferred to those who can use them most productively.
- Reduced **protection** costs: secure property rights mean that individuals can devote fewer resources to protecting their property (an unproductive use of resources) which frees these resources for productive uses.
- Transactions facilitation or the **collateral** effect: formally defined property rights allow for the use of property in supporting other transactions by using it as collateral to raise resources on the financial market. This may increase productivity.

Figure 1 presents an overall theory of change which outlines these main pathways between secure property rights and higher income per capita. Each main chapter of this paper presents a more detailed theory of change which examines specific pathways in this overall figure.

Figure 1: Diagram of theory of change – From property rights to economic growth and development



1.3 Research questions

The relationship between property rights and development outcomes is explored through a series of specific research questions, outlined below.

RESEARCH QUESTIONS

Economic growth

1. Does the provision of private, formal property rights result in increased investment and productivity? Do alternative forms provide sufficient security to drive investment?
2. Do formal rights allow property to be used as collateral against credit, thereby increasing investment and generating growth at a regional or national level?
3. Can private property rights enable resources to be put to more productive uses, generating growth at a regional or national level?
4. Might allocating formal property rights change the distribution of property, thereby affecting either growth or the distribution of its benefits?

Rural household welfare

1. Does the evidence confirm that stronger property rights automatically lead to higher levels of investment? If not, which other key factors determine productive investment?
 - i. Does the evidence indicate that private, formal, property rights (alone) encourage increased productive investments on land by households or can other forms of rights provide similar incentives to invest?
 - ii. Does the evidence confirm that 'free, open' land markets increase inter-household land transfers, leading to allocative efficiency and greater productivity or do they act to promote social and economic differentiation and dispossession?
 - iii. What is the evidence to support the hypothesis that stronger property rights lead to a reallocation of factors of production from guard to productive functions in reality?
 - iv. Does the evidence indicate that stronger property rights lead to enhanced access to credit for rural households through use of land as collateral or are other characteristics of the financial market and households more important?
2. What evidence is there to show that individual, private tenure is necessary or sufficient for securing women's economic empowerment and their access to goods and services?
3. What is the evidence from the emerging body of literature on the susceptibility of land held under different tenure systems to land grabs?
4. What does the evidence say about the impact of stronger property rights on other welfare benefits (health, education, fertility, food security) for rural dwellers through other channels than through raised income levels⁴?

⁴ Note that only one study in the African literature addresses this question, so it remains an evidence gap.

Urban household welfare

1. Does the provision of private, formal land and building rights provide greater incentive to poor urban households to invest in their own property, in housing for rent, and in small enterprises?
2. Do formal rights allow property to be used as collateral against bank loans and do they facilitate a greater volume of loans to poor urban households?
3. Does titling improve income levels and welfare in poor urban households?
4. Is formal titling in urban areas gender neutral?

1.4 Structure

The paper is structured as follows:

- Chapter 2 presents the methods employed to construct this review. It includes details on the literature search method, and how evidence was selected and quality appraised.
- Chapter 3 discusses evidence on the impact of formalised land rights on **economic growth** at a macro level (regional/national level) through increased investment⁵, credit (i.e. collateral-based finance) and allocative efficiency⁶. It also examines the impact of titling on the distribution of control of property and of growth.
- Chapter 4 discusses evidence on the impact of formalised land rights on **rural household welfare** through increased household investment, credit and allocative efficiency. It also considers the impact of active land markets on allocative efficiency and examines the relationship between individual, private tenure and women's economic empowerment. Finally, it discusses the literature on large-scale land deals to determine whether certain types of rights offer greater security against land deals that are transacted without the consent of landholders.
- Chapter 5 discusses evidence on the security of land tenure and housing in urban areas and its **impact on urban households**.
- Chapter 6 highlights some common and contrasting findings, and identifies evidence gaps.

⁵ Chapter 4 refers to investment by firms (i.e. industrial units); chapters 5 and 6 focus on investment by households.

⁶ The research question relates to 'allocative efficiency' (producing goods and services that are most wanted by consumers, using the least possible resources).

2. Methodology

2.1 Review team and scoping

A team of researchers carried out the literature search and drafted the main chapters of this evidence paper. A senior review team, comprising mainly external academics specialising in the themes covered in this study, provided input into the conceptualisation of the research questions and search strategy, suggested additional literature and reviewed the draft and final reports.

A theory of change was developed for each chapter⁷ to illustrate the link between property rights and development. These help to identify: endpoint outcomes and how they would be measured; key determinants of such outcomes; and, the central transmission mechanisms between secure property rights and each outcome. Specific research questions were designed to help test the hypotheses presented in the theories of change.

2.2 Search strategy and screening

The search strategy focused on literature published from 2000, although some literature produced between 1990 and 2000 was included where recommended by the senior review team or where such references were frequently cited in the more recent literature.

The geographical focus of the search was Africa,⁸ although some studies from other regions including South America and Asia were included where particularly salient. Literature was taken mainly from peer reviewed journals in the English language.

The literature search used three approaches:

1. Bibliographic database search of academic databases and journals using consistent search strings that were tested beforehand, and included forward and backward searches on key references. Three main databases were used for the search: Scopus, Google Scholar and Web of Science. These were complemented by searches of key institutional databases, particularly World Bank, Agris and DFID's Research for Development (R4D) website.
2. Snowball technique of contacting experts in the field to ask them for recommendations of important studies on the research question as well as insights into the key propositions. A list of experts consulted is in Annex 1.
3. Hand-searching specific websites for relevant studies using similar search terms as for the bibliographic databases.

⁷ Theories of change were developed using DFID's theory of change framework (Vogel 2012).

⁸ The chapter on Property Rights and Rural Household Welfare focuses on Sub-Saharan Africa, mainly due to the large volume of the literature.

2.3 Assessing the quality of evidence

This section summarises the process adopted for assessing the quality of retained studies, and assessing the overall strength of bodies of evidence. The full process is described in detail in the DFID note *Assessing the Strength of Evidence*⁹.

I. Assessing quality

Studies were graded 'high', 'moderate' or 'low' according to the quality of the evidence presented, as assessed against the principles of credible research based on a draft of the DFID note *Assessing the Strength of Evidence*¹⁰. Table 1 is the checklist used to record observations when assessing the quality of individual studies retained after sifting.

Table 1: Principles for assessing the quality of individual studies

Principles of quality	Associated principles	Y	N	Notes
Openness and transparency	Does the study acknowledge the existing body of research?	<input type="checkbox"/>	<input type="checkbox"/>	
	Does the study construct a conceptual framework?	<input type="checkbox"/>	<input type="checkbox"/>	
	Does the study pose a research question?	<input type="checkbox"/>	<input type="checkbox"/>	
	Does the study outline a hypothesis?	<input type="checkbox"/>	<input type="checkbox"/>	
Appropriateness and rigour	Does the study identify a research design?	<input type="checkbox"/>	<input type="checkbox"/>	
	Does the study identify a research method?	<input type="checkbox"/>	<input type="checkbox"/>	
	Does the study demonstrate why the chosen design and method are good ways to explore the research question?	<input type="checkbox"/>	<input type="checkbox"/>	
Validity	Has the study demonstrated measurement validity (i.e. are the methods appropriate to the research question and selected indicators)?	<input type="checkbox"/>	<input type="checkbox"/>	
	Is the study internally valid (i.e. does it demonstrate how causality is established through the selected technique)?	<input type="checkbox"/>	<input type="checkbox"/>	

⁹ Available at: <https://www.gov.uk/government/publications/how-to-note-assessing-the-strength-of-evidence>.

¹⁰ A draft version of the DFID note *Assessing the Strength of Evidence* was piloted in this study. There is little material difference between the principles used in this study and those in the final, published version.

	Is the study externally valid (i.e. can it be generalised to other contexts and populations)?	<input type="checkbox"/>	<input type="checkbox"/>	
Reliability	Has the study demonstrated measurement reliability?	<input type="checkbox"/>	<input type="checkbox"/>	
	Has the study demonstrated that its selected analytical technique is reliable?	<input type="checkbox"/>	<input type="checkbox"/>	
Cogency	Does the study present a clear and logical argument?	<input type="checkbox"/>	<input type="checkbox"/>	
	Are the conclusions clearly based on the study's results?	<input type="checkbox"/>	<input type="checkbox"/>	

The level of quality accorded to each study is defined in table 2 below.

Table 2: Study quality category definitions

Study quality	Defined
High	Demonstrates adherence to principles of appropriateness/rigour, validity and reliability; likely to demonstrate principles of openness/transparency and cogency
Moderate	Some deficiencies in appropriateness/rigour, validity and/or reliability, or difficulty determining these; may or may not demonstrate principles of openness/transparency and cogency
Low	Major and/or numerous deficiencies in appropriateness/rigour, validity and reliability; may/may not demonstrate openness/transparency and cogency

II. Assessing the strength of bodies of evidence

For the body of evidence considered in each chapter or sub-section, the synthesis of evidence and conclusions were based on assessing:

- the overall quality of that body of evidence (high, moderate or low) based on the ratings of individual studies
- the size of the body of evidence assessed (large, medium, small)
- the consistency of the findings produced by the studies constituting the body (consistent or inconsistent).

The context or contexts in which this evidence is set (e.g. global, regional or country specific) is also indicated in the text.

3. Property rights and economic growth

3.1 Theoretical and conceptual issues

3.1.1 Economic growth and its determinants

Economic growth, measured through the increase in the real gross domestic product (GDP) per capita over time, has traditionally been attributed to accumulation of factors of production (labour and capital) and increased total factor productivity (Lucas 1988; Williams et al 2009). These, in turn, are influenced by underlying factors such as the degree of integration with the global economy, macroeconomic stability, public sector governance/public financial discipline, institutional framework, and degree of government intervention (Rodrik 2000a, 2003, 2004a; World Bank 2005).

Since the 1990s, authors such as Rodrik (2000b, 2003, 2004b, 2007) have found that institutions are powerful determinants of growth, and that property rights represent one category of economic institutions. More recently, greater importance has been attributed to the role of property rights as a mainstay among institutions promoting growth (Besley and Ghatak 2009) and the role of the state in formalising and protecting such rights (Acemoglu and Johnson 2000, 2004).

Others argue that different factors are bigger determinants of growth, for example, geography (McArthur and Sachs 2001), religion, or the colonial or legal origin of different systems (La Porta et al 1999).

3.1.2 Why private property rights matter for growth — a theory of change

The economic case for secure property rights is that growth depends on investment. However, investors do not invest if there is a risk of government or private expropriation (Everest-Phillips 2008; Besley and Ghatak 2009; Acemoglu et al. 2004). In this context, property rights are equated with private property rights whereby property owners can legally exclude others from using a good or asset.

Besley and Ghatak (2009; 2011) identify four main channels through which secure property rights influence economic activity and resource allocation:

- Security channel, whereby investment¹¹ is expected to lead to a flow of income which needs to be protected against expropriation through secure, well-defined property rights. Such protection provides incentive to

¹¹ This chapter refers to investment by firms. Chapters 5 and 6 refer to investment by households.

invest. By implication, insecure property rights could mean that firms or individuals may fail to realise the fruits of their investment and efforts.

- Efficiency channel, enhancing the mobility of assets through transactions such that assets are transferred to those who can use them most productively.
- Reduced protection costs – secure property rights mean that individuals can devote fewer resources to protecting their property (an unproductive use of resources) and these resources can go to productive uses.
- Transactions facilitation – formally defined property rights allow for the use of property in supporting other transactions by using it as collateral to raise resources on the financial market. This may increase productivity.

Figure 2 presents the theory of change diagrammatically, tracing the main channels of influence between formal property rights and economic growth while highlighting some of the assumptions that underpin this theory.

The first row corresponds to potentially important contextual factors which may drive the need for more secure property rights and for a remedial intervention. For instance, low per capita income levels in developing countries implies the need for investment to generate higher income. However, investment is constrained by the lack of secure property rights which undermines the security of the investment. The second row refers to a range of interventions or changes through which rights over land are strengthened. These interventions theoretically lead to changes in actions. Firms undertake more investment (made possible, in part, by using available credit), increased factor productivity¹² is enabled, which in turn, results in income growth. If there is a reasonably equitable distribution of growth, it then leads to a lower proportion of the population under the poverty line.

¹² Total factor productivity refers to the efficiency with which firms turn inputs into outputs.

Figure 2: Diagram of Theory of Change – Property Rights and Economic Growth



3.1.3 Why private property rights may not matter for growth

Not everyone supports the view that institutions, and secure property rights specifically, are the main ingredient for growth (Glaeser et al 2004; Fogel 2004; McArthur and Sachs 2001; Schmid 2006). Some argue that other factors may be equally or more important in influencing growth, for example, the existing distribution of wealth or the degree of competition in financial markets (Besley and Ghatak, 2011). There is debate about whether private, individual property rights are the most appropriate mechanism for spurring growth.

Schmid (2006) suggests that a certain degree of insecurity of rights (in the form of uncompensated change in economic opportunities) is actually essential for economic growth and development. Drawing on the experience of US frontier history in milldams, canals and railroads, he argues that in order to provide for innovation, entrepreneurs can tolerate some change in rights that is not completely compensated. He argues that excessively secure property rights could undermine innovation if entrepreneurs must fully compensate those affected.

Two key arguments advanced against securing rights through private titling are that this process can generate conflict and can increase the level of inequality in society, both of which can retard growth, particularly pro-poor growth (Easterly 2001; Acemoglu et al 2005). The rise of the rentier society in Latin America is a case in point (Engelmann and Sokoloff 2000; Hoff 2003).

Others point to the great expense associated with constructing a formal property rights system and suggest that resources could be best placed improving more simplified forms of rights (e.g., starter rights) or focusing on other issues that could be more important for growth (Everest-Phillips, 2008).

3.1.4 Economic growth research questions

Drawing on this debate, as well as specific interest in the question of distribution and growth, this paper reviews the evidence for four research questions:

1. Does the provision of private, formal property rights result in increased investment and productivity? Do alternative forms provide sufficient security to drive investment?
2. Do formal rights allow property to be used as collateral against credit, thereby increasing investment and generating growth at a regional or national level?
3. Can private property rights enable resources to be put to more productive uses, generating growth at a regional or national level?
4. Might allocating formal property rights change the distribution of property, thereby affecting either growth or the distribution of its benefits?

3.2 Evidence on each research question

Researchers in the last two decades have focused on the role of institutions, including property rights, in long-term economic growth (e.g., Acemoglu et al 2001, 2002, 2004, 2005; Mauro 1995; Knack and Keefer 1995; Barro 1996; Aron 2000; Easterly and Levine 2003; Dawson 2003; Rodrik 2004).

A particular focus on the role of property rights emerged with papers from Acemoglu et al (ibid) singling out the security of property rights as a predominant determinant of income level differences. This has given rise to a discussion about the validity of the results, calls for greater disaggregation of analysis and some, albeit limited, indications of contradictory evidence.

The section looks more closely at the nature of the evidence, identifying the types of studies (datasets, population and level of analysis), measures of economic growth and property rights security, and the type of analysis performed on the data. It then summarises the evidence in favour of the influence of property rights on growth, weighing this up against contradictory evidence and concerns about how the evidence has been constructed and interpreted.

3.2.1 General characteristics of the evidence

Types of studies

The majority of the studies analysing the link between property rights (or institutions more broadly) are non-experimental, macro-level, cross-country analyses, using a country as the main unit of analysis. There are a handful of micro-level studies relating property rights to growth of firms (Green and Moser 2012; Johnson et al 2002; Ojah et al 2010) via their impact on firm-level investment.

The target population in the studies is (implicitly) firms, normally in urban areas, although the main unit of analysis is the country. There are very few studies that focus explicitly on firms as the level of analysis¹³.

Measures of economic growth and security of property rights

The majority of studies measure economic growth through income per capita levels, usually (log) GDP per capita. However, some authors use other measures, such as output per worker (e.g. Hall and Jones 1999).

Most analysis on the impact of property rights assumes **private, formal property rights** and focuses on the protection and enforcement of those rights. The most common measure used as proxy for secure property rights is the risk of expropriation, measured by the International Country Risk Guide (ICRG), often

¹³ While households could be classified as firms, here firm-level studies refer to firms as industrial units. Studies focusing on households are discussed in the subsequent chapters on rural and urban households.

combined with the degree of contract enforceability. The ICRG data set is produced by the PRS Group¹⁴, with broad coverage both across countries (140) and over time (1982 to present day). An increase in the index indicates greater security of property rights.

While some studies refer to the risk of expropriation and the degree of contract enforceability as key measures of property rights security, others (Keefer and Knack 2002) use an ICRG property rights index based on a wider set of (five) indicators that “specifically evaluate the credibility and predictability of property and contractual rights in a large number of countries”, namely: Expropriation Risk, Risk of Repudiation of Contracts by Government, Rule of Law, Quality of the Bureaucracy, and Corruption in Government. This ICRG property rights index is highly correlated with an alternative one constructed from data provided by a second investor risk service, Business Environment Risk Intelligence (BERI), based on measures of contract enforceability, risk of nationalisation, and bureaucratic delays.

Ojah et al (2010) use different elements of the legal environment as a proxy for secure property rights – judicial enforcement of property rights and level of corruption.

Type of analysis

The macro level studies focus on regression analysis. Studies usually begin with simple ordinary least squares regression, moving to two-stage least squares (2SLS) and introduce instrumental variables to try to remove noise and endogeneity from the analysis.

Focus of the literature

The evidence of the link between property rights and growth implicitly assumes that investment is the main transmission channel between the two variables so this is examined under research question 1 (investment and productivity). However, there are studies that discuss the specific link between property rights and investment, and these are also highlighted. This area is the overwhelming focus of the included studies and much less literature is devoted to discussing the other research questions.

3.2.2 Evidence for research question 1: investment and productivity

1. *Does the evidence confirm that the provision of private, formal property rights results in increased investment and productivity? Does the evidence indicate which alternative forms provide sufficient security to drive investment?*

¹⁴ The PRS Group is a company that provides businesses with information on political and economic risk through its Political Risk Services (PRS) and the *International Country Risk Guide (ICRG)*. The ICRG monitors 140 developed, emerging and frontier markets, rating a range of risks to international businesses and financial institutions.

Evidence supporting link

There is a **medium-sized** body of evidence (>10 studies) supporting a positive link between secure property rights¹⁵ and long-term economic growth. These studies come from a group of influential authors often cited in the literature (Acemoglu et al 2001, 2002, 2005; Knack and Keefer 1995; Hall and Jones 1999; Kerekes and Williamson 2008). They argue that the evidence amply demonstrates that institutions, including secure property rights, are associated with better long-run economic performance; conversely, they argue that poor quality institutions, and insecurity of property and contract rights, reduce growth.

Regressions run on the relationship between proxies for property rights and economic growth are statistically significant for repeated analyses and the authors believe that this plausibly demonstrates a causal relationship between secure property rights and long-run growth: “there is convincing empirical support for the hypothesis that differences in economic institutions, rather than geography or culture, cause differences in incomes per-capita” (Acemoglu et al 2005; p. 402).

Focusing on growth over the period 1974-1989, and using the ICRG composite index and adding it to a Barro-type growth regression, Knack and Keefer (1995) found that a standard-deviation increase in the index (about 12 points on a 50-point scale) increases growth by 1.2 percentage points on average, using simple OLS regression.

This analysis is taken up by Acemoglu et al (2001, 2002, 2005) who use a base sample of 64 countries colonised between the 15th and 19th centuries and run simple and more complex least squares regressions of GDP per capita in 1995 on the average protection against expropriation risk (of private property) through institutions (measured via ICRG – average over 1985-1995). On the basis of a 2SLS regression, the authors found a highly significant impact of (property rights) institutions on the level of income per capita. This analysis was repeated with the “natural experiment” of the separation of North and South Korea, countries with shared historical and cultural roots and similar geography, but which established very different types of property rights regimes after their separation. The authors noted that by 2000, the level of income per capita in South Korea was US\$16,100 while in North Korea it was only US\$1,000, about the same as a typical sub-Saharan African country (Acemoglu et al 2005, p. 406).

Acemoglu et al (2001, 2002, 2005) are careful to analyse whether their results could arise from capturing the effect of omitted variables or reverse causation, a problem identified with the OLS method used by Barro (1996) and Knack and Keefer (1995) which potentially undermines the validity of the positive relationship that these authors found between institutions and economic growth. To ensure that their analysis did not capture the effect of omitted variables, the authors used settler mortality as an instrumental variable, i.e. a variable that has no direct effect on current economic performance but one that had a significant influence on the

¹⁵ Normally equated in the literature with formal, private property rights.

establishment of private property rights in ex-colonies. They found that high potential settler mortality had a significant negative correlation with the level of settlement. When Europeans settled, they subsequently set up institutions to protect property rights and limit government power. They hypothesise that once such institutions are set up, they are likely to persist (due mainly to the high cost of setting them up) and determine the presence and quality of current institutions. When Europeans did not settle, they put in place systems of arbitrary rule and expropriation of local resources. In Acemoglu et al (2002), the authors further argue that the density of non-European population in prospective colonies shaped European settlement patterns. In areas that were densely settled (or urbanised) by the local population, the Europeans did not settle themselves but established exploitative institutions, compared to low-density areas. As such, they argue that local population density and settler mortality in 1500 can be used as instruments for modern political institutions constraining the executive.

The authors also tested the robustness of their results against different factors but found no significant effect of: colonial and legal origin (hypothesis of La Porta et al 1999); religion; geography/latitude; or the sample of countries within their base sample.

This is confirmed by Kerekes and Williamson (2008) who identify a strong, positive relationship between secure property rights (measured using ICRG's risk of expropriation and the Heritage Index of Private Property) and investment (capital formation), again controlling for variables such as geography, religion and legal and colonial origin.

At a micro level, Johnson et al (2002) use a survey conducted among entrepreneurs of former communist countries to study the effect of perceived weaker property rights on reinvestment of profits. They find that firms are more likely to reinvest their profit if they perceive their property rights as more secure, with secure property rights being more important for investments than availability of credit.

Green and Moser (2012) also support the link between secure property rights and investment at firm level. Their results indicate that secure property rights, in the form of formalised land title, are important for the emergence of large firms (although not for small and medium firms), at least in the case of Madagascar.

Ojah et al (2010) look at the roles and interactions of property rights and internal/external finance channels on investment across 860 firms in Kenya, Tanzania and Uganda, using the World Bank's Investment Climate Assessment (ICA) data where the proxy for secure property rights is an effective legal environment, measured mainly by judicial enforcement of property rights. They found that firms with secure property rights are more likely to invest in fixed capital in Kenya and Uganda. Tanzania, which has the lowest security of property rights, also has the lowest share of firms undertaking investment, which is consistent with the relatively high prevalence of corruption and the smaller share of firms that have confidence in the judicial process.

Qualifications and queries

While there is evidence supporting the argument that secure property rights are a predominant factor in determining growth, there remains some debate in the literature: some studies argue that this link is conceptually incorrect and not borne out by important case studies; others query whether property rights are the *most* important determinant of growth among other institutions; and finally, others raise doubts about the robustness of the modelling results.

Do institutions, and property rights specifically, determine growth?

Are other factors more important?

Some authors question the primacy of institutions in determining economic growth. Acemoglu et al's analysis contradicted theory and evidence originally advanced by authors such as McArthur and Sachs (2001) about the importance of factors like geography and health. On the other hand, Glaeser et al (2004) emphasise the role of human skills, drawing on the divergent experiences of North and South Korea after separation and a sample of 89 poor countries from 1960 as well as reassessing Acemoglu et al's results using the dataset of 64 ex-colonies. They find that during 1960-2000, countries with high human capital in 1960 grew faster, on average, than ones with low human capital.

Analysis by Keefer (2007) looked at the role of different factors in China's accelerated growth from the 1980s. This analysis (supported by Rodrik 2003) found that, despite the lack of formal property rights, the government had an important role in creating a safe investment climate through support to enhance investor returns and credible moves to reduce the risk of expropriation.

Other authors take issue with the idea that a single factor can be said to determine growth above all others. Schmid (2006) states that neither institutions, technical factors of production, income, social structure nor human agency have primacy as all are "embedded together in evolution and emergence". Haggard and Tiede (2011) state that it is hard to separate property rights from the "cluster of institutions" that affect investment and economic growth. They replicate Acemoglu et al's (2005) analysis and conclude that they have not yet resolved the issue of unbundling institutions "because of the even wider array of 'rule of law' measures that may also be producing the divergence in long-run growth" in that analysis (p. 679). Rodrik (2004) criticises the over-emphasis on property rights, saying that it results in "property rights reductionism".

Does correlation equate to causality?

The studies which assert that property rights are the main determinant of growth, compared to other institutions or factors, establish correlation or association rather than prove causality. It is difficult to separate property rights from other factors that

affect investment and economic growth (Haggard and Tiede 2011; Pande and Udry 2005) and while many authors have attempted to address this using appropriate instrumental variables or new econometric technology, they have not always been successful (Bazzi and Clements 2009).

Is causality one way only?

There is also a concern that studies fail to prove that causality runs in one direction only – from secure property rights to growth – as growth can also lead to improvements in the security of property rights (La Porta et al 1999; Chong and Calderón 2000; Glaeser et al 2004).

Chong and Calderón (2000) obtained strong evidence for two-way causality: growth increases the ICRG (and BERI) measures, but institutional quality, as measured by ICRG (and BERI) values, increases growth rates. Because the ratings are subjective assessments by experts, it is possible that the ratings are influenced by knowledge of recent economic performance (World Bank undated). This is supported by more recent evidence from Mijiyawa (2009) who undertook cross-sectional analysis over the period 1970-2005 with a sample of 142 countries (116 developing and 26 developed countries) and found that the quality of private property rights institutions is positively affected by increases in GDP per capita. This two-way causality also seems to exist at a more micro level (Green and Moser 2012).

In addition, the relationship between property rights and growth may be non-linear (Bose et al 2012): stronger enforcement of property rights raises growth up to a certain point before growth begins to decline.

Are results driven by the datasets used?

The discussion about causality and its direction leads to another criticism raised in the literature about the robustness of the results showing a positive link between secure property rights and economic growth: namely, that these results are sensitive to the dataset and level of aggregation. Haggard and Tiede (2011) state that they hold for developed and developing countries combined, but are weak for developing countries on their own (p. 677). Radeny and Bulte (2011) state that the predominance of institutions in determining growth falls away when a smaller, more homogenous sample of countries (in Africa) are analysed, with other factors such as geography and history prevailing.

Other authors (Green and Moser 2012; Pande and Udry 2005) support the link at macro level but call for more micro/in-country analysis to see whether the results hold consistently at a more disaggregated level.

Concerns about the forms and measures of property rights

Measures of property rights security assume, implicitly, that property rights are private and formal. However, the cross-country studies do not discuss the form that property rights would need to take to be secure (with the exception of Ojah et al

2010, who talk about the impact of using more informal channels to settle disputes in Tanzania). China appears to be the exception once again: Keefer (2006) explicitly refers to growth in the absence of formal individual property rights in China and attributes investment to other factors, while Khan (2002) argues that the absence of property rights spurred greater efficiency by companies, as property rights were contingent on performance.

There are also criticisms of the measures commonly used for property rights. For some authors, indices of institutions used in the cross-country literature are not adequate proxies for institutions for a number of reasons: they measure outcomes rather than reflect permanent rules of the game; they are not transparent; they represent a subjective assessment of risk; and, they can be volatile over time (Glaeser et al 2004; Pande and Udry 2005; Chang 2005). As a property rights system is a “complex of a vast set of institutions ... survey results can be strongly influenced by the general state of business rather than the inherent quality of property rights system itself” (Rodrik 2004 in Chang 2005). Other measures focus strongly on *de jure* procedures that may or may not govern actual behaviour (Pande and Udry 2005). The use of different proxies for property rights can make it hard to compare results across studies.

Finally, there is no discussion of gender impacts at macro level. This presupposes that the same rules governing economic opportunity apply to everyone; in reality, the underlying capacity to own and control property varies by gender and marital status (Hallward-Driemeier and Gajigo 2011).

Conclusions

There is a **medium-sized** (> 10 studies) body of evidence showing that secure property rights are an important determinant of long-term economic growth. These studies adhere to the central quality criteria of being open and transparent, appropriate and rigorous, internally valid and cogent, and are rated as **high quality** according to these criteria. However, a number of studies highlight concerns about the level of analysis undertaken and possible bias in the methods applied, the measures used as proxies for variables, and the existence and direction of causality.

3.2.3 Evidence for research question 2: collateral-based finance

2. *Does the evidence indicate that formal rights allow property to be used as collateral against credit, thereby increasing investment and generating growth at a regional or national level?*

There is little direct discussion in the literature of the link between property rights and collateral-based finance at (larger) firm level (see the chapter on rural households for discussion of a much larger body of evidence at farm/household level). The paper that focuses explicitly on the “collateral effect” at cross-country (firm) level is Kerekes and Williamson (2008). This looks at whether empirical evidence supports the argument that secure and well-defined property rights transform assets from “dead

capital” into resources that can be used to generate additional capital and obtain credit, thereby stimulating production (de Soto 2000). The same argument holds that a lack of well-defined and secure property rights can increase the cost of borrowing or can prevent any loan from being obtained.

To test this hypothesis, the authors look at a sample of 114 countries throughout the world and 61 ex-colonies, regressing domestic credit to the private sector (measured as the financial resources available to private sector in 1998, as a percentage of GDP)¹⁶ on different measures of property rights¹⁷. Using different measures of property rights (the ICRG and the Heritage Foundation’s Index of Private Property) they confirm that secure property rights lead to increases in credit through the collateral effect, which in turn promotes growth (higher income per capita): “a one unit change in the property rights index is estimated to produce a sizeable increase in domestic credit of between four and seven percentage points” (p.313). In line with Acemoglu et al’s analysis, these results hold when controlled for other factors such as geography, religion, etc.

Outside of this paper, most discussion and evidence in the literature on firms and national growth focus on other, related issues such as: the impact of broad investor protection rights on the ability to raise capital (see Kumar et al 2001; and Beck et al 2002 in Beck and Levine 2003); the role of legal institutions in explaining international differences in financial development (La Porta et al, 1997, 1999, 2000); the critical effect of judicial efficiency on lowering the cost of financial intermediation for households and firms (Laeven and Giovanni 2003)¹⁸; or, the importance of stronger property rights for the poverty-reducing effect of financial deepening (Singh, R. J. and Huang, Y. 2011).¹⁹

Conclusions

Only one high-quality study shows that secure property rights are important for collateral-based finance at macro level. A much larger and more diverse body of evidence is available at household level; the chapter examining the relationship between property rights and rural household has further details.

¹⁶ The authors view this as an appropriate measure to capture the collateral effect as it represents the ability to secure a loan.

¹⁷ The authors justify using domestic credit to the private sector as an appropriate measure to capture the collateral effect as they state that it represents the ability to secure a loan.

¹⁸ The paper measures bank interest rate spreads for 106 countries at an aggregate level, and for 32 countries at the level of individual banks. The authors conclude that, after controlling for a number of other country characteristics, judicial efficiency and inflation are the main drivers of interest rate spreads across countries.

¹⁹ Looking at a sample of 37 countries in sub-Saharan Africa from 1992 through 2006, Singh and Huang’s results suggest that financial deepening could narrow income inequality and reduce poverty, and that stronger property rights reinforce these effects. Interest rate and lending liberalisation alone could, however, be detrimental to the poor if not accompanied by institutional reforms, in particular stronger property rights and wider access to creditor information.

3.2.4 Evidence for research question 3: allocative efficiency

3. *What is the evidence to support the hypothesis that private property rights can enable resources to be put to more productive uses, generating growth at a regional or national level?*

Besley and Ghatak (2010) refer to the role of more secure property rights in facilitating market transactions or trade in assets via the deepening of rental or sales markets in land, thus increasing the mobility of assets such that all land is fully utilised and is highly productive.

However, no studies explore this at a firm, national or cross-country level. The literature and evidence focuses on the impact of land rental and sales markets on household productivity, which is discussed in detail in the chapter on rural household welfare.

3.2.5 Evidence for research question 4: distribution of property and growth

4. *Does the evidence indicate that securing title over property changes the distribution of who controls property, affecting how growth is distributed across different groups?*

The interplay between protection of property rights and the distribution of economic resources may be important (Asoni 2008). This is recognised in Acemoglu et al (2005) who state that “societies where only a very small fraction of the population has well-enforced property rights do not have good economic institutions”, although they do not explain why equal access to economic resources is better than unequal access.

The literature tends to focus on the relationship between **inequality and growth** (see Fort 2007 for a range of references, with particular concentration on Latin America; Galor et al 2004), rather than the link between inequality and property rights. Cross-country studies that do examine this link focus on **how the distribution of assets affects the security of property rights** (and thereby growth), rather than the inverse relationship where securing property rights changes the distribution of assets. These studies do not focus on particular interventions, such as titling.

Keefer and Knack (2002) argue that a higher degree of social polarisation (measured by the inequality of land holdings) increases the likelihood of extreme policy deviations, making property rights less secure and thus negatively affecting growth. Running regressions across a large sample of countries, with the average ICRG from 1986-1995 as the dependent variable against inequality measures in 1985, each five-point rise in the Gini coefficient is associated with a decline in the ICRG index of nearly one point. Each standard deviation increase in income inequality (i.e. of 9.4) reduces the property rights index by about one-sixth of a standard deviation (i.e. by 1.6).

Other authors (Sokoloff and Engerman, 2000; Hoff 2003) highlight the influence that a highly unequal distribution of assets can have on general institutional development using the relative development of the Caribbean, Latin America and North America. Until 1800, the Caribbean and Latin America were more prosperous than the US and Canada, but during the 19th century, this position was reversed and a wide gap opened up. The greater inequality in wealth and distribution of assets contributed to the evolution of institutions which protected the privileges of the elites and restricted opportunities for the broad mass of the population to participate in commercial activities, thereby setting the levels of inequality for centuries afterwards.

However, Asoni (2008) highlights the possible endogeneity in the question: the distribution of property rights influences growth, but growth and wealth creation may influence the distribution of resources. Galor et al (2004) discuss this: as the economy grows, land becomes less important, education and human and physical capital become more important, and the price of labour goes up. This has immediate distributional effects; land ownership is less important but “personal talent, social capital and organizational abilities” prevail.

Conclusions

The literature supports the idea that unequal asset/property distribution may have a negative impact on the security of property rights and the quality of institutions in general, and this could have a negative knock-off effect on growth. However, there is **no evidence** of the impact that titling has on the distribution of who controls property and, through this, on the distribution of growth.

4. Property rights and rural household welfare

4.1 Theoretical and conceptual issues

4.1.1 Why formalised individual land rights may lead to increased investment, productivity and efficiency

There is a clear theoretical argument presented in the literature for why individual land rights should lead to optimal levels of investment from the user's point of view, where markets function well. For rural households who engage in agriculture as a major livelihood activity, control rights which confer the power to make decisions over land should, in principle, lead to an optimal level of investment of their available capital and labour in their land. This, in turn, should lead to higher intermediate outcomes (namely, agricultural productivity), and higher final outcomes (income and household welfare).

Brasselle, Gaspart, and Platteau (2002) provide a framework which traces the causal chains between more secure property rights and agriculture-related investments. These correspond closely to the four channels in the Besley and Ghatak (2009, 2010) framework which are referred to in Chapter 4 (property rights and economic growth). Taken together, these two frameworks suggest that the links between more secure property rights and agricultural investment arise from the following effects:

- An 'assurance' or 'security' effect, through which farmers are incentivised to make greater investments. They have a higher level of confidence that they are protected against expropriation through secure, well-defined property rights and will be able to recoup the fruits of their labour. Having the right to transfer property rights may also incentivise farmers to make further investments as they will be able to pass them onto the next generation or other inheritors. This is referred to as the 'transactions facilitation' channel in Besley and Ghatak (2010). Such security or assurance can result in individuals devoting fewer resources to protecting their property and using them for productive uses instead (the 'protection' function in Besley and Ghatak 2010).
- A 'realisation' or 'gains from trade' effect, whereby strengthened property rights activates land markets which allows farmers with a competitive advantage in access to factor inputs (e.g. agricultural machinery) to access sufficient land, thereby increasing their investment. This is the efficiency channel in Besley and Ghatak's (2010) framework.

- A ‘collateralisation’ effect, whereby a credit-constrained farmer is able to mortgage land to borrow money. This may increase productivity.

4.1.2 Theory of change

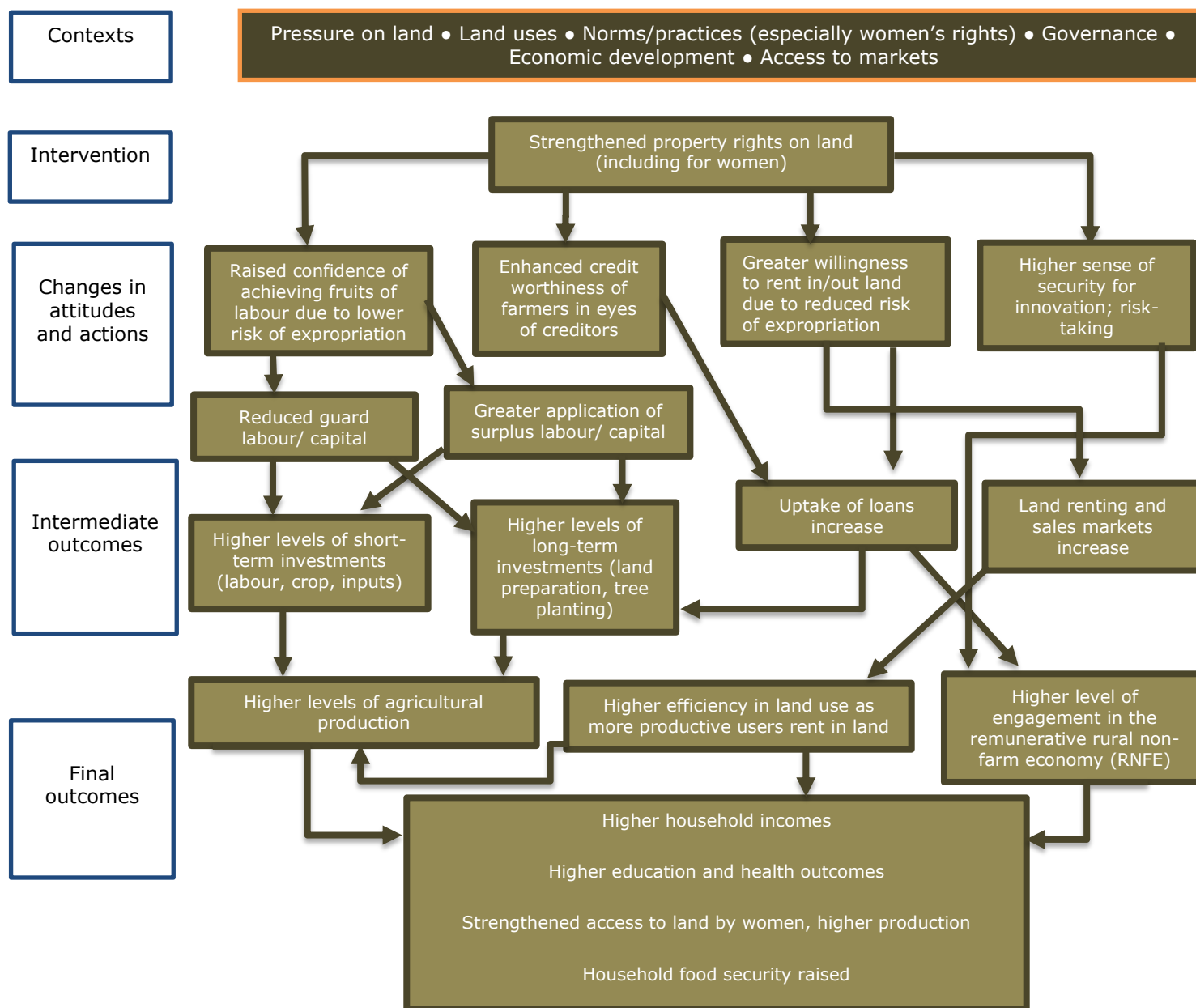
Figure 3 illustrates these causal links. The first row corresponds to potentially important contextual factors which may moderate the extent to which the causal links operate. For instance, higher pressure on land (from population density) may accentuate investments on existing farm plots, rather than expanding to new land. The second row refers to a range of interventions or changes through which rights over land are strengthened²⁰. Changes in attitudes which are important in altering behaviour are shown in the third row.

These changes in attitude theoretically lead to changes in actions: farmers undertake higher short- and long-term investments, and enter land markets (both selling and renting land). In turn, these changes lead to higher intermediate outcomes, namely more efficient land use and raised agricultural productivity²¹, which results in higher household welfare outcomes such as higher incomes, food security and education/health outcomes. Some theorise that strengthened land rights for women may lead to even higher productivity and improvements in welfare outcomes.

²⁰ Although individual titling interventions have been the most common form of tenure strengthening, there have been other initiatives which have strengthened customary rights. These include village councils (Tanzania), de facto recognition of customary rights (Mozambique), and land boards (Botswana). While these have attempted to strengthen security of tenure and may have reduced conflict or dispossession, they have not aimed at, or been associated with, higher levels of investment.

²¹ Better land management (less soil erosion, improved water use) may be other important outcomes in some contexts. These are not explicitly explored here.

Figure 3: Theory of change for rural households



Additional application of labour/capital:

- Households have additional resources which are not being optimally used
- The use of other resources does not detract from other important (and potentially beneficial uses)

Additional assumptions – Loans and mortgages:

- Farmers wish to take out loans and are willing to mortgage land
- Credit providers are willing to lend on provision of collateral which farmers can provide
- Credit providers are able to take back property
- Credit providers are able to provide loans at more competitive rates on terms preferable to informal lenders

Additional assumptions – raising production levels:

Effective markets and infrastructure (storage; transport) are accessible for farmers in order to:

- Access inputs (for outputs, inputs)
- Market produce (earn income)
- Incentivise higher production

4.1.3 Why formalised individual land rights may not lead to increased investment, productivity and efficiency

In practice, there may be a several reasons why the provision of strengthened individual rights to make decisions over land is neither necessary nor sufficient to encourage further investment. Existing tenure systems have often provided sufficient security for farmers to invest and for land markets to be active, although sustained ability to provide this may change under external pressure²². These points were among the findings of studies from the early 1990s, as well as more recent literature reviews (Braselle et al 2002; Deininger and Ayalew Ali, 2007; Place 2009; Fenske 2011). In addition, the relationship may not always work in one direction: investment may improve security of tenure in the absence of formal rights (Braselle et al 2002).

There is also an argument that more active land markets can lead to dispossession and limit access to land by poorer households (Vendryes 2011). Firstly, encouraging land sales may lead to distress sales as households who experience production shocks (such as droughts or crop failures) or health shocks (such as sickness or death of a family member) may sell off their land as a coping strategy. When the shock affects a large part of the community (i.e. it is a covariate shock) and many households sell their land, sale values received may be low. At the same time, richer households may be protected from these effects because they have better access to insurance mechanisms (Baland et al. 1999). Secondly, when land is placed on an open market and available for general purchase, its price may exceed what local land-poor households can afford, exacerbating existing inequality of distribution (Deininger and Feder 2001).

4.1.4 Formal, individual title and women's access to land

The literature on whether formal individual title improves or worsens women's access to land is inconsistent. This is largely because authors examine different groups of women (e.g. female-headed households, unmarried women, etc.), and because the ways that women access land through social relations varies in different contexts.

Some authors argue that individual property rights improve women's access to land, as customary systems are patriarchal and exclusionary.

However, others argue that access depends on specific contexts including the nature of the 'conjugal bargain' or particular household and village characteristics, and that the distinction between formal and informal rights is not important. They argue that women's access to land is often highly dependent on the specific institutions of inheritance and marriage, as well as community authorities. Women may gain substantial land access without formal rights in situations where husbands are absent, where polygamous households and large clustered household arrangements operate, or where there are matriarchal arrangements for inheritance and residence. Formal rights may not confer additional *de facto* rights to women as processes of

²² Changes in pressures on land from growing commercialisation and population may also increase pressure on customary systems from both internal and external sources (e.g. from the state reasserting claims to land rights).

strengthening rights (e.g. through demarcating or registering land) may be captured by men; women's access may remain the same, or may be reduced as a result of legal changes.

4.1.5 Research questions

Based on the discussion of the debates around land rights and household welfare, as well as the derived theory of change, this chapter reviews the evidence in relation to four main questions and related sub-questions²³.

1. Does the evidence confirm that stronger property rights automatically lead to higher levels of investment? If not, which other key factors determine productive investment?
 - i. Does the evidence indicate that private, formal, property rights (alone) encourage increased productive investments on land by households or can other forms of rights provide similar incentives to invest?
 - ii. Does the evidence confirm that 'free, open' land markets increase inter-household land transfers, leading to allocative efficiency and greater productivity or do they act to promote social and economic differentiation and dispossession?
 - iii. What is the evidence to support the hypothesis that stronger property rights lead to a reallocation of factors of production from guard to productive functions in reality?
 - iv. Does the evidence indicate that stronger property rights lead to enhanced access to credit for rural households through use of land as collateral or are other characteristics of the financial market and households more important?
2. What evidence is there to show that individual, private tenure is necessary or sufficient for securing women's economic empowerment and their access to goods and services?
3. What is the evidence from the emerging body of literature on the susceptibility of land held under different tenure systems to land grabs?
4. What does the evidence say about the impact of stronger property rights on other welfare benefits (health, education, fertility, food security) for rural dwellers through other channels than through raised income levels²⁴?

²³ There are important extensions to the questions posed here which are commonly debated in the literature, but which are not directly addressed here. These include whether there is greater individualisation of rights which occurs due to greater demographic and commercial pressure on land (the 'evolutionary' theory). (Colin and Woodhouse 2010)

It is important to note that the questions do not strongly emphasise the protective function of property rights, i.e. whether certain types of property rights offer a high level of protection against expropriation. This has not been a major research interest in most of the literature due to the low incidence of unsanctioned large-scale “land grabbing” in areas under study. However this has been highlighted as an important area of concern given the increase in land grabbing in recent years. The importance of secure property rights to protect against expropriation should be emphasised as an area for policy attention, despite its low profile in the analysis.

4.2 Evidence on each research question

4.2.1 General characteristics of the evidence

This section provides a broad overview of the general characteristics of the evidence on property rights in rural areas.

Economics-based studies

Although the theoretical importance of property rights has a long history within economics, it is only relatively recently that researchers have attempted to test its importance empirically in developing countries (including in Africa), with much of the literature appearing in the 1990s and thereafter. Although there were studies pre-dating this period which looked at the impacts of specific titling interventions, the World Bank and Land Tenure Center studies (Barrows and Roth, 1989; Bruce and Migot-Adholla, 1994) were the first systematic attempts to identify differences in impact between customary and state title systems. Their findings propelled further investigation of the issue. Since then, numerous studies have aimed to measure discernible impacts between differences in tenure systems using explicitly empirical and econometric designs and techniques. These studies’ primary research interests focus on investment and adoption of technology packages and the functioning of land markets. Within these studies, there have been a number of approaches and designs used in recognition of the heterogeneity of contexts and the potential range of impacts or pathways to explore. Most of these (rural) studies have not been impact analyses but have studied the differential impacts of tenure systems at one point in time using observational and recall data²⁴. Some of these studies have focused on specific interventions, whereas others have looked at differences in property rights in existing societal arrangements.

An important subset of the evidence concerns the success and impact of titling programmes. The body of evidence on the success of titling programmes is small, and does not include studies with strict experimental designs. In general, there is a lack of reliable evidence on the impact of titling programmes. In a guide on impact evaluation for titling schemes (both urban and rural), Conning and Deb (2008: 2) note that there has been “no completed impact evaluation study on a land reform

²⁴ Note that only one study in the African literature addresses this question, so it remains an evidence gap.

²⁵ Identified exceptions include Ali, Dercon and Gautam (2011) and Deininger, Ali and Alemu (2008) (both from Ethiopia) which use panel (repeated sampling) data.

intervention using a rigorous study design built into the program design where comprehensive measurement and appropriate, modern statistical methods were used²⁶. They also note that “almost all existing studies to date have been based on observational data where reliable comparison groups for those receiving the programme treatment are difficult to identify because of non-random program placement and self-selected beneficiary households” (p.4).

Limited coverage of populations and countries within studies

Due to the methodological challenges in capturing the effects strengthened property rights (in isolation) most studies have tended to focus on small areas (Deininger and Jin, 2006)²⁷. To test hypotheses on tenure, some have explicitly sought out areas where there are perceivable differences in tenure between contiguous or adjacent populations and there are high population or commercial crop pressures, leading to strong exogenous reasons to invest (e.g. Firmin-Sellers and Sellers 1999). These choices of research focus and methodology are necessary to accurately measure the effects of tenure in isolation (minimising chances of unobserved heterogeneity and differences over time) and provide a chance to study effects at a level of detail that cross-country studies cannot (Pande and Udry 2005). However, they have implications for how findings are generalised. On the one hand, it can be argued that the selection of atypical situations does not reflect the reality in which many populations live in Africa²⁸. On the other hand, if findings in these studied areas do not point to an important impact of differences in tenure security or property rights, it is unlikely that their impact will be important elsewhere.

Most studies do not attempt to disaggregate units past the household level, and do not investigate or differentiate findings by other household characteristics e.g. by ethnicity, age, status. There are exceptions to this; most notably in the literature looking at whether titling or other property strengthening initiatives improve women's livelihoods (e.g. Quisimbing et al 1999).

Methodological issues in studies

A review by Fenske (2011) of measurement issues and econometric analysis problems points to shortcomings in existing studies which raise questions about the robustness of some of their findings. Although particularly relevant to studies on investment, these issues are likely to affect the wider literature on property rights. Small sample sizes and lack of variation in outcomes limit the ability of studies to accurately predict findings. Studies frequently use binary measures of impact (i.e. whether farmers undertake an investment or not) but these are less likely to find significant impacts. Studies using farmers' perceptions of insecurity are not good predictors of investment.

²⁶ Since then, one impact evaluation (on an urban titling programme in Mongolia) is known to be underway.

²⁷ Several studies based on national-scale data do exist (e.g. Uganda, Petracco and Pender 2008; Rwanda, Ali, Deininger, Goldstein 2011) but these are a minority.

²⁸ Pande and Udry (2005) make the point that the diversity in customary tenure systems in African countries further limits generalisation about customary systems.

Some of these concerns have been raised and repeated in other studies. For instance, a recent study questioned the ability of earlier studies in the same country to capture measures of security, or determine fully exogenous property rights endowments (Ali, Dercon and Gautam 2011). This suggests that methodological issues are not yet settled and that there remains inconsistency across the findings. This is reflected in several authors' caution against the translation of results from specific papers into generalised policy suggestions and statements (e.g. Place 2009; Bromley 2008).

Socio-cultural and legal anthropological studies

There is also a large literature on tenure systems coming from socio-cultural anthropological and political science disciplines. Empirical studies have offered evidence supporting the idea that "land tenure is a social relationship, or that it is embedded in social relations" (Peters, 2009: 1318). Of direct relevance to the questions of security and investment, these studies highlight the ability of customary tenure systems to provide usufruct²⁹ security and some important transfer rights. They also highlight the role of individual titling systems in "exacerbating conflicts by ignoring secondary rights, and reinforcing patterns of unequal access, based upon, gender, age, ethnicity and class" (Peters, 2009: 1318). These contributions to the literature have nuanced the understanding of property rights: they challenge the idea that there is a primacy of one tenure system over another; they highlight the importance of secure access, especially through secondary rights; and, they reaffirm the idea that changes in tenure systems create winners and losers (Peters 2009; Ribot and Peloso 2003). Contributions from these fields have provided evidence on gender dimensions of tenure systems, land reform processes and contributions to experiences and conceptualisations of security, especially through intra-household relations and studies of disputes (Lastaria-Cornhiel 1997, Whitehead and Tsikata 2003).

Different measures of security and their use as independent variables

While studies all attempt to measure the impacts of difference in tenure security, there is wide diversity in study design and selection of variables to measure security³⁰. This issue is most relevant for economics-based studies, which attempt to quantify the importance of variations in security. Studies have adopted different conceptualisations of security (or insecurity) and variously defined it depending on the context of the study area and the anticipated impact. Researchers use existing measurements of security or construct new ones which are more appropriate to their particular setting. As tenure security is not directly observable, researchers measure one or more proxies. In addition to the specific context, the effect under investigation

²⁹ Usufruct is a legal right of enjoyment which allows a holder to derive profit or benefit from property that is either titled to another person or which is held in common ownership, as long as it is not damaged or destroyed.

³⁰ Different proxies for security include: the way in which land has been acquired; perceptions of security; exogenous risk of expropriation; and, possession of a title. Place and Swallow (2000) note that while "there is general agreement that tenure security is related to a number of rights over land and resources that may or may not be vested in individuals...there is no general agreement about how rights should be measured, aggregated or otherwise manipulated to derive quantifiable measures of tenure security". (P.1)

(assurance, collateralisation, gains-from-trade) influences the measurement of security used.

Different measurements of security have specific benefits and drawbacks. Although the conventional view is that transferable individual title is associated with a high level of security, this has been repeatedly challenged in local contexts.³¹ Therefore, study authors have used other measures both in areas where titling has, and has not, been undertaken.

The most commonly used measurement is the mode of acquisition, which looks at whether land was transferred to the present user through patrilineal, matrilineal, customary authority, or state processes (e.g. Place et al 1995). The next most common measures are to do with insecurity – measured by asking farmers about the risk of expropriation of their land (Jacoby and Minten 2007) or whether or not they felt their holding was secure (Holden and Yohannes 2001; Amsalu and de Graaff 2007) – or measures of time since previous expropriation. Measuring transfer rights (through self-assessed control over these rights) is the least common.

4.2.2 Evidence for research question 1: stronger property rights and investment

- i. Does the evidence indicate that private, formal, property rights (alone) encourage increased productive investments on land by households or can other forms of rights provide similar incentives to invest?*

This section exclusively draws on evidence from the economic literature³², using studies from the 1990s to 2012. It looks at literature which has explored the effects of differing levels of tenure security on investments and outcomes. This section draws on the study and dataset used by Fenske's (2011)³³ in a meta-analysis of the empirical economic literature, supplementary observations of this dataset, the studies themselves and additional economic studies which were not included in the Fenske (2011) study. Although not all the studies identified in Fenske (2011) could be accessed, the majority of the studies were reviewed and analysed³⁴.

This section also draws on the results of a Systematic Review (SR) on property rights interventions and agricultural productivity (Lawry et al, 2014) to compare findings on investment and productivity. Based on a narrower definition of property rights and more restricted inclusion criteria, the SR examines rural property right strengthening

³¹ Some studies find situations where individual formal rights are not the most secure, and other types of land holding better predict investment. For instance, Otsuka et al (2003) report that in Western Ghana, land received as gift is the most secure, while individual formally titled land is less so.

³² This subset of the literature is most relevant to explore the economic characteristics on which the case for strengthening property rights is commonly made.

³³ The database reports relevant details of the studies including: investment types; the basis upon which security is measured; and, whether findings were significant at the 10% level. Note that this is a relatively low benchmark for inclusion, and it can be argued that the high number of insignificant results indicates a low level of consistency in results.

³⁴ The majority of the studies (over three quarters) cited in Fenske (2011) have been analysed to confirm reported results.

initiatives (including certification or *de jure* recognition of individual land tenure) in Africa, South America and Asia, and assesses the evidence for positive impacts of property right strengthening initiatives on investment and productivity.

Nature of the evidence

The relationship between tenure security and investment is one of the most researched areas relating to property rights in Africa. There are a large number of studies (>60 since 1990) which test whether conventional economic theory is observable in specific contexts. These studies rely on data collected for the purpose of the study or on data from general survey exercises, which are then used to analyse questions related to property rights.

Meaningful aggregation and generalisation about trends in the evidence is difficult, as there is wide variety in the conceptualisation and measurement of security, as well as the methods used to collect the evidence. The specific geographical, social and cultural contexts of studies also mean that it is difficult to read across and claim that findings from one context may be applicable to others.

A major question raised in the literature is whether endogeneity is properly controlled for; this may occur as households invest in order to secure rights over land. This is especially the case for fixed, visible investments such as tree planting. While some studies claim to avoid this through specific characteristics of their study (e.g. if there is a district-level land expropriation and redistribution event which a farmer cannot influence), in most cases this must be controlled for using econometric techniques. While this can be achieved to the satisfaction of the original study authors, it is difficult to consistently verify this without digging deeply into the methodology or going back to primary data used.

Findings by countries of study

There are a large number of studies from Ethiopia (22 identified), with smaller numbers (between four and seven each) from Burkina Faso, Ghana, Kenya and Uganda, and still fewer from other countries. The large number of studies from Ethiopia reflects its history of land policy, especially since reforms in the 1990s and subsequent efforts to undertake large-scale land registration, and particular donor or academic interest in the country. There are an increasing number of studies coming from countries which have had recent titling initiatives (e.g. Rwanda and Madagascar), but the overall number of studies from these countries is still relatively small. Within any given country, findings are generally inconsistent, and fail to demonstrate consistently important effects of strengthened security across all measures of tenure security. In Ethiopia, measures of stronger tenure show inconsistent impacts: an equal number of studies find positive and negligible effects. A partial exception to this may be three studies which look specifically at the impact of a registration scheme which all report positive effects of this on investment (Deininger et al (2008), Deininger, Ali and Alemu (2008) and Holden, Deininger and Ghebru (2007)).

An important conclusion which emerged from studies in the early 1990s was that titling programmes in Africa, especially in Kenya (Place and Migot-Adholla (1998), had little discernible effect on investments, and in many cases led to negative outcomes (such as extinguishing rights of secondary rights holders). This was partly

owing to poor administration of the titling process and subsequent management. Evidence for more recent titling programmes is inconsistent: titling in Ethiopia has been associated with higher levels of investment, but the same positive effects have not been found in Madagascar (Jacoby and Minten 2007; Bellemare 2012).

Does security against expropriation lead to higher investment?

Despite clear theoretical reasons why reducing insecurity from the risk of expropriation should lead to a positive effect on investment, studies which explicitly looked at this issue have not identified unambiguous, positive effects. In Ethiopia (where this issue has been studied most), Benin and Pender (2001) find that only one of fifteen forms of investment by farming households (the construction of stone terraces) was affected by previous experience of land redistribution – a proxy for insecurity used by several authors. Deininger and Jin (2006) also find that previous experience of land redistribution only had a negative impact on investments in stone terraces³⁵, but a positive effect on investment in tree planting (i.e. households that had experienced previous redistribution were more likely to plant trees than those that had not).

Deininger and Jin (2006) find that expectations of *future* expropriation have a strong effect on adoption of stone terraces. Similarly, Benin and Pender (2001) find that expectations of future redistribution negatively affect investment in irrigation facilities. On the other hand, Holden and Yohannes (2001) find that perceived tenure security does not influence whether farmers have undertaken investments in perennial crops³⁶. In Ghana, Goldstein and Udry (2008) find strong evidence that lower risks of expropriation lead to longer fallowing of land.

Does transferability of rights increase investment?

Transferability is theorised to be an important component of secure property rights, as it is key to affecting the ‘realisation’ channel (i.e. households are more likely to undertake investments if they can recoup the cost, or if land goes to their nominated inheritor). However, findings in the literature are inconsistent. Deininger and Jin (2006) report that having transfer rights affects investments in terracing, but the number of people in their Ethiopian study who perceive they have these rights is very small. Besley (1995) also finds inconsistent evidence on whether the holding of transfer rights increases incentives to invest, with different findings from different regions. Earlier findings from Place and Hazell (1993) indicate that transfer rights do not incentivise households to invest in trees or terracing in Kenya.

Types of investment

Overall, studies find that tenure security status has different effects on different types of investment. Some authors have proposed that tenure security may be more important for long-term, visibly high-yielding investment (e.g. terraces, irrigation) than investments which can show returns in one season (e.g. fertiliser, manure). The

³⁵ However, they note that that only *gaining* land through redistribution has a significant impact; the impact from *losing* land is insignificant.

³⁶ This may highlight differences in relation to the type of investment.

outlay made for these investments is typically larger than for short-term inputs, and therefore losses resulting from expropriation are greater. The majority of studies look at *adoption* of investments, while a few look at the *intensity* of investment. This section disaggregates the evidence by type of investment to explore whether there are generalisable differences on the basis of types of investment³⁷.

- **Improvements to land.** Improvement to land is the most researched area within the literature, measured by 39 studies. These investments mainly include shaping land (levelling, ploughing, contouring) or building irrigation facilities (drainage and irrigation canals) or structures to prevent erosion and runoff (e.g. bunds, terraces). Overall, more studies report statistically significant effects of tenure security on land improvement, than those reporting no significant effect.

In Ethiopia, many of the studies look this issue in relation to soil conservation. Slightly more studies report significant effects of tenure security on adoption of stone terraces – a large long-term investment, than those that do not (Gebremedhin and Swinton 2003; Holden and Yohannes 2001; Deininger and Jin, 2006). The quantitative studies reviewed in the SR on agricultural productivity (Lawry et al, 2014) point to a less ambiguous and strong link between strengthened property rights and investment on land: interventions to strengthen property rights are expected to result in a 5% rise in infrastructural investments.

- **Tree planting.** 23 studies have researched the effect of tenure security on tree planting. Tree planting indicators include planting of cash crops (coffee, cocoa, timber), fruit and other purpose trees. Much of the evidence points to tree planting being undertaken to strengthen claims over land, rather than resulting from increased tenure security (Besley 1995; Brasselle et al 2002; Deininger and Jin 2006). Indeed, there is some evidence that tree planting increases as a result of expropriation risk. However, there is also some evidence of positive effects of tenure on tree planting, where endogeneity has been controlled for, for example Holden, Deininger and Ghebru (2007) and Ali, Dercon and Gautam (2011) who find that planting of economic trees increases with stronger transfer rights in Ethiopia.
- **Short-term inputs.** There is a medium-sized body of evidence (18 studies) researching the effect of strengthened property rights on annual, short-term inputs. Indicators measured included input of fertilisers, chemicals, manure and mulches; seeds and crops; and, use of manual and draught labour. The evidence points to a positive effect between strength of tenure and input use, especially fertiliser use. The least ambiguity of a positive impact on short-term inputs came from Burkina

³⁷ This disaggregation is done across all studies on the assumption that study authors have identified appropriate measures of security and designs in their studies.

Faso and Uganda (where almost all studies found statistically significant impacts); findings from Ethiopia and Ghana were less consistent.

- **Fallowing.** A small number of studies (seven) examine the link between tenure security and fallowing in four countries. In some of the cases, fallowing is an instructive measure to investigate because it is not correlated with a strengthening of claims over land. Rather, land that is fallowed is likely to be redistributed if other community members have insufficient land. Thus, the risk of confounding the causal link between investment and strengthened security is minimised. Most studies found a statistically significant relationship between tenure security and fallowing; results from Goldstein and Udry's (2008) study from Ghana were particularly supportive of this link.
- **Output and productivity.** Most studies which have looked for a positive impact of tenure security on measured (as opposed to modelled) output or productivity have not found important, statistically significant impacts. Despite finding statistically significant and substantial effects of tenure on investment, once crop choices are controlled for, Deininger and Alayew Ali (2007) find no difference in terms of output and productivity between plots with different tenure status. However, they note that plots planted with trees (which are more likely to be planted on owned plots) have higher overall productivity. By contrast, Benin and Pender (2001) found that redistribution of land in Ethiopia had raised yields of barley and teff, which they attribute to recipient farmers having higher capacity to increase production. The lack of positive findings for tenure security on output and productivity echo results from earlier studies (e.g. Place and Hazell (1993) from Ghana, Kenya and Rwanda) which found that variation in land use or transfer rights had no effect on yields. The SR on property rights and agricultural productivity (Lawry et al, 2014) found more consistent evidence linking stronger property rights to improved productivity, with interventions to strengthen property rights expected to lead to a 40% increase in productivity. This may be the result of the selection criteria, which resulted in a smaller number of studies being reviewed as well as the inclusion of countries in Latin America and Asia.

Importance of other considerations.

In general, even where study results point to benefits from tenure security, these effects are often smaller than other effects studied. Benin and Pender (2001) note that overall, factors such as presence of irrigation, access to credit and extension have a more important effect than that of recent land redistribution in Ethiopia. Similarly, results from Deininger and Jin (2006) point to a more important effect of access to extension services than any of the measures of insecurity that they include in their study.

Conclusion

The wide diversity in study contexts, study designs and types of investment analysed mean that the evidence is inconsistent about the effect of strengthened property rights on investment; some studies point to a link, while others do not. While some studies have shown that differences in tenure security have positive impacts on investment in specific settings (e.g. adoption of stone terraces in Ethiopian studies), others have found no impact. Nor has the evidence consistently pointed to an important link between reduced risk of expropriation – arguably the most straightforward way to strengthen property rights – and investment.

An important conclusion is that the link between strengthened property rights is not straightforward, and specific geographical, social and cultural contextual factors may have an important role in modifying outcomes. In some instances other variables, such as access to extension or credit, are more important to increasing investment. In other instances, the reasons for the lack of a link are not clear.

It is worth noting that the review focused on findings from African countries. The SR on property rights and agricultural productivity (Lawry et al, 2014) found that productivity gains are strongest for Latin American and Asian studies and weaker for the sub-Saharan African countries. This evidence paper is based on studies from sub-Saharan countries, where the link may be less robust³⁸. Therefore, it may be that the experiences in other regions provide a more consistent picture of the link between strengthened property rights and investment. For instance, studies carried out on the Land Titling Programme in Peru (PETT) found clear positive results of titling and registration on the probability of rural households undertaking investment (Antle et al 2003, Torero and Field 2005, Fort 2008, Nabasone 2011).

- ii. *Does the evidence confirm that 'free, open' land markets increase inter-household land transfers, leading to allocative efficiency and greater productivity or do they act to promote social and economic differentiation and dispossession?*

Nature of the evidence

There is a medium-sized body (<15 studies) of inconsistent evidence about whether opening land markets leads to efficient, equitable outcomes or whether land ends up being concentrated in the hands of the wealthy minority³⁹. There are few formal land markets in Africa, meaning that access to data is difficult⁴⁰, and therefore not easily enumerated. There is strong evidence that many customary tenure systems support informal, or customary, rental and transfer markets (pledges, loans etc.) (Chimhowu

³⁸ The African studies reviewed in the SR were also included in the analysis for this paper.

³⁹ This statement on the size of the evidence base is supported by Colin and Woodhouse (2010) and Vendryes 2011.

⁴⁰ Holden et al (2009) provide an overview of land sales across Africa, noting that sales are especially low in southern Africa (Zambia, Zimbabwe and Malawi) and more common in East Africa (especially Southern Uganda). Vendryes (2011) notes that the World Bank advice is to restrict alienation rights to renting which means there is relatively little data on sales (in many African countries sales are still illegal).

and Woodhouse 2006), or that transfer markets exist in countries where these are statutorily illegal (e.g. Ethiopia, cited in Dercon and Krishnan 2010). There is little evidence about whether these transfer markets operate in an economically efficient manner. While some evidence suggests that opening land markets can lead to dispossession, other evidence suggests that land opening land markets may broaden distribution⁴¹.

Evidence on whether interventions to activate markets lead to unequal distribution

The evidence is inconsistent about whether formal land markets increase equality of land holding. In Eastern and central Uganda, emerging formal land sales and rentals corrected inequality in land, across and within villages (Baland et al 2003, cited in Holden et al 2009). This is also supported by evidence from studies from Kenya, Uganda and Cote d'Ivoire which find that land markets have not led to higher concentration of land distribution. Although there were findings of distress sales in Rwanda (Andre and Platteau 1998, cited in Place 2009), more recent (preliminary) findings on the effects of the recent land tenure regularisation programme in Rwanda point to low formal market activity and thus low incidence of distress sales (Ali, Deninger and Goldstein 2011).

However, there is also evidence from other countries that supports the position that markets concentrate land distribution, and do not lead to more equitable land holdings. For example, a study in Tigray, Ethiopia (Holden et al 2009) found that although rental markets were more active, villages with a history of low rental activity did not participate more. Rather, those that had a history of renting did so on an increased scale. Other findings from Ethiopia point to increasing concentration of land in the hands of the richer farmers (those endowed with oxen and labour). This is also supported by earlier evidence from Kenya and Burkina Faso (cited in Holden et al 2009).

Existing customary systems of distribution may promote transactions and allocative efficiency

In most of the literature on Africa, land transfers occur under existing customary or informal systems of tenure. An exception is Ethiopia, where land transfers were prohibited until the 1990s, when the regulations were gradually changed across the country. Since then, there is evidence that the land policies which opened land rental markets led to higher efficiency of land distribution. In Tigray, provision of certificates led to an increase in parcels rented out, which fulfilled some of the existing demand amongst land-scarce populations (Holden et al 2009).

Under customary law systems, transfer rights may be *de jure* limited, but there is strong evidence of informal, 'vernacular' markets in which land is rented and sharecropped through various mechanisms, thus allowing households with low endowments to access land. Gavian and Fafchamps (1996) find that although there

⁴¹ This paper did not investigate differences between formal and informal markets leading to different distributional outcomes. Although this may provide further insights (Hall, personal communication), it was not a major theme in the literature.

is some inefficiency in distribution of land in Niger (as labour is not transferred to match land endowments), this is not substantial and is not likely to be remedied by replacement of the tenure system. Colin and Woodhouse (2010) cite 11 studies reporting empirical findings from 16 African countries which illustrate a wide variety of mechanisms used to distribute land within customary systems and point to functioning markets.

Land sale markets operating within customary systems are not necessarily more equitable

Through case studies in four countries, Woodhouse (2003) finds support for Lund's (2002) observation that land markets often operate within many customary systems, but these do not unambiguously provide a safety net for the vulnerable, as has sometimes been claimed. This view is supported in Gray and Kevane (2001) who argue that the investment and intensification process leads to greater social differentiation in Burkina Faso. Chaveau et al (2006) suggest that although more active land markets have emerged, these are neither free nor open: their outcomes are determined by "opportunism, force, simulation and playing on the pluralism of norms".

Several studies also report that the provision of transfer rights under customary systems does not automatically confer autonomy in decision-making, so may not enhance equity or lead to more efficient land use. Reviewing evidence from different parts of Africa (Malawi, Burkina Faso and West Africa), Colin and Woodhouse (2010) note that while sales of land are becoming more common, so are disputes over the meanings of these transactions, as disagreements occur over whether land sales pass on full rights to the buyer (i.e. to resale the land as they wish). This indicates that formal land markets alone do not necessarily result in equitable outcomes if there is lack of clarity over the terms of transfer or if there is a lack of enforcement.

Conclusions

The evidence has pointed to inconsistent effects of land sales and rental markets on allocative efficiency and productivity. In areas where land markets did not exist at all (e.g. Ethiopia) there is some evidence that more active land markets lead to higher efficiency of land distribution; in other contexts, customary systems provide well-functioning markets. Whether land markets lead to more equitable distribution is similarly unclear; examples of both more and less equitable results are presented in the literature. The evidence is often opaque due to the difficulties in assessing whether sales of formal title are undisputed and existing claims to land are extinguished. These points illustrate the difficulty in assessing whether the outcome of land sales (irrespective of their negotiation) improve efficiency, and the limitations of attempts to view land sales in economic terms alone, separate from their social and cultural contexts.

- iii. *What is the evidence to support the hypothesis that stronger property rights lead to a reallocation of factors of production from guard to productive functions in reality?*

Nature of the evidence

There is no evidence which directly investigates this question in the rural African literature. There are a small number of studies (3) which focus directly on this effect globally, but these are from Latin America. An influential study (Field 2005) examined this issue in urban settings in Peru and found that titling led to women leaving their houses more frequently to undertake more productive work. Nabasone (2011) examined this link in rural Peru, and found that titled households dedicated more labour to farm work, and did not take up more off-farm work. In Brazil's Amazon region, Alston, Libecap and Schneider (1996) found that resources were diverted to unproductive, protective functions as a result of insecure tenure.

The small number of studies researching this issue may be a result of the difficulty in quantifying this effect. There are few activities which have an exclusively protective function ('guard activities' have multiple goals) and isolating how much of an action fulfils a guard function, as opposed to other social or political functions, may be challenging.

- iv. *Does the evidence indicate that stronger property rights lead to enhanced access to credit for rural households through use of land as collateral or are other characteristics of the financial market and households more important?*

Nature of the evidence

There is a small body of empirical evidence (<10 studies) investigating the effect of title on access to credit. A larger number of studies specifically note that supply of credit in the area where the study took place is highly limited and therefore not measurable⁴². Studies which have explored the effect of titling on credit access have not found conclusive evidence of its impact⁴³, nor have recent literature reviews (Van den Brink et al 2006; Place 2009; Doemeher and Abdulai 2012).

Findings

The relationship between tenure security and access to credit has been studied since the 1980s; little of the earlier evidence provided robust quantitative information (Feder and Nishio 1998). The World Bank study by Migot-Adholla et al (1991) examines links between rights and outcomes, including accessing collateral, in ten regions of Ghana, Kenya and Rwanda. This study did not find that titling in these countries had a positive effect on access to credit. Since then, the few studies which have focused on areas where credit is available and which investigated the presence of the 'collateralisation effect' of title (where a credit-constrained farmer is able to

⁴² For instance, studies from Ethiopia and Madagascar noted that credit in these areas was in short supply and therefore was not investigated.

⁴³ Two identified studies cite **positive** effects of property rights on access to credit, (Hayes et al 1997 in Gambia, and Barrows and Roth 1989). In Hayes et al (1997), the total use of land as collateral is small (3%) so these findings point to a low importance of credit overall, compared to other effects.

mortgage land to borrow money) have not found strong evidence of a positive effect between tenure security and access to credit (e.g. Carter et al 1997; Place and Migot-Adholla 1998). In their study of several regions of Kenya, Place and Migot-Adholla (1998) note that credit was only used in areas where larger farms existed. Place et al (1995) found that access to credit did not differ between titled and non-titled farmers in two regions in Zambia, with roughly half of both groups having access to credit. A more recent study on credit access in Uganda found that there was little or no difference between freehold and customary household access to formal credit, or between households with or without title (Petracco and Pender 2009)⁴⁴.

The reasons for the absence of an effect between land title and collateral are widely discussed in the literature. Doemehar and Abdulai (2012) note that in order for titling to be fully functional for the purpose of accessing credit, the registration procedure should: 1) improve land tenure security which reduces land ownership uncertainty and related disputes and litigations; 2) facilitate the operation of land markets or land transactions; 3) reduce the time and cost of verifying land ownership; 4) reduce information asymmetries; and 5) raise land values. However, many of these do not occur through the titling process alone, or when titles are not kept up to date. Moreover, there are often barriers to lenders being able to secure collateralised land: Place and Migot-Adholla (1998) note this in Kenya and Deininger and Ali (2008) state that ambiguity of land ownership in Uganda hinders the credit supply. Lack of collateral is often not the main cause of credit refusal. Cash flow issues or a low assessment of ability to repay may be larger barriers, especially in areas with high covariate risks of crop failure (Deininger and Feder 2001).

Reluctance on behalf of borrowers to mortgage land (their main asset) in a risky environment also constrains collateralised borrowing. Nyamu-Musembi (2006) finds this to be the case in a study in Kenya, and cites support for this view in earlier findings by Shipton (1989) in the same country.

Conclusion

The evidence does not support the view that titled rural African households gain access to credit more regularly or easily than other households, which suggests a limited use of the collateralisation effects that formal title potentially confers. Several factors may prevent this effect from being observed across countries. For example, the absence of deep formal credit markets in many rural areas (due to high and covariate risks associated with farming borrowers, small land holdings with low individual values, and difficulties foreclosing and liquidising land collateral) or the presence of other forms of lending which allow credit provision without requiring land as collateral (including informal lenders and inter-household loans).

⁴⁴ They did however find a difference in access to informal credit, which is attributed to the use of title as a screening mechanism by informal lenders.

4.2.3 Evidence for research question 2: land rights and women's economic empowerment

2. *What evidence is there to show that individual, private tenure is necessary or sufficient for securing women's economic empowerment and their access to goods and services?*

Nature of the evidence

There is a large and diverse body of evidence on women's *de facto* rights under differing tenure systems, with contributions largely coming from social and legal anthropological, and political studies. Economic analyses investigating the gendered dimensions of property rights are small in number; most studies on property rights take the household as the unit of analysis, and do not look at intra-household differences that may exist between men and women's rights. Given the wide variation in women's positions with regards to access to land, it is difficult for economic studies which look at average effects to pick up on complex pathways and factors. The literature points to considerable debate and conflicting evidence on whether customary systems are more gender equitable than other forms of tenure status (Doss et al 2012).

Findings

In general, women are commonly observed to be disadvantaged in their access to, and control over, land (Meinzen-Dick et al 1997; Place 1995; Walker 2002; Yngstrom 2002). Limited security of tenure may restrict the ability of women to access natural resources tied to land and benefits flowing from these (Pehu et al 2009).

There is a set of literature that provides evidence that customary systems tend to favour men over women (Lastarria-Cornhiel and Garcia-Frias 2005). Women's claims within the lineage may be weaker under some tenure systems and they may risk having their land expropriated more easily than men (Otsuka et al 2003; Place 1995). Women may be poorly protected where national law allows exemption from equality laws in areas governed under customary law (Knight 2010). For instance, despite national law in Uganda nominally providing women with equal land rights during the dissolution of marriage, customary practices may in fact extend fewer rights to women (Bomuhangi et al 2012). Evidence from Kabale, Uganda shows that women prefer magistrate's courts over local (customary) councils, as the latter were more likely to be filled with friends or relatives of their husbands (Khadiagala 2001, cited in Varley 2007).

This might imply that formal titling could improve gender equality and there is some evidence to support this. Of the small number of economic studies on recent titling initiatives, titling in Rwanda helped women access more land and afforded them greater security over this land through joint marriage rights (Ali, Deininger and Goldstein 2011). The Ethiopian land registration process increased the confidence and tenure security of female heads of household and subsequently increased their ability to rent out land (Holden, Deininger, and Ghebru 2007). It is important to note that impacts may differ between women in different situations (e.g. widows); the studies in Rwanda and Ethiopia did not make this kind of distinction.

There is also evidence which suggests that formal titling could have a negative effect on gender equality. Reviewing gender-related land disputes, Whitehead and Tsikata (2003) find evidence that customary tenure systems are able to exercise more flexibility in their treatment of women claimants. Moreover, Lastarria-Cornhiel (1997) cites several studies which find that government registration programmes tend to marginalize women even further by formally excluding their rights and interests in land. She also notes the reported gender bias in access to social relations, education and capital which hinder women's ability to participate in land markets and benefit from private property systems.

The question of whether joint titling of land (as opposed to individual titling) is successful in bringing benefits to women is a further area of debate in the Sub-Saharan African context. These arguments revolve around whether patriarchal arrangements oppress women, and whether joint-titling alters the power balance in households. Walker (2002) draws from experience from KwaZulu Natal, South Africa, and argues that this is an important first step for women in a context of low economic resources, unstable marriages, and incapacity of governments to implement land reforms (which may provide more preferable arrangements). However, studies from other regions (Agrawal 1994 from India; Varley 2007 largely from Mexico and Latin America) argue more strongly that individual control over land is the way to guarantee that women gain and retain benefits through their lifetimes, as joint titles are not sufficient on their own.

One of the frequently cited benefits of strengthening property rights for women is that this may reduce the difference in productivity that exists between plots farmed by men and women. However, given the diversity and small number of relevant studies, evidence on whether strengthening women's property rights results in greater agricultural productivity is limited and contested. A recent study (FAO 2011) notes that it is impossible to empirically verify the share of food in a household produced by women, because in most households both men and women contribute to production; even where specific crops are associated with women, these associations may change over time. Comparisons between male- and female-headed households are confounded by the fact that the latter have smaller average plots and use fewer purchased inputs. Therefore, while inferences may be possible, there is no robust evidence of the effect of strengthened property rights for women leading to higher levels of agricultural production (Walker 2002, FAO 2011).

Finally, there is a small body of consistent evidence that the *processes* of tenure intervention (including titling) are important for securing women's access to land. Knight (2010) notes that key differences in the adoption of clauses considered beneficial to women in four case study countries were dependent on the transparency and high level of involvement of women in the processes. In Rwanda and Tanzania, legislation mandates that local land committees throughout the country and local government management committees be composed of at least 30% women, which has increased the voices and visibility of rural women throughout land reform projects (Daley et al 2010; Walker 2002).

Conclusions

There is inconsistent empirical evidence about whether individual private tenure provides better conditions for women's empowerment than alternative systems,

including customary tenure. Studies from legal anthropology and gender issues note a similar ambiguity across the evidence. As with other questions on property rights, context is highly important: as Walker (2002) notes, legal changes can only be enabling, and changes realised, if “women are able to use the space that has been created”. There is consistent evidence about the beneficial impact of having mechanisms for women to provide substantive input into local land consultation and decision-making initiatives.

4.2.4 Evidence for research question 3: security of land rights and land grabs

3. What is the evidence on the vulnerability of land held under different tenure systems to land grabs coming from this emerging body of literature?

This section discusses the literature on recent large-scale land deals⁴⁵, to determine whether certain types of rights offer greater security against land deals that are transacted without the consent of landholders by governments, local authorities or traditional leaders. The term ‘land grab’ is often used to refer to dispossession within communities, for example, of vulnerable people or women. However, this paper looks at large-scale acquisitions made by foreign or local entities of land which the state or other authority nominally has the right to transfer.

As the body of evidence on large-scale land deals is recent, institutional websites of organisations known to have conducted or brought together research on the phenomenon were specifically searched for relevant studies on Africa. This included the websites of the Future Agricultures Consortium, the International Institute for Environment and Development, the International Land Coalition, the Cornell Land Project, and World Bank Land and Poverty Conferences 2011 and 2012.

Nature of the evidence

The evidence on land deals is generally split between case studies of specific deals or overall analyses of global land deal activity. The latter are generally investigations whose research methodologies involve consulting media reports and databases, conducting interviews and cross-checking with local sources. Given the main wave of media coverage is relatively recent (largely since 2008), most reports caution that findings in overall analyses may not be robust as they aggregate reported deals, some of which may not be concluded. Although the evidence strongly supports the scale of land deal activity⁴⁶, there is limited evidence looking at the aggregate impact of land grabs on communities. However, there is a growing body of case study

⁴⁵ This section refers to the generic term ‘land deals’ instead of ‘land grabs’. This is to avoid issues relating to providing a more precise definition of ‘land grab’, subsequently narrowing the discussion. A more precise definition is offered by the Tirana Declaration (<http://www.landcoalition.org/about-us/aom2011/tirana-declaration>) as well as by other authors.

⁴⁶ Whilst there is strong evidence in the interest of land deals in Africa (accounting for roughly two thirds of global interest), whether these projects have been implemented is somewhat less certain. Recent research suggests that half of reported deals (globally) have actually resulted in a transaction of rights (625 projects in total, for which there are contracts for 223, and on which 202 production has started (Anseeuw et al 2012)). Twenty of the 33 countries confirmed to having issued tangible leases since 2007 are in sub-Saharan Africa (Alden Wily 2011).

evidence investigating specific examples where land deals have led to local dispossession of land (e.g. Oakland Institute 2011; White et al 2012). There is relatively little evidence on effects disaggregated past the community level, e.g. by gender (Behrman et al 2011).

Case study analyses have largely focused on general characteristics of land deals and generally do not dedicate much discussion to the actual tenure status of land prior to acquisition⁴⁷, instead analysing the impacts on local populations in terms of displacement, conflict and dispossession. Most reports note that the land which has been acquired is predominantly classified as state-owned, although in most cases there are existing, unregistered customary tenure rights over the (usually communally held) land. A review of the evidence points to land deals primarily involving land which is classified as 'commons' (Alden Wily 2011). A review of the national laws relevant to customary rights to see whether these offer protection to local communities against state expropriation indicates the relatively vulnerable status of land held under customary tenure in different countries (Alden Wily 2010). However, no study correlates typologies of land laws with reported or finalised land deals.

Findings

Investment interest is highest in areas where land governance is weak. One study attempts to establish causal linkages between governance and land deals. Arezki et al (2011) use data from 464 projects reported in the media and finds that there is a negative correlation between the level of reported demand for land deals and the share of the population in rural areas whose land rights are recognised⁴⁸, supporting statements that land deals take place in area where tenure security of local users is low.

Land deals largely take place on land over which the state ostensibly has ownership/residual rights. In most countries where acquisitions have occurred, negotiations have been conducted by the state, which has claimed residual rights on the land as the *de jure* or allodial⁴⁹ owner (Alden Wily 2010). Deininger et al (2010), summarising case studies in five African countries⁵⁰, note that in many of the areas of recent interest, population density is low and customary governance practices prevail, which at best have uncertain official recognition. There is no evidence that investors target land with specific tenure status; studies which have investigated this have found this information to be unavailable (e.g. Nolte (2012) for Zambia). Alden Wily (2011) notes that acquisitions are likely to take place on commons, where there are few issues related to negotiation and payment of compensation, and thus preferential to both government and investors.

⁴⁷ This may be due to the general finding that the majority of projects are negotiated by the state on land which is ostensibly held by the State (or in some cases where community-held land is transferred first to the state to be transferred further to investors e.g. in Tanzania). Alden Wily (2010) notes that this may also be owing to a (contested) assumption that the state has a legitimate claim over the land. Other aspects of investigation which are better covered in the literature include the identity of investors, scale of the projects, and intended use.

⁴⁸ They also find that land deals are more likely to be sought in countries where overall governance is weaker, although this finding is not significant.

⁴⁹ That is, holding the land in absolute ownership.

⁵⁰ Democratic Republic of Congo, Liberia, Mozambique, Tanzania and Zambia

However, there are also cases where customary authorities have negotiated deals, and therefore can be seen as having enabled alienation of land. The case of Ghana is frequently cited in the literature (IIED 2009; Deininger et al 2011) as an example of where negotiations with customary authorities have led to outside investors securing large areas of land. Schoneveld et al (2010) cite 17 biofuel developments in which customary chiefs, with support from the state agency, have leased out lands with benefits largely flowing to the chiefs. Sulle and Nelson (2009) note that biofuel projects in Tanzania have acquired land predominantly through the Tanzanian Investment Centre in a process through which land acquisitions replace existing customary claims to land.

Existing laws ostensibly protecting customary users' land rights are not effective in guarding against land deals. In a review of the laws in several African countries, Knight (2010) notes that none provide sufficient protection for local communities, as states reserve the right to take back 'unused' land. Deininger et al (2010) note that in Zambia, customary rights of land cannot be registered or surveyed, which makes these areas vulnerable. They also cite the case of Liberia, where lack of clarity on whether customary arrangements have legal recognition has led to lands being transferred to outside investors without compensation, leading to conflict. They argue strongly for a need for these rights to be documented. Alden Wily (2010) notes that the Malian land law is prejudiced against customary land law: "customary rights are only recognised as existing on unregistered lands, but only registered statutory entitlements amount to a real property interest" (p.4). Additionally, the negotiation of land deals often discriminates against non-registered customary rights holders and other users, especially the most vulnerable. Deininger et al (2010) cite evidence from Zambia where resettlement has been pursued in lieu of compensation, and this rarely takes account of the full nature of pre-existing customary rights. In cases where compensation is given, this may only be done for recognised customary rights holders, and exclude people with a perceived migrant status.

There is also some evidence that where tenure reforms that aimed to protect customary lands have failed, land has become more vulnerable to land grabs. In a review of national land laws in 40 countries, Alden Wily (2010) notes that existing provisions for customary rights do not afford adequate protection from expropriation. A clustered ranking of countries, based upon the *de jure* protection afforded to customary rights finds that in Tanzania, Ghana, Mozambique and South Sudan "customary holdings are equivalent in legal force and effect to property rights which have been acquired through non-customary routes" (p. 14.). The restriction of *de jure* protection to house and farm plots (and not communally-held grazing, forest and other common property areas) in Botswana, Namibia and Madagascar means customary lands in these countries are afforded a slightly lower level of protection. Statutory entitlements carry greater legal force than customary interests in Benin, Burkina Faso, Cote d'Ivoire, Lesotho, Niger, Nigeria, Senegal and Zambia, although customary interests are recognised as being more than simply rights to occupy and use land. The lack of legal recognition of community-derived rights in Burundi, Eritrea, Ethiopia, Mauritania and Somalia (where there is total reliance of state-granted rights), means that customary rights are given no legal protection. Customary rights are given the least legal protection in Cameroon, Chad, Democratic

Republic of the Congo, Gabon, Gambia, Mali, Somalia, Sudan, Swaziland and Zimbabwe; here, customary rights exist on national land in a state of statutory grant or lease from the government. However, the fact that numerous land deals have occurred in Mozambique and Tanzania (German et al 2011), in which local rights have not been adequately respected, indicates that existing legal provisions may be inadequate even where laws ostensibly offer a high level of protection.

General shortcomings in land laws, which make land vulnerable to 'land grabs' include: protection extended only to formally registered occupancy and use rights; registration often requires a change in the status of the right, extinguishing customary forms; recognition of rights extends only to settled and farmed estates, and is conditional upon sustained, visible use; laws do not support customary land administration at the local level; the state regularly exercises its right to appropriate title to customary lands; and, laws often give legal priority to commercial use of land by classifying private commercial enterprise as public purpose (Alden Wily 2010).

Due to limited rural titling, land deals rarely coincide with individually titled lands. Alden Wily (2011) notes that limited rural titling of lands other than those which are privately held by individuals has meant that land deals have not coincided with areas of titled land. The one example of this occurring (FIAN 2010, cited in Alden Wily 2011) involves a foreign-operated farm threatening title holders in Kenya in order to buy out their land.

Several countries (Liberia, Tanzania and Mozambique) are reported to have communal titling initiatives in progress (Knight 2010) but there is little evidence on whether these provide higher levels of security. Even where communities are recognized as the legal owners of land, they may still be persuaded to sell off land by members of the local elite for benefits which have not materialised (Alden Wily 2012).

Conclusion

The evidence indicates that large-scale land acquisitions have occurred more often on land on which the rights of local users are not formally recognised. The growing literature on recent land acquisitions suggest that communally-held lands under customary tenure systems may be at a higher risk than individually- or communally-titled lands, as the low level of statutory protection offered to them under national laws makes it relatively simple (from a legal perspective) for the state to appropriate and lease them to commercial interests.

5. Property rights and urban household welfare

5.1 Theoretical and conceptual issues

5.1.1 Formalised household rights and urban household welfare and investment

The prevalence of insecure tenure in urban areas

A very large, and growing, poor urban population occupies land and/or buildings in which it does not have a strong right to remain. UN-Habitat (2006) forecast that, without successful interventions, the estimated 998 million people living in urban slums in 2006 could increase to 1.5 billion by 2020. Low income households are becoming the majority residents of many cities of developing countries, particularly medium-sized cities, and seek to produce or rent shelter. Ten per cent of the global population may be housed in urban squatter settlements where tenure security is very low (Field 2005: 289).

Tenure insecurity on urban land arises for different reasons:

- Some households occupy and/or build upon land without permission of the state-registered owners.
- Others fail to satisfy regulations and laws governing land use and/or construction, so are seen by the state as acting illegally.
- Some occupy land in violation of a lease that has been granted by government (e.g. a dwelling of permanent material has not been erected within three years; possession has been transferred to a third party without approval from the lessor), so the land could be taken from them.
- There are those who have rights granted by a traditional land management system that is not recognised as legitimate by the state.
- Some hold leases of very short duration (e.g. a temporary occupation license of five years or a lease of 20 years) that lack long-term security.

The lower cost of accessing such land, together with the shorter timeframe associated with ignoring control procedures, laws and state regulations, are key drivers for occupation of land with insecure tenure.

Responses to insecure tenure in urban areas

Strengthening tenure, especially through titling of land and housing, has been a major aim of managing the growth of urban areas and reducing urban poverty. Titling generally involves registration by the state of: surveyed boundaries of land and/or buildings; details of the rights to that land and/or building; and, the names of those

possessing those rights, including leased rights. This commits the state to defending with its power any challenges to these registered features, making tenure secure to a degree that is generally thought superior to the defence that alternative institutions can provide. Efforts to make urban land tenure more secure have been directed principally at reducing the risks of expropriation and encouraging household investment in improvements to property, with greater tenure security expected to facilitate lending by banks. Also, some advocates of titling have seen this as a way to legalise informal settlements, thus removing a major excuse used by some government authorities to avoid their legal duties to provide service facilities to low income communities.

Interest in strengthening formal property rights to land and buildings through titling as a means to social and economic development was raised to an unprecedented level by Hernando de Soto (2000). He reasoned that if governments of developing countries provide real property ownership with clear titles and rights enforceable by law, then poor people will be able to use their assets to obtain credit which can be employed in productive activities and countries could lever themselves and their poor inhabitants out of poverty. His arguments have been persuasive to international development agencies and several governments, reflected in programmes of land titling carried out in recent decades in cities of Peru, India, South Africa, Argentina, Senegal, Brazil and Mexico. His arguments encouraged many Latin American countries to include land-titling programmes in their poverty alleviation policies, as well as strengthening support for urban land titling within the World Bank, USAID and DfID.

However, De Soto's arguments have also been challenged, and attention drawn to alternative interventions. There are concerns that only a limited number of assessments of titling programmes evaluate the success of their outcomes compared to theoretical or modeled impacts, including the impact of urban land titling processes on gender equity (Payne et al 2007).

Moreover, there is evidence that weaknesses in tenure effectively lower land and housing market prices, precisely because they heighten risks of expropriation, eviction or demolition of buildings, thus giving poor people more affordable access to shelter.

Gender and tenure insecurity

Women's ownership of land and housing offers poor women security against poverty that other forms of income do not (Baruah 2007: 2099; Agarwal 1994; Carr et al 1996; Chen 1998). However, in many urban contexts, insecurity of tenure is felt disproportionately by poor women who are being denied rights to real property equal to those of men. This would allow them to have more control over the use of this asset in their roles of home-based producers and principal managers of household welfare. In almost every city, a high proportion of households are female-headed, often single-parent: 33% on average for all cities throughout the world (UNCHS 1999a: 17-18). The routine discrimination against women in both urban and rural settings is seen by the United Nations as linked to both their economic and political disempowerment (UN-Habitat 2005).

Varley (2007: 1739) asserts that "providing title for the household does not guarantee security for women, and legal equality may fail to prevent gender differences in

property ownership”⁵¹. In many cases, new legislation in developing countries establishing women’s property rights has been enacted without affecting the day-to-day denial of such rights, which are ruled more by enduring social customs. Pandey (2010: 290) comments that her study in Kathmandu, Nepal, like many others around the world, found property laws to be male-biased and that when the formal rules are changed, the informal rules, customs, traditions, codes of conduct can remain unchanged.

5.1.2 Theory of change and research questions

Figure 4 traces the pathways from formalising property rights in urban areas to improved household welfare and highlight the assumptions that underpin this.

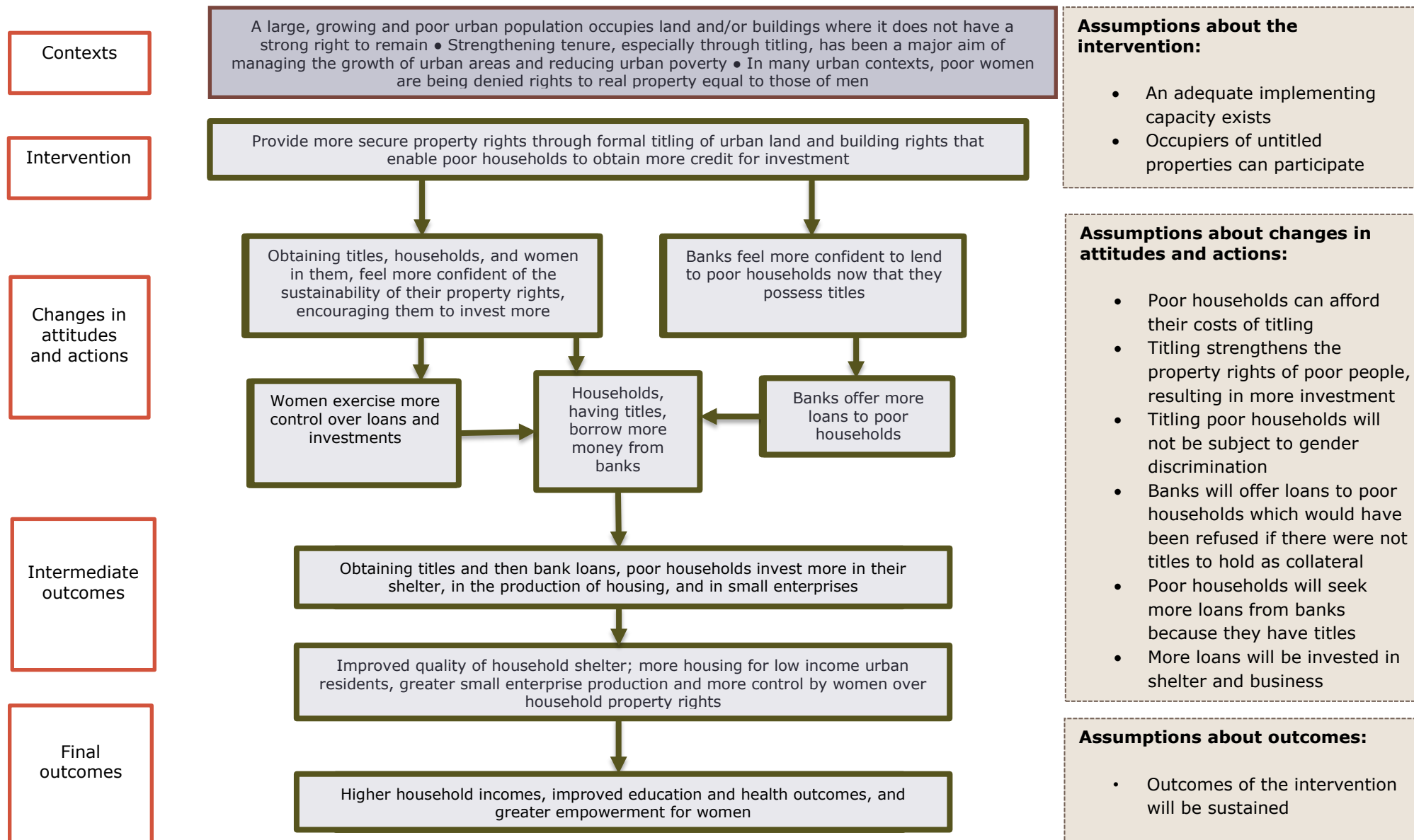
The research questions around which this chapter is focused provide insight into the hypothesis that formalising property rights through titling will increase urban household welfare by increasing tenure security, providing the incentive for households to invest in their own property and in small enterprises, and facilitating collateral-based finance.

This chapter examines the evidence for four research questions:

1. Does the provision of private, formal land and building rights provide greater incentive to poor urban households to invest in their own property, in housing for rent, and in small enterprises?
2. Do formal rights allow property to be used as collateral against bank loans and do they facilitate a greater volume of loans to poor urban households?
3. Does titling improve income levels and welfare in poor urban households?
4. Is formal titling in urban areas gender neutral?

⁵¹ This paper did not examine evidence about the extent to which these conclusions apply to the urban situation.

Figure 4: Theory of Change for urban households



5.2 Evidence on each research question

5.2.1 General characteristics of the evidence

With only a few exceptions, the evidence was found in reports of non-experimental studies, both qualitative and quantitative, and almost never econometric. These reports were found mostly in peer-reviewed journals; a few were in books; some were available on the internet; a small number were unpublished PhD theses, conference papers, working papers and other grey documentation. There is no particular geographical focus to these studies, for they examine cases in developing countries around the globe. Yet these tend to come from particular countries: several are from Latin America; somewhat more are from Africa and Asia. The evidence specifically dealing with urban land titling dates mostly from the decade after 2000, roughly the time when the arguments of de Soto began to have impact on urban policy and interventions.

Altogether, there do not appear to be many studies examining property titling of poor urban households. Evidence regarding urban property titling is primarily obtained through studies of single cases in parts of various, widely scattered cities in developing countries. These studies often focus on objectives other than assessments of the characteristics and effects of titling. An important exception is provided by Field (2003, 2005, 2007), Field and Torero (2006), Calderón (2004), Cantuarias and Delgado (2004), and Kagawa and Turksra (2002), all of whom examined the titling programme in cities of Peru and provide exceptional depth. Another exceptional study was that of Galiani and Shardedrotsky (2004, 2010) who compared two sets of circumstances engendered by titling which were separated by 10 years in a suburban low-income settlement of Buenos Aires. Data regarding more than one research issue was obtained from each of these two cases. Payne et al (2007, 2008, 2009) and Angel et al (2006) sought to bring together available data regarding various cases in a number of cities in more than one country: the first having a global scope; the second confined to Brazil, Mexico and Peru.

In a major literature review during 2005 to 2007, Geoffrey Payne, Alain Durand-Lasserve and Carole Rakodi brought together the greater part of the available evidence that was found relevant to the research questions. Their searches were far-ranging, locating many sources of evidence that otherwise would not have been identified and some to which access is not readily available.

5.2.2 Evidence for research question 1: titling and household investment

1. *Does the provision of private, formal land and building rights provide greater incentive to poor urban households to invest in their own property, in housing for rent, and in small enterprises?*

Evidence supporting the link

There is a medium-sized body of evidence (11 studies) looking at the link between titling and investment by urban poor households. These studies are non-experimental, both qualitative and quantitative, and feature only a few countries. Only two of these studies explore property titling in depth.

More security and investment

The evidence generally supports the idea that investment is encouraged by titling. Galiani and Shardedrotsky (2010: 708) conclude that their data collected in a low-income suburb of Buenos Aires, Argentina, “supports the hypothesis that securing property rights significantly increases investment levels”. Van Gelder (2009) found in Buenos Aires that the tenure legality provided by titling is a significant predictor of housing improvement. Boudreaux (2006) claims that residents of Langa Township, South Africa, typically obtained an incentive to improve their properties with their new titles. A survey in Peru (Cantuarias and Delgado 2004, cited in Payne et al 2007: 34) found that 75% of title holders in the Peruvian land titling programme invested in their properties compared with 39% of those without property titles. However, the programme’s implementing agency carried out this survey which compromises its objectivity, and its methodology is not reported in the study. As such, this is classified as low quality evidence.

Comparing changes in housing investment among participants and non-participants before and after titling in Peru, Field (2005: 1) claimed that residential investment rose more than two-thirds after titling took place. Banerjee (2004, cited in Payne et al 2007: 46) reports that in Bhopal and Visakhapatnam there was a “spurt” of building activity in settlements scheduled for clearance when government distributed documents granting some legal security.

These conclusions assume that behind the decision to invest is a perception that titling has sufficiently increased the probability that the benefits of investment can be enjoyed. Few studies have actually reported on perceptions of greater security. Reerink and van Gelder (2010) interviewed residents with titles in kampongs (informal settlements) in Bandung, Indonesia, and found that they felt more secure than those who had entirely informal claims to their properties. As such, they reasoned that the perception of tenure security is enhanced by titling. Payne et al (2008 and 2009) came to the same conclusion: their survey in Dakar, Senegal, showed that titling contributed to improved tenure security. However, they also conclude that the significant percentage of entitled households that had not yet sought titles indicates that the titling made little difference to some perceptions of tenure security, which were already high because of guarantees given by government before titling (2008: 448). Angel et al (2006: 14) report that in Mexico, homeowners have cited security as the primary reason for wanting a title. Lanjouw and Levy (2002: 991) found that most responding households (all but two) in Guayaquil, Ecuador, report seeking title to increase their security. Cantuarias and Delgado (2004: 8) report from Peru that 78% of titleholders believe that property title gives more security to real estate property. In their literature review, Payne et al (2008: 459) assert that there is considerable evidence in the literature of increased tenure security from titling.

Qualifications and queries

Titling may not be essential

There is debate in the literature about whether titling is necessary or sufficient to guarantee tenure security in urban areas and promote investment by urban households. Reerink and van Gelder (2010) assert that titling contributed only marginally to investment in housing improvement in the kampongs of Bandung, Indonesia. In Peru, Calderón (2004) counters the

evidence advanced by Cantuarias and Delgado (2004) on the positive impact of titling on household investment, by demonstrating that such investment was seen throughout squatter settlements in Lima at this time, whether titled or not; as such, it is not clear that titling was the main incentive. Over the extended period of her observation of Indio Guayas of Guayaquil, Ecuador, Moser (2009) found that investment was an incremental process that began, regardless of title, with the acquisition of infill to turn the tidal mangrove swamp below the house into solid land. In Mexico, Angel et al (2006) observed that homeowners do not wait for titles to make improvements; if they do not make investments, it is because they lack the necessary income.

There is evidence that property does not have to be titled for owners to feel secure enough to invest. Van Gelder (2009) found in Buenos Aires, Argentina, that while tenure legality was a significant predictor of housing improvement, so was the perception or feeling of tenure security. A viable alternative to formal titling may provide sufficient tenure security to encourage household investment. In an informal settlement in Blantyre, Malawi, Chome and McCall (2005) found that title registration had a small impact on investment behaviour, as the traditional informal registration system was up to date, transparent, had credibility, increased the security felt by household dependents, and facilitated dispute settlements. Durand-Lasserve (2003) found that vestiges of traditional land administration systems operating in nine African cities offered degrees of security. Among the residents interviewed in the kampongs of Bandung, Indonesia, those with a property title did not feel more secure than those with tenure that was only partly formal (although they felt more secure than those with entirely informal property claims). From this, Reerink and van Gelder (2010: 85) concluded that that perceived tenure security is enhanced not only by titling, but also by strengthening *de facto* tenure security.

A low risk of eviction can encourage a perception of sufficient security to invest. In Peru, Calderón (2004) and Kagawa and Turkstra (2002, cited in Payne et al 2007: 22) note that a history of land invaders not being evicted and laws that forgave illegalities encouraged poor urban families to invest. Angel et al (2006) note that security provided by the lack of evictions in recent history can be sufficient for investment by urban households. They report that the rarity of evictions in Mexico makes homeowners feel relatively secure and that receiving titles does not markedly change this perception of tenure security. Of the households that made investments in their properties, 70% said that they would have undertaken the improvements even if they had not received the new land title (Angel et al 2006). In settlements that had not faced evictions in Bhopal and Visakhapatnam where a kind of formal tenure had been given, interviews with residents two years afterward showed that they did not consider the documents legalising their tenure to be important for changing their security of tenure (Banerjee 2004). Similarly, in countries where the threat or perception of eviction is minimal or non-existent, such as Turkey, Trinidad, Egypt, Morocco and West African cities, residents appear willing to invest whether or not they have formal tenure status. Surveys of squatter settlements in Port of Spain, Trinidad and Tobago (Payne et al 2007) found that none of the groups questioned mentioned tenure insecurity among their top ten concerns, mainly because evictions were virtually unknown.

Kessides (1997: 11) observes from World Bank experience that provision of roads, water, electricity etc. to the area by a local authority can be sufficient to spur investment. Angel et al (2006) also find this, adding that even providing an address can have such an effect. UN-Habitat (2003: 9) lists service facility provision as one of many other actions and

circumstances that can encourage enough perceived security to encourage investment. Other circumstances include:

- Support from a local politician
- Repeated confrontations between NGOs, community organisations and authorities that have successfully limited evictions
- Illegal occupation of a dwelling, requiring a court order to clear, for which there is a substantial backlog of similar cases.

Subsidies may be needed to include poor households in titling

Another issue raised in the literature is that poor households often find that they cannot afford titling. Titling programmes in urban areas are expensive because they require professional services and the maintenance of an accurate and reliable system of registering properties and granting titles (see UN-Habitat 2003: 25). Even more costly are the land rights purchases (reflecting the value of urban land uses), although where this is government land, its market value is usually ignored, thus subsidising the actual cost. Also, because titling identifies owners and their properties, properties become practical to tax and require a significant additional regular outlay from households.

Lanjouw and Levy (2002: 1012-3) claimed from their earlier studies in Ecuador that the estimated cost of obtaining a title equalled roughly 100% of household annual, per capita consumption. Residents surveyed in a Sri Lankan settlement, who were generally positive about having a title deed, nevertheless saw a fee as a prohibiting factor because they could not pay it in one instalment or could not afford it at all (Redwood and Wakely 2012: 179). Payne et al (2009: 448) report that in Senegal, the prospect of being taxed “may have discouraged households ... from finalizing the tenure regularization procedure.” Moser (2009: 55-56) reports that formal costs in Guayaquil, Ecuador, amounted to the equivalent of between two and three months’ minimum salary (\$343), but in practice the process could cost up to six months’ salary (\$745) in order to ‘pay’ the relevant personnel to ensure the process was completed.

In many cities, subsidies were provided to assist poor households. In Indian cities, for example, *patta* titles (conferring occupancy rights) were issued free of cost to recipient households. Although they did not find information regarding the costs of *patta* administration, Payne et al (2007: 47-48) suspected the total cost to government could have been substantial. Angel et al (2006: 11) report that although no fees were charged to the recipients of titles in the first phase of Peru’s Commission for the Regularisation of Informal Property (COFOPRI) programme, this phase alone cost US\$66.3 million. In the Joe Slovo Park settlement in Cape Town, Cousins et al (2005: 3) reported that many new property owners could not afford the additional expenses of rates and service charges, so rebates were introduced. Based on surveys, Chilevsky (2003, cited in Payne et al 2007: 47-48) found that cost recovery in Latin America was often poor. This was attributed to people lacking the money, finding it costly to leave work and travel to government offices to pay, not trusting the institutions and believing they will not be evicted if they do not pay.

Even so, subsidies do not cover other costs that titling can impose in practice. Titling is increasingly a feature of slum upgrading schemes, which are practiced on cheaper undeveloped land – inevitably on the edge of the built-up area of a city or town – to which

households are displaced so that schemes are easier to implement. Deutsch (2006: 39) reports this in Cambodia, Kundu and Kundu (2005: 12-13) in Delhi, and Field (2003) around Lima and other major Peruvian cities. The resulting separation from off-site service facilities, including good public transport, from concentrations of employment, from consumers for home-based production, and from supporting social networks imposes substantial monetary and time costs upon those who are moved.

Households that rent, or are in illegal properties, cannot participate

A very large portion of poor urban households rent their housing, and cannot participate in titling. UN-Habitat (2011b: 5) reported that in 1998, 82% of poor, urban households rented their accommodation in Kisumu, Kenya; 60% in Addis Ababa, Ethiopia; and, 57% in Kumasi, Ghana. Baruah (2007: 2102) found that 25% in Amedabad, India, rented informally and 30% of these were female-headed households. Renters occupy units with absentee landlords or rooms let out by households. Some of these households and landlords are themselves low income, but titling does not give their tenants new rights or stronger tenure. On the contrary, they can be forced to leave their homes as they can no longer afford the rents that can rise dramatically to cover the cost of titling.

Moreover, much untitled land cannot be titled until variances with land use laws and regulations are rectified. The inability to satisfy all the official standards may prevent owners from titling their property (for example, Banerjee 2002 and 2004 in India; Nkurunziza 2004 in Uganda). For example, a large parcel of peri-urban land may be subdivided into a quantity of smaller plots for housing without approval from an agriculture authority trying to maintain agricultural plots of efficient size (as in Kenya). Any act of subdivision might violate municipal regulations which require plots to conform to minimum standards for plot size, road widths and service facility provision and which require subdivision plans to be approved; residential use of the land may violate municipal planning policy for acceptable use of the site. Further, construction on the land may not satisfy legal requirements. Banerjee (2004: 9) notes the inability of poor households to produce building plans sanctioned by the Bhopal Municipal Corporation.

A professional capacity to exercise titling can be lacking

Even if formal titling has a positive impact on household investment, there are concerns about the feasibility of implementing titling in low income countries. Surveying parcel boundaries and correctly registering the survey data and the owner of the bundle of rights attached to the land require highly skilled and experienced personnel who have often been insufficient in number in developing countries. Moreover, land registry records need to be permanently updated if titles are to retain their legal validity.

Feder and Noronha (1988, cited in Payne et al 2009: 457) observe there is no point to titling if the records cannot be kept current. There are several accounts of lack of capacity: UN-Habitat (2003: 9) concluded that land titling in the Philippines was too great a task for administrations lacking the necessary human and financial resources, so nothing was done; both the World Bank (2004) commenting on Indonesia and APIX (2006, cited in Payne et al 2009: 457) on Dakar, Senegal, used evidence to calculate that titling operations would not keep pace with need for decades, if ever. Contrasting evidence comes from Mexico where titling is said to take from three to six months (Angel et al 2006: 61) and Peru where Graglia and Panaritis (2002: 12) state that the process could take only a few hours or days.

Conclusion

There is a **medium-sized** body of evidence about the impact that the receipt of private, formal land and building rights has on encouraging investment by poor urban households. These studies are generally of moderate and sometimes high quality and vary in geographic focus.

There is consistent evidence that titling makes some poor urban households perceive that their tenure is more secure which leads to additional investment. However, titling is not necessarily essential to encourage investment, especially where homeowners already feel enough secure to invest.

There is consistent evidence that titling does not strengthen the tenure of a large proportion of poor urban households. A large proportion of poor urban households are renters so cannot share in the benefits of titling. Moreover, there are a small number of studies which show that the owners of many properties cannot be given titles because they violate land use and construction rules and so are illegal. In addition, a small number of studies of moderate quality indicate that a large portion of poor urban households cannot afford the expenses of titling. This means that there can be substantial costs to governments for subsidies. Finally, a small number of studies suggest that some developing countries lack the professional and administrative capacities to execute large-scale urban titling programmes.

5.2.3 Evidence for research question 2: titling and bank loans

2. *Do formal rights allow property to be used as collateral against bank loans and do they facilitate a greater volume of loans to poor urban households?*

Evidence supporting the link

A small body of evidence (< five studies) examine whether titling provides access to bank loans in urban areas. Cantuarias and Delgado (2004: 10, cited in Payne et al 2007: 41) report an increase in registered mortgages in Peruvian cities following the provision of titles. Galiani and Shargrodsky (2010), comparing events in a titled settlement in Argentina with an identical, untitled village, found that 4% of those with titles obtained a mortgage compared to none of those without titles.

Qualifications and queries

Titling may not affect access to formal credit from banks

There are more studies (nine) examining whether titling has led to more borrowing of formal credit from banks, the body of evidence is small. Domeher and Abdulai (2012), reviewing evidence from many countries, assert that there is no empirical evidence that land registration positively influences access to credit. Van Gelder (2009) found that in a poor settlement of Buenos Aires, Argentina, there was no relation between tenure legality and access to credit. In their overall review of the literature, Payne et al (2009: 455) concluded that, at least in the short term, no significant increase in access to formal credit has resulted from titling. Angel et al (2006: 15) found no increase in access to mortgage credit by households with new titles in Mexico. Parsa et al (2011: 695, 705) concluded that the provision in Dar es Salaam of “residential licences” (land being nationalised in Tanzania, rights are provided by forms of long-term leasing) has not resulted in their being accepted as

full security by financial institutions. Galiani and Shargrodsky (2010) found that the percentage of title holders in a Buenos Aires settlement obtaining mortgages was very small (4%).

The case of Peru is given considerable attention in the literature. Although they reported an increase in mortgages following titling, Cantuarias and Delgado (2004: 10, cited in Payne et al 2007: 2) acknowledge that the quantity of mortgages “is relatively modest, compared to the scale of the programme.” Field and Torrero (2006: 1, 3) concluded that although loan approval rates from the Government’s Materials Bank were 12% higher when titles were requested, there was “no evidence that titles increase the likelihood of receiving credit from private sector banks.” The Government’s Materials Bank was established primarily to allocate loans to the poor and therefore operated under different operational criteria than a private bank. Kagawa and Turkstra (2002: 68) reported that 25% of residents who currently had loans from the Materials Bank were said to be either unable or unwilling to repay. A private bank could not sustain this level of defaults.

Bank preferences for collateral

Banks can find titles held by poor households to be poor collateral for loans because, in cases of loan default, the market demand for the properties can be largely comprised of equally poor people without the capital to buy. Moreover, the cost of managing a loan varies little with its size, so banks prefer to extend a few large loans rather than a great many small loans. This is illustrated by Business Day (2006, cited in Boudreaux 2006: 28) which observed that banks in South Africa had shown little interest in borrowers who earn less than 5,000 rand/month. The low-value mortgage loans market had not been profitable.

Banks are known to provide loans simply because the low-income borrower can show evidence of a regular income. A survey by the International Institute for Environment and Development (IIED 2006) of several African countries concluded that employment and income were the key factors in obtaining loans. Angel et al (2006) concluded that studies of the programme in Peru had not been able to show a link between titles and more credit because the chief reason for rejecting loans was the limited repayment capacity of the applicant and not the lack of a title.

In any event, lending institutions can refuse applications because the property does not satisfy all the legal requirements of land development. Banerjee (2002 and 2004, cited in Payne et al 2007) found this to be so in three major cities of India. In Accra, Ghana, Nyametso (2012: 254) concluded that most slum dwellers’ properties were not even eligible to be used as guarantees to service loans. The plot sizes, compliance with building codes and the general standards of most of the buildings did not qualify them to be accepted as loan collateral by formal banks.

Low levels of formal borrowing

The evidence suggests that there are not high levels of borrowing from banks by those in receipt of titles. Case studies from settlements in Senegal and South Africa (Payne et al 2009 and 2008) found that very few people took out loans from banks or other lenders. It is notable that there is no evidence that households borrow *more* from banks when they receive titles, nor is there evidence that when they do, they use their titles as collateral.

Mortgages not wanted

Poor households tend to avoid mortgages which place a substantial and sustained risk on possession of their greatest capital asset. UN-Habitat (2011a: 25) explains this as the result of unstable household incomes that make long-term debt unattractive. As such, construction tends to be done step-by-step, room-by-room. Residents of Dar es Salaam studied by Parsa et al (2011: 705) were reluctant to use their property as collateral for fear of losing their shelter. They rarely borrowed to build their properties. Similarly, Nyametso (2012: 254) observed in three low income areas of Kumasi, Ghana, that the poorer households were very hesitant to use their properties as collateral because of societal sanctions and fear of losing generational assets, should they default on repayments. Homeowners of Langa Township, South Africa, were also unwilling to use their titles as collateral (Boudreaux 2006: 30). A survey of several African countries found no evidence that poor people seek to use land titles as collateral (IIED 2006: 12); the risk of losing land is felt to be too great. Byabato's survey of a planned settlement in Dar es Salaam (2005: 72, cited in Payne et al 2007: 42) found that 80% of households interviewed "would not seek formal credit from a bank if they had to use their title deeds as collateral." Mainly, they feared losing their property, their prime asset. Similar findings are found in other studies: for example, Rakodi and Leduka (2004) and Mitchell (2006 cited in Payne et al 2007).

Incremental investment is funded in other ways

There are indications that households use other sources of funds for investment. Even in the Peruvian programme, Field (2005) concludes that most of an observed increase in investment was financed without the use of credit. Moreover, there is evidence that poor households often finance housing improvements incrementally. Tomlinson noted (2007, cited in UN-Habitat 2011a: 6) that they do this with a series of small loans taken from family and friends, or micro loans, usually on an informal basis. The incremental housing improvements done in the study areas of Accra, Ghana, (Nyametso 2012: 254) were said to be funded not with loans from banks or other formal lenders, but from other sources, such as rent advances, household and pooled savings and guarantees from their employers. Residents of Langa Township, South Africa, preferred personal savings rather than bank loans (Boudreaux 2006: 30). Typically, residents with new titles invested gradually. Most worked informally, which meant that their incomes fluctuated. As such, regular interest payments were a problem and qualifying for a bank loan was difficult (ibid: 17-18).

Conclusion

While the evidence is consistent that titling can stimulate investment by poor urban households, these studies do not provide evidence of the extent to which these investments were financed with credit from banks. Only two studies examine this issue in detail and both fail to find any correlation between obtaining titles and obtaining credit from private sector banks.

Instead, a small body of evidence indicates that banks use other criteria in loan decisions, especially the repayment capacities of loan applicants. There is a suggestion that private sector banks find titles to be unattractive collateral and many small loans to be expensive to administer. In addition, there is a medium-sized body of moderate quality evidence which suggests that poor urban households generally prefer not to put their properties at risk by

using their newly acquired titles to secure bank loans. Instead, they tend to make improvements without using credit.

5.2.4 Evidence for research question 3: improved income levels and welfare

3. Does titling improve income levels and welfare in poor urban households?

Evidence supporting the link

There is a small body of evidence (<10 studies) which have examined this question, notably Galiani and Shargrodsky (2010), Field (2003, 2005, 2007), and Payne et al (2007, 2008, 2009). However, these studies fail to specify the uses to which investments are put and whether this generates additional income and/or welfare by improving household living conditions, financing entrepreneurial activities or creating dwelling space for rent. There is a greater body of evidence concerning cases where the benefits of improvements stemming from investments could not be sustained.

Shelter improvements

In their Peruvian study, Cantuarias and Delgado (2004: 9, cited in Payne et al 2007: 34) speak only of investments and not of their sources of funding: most title recipients had invested to improve their homes and the number of rooms per house increased by approximately 20%. Banerjee (2004: 7, cited in Payne et al 2007: 46) reports from India that “there is no doubt that in all the three cities (Delhi Bhopal and Visakhapatnam) tenure security has stimulated considerable investment in” the use of more permanent construction materials, increases in dwelling space and improvements to on-plot services. Galiani and Shargrodsky conclude that in Buenos Aires, obtaining titles has a large and significant positive effect on housing quality (2010: 706). Homes had better walls and roofs, and concrete pavements were laid. However, they comment that the increased housing investment and associated effects – reduced household size and enhanced education of children relative to their control group – did not take place through improved access to credit (ibid: 710).

Business improvement

Payne et al (2009: 455 and 2008) found that loans from banks or other lenders in settlements in Senegal and South Africa were most often for home improvements, rather than for business. However, Banerjee (2004: 7, cited in Payne et al 2007: 46) comments that in Bhopal and other Indian cities, titles may have encouraged households to develop and expand home-based business activities. From what she viewed in Langa Township in South Africa, Boudreaux (2006: 39) concluded that providing title to a house produced incremental improvements to properties and businesses that were real benefits to homeowners and to local entrepreneurs. There was no evidence regarding the *extent* to which new title holders invested in business.

Household welfare

Payne et al (2007: 30-31) found little evidence about the health or educational impacts of titling programmes which might signal improvements in household welfare. An exception was a survey by Galiani and Shargrodsky (2004, cited by Payne et al 2007: 31, 2010) which

compared two groups of squatters in suburban Buenos Aires who had received titles 20 years apart. They found a positive and significant difference in the size of children (2004: 364) and higher rates of teenage pregnancy in the untitled parcels (21%) compared with the titled parcels (8%), but no significant differences in children's height-for-age (ibid: 367). They concluded that "the child effects of land titling seem to be moderate" (ibid: 370).

Galiani and Shargrodsky also found evidence (2010) that land titling reduced the fertility of the household heads, producing smaller families that invested more in education and had significantly better educational achievement among children (ibid: 712). Lanjouw and Levy (2002: 994) found in Ecuador that households on untitled properties had less-educated heads and less wealth than other property owners.

Income

There is debate about the impact of titling on income levels of poor urban households. Field (2007) suggested that newly titled households in Peru worked longer hours and more outside the home, which resulted in increased incomes. This interpretation was challenged by Mitchell (2006: 19, cited in Payne et al 2007: 45) on methodological grounds, although Payne et al (2007: 45) subsequently questioned Mitchell's criticism. In any event, no further data was brought forward linking longer hours to greater household incomes.

The potential for investments in low-income rental housing units and in small enterprises to contribute to household incomes has been discussed in the evidence. Cichello (2005, cited in Boudreaux 2006) reports that 85% of South Africa's self-employed – many of whom are in the informal sector – work from their homes. In 2006, FinMark Trust (not referenced, but possibly FinMark Trust et al 2008 or FinMark Trust's Centre for Affordable Housing Finance in Africa, not dated but cited in UN-Habitat 2011a: 42) found that small-scale landlords in South Africa were renting to more than 1.8 million low-income people, taking in roughly US\$58.3 million per month, while home-based entrepreneurs were earning an estimated US\$66 million per month. A role for titling in this seems sparsely documented. Banerjee (2004, cited in Payne et al 2007: 46) states, without data, that in Bhopal and other Indian cities, titles have encouraged households to develop and expand home-based activities. From her observations in Langa Township, South Africa, Boudreaux (2006: 13) concludes that "the ability to feel secure running a business from one's home is another way in which the titling effort has helped to alleviate poverty in Langa."

However, Galiani and Shargrodsky (2010: 711) found no evidence of a link between titling in a suburb of Buenos Aires, Argentina, and an increase in household income: "these families are still very poor...94% of households are below" the poverty line years after titles were allocated.

Empowering women

There are a small number of studies which found a link between titling and increased empowerment of women by giving them more control over household property rights. Field (2003: 18) interpreted the lower fertility rate found among households with titles from the Peruvian government's programme as a sign of greater empowerment. Datta (2006) found evidence in Chandigarh, India, that female bargaining power arising from the ownership of land assets mattered in family fertility decisions. Exploring the impact of joint titling on women's empowerment, Datta (ibid: 271) concluded that property rights increased "women's participation in decision making, access to knowledge and information about public matters,

sense of security, self-esteem, and the respect that they receive from their spouses.” Varley (2007) recounts several individual cases in Mexico that illustrate how titles provide advantages to low-income women by providing a public record of property ownership which removes certain obstacles to the operation of family law. Participant observation studies, such as that of Moser (2009), have identified that empowerment through property rights is often associated with life-cycle and inter-generational trends.

Renter outcomes

Landlords who obtain titles may raise the rents they ask (perhaps to meet the new costs of titling and/or improvements resulting from investments), whether or not they improve their properties. This may lead to the displacement of households that do not wish to pay the higher rent (Payne 1997). Yet, these improvements to housing conditions benefit the household welfare of renters who remain and new tenants replacing the departed ones.

Qualifications and queries

Outcomes may not be sustained

Some poor households cannot bear the additional regular expenses that can come with titles, even when they are subsidised, so are pressed to sell their properties and any new improvements made to them. Mortgage loans impose yet another regular outlay. These are regular demands on households which typically have irregular flows of income. Lacking financial resilience, a poor family can be forced to sell simply because of a spike in household expenses, for example, for substantial medical treatment. Cousin et al (2005: 3) quoted Jacobsen’s (2003) estimate that about 30% of the new houses in Joe Slovo Park settlement in Cape Town that had been allocated to households formerly on untitled land had been sold: “the costs of formal property ownership, as well as the debt burdens that are created when property is mortgaged, are not appropriate for the poor” (Quan 2003: 7, cited in Payne et al 2007).

Also, there are those who choose to cash in on market values which have become substantially higher as a result of titling. In Kigali, Rwanda, massive market-driven displacements occurred in informal settlements located in prime urban areas (Durand-Lasserve 2006). This value rise occurred because the titled property enters a market of buyers willing to pay higher prices. There are reports of price rises of 25% following titling in Peru (Cantuarias and Delgado 2004: 9); in urban Ecuador, an average rise of 23.5% (Lanjouw and Levy 2002: 988); a doubling of land value in a Brazilian property titling programme (Alston, Libecap and Schneider 1996); in Cambodia, a 66% increase after titling (Deutsch 2006: iii). Angel (2006: 26) noted that a study in El Salvador found that titling was linked to an estimated 17% increase in the property value. There is no evidence about the uses to which the funds thus realised are put, but these could nevertheless result in improved final outcomes.

Yet there is contradictory evidence of households not responding to market pressures. Baruah, (2007: 2101) found that during a year, only three families moved out in the five newly titled areas of Langa Township, South Africa. Angel et al (2006: 14) note in Mexico “very little buying and selling of homes in consolidated communities, except in desirable areas that are subject to gentrification.” Gilbert (2002) reported few transactions in Bogota, Colombia; in Ecuador, most respondents receiving titles expected to remain for a long time (Lanjouw and Levy 2002: 1012). Datta (2006) found evidence in Chandigarh, India that

women's increased attachment to the house when obtaining titles helped reduce property turnover in settlements.

A state-backed title is vulnerable to government's own demands – legitimately for the public good or not (urban redevelopment schemes, for example) – and to the manipulations of registration processes by corrupt officials, that deprive low income title-holding households of their properties without fair or any compensation. In India, Sukumaran (1999) reported large-scale evictions by government that included people in possession of land titles and Bannerjee (2002) notes forced evictions of poor urban residents with new titles in Kolkata, both cited by Payne et al (2007: 24-25). More forced evictions of title holders by governments have been reported in Egypt (Sims 2002), Cambodia and Rwanda (Durand-Lasserve 2006).

Such observations have led to claims that titling can sometimes actually reduce security of tenure. The World Bank (2006, cited in Payne et al 2007: 24) commented on Afghanistan that “the more formal the documentation the more it is prone to corruption and to dispute.” Payne et al (2009: 447) observe that where residents already perceive a degree of security (e.g. Benin, Egypt, India, Mexico, and Tanzania), land titling may expose them to market-driven evictions. This suggests to them that titling may be more appropriate for urban situations where de facto security is weak or non-existent (Payne et al 2007: 25). Taking another perspective, Varley (2007: 1741) suggests that a focus on female-headed households in titling policy and literature may lead to married and cohabiting women having their rights neglected in favour of men, thus reducing the security of tenure of such women.

Conclusion

Evidence of moderate quality indicates that investments mostly go into home improvements, including additional rooms. Very few studies examine the link between titling and other welfare outcomes: only one study of moderate quality associates titling with moderate improvements in the health of children and education; one study found that titling affected the number of working hours (and hence increased household incomes); and, a small number of studies found a link between titling and increased empowerment of women by giving them more control over household property rights.

However, there is some evidence of moderate quality showing that benefits from titling may not be sustained. For example, the new regular expenditures caused by titling can drive some owners (and renters) out of their homes, while other owners are encouraged by property value increases to sell and depart, with unknown consequences for the family welfare and production. There is some evidence that governments take property despite titling.

5.2.5 Evidence for research question 4: titling and gender neutrality

4. *Is formal titling in urban areas gender neutral?*

Evidence supporting the link

A very high percentage of low-income urban households are female headed. Payne et al (2007: 27) found very few studies that analyse the impact of land titling on gender equity in urban areas. d'Hellencourt et al (2003: 37, cited in Payne et al 2007: 27) reported in Afghanistan that “despite women's property rights being protected by the statute law, they

are not customarily respected" (ibid: 28). Cousins et al (2005: 3) found in the Joe Slovo Park settlement in Cape Town, South Africa, that "ownership was registered in the name of only one member of each household, often resulting in reduced security for women and members of the extended family". Evidence obtained by Byabato (2005: 71, cited in Payne et al 2007: 28) in a planned settlement in Dar es Salaam, Tanzania found that about 90% of the properties were registered in the husband's name, even though some were owned by widows, and there were no cases of joint registration of husband and wife. He attributed this to women's ignorance of the existence of joint titles and to a traditional cultural bias against women's ownership. In a low-income area of Amedabad with full legal tenure acquired through the efforts of both men and women, Baruah found at the time of issuing property titles, land revenue officials "gave clear preference to male household heads. Joint titles were not issued for married couples and the only two women in the community who received independent titles did so because of the absence of male household heads in their families." (2007: 2112). Varley (2007) gives numerous examples of women in Mexican urban and rural areas being denied, in practice, the rights of titles.

Even when they obtain property rights through titling, there is little evidence that poor women exercise more control over loan and investment decisions as a result. Pandey (2009: 290) concluded from her study that women with full property ownership in Kathmandu were not exercising more decisions than those with conditional ownership. Other factors mattered: women owners fell into their traditional gender roles and engaged less in financial decisions in the presence of a husband or son.

Conclusion

The evidence suggests that gender discrimination does occur during titling. Ownership is often registered in the name of a single household member, with preference given to men. However, there is insufficient evidence to draw conclusions about the extent, strength and impact of this discrimination.

6. Common findings, issues and evidence gaps

This chapter highlights findings on common questions explored in the three previous chapters.

6.1 Titling and investment — the security effect

There is evidence that titling raises the perception of security among some poor **urban households** which, in turn, leads to additional investment. However, investment can also be influenced by many other factors, for example where homeowners already feel secure enough to invest. Moreover, there are barriers which prevent poor urban households from benefiting from titling. A high proportion of poor urban households rent their property, or cannot afford the expenses of titling without substantial cost to government for subsidies. Many developing countries also lack the professional and administrative capacities to execute large-scale titling programmes.

Inconsistent results are also found amongst **rural households**. Despite clear theoretical reasons why reducing insecurity resulting from the risk of expropriation should lead to a positive effect on investment, the evidence is not clear cut. Some studies have shown that differences in tenure security can have a positive impact in specific contexts (e.g. adoption of stone terraces in Ethiopia), but others have found no impact. There is no consistent link between strengthened property rights and investment when the findings are grouped by country, investment type or measure of security. Nor has the evidence consistently pointed to an important link between reduced risk of expropriation – arguably the most straightforward way to strengthen property rights – and investment. In some instances, this is because other variables, such as access to credit, are more important to increasing investment.

There is a medium-sized body of high quality evidence supporting a positive link between secure property rights and long-term economic **growth**.

6.2 Titling and access to credit — the collateral effect

While there is evidence that titling can stimulate investment by poor **urban** households in some contexts, these studies do not provide evidence of the extent to which these investments were financed with credit from banks. Only two studies examine this issue in detail and both fail to find any correlation between obtaining titles and obtaining credit from private sector banks. Instead, a small body of evidence indicates that banks use other criteria in loan decisions, particularly proof of regular employment and income. In addition,

households are reluctant to put their properties at risk by using their newly acquired titles to secure bank loans. Instead, they tend to fund improvements through other means (e.g. rent advances, household and pooled savings, guarantees from their employers).

Similarly, the evidence does not support the view that titled **rural** African households gain access to credit more regularly or easily than other households which suggests a limited use of the collateralisation effects that formal title potentially confers. Several factors may prevent this from being observed across countries. For example, the absence of deep formal credit markets in many rural areas (due to high and covariate risks associated with farming borrowers, small land holdings with low individual values, and difficulties foreclosing and liquidising land collateral) or the presence of other forms of lending which allow credit provision without requiring land as collateral (including informal lenders and inter-household loans).

In terms of **growth**, only one study shows that secure property rights are important for collateral-based finance at macro level. Outside of this paper, most of the literature on firms and national growth focus on other related issues. These include: the impact of broad investor protection rights on the ability to raise capital; the role of legal institutions in explaining international differences in financial development; the critical effect of judicial efficiency on lowering the cost of financial intermediation for households and firms; or, the importance of stronger property rights for the poverty-reducing effects of financial deepening.

6.3 Gender impacts of titling

While there is evidence that gender discrimination occurs during titling of **urban** households, there is no evidence of the extent, strength and impact of this discrimination. In the case of **rural** households, there is inconsistent economic evidence about whether individual private tenure provides better conditions for women's empowerment than alternative systems, including customary tenure. As with some of the evidence around urban households, results were context specific, and often depended on the transparency and level of involvement of women in the processes under which changes in tenure occurred.

6.4 Limitations to reading across the chapters

It is worth noting that there are some limitations to reading across the three chapters to draw out common threads. These arise from differences in the nature of the literature and differences in focus. The chapters on rural and urban households looked at household-level impacts and were more explicitly context-specific than the growth chapter which primarily examined country-level impacts. Different measures of secure property rights (from titling to perceptions of risk to composite indices of risk of expropriation) also create difficulties when reading across chapters.

6.5 Evidence gaps

The analysis for this paper revealed a number of evidence gaps that would benefit from further research. These are summarised by theme below.

Property rights and economic growth

- Collection and analysis of more and better quality micro level data on the impact of secure property rights on firms' investment decisions within countries to complement and test the results from cross-country analysis.
- Collection and analysis of data on the impact of secure property rights on collateral-based finance at a macro/large firm level.
- Collection and analysis of data on the impact of secure property rights on allocative efficiency at a macro/large firm level.
- Collection and analysis of data on the impact of more formal property rights on the distribution of property and benefits from growth at a national/cross-country level.

Property rights and rural household welfare

- The impact of property strengthening on women's access to and control over land is an area where messages are mixed. Further research on how property strengthening initiatives affect women with different statuses is needed. There is some limited evidence on how women's access and control over land can be strengthened through their involvement in demarcation and registration processes, but this is still scarce. Further evidence is needed on the benefits of this and how this can be best achieved.
- Evidence on whether differences in land tenure are important for preventing land grabs is still thin. Further evidence on whether formalised customary land recognition is important as a means of protecting land against land grabbing is still needed, as is evidence on whether formal recognition of customary-held lands affects responsibilities of companies' to undertake consultation with local communities prior to making investments, which would lead to more equitable investments.
- In relation to the link between strengthened property rights and investment, further disaggregated country studies, focusing at the sub-national and national levels, are needed to clarify the importance of titling in specific situations. These should pay attention to the levels of economic development, role of country institutions, as well as local land tenure contexts, and avoid aggregating findings across diverse contexts where they lose granularity.
- Further evidence is required on the impact of stronger property rights on welfare benefits (health, education, fertility, food security) for rural dwellers through channels other than raised income levels.

Property rights and urban household welfare

- To what extent does titling lead to additional investment, especially where households already perceive enough de facto security to invest?
- How effectively does titling encourage investment compared to other interventions regarding property ownership?
- To what extent and how does titling result in women exercising more control over loan and investment decisions, leading to their greater empowerment?
- To what extent do poor households borrow more from banks when they receive titles and to what extent do they use their titles when they borrow?
- To what extent do the funds realised by households when they sell their properties after titling result in improvements to their welfare and incomes?
- What is the impact on the household welfare and incomes of those renters who stay and those who depart as a result of titling?
- What household welfare and income outcomes specifically result from investing more loans obtained from banks by using a new title as collateral compared to those that specifically result from more investments in properties that have been encouraged by titling, whatever the source of financing that is used?

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Annex 1: Experts consulted

The following experts were interviewed for this briefing paper. They were asked to provide their views on the evidence and recommend relevant literature.

Expert Name	Affiliation	Area of expertise
Dr Bina Argawal	Director & Professor of Economics, Institute of Economic Growth, University of Delhi	Gender and women's rights and Land Rights in South Asia; agricultural economics
Paul Mathieu	Senior Officer, Natural Resources Management and Environment Department, Climate, Energy and Tenure Division, FAO	Legal aspects of tenure of land and water; Voluntary Guidelines on tenure security and the work conducted by FAO
Prof Ben Cousins	Chair in Poverty, Land and Agrarian Studies, Institute for Poverty, Land and Agrarian Studies (PLAAS), University of the Western Cape, South Africa	Political economy of agrarian change, especially small-scale agricultural producers (politics, economics); formalisation of customary land rights
Prof Wendy Wofford	Associate Professor, Development Sociology, Cornell University	Land property rights; landless movements
Prof Timothy Besley	School Professor of Economics and Political Science, London School of Economics (LSE)	Property rights – conceptual framework and micro evidence
Steven Lawry	DAI/ University of Wisconsin Land Tenure Centre	Property rights of land; communal property rights; land tenure reform processes; pastoralism

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