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*Property Rights and Development:
The Contingent Case for Formalization*

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Property Rights and Development: The Contingent Case for Formalization

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Abstract

The conventional wisdom among economists and development scholars is that strong formal property rights are a necessary pre-condition for economic growth. By way of a thorough analysis of the theoretical and empirical literature relating to property rights and economic development, this paper questions this wisdom and argues instead for a more nuanced and context-dependent approach to the understanding of the relationship between property rights and development. This first part of this paper argues that in certain cases, the costs of creating a formal property rights regime outweigh the benefits derived from that regime. The second part argues that property rights regime cannot be viewed as isolated institutions which are independent from other social institutions, but rather that the success of a formal property rights regime is contingent upon the successful operation of a number of other institutions. Finally, the third part examines the process of transition from an informal to a formal property rights regime and argues that the appropriate model for facilitating that transition crucially depends on the reason for the perpetuation of the informal regime.

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I – INTRODUCTION

The substantial body of economic development literature which has accumulated over the past several decades has examined a myriad of factors in seeking to provide both a descriptive account of what causes growth as well as prescriptive policies for what poor countries should do to catch up with richer states. Although few would contend that any one policy can raise the standards of living of those in the world's poorest countries to levels comparable to those in the world's richest countries, it has become conventional wisdom amongst most economists that, whatever else the state does, it should provide effective institutions and processes to protect private property rights and enforce contracts, which are regarded as pre-requisites to efficient and dynamic market economies. In the words of two prominent law and economics scholars in a forthcoming book, *Law and the Poverty of Nations*, "inadequate institutions to enforce property and contract law are the most fundamental defect in the legal framework of poor countries".¹ On this view, law plays a critical role in promoting economic development and should be accorded the highest developmental priority. One of us has examined the contract enforcement pillar of these claimed pre-conditions to economic growth elsewhere.² Here we address the property rights protection pillar of this conventional wisdom.

The significance of property rights for economic growth has been the subject of much writing by development theorists and policy-makers alike. The so-called Washington Consensus

¹ Robert Cooter and Hans-Bernd Schaefer, *Law and the Poverty of Nations* (forthcoming), p. 12; see also Kenneth Dam, *The Law-Growth Nexus: The Rule of Law and Economic Development* (Washington: The Brookings Institute Press, 2006) at 91 [Dam].

² Michael Trebilcock & Jing Leng, "The Role of Formal Contract Law and Enforcement in Economic Development" (2006) 92 *Virginia Law Review* 1517.

identified property rights reform as one of the major areas of reform for the developing world.³ The World Bank has similarly highlighted the importance of property rights, and it has supported and financed programs for the formalization of property rights and the creation of titling systems to secure such rights.⁴ While some of the research emanating from the World Bank in recent years has advocated a more nuanced approach to its policies relating to property rights and development,⁵ other documents have seemed to follow its traditional attitude that the formalization of property rights is virtually always desirable.⁶

Perhaps most reflective of the importance which property rights have acquired in contemporary thinking on economic development has been the success and influence of Hernando De Soto's *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else*, which argues that strong protection for private property rights is the key factor which explains the developed world's economic success.⁷ Indeed, by De Soto's count, the potential benefits of formalization are significant. De Soto claims that "the total value of all real estate held but not legally owned by the poor of the Third World and former communist nations is at least \$9.3 trillion," which he characterizes as "dead capital".⁸

³ John Williamson, "What Washington Means by Policy Reform" in John Williamson, ed., *Latin American adjustment: how much has happened?* (Washington, D.C.: Institute for International Economics, 1990) 7.

⁴ World Bank, *World Development Report 2005: A Better Investment Climate for Everyone* (New York: World Bank and Oxford University Press, 2004) [World Bank]; Ahmed Galal & Omar Razzaz, "Reforming Land and Real Estate Markets" online: (1999) World Bank Policy Research Working Paper No. 2616 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=636201>

⁵ Klaus Deininger, *Land Policies for Growth and Poverty Reduction* (Oxford: World Bank and Oxford University press, 2003) [Deininger].

⁶ See e.g., World Bank, *supra* note 4 at 80-84 for an example of virtually unequivocal support for the formalization of property rights.

⁷ Hernando De Soto, *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else* (New York: Basic Books, 2000) [De Soto, *Mystery of Capital*]; see also Albright's trumpeting of this idea in Madeleine Albright, "It's time for empowerment" *The Economist World in 2007* (2006) 65.

⁸ *Ibid.* at 35.

This broad claim is unsatisfactory, however, as it leaves a great deal of indeterminacy in terms of the actual policies implied by this claim. The theoretical and empirical literature which has emerged in support of the claim has been used by some to advocate titling and registration programs as a general solution to the problem of property rights insecurity. This paper will argue that this blanket approach towards the establishment of stronger property rights is unwarranted and counterproductive. Rather, it will argue that a more nuanced approach is required to craft successful development policies regarding property rights. To that end, this paper will present—and seek to provide answers to—three questions which must be asked regarding the process of strengthening property rights regimes.

First, do the benefits of formalizing property rights outweigh the costs of doing so at all stages of development? While there are compelling theoretical reasons—supported by numerous econometric studies—to believe that a number of economic benefits emerge from formal property regimes, there are also a number of economic and social costs which arise in creating and maintaining such regimes. The assumption that the benefits will always outweigh the costs is unwarranted; it is thus important to examine the conditions under which this assumption will hold. The answer to the first question necessarily also involves an examination of the form that a property rights regime might take, as many of the costs and benefits depend on specific aspects of the property regime in question.

Second, what social, economic, political, and legal pre-conditions are necessary for a formal property rights regime to function effectively? A formal property regime cannot exist in a vacuum at the state level, but rather requires the existence of a number of complementary institutions, including an effective police force, a strong judiciary, and other similar institutions. Yet it is also important not to ignore the importance of informal norms and codes of behavior, as

a precondition for an effective formal property system may also be the existence of social norms which are not in serious conflict with the formal regime. Thus, it is important to understand the preconditions, both at the state and societal level, which are necessary for a formal property regime to operate as envisioned by policy-makers.

Third, how does the process of reforming property rights regimes actually occur? The answer to this question depends on the process by which property rights regimes change over time. If, as some authors have argued, property rights regimes will evolve naturally over time, then there may be a limited role for intentionally designed reforms in shaping them. By contrast, if various factors interrupt this evolutionary process, then intentionally designed reforms may have a more significant role to play. Answering this question will therefore also involve an analysis of the different impediments to this evolutionary process, as well as an exploration of the differing responses which may be required.

This paper will proceed by examining each of these questions in turn, exploring both theoretical considerations as well as empirical evidence.

II – THE COSTS AND BENEFITS OF A FORMAL PROPERTY RIGHTS REGIME

A – The Benefits of a Formal Property Rights Regime

1 – The Benefits of Secure Property Arrangements

Before moving to questions about the nature of an optimal property rights regime, it is first important to briefly highlight some of the reasons why property has occupied such a prominent place in the development literature in recent years. While much of the literature has made sweeping claims about the benefits of private property, the literature has also disaggregated

the benefits and identified a number of distinct economic benefits which private property can bring.

Prior to outlining these separate benefits, it should be noted that it is simplistic to speak of private property rights as a whole as leading to economic growth. As many authors have pointed out, one's property over an object can typically be disaggregated into a number of rights, none of which need necessarily go together. In examining issues related to property rights and development, however, it is sufficient to use Eggertson's aggregation of these rights into three broad categories: the exclusive right to use an asset, the right to appropriate its economic value, and the right to sell or otherwise alienate that asset.⁹ Indeed, most of the issues discussed below can be linked to one of these three rights.

It is also important to note that these rights are not dichotomous, but rather can exist in property to varying degrees of security. This is especially the case with the first two rights, which can be grouped together for practical purposes in the concept of tenure security. In this formulation, the stronger is one's exclusive right to use and appropriate the economic value of the land, the more secure one's tenure is. Indeed, security of tenure will be used frequently below to refer to strong protection of one's exclusive rights to use and benefit from the asset in question. By contrast, tenure insecurity refers to a situation where one's claims to property are likely not to be respected. This insecurity can arise from either a) other individuals not respecting an individual's claim to his property and claiming that property as their own or otherwise encroaching on it, or b) the state not respecting an individual's claim to that land and

⁹ Thrainn Eggertsson, *Economic Behaviour and Institutions* (Place: Cambridge University Press, 1990) at 34.

expropriating that land.¹⁰ Having clarified some of these distinctions, some of the often cited benefits of secure property rights will be highlighted.

Exclusive Use Leads to the Resources Being Used Efficiently

There are two mechanisms through which various bundles of private property lead to resources being used in the most efficient way possible. The first claim is that because private property leads individuals to fully internalize the costs and benefits of their use of an asset, the existence of private property will lead people to use resources in the most socially efficient way.¹¹ When the protection of property rights over a given resource are weak, significant inefficiencies in the use and exploitation of that resource can arise. First, where numerous individuals are using the same resource, that resource may be overexploited, as individuals will not consider the detrimental effects on others of their own decisions related to resource use.¹² Second, where no property rights are assigned to a resource, individuals may have an incentive to appropriate that resource as quickly as possible lest others appropriate it first; this can lead to inefficient resource mining.¹³ This is formally demonstrated by Hotte, who models resource use in the case of insecure ownership and shows that where landowners believe that they may lose their access to a resource in the near future, they may exploit the resource in a socially wasteful

¹⁰ Thrainn Eggertsson, *Imperfect Institutions: Possibilities & Limits of Reform* (Ann Arbor: University of Michigan Press, 2005) at 183.

¹¹ Harold Demsetz, "Toward a Theory of Property Rights" (1967) 57 *The American Economic Review* 347 [Demsetz, "Theory of Property Rights"]; Armen Alchian & Harold Demsetz, "The Property Right Paradigm" (1973) 33 *The Journal of Economic History* 16; Garrett Hardin, "The Tragedy of the Commons" (1968) 162 *Science* 1243 [Hardin]; Ronald Coase, "The Federal Communications Commission" (1959) 2 *Journal of Law and Economics* 1. Proponents of the New Institutional Economics have also examined this claim. North argues that private property rights raise the private rate of return of an activity closer to the social rate of return, thereby spurring economic growth. See Douglass North, *Structure and Change in Economic History* (New York: Norton, 1981) at 6 [North].

¹² Erik Furubotn & Rudolf Richter, *Institutions and Economic Theory: The Contributions of the New Institutional Economics* 2nd ed. (Ann Arbor: The University of Michigan Press, 2005) at 111-116 [Furubotn & Richter].

¹³ Thrainn Eggertsson, "Open Access versus Common Property" in Terry Anderson & Fred McChesney, eds. *Property Rights: Cooperation, Conflict, and Law* (Princeton: Princeton University Press, 2003) 73 at 77.

manner.¹⁴ In a similar vein, Claessens and Laeven argue that poor property rights might lead firms to suboptimal asset allocations, as they might invest in assets which have lower returns but which are easier to protect.¹⁵ Thus, this claim suggests that the stronger is private property in the sense of private ownership and allowing individuals to capture the returns from their efforts, the greater will be the efficiency in the use of a resource.

It is important to note, however, that under certain economic conditions, both open-access systems, where no one is excluded, and communal property arrangements, where non-members are excluded, can be economically efficient arrangements.¹⁶ For example, an open access system could be a rational response to economic forces if land were not a scarce good; in such circumstances, there is no benefit to creating formal individual property rights, while there would be a cost.¹⁷ Similarly, if land is only somewhat scarce and a community is relatively small, communal property arrangements may combine the benefits of socially efficient alternatives through collective action with lower enforcement and transaction costs than individual property rights.¹⁸

The second mechanism through which strong property rights promote efficiency is that when the land over which one has strong private property rights is also alienable, the land can be

¹⁴ Louis Hotte “Conflicts over property rights and natural-resource exploitation at the frontier” (2001) 66 *Journal of Development Economics* 1.

¹⁵ Stijn Claessens & Luc Laeven, “Financial Development, Property Rights & Growth” (2003) 58 *The Journal of Finance* 2401 [Claessens & Laeven].

¹⁶ See Dam, *supra* note 1 at 151; Robert Ellickson, “Property in Land” (1993) 102 *The Yale Law Journal* 1315 [Ellickson, “Property in Land”]; for a more general discussion of some of the factors which can lead group rights to be more efficient than individual rights, see Deininger, *supra* note 5 at 29.

¹⁷ See Omotunde Johnson, “Economic Analysis, The Legal Framework, and Land Tenure Systems” (1972) 15 *Journal of Law and Economics* 259 [Johnson].

¹⁸ See Gershon Feder & David Feeny, “Land Tenure and Property Rights: Theory and Implications for Development Policy” (1991) 5 *World Bank Economic Review* 135.

transferred from less efficient users to individuals who will put it to more efficient uses.¹⁹

Because the land is more economically valuable to the more efficient user, mutually-beneficial trades should be possible wherein land is transferred from less efficient users to more efficient users.

Security of Tenure and Easy Transferability of Property Increase Access to Credit

The linkage between property and access to credit is another economic aspect of property which has been extensively explored. Indeed, one of De Soto's main arguments in *The Mystery of Capital* is that secure property rights allow individuals to use their possessions as sources of capital.²⁰ As Feder and Onchan suggest, creditors will be much more likely to provide credit where that credit can be secured with collateral, but property, whether real or personal, can only be effective collateral if creditors believe that they will be able to gain possession of this collateral in case of the debtor's default.²¹ Thus, the debtor must have secure ownership of the property and have the ability to easily transfer it to the creditor.

A lack of access to credit can significantly impair economic development. Without access to credit, the requisite capital may not be available to finance individuals' investments, thereby preventing individuals from making profitable investments. According to De Soto, in the United States, "up to 70% of the credit new businesses receive comes from using formal titles as collateral for mortgages."²² Even where creditors do not require property as collateral, the interest rate on that credit may be higher, reflecting the higher risk which creditors face when

¹⁹ Gershon Feder & Klaus Deininger, "Land Institutions and Land Markets" online: (1999) World Bank Policy Research Working Paper No. 2014 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=636211> [Feder & Deininger]

²⁰ De Soto, *Mystery of Capital*, *supra* note 7.

²¹ Gershon Feder & Tongroj Onchan, "Land Ownership Security and Farm Investment in Thailand" (1987) 69 *American Journal of Agricultural Economics* 311 [Feder & Onchan]. See also Heywood Fleisig, "Secured Transactions: The Power of Collateral" (1996) 33 *Finance & Development* 44.

²² De Soto, *Mystery of Capital*, *supra* note 7 at 84.

making unsecured loans. Projects which would have been financed at the lower interest rate available for secured loans may become unprofitable or may be deemed too risky at the higher rate for unsecured credit.

It should be noted, however, that while formal title can increase the supply of credit, it may not immediately lead to greater borrowing if demand for credit is limited. Even complete security and alienability of land may not improve access to credit if landholders are risk-averse and perceive a risk of losing their land if it is mortgaged.²³ This problem is especially acute when landowners have no access to insurance or alternative sources of wealth.²⁴

Security of Tenure Increases Incentives for Investment

The increase in investment is perhaps the most discussed of the beneficial effects of strong property rights. One of the most often cited papers in the contemporary literature on the theoretical and formal underpinnings of this effect is Besley's work, in which he formally models the relationship between security of tenure and investment.²⁵ There are three distinct ways in which stronger property rights can increase investment. First, where tenure is more secure, individuals will be more likely to invest significant resources to improve their property and make it more productive. Second, where property is alienable, individuals have greater incentives to improve property because they will be able to realize a gain from that improvement

²³ Jean-Philippe Platteau, "Does Africa Need Land Reform?", in Camilla Toulmin & Julian Quan, eds., *Evolving Land Rights, Policy and Tenure in Africa* (London: DFID/IIED/NRI, 2000) 51 [Platteau]; Tassel argues that the ability to use land as collateral may actually be detrimental to smaller farmers. In his model, that where farmers have limited income, they may not be willing to risk losing their land in order to acquire loans. Creditors, however, may be unwilling to provide unsecured loans to such farmers, as they may perceive the farmer's preference for an unsecured loan over a secured loan as indicating that the farmer poses a high risk of default. Eric Van Tassel, "Credit Access and Transferrable Land Rights" (2005) 56 *Oxford Economic Papers* 151.

²⁴ Stephen R. Boucher, Bradford L. Barham & Michael R. Carter, "The Impact of 'Market-Friendly' Reforms on Credit and Land Markets in Honduras and Nicaragua" (2005) 33 *World Development* 107 [Boucher et al.].

²⁵ Timothy Besley, "Property Rights and Investment Incentives: Theory and Evidence from Ghana" (1995) 103 *The Journal of Political Economy* 903 [Besley].

upon selling it. Finally, where property is secure and alienable, the supply of credit is increased, thereby giving individuals access to the capital necessary to improve their land.²⁶

Security of Tenure Decreases Inefficient Competition for Resources

Where property is relatively secure, there are two types of socially wasteful activities which can be eliminated. First, where property rights are insecure, individuals may attempt to invade others' land or steal their assets for themselves. Second, and in response to this threat, individuals will have to expend resources to protect their own property from such depredations; perhaps the most destructive version of this type of private protection is the property protection provided by organized crime.²⁷ Even where outright conflict does not occur, insecurity may induce individuals to expend resources on legal action trying to assert ownership claims to contested property.²⁸

The necessary implication of the above is that more secure and well-defined property may lead individuals to substitute away from unproductive conflict over property towards productive activities. For example, Field suggests that formal property rights will increase household labor supply since individuals will have to spend less time informally enforcing their property claims.²⁹

²⁶ Platteau, *supra* note 23.

²⁷ Curtis Milhaupt & Mark West, "The Dark Side of Private Ordering: An Institutional and Empirical Analysis of Organized Crime" (2000) 67 *The University of Chicago Law Review* 41.

²⁸ Tim Hanstad, "Designing Land Registration Systems for Developing Countries" (1998) 13 *American University International Law Review* 647 [Hanstad].

²⁹ Erica Field, "Entitled to Work: Urban Property Rights and Labor Supply in Peru" (2003) [Entitled to Work]; see also De Soto, *Mystery of Capital*, *supra* note 7; Hernando De Soto, *The Other Path: the invisible revolution in the third world* (London: I.B. Taurus, 1989) at 160 [De Soto, *The Other Path*].

2 – The Necessity of a Formal Property Rights Regime

Many development scholars and policy-makers contend that the benefits of private property described above are best achieved by a formal state-run property system. Indeed, the intellectual tradition of viewing the state as being necessary for the enforcement of claims to private property has a long genesis.³⁰ Hobbes viewed the existence of a powerful state as necessary to overcome the anarchy that would prevail in a state of nature.³¹ Locke similarly viewed the primary purpose of the state as being one of protecting individuals' property, i.e. their life, liberty, and estate.³² In *The Wealth of Nations*, Smith viewed an important role for government as administering justice, which in part for him meant the protection of private property rights.³³ Although Hume viewed property rights as conventions which all would respect for the benefit of society as a whole, he also recognized that individuals might not respect such conventions because of their short-sightedness. He thus argued that the principal purpose of government was to overcome such short-sightedness by enforcing conventions such as property and contract.³⁴

A number of modern law and economics scholars have also emphasized the importance of strong property rights in economic development. Posner emphasizes the importance of developing strong property rights regimes for fostering economic growth³⁵, and North suggests

³⁰ For a brief intellectual history of property rights and economics, see Edwin West, "Property Rights in the History of Economic Thought" in Terry Anderson & Fred McChesney, eds. *Property Rights: Cooperation, Conflict, and Law* (Princeton: Princeton University Press, 2003) 20.

³¹ Thomas Hobbes, *Leviathan* (London: Penguin Books, 1985) at 189-191.

³² Locke, *Second Treatise of Government*, ss.86-88.

³³ Adam Smith, *The Wealth of Nations* (New York: Bantam Dell, 2003) at 901-902.

³⁴ David Hume, "A Treatise of Human Nature" in Henry Aiken (ed.) *Hume's Moral and Political Philosophy* (New York: Hafner Publishing Co., 1964) 3 at 69-80 & 97-101.

³⁵ Richard Posner, "Creating a Legal Framework for Economic Development" (1998) 13 World Bank Research Observer 1.

that strong property rights are one of the most important institutions for growth.³⁶ Similarly, Knack and Keefer claim that “few would dispute that the security of property and contractual rights and the efficiency with which governments manage the provision of public goods and the creation of government policies are significant determinants of the speed with which countries grow.”³⁷ McCloskey in discussing England’s economic development states, “if the word ‘precondition’ as it is used in the literature of economic growth includes anything it must include the formation of the legal institutions of private property”.³⁸

Perhaps the best known contemporary advocate of strong formal property rights in spurring development has been De Soto.³⁹ Speaking of titling, he says that “it is the unavailability of these essential representations that explains why people who have adapted every other Western invention, from the paper clip to the nuclear reactor, have not been able to produce sufficient capital to make their domestic capitalism work.”⁴⁰ Similarly, he writes that “the formal property system is capital’s hydroelectric plant.”⁴¹

Although these views reflect the prevalence of the belief that formal property rights are necessary for economic development, it is important to specify why formal property rights, rather than more informal property arrangements, as discussed below, are viewed as a *sine qua non* of development. Formal property regimes are considered by these authors to be essential to economic growth because, when fully functional and accessible, they provide clearer and more secure allocations of property rights than could any informal measures to protect private

³⁶ North, *supra* note 11.

³⁷ Stephen Knack & Philip Keefer, “Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures” (1995) 7 *Economics & Politics* 207 [Knack & Keefer].

³⁸ Donald McCloskey, “The Enclosure of Open Fields: Preface to a Study of Its Impact on the Efficiency of English Agriculture in the Eighteenth Century” (1972) 32 *The Journal of Economic History* 15 at 16 [McCloskey].

³⁹ De Soto, *Mystery of Capital*, *supra* note 7.

⁴⁰ *Ibid.* at 3.

⁴¹ *Ibid.* at 47.

property.⁴² Where there is a credible third-party enforcer of property rights, in particular the state, “uncertainty is reduced or completely eliminated.”⁴³ Indeed, it seems intuitive that a state-backed title registry would have the capacity to provide the most secure property rights, given the extensive adjudicative and coercive capacities that one associates with a fully-functioning state. Moreover, a formal property system can also reduce transaction costs in market interactions by providing increased information to third parties about the rights which an individual has over land. Thus, many contend that a formal property regime is necessary to provide the benefits of private property.

3 – Informal Mechanisms for Securing the Benefits of Private Property

A formal property rights regime may not, however, be the only method of securing the benefits discussed above. Indeed, it may be the case that informal mechanisms can provide many of the same benefits as a private property rights regime. Within the literature which examines how informal mechanisms can substitute for formal mechanisms, there are two strands of literature which examine how this can occur. Although they are in many ways linked, they differ in some respects. First, the game theoretic literature explores how cooperation can emerge as a result of repeated interactions among individuals. Second, the law and social norms literature examines the development of informal norms as a mechanism of social order and control.

Game Theoretic Analysis

A significant body of theoretical literature discusses how informal mechanisms can emerge to create co-operative order. One aspect of this literature is presented by game theorists who derive the conditions under which cooperation will occur. The abstract and simulated game-

⁴² Johnson, *supra* note **Error! Bookmark not defined.**; Dam, *supra* note 1.

⁴³ North, *supra* note 11 at 36.

theoretic account of this is presented by Axelrod, whose work shows how cooperative outcomes can arise in the prisoner's dilemma.⁴⁴ The basis for cooperation in this case is repeated interactions. While the general requirement is that games continue infinitely, Kreps et al. shows how informational asymmetries (e.g. believing for some reason that the other players have a particularly cooperative disposition) can also generate cooperation in a finitely repeated prisoner's dilemma.⁴⁵ While the repeated prisoner's dilemma has largely been viewed as involving a number (potentially infinite) of discrete stages, some modeling has shown cooperative results to be even more robust when the model is made continuous—something which is much closer to the reality of tenure questions addressed below.⁴⁶ While the models above have assumed repeated interactions between the same players, Ellison shows how cooperation might also emerge among a small group whose members are anonymously matched in each round of the game.⁴⁷ Thus, the conditions under which cooperation have emerged are in some ways relatively robust. Experimental evidence has confirmed many of these results, showing, for example, that cooperation can occur even in a finitely repeated prisoner's dilemma as individuals try to build a reputation for themselves.⁴⁸

The application of these principles to a regime of respect for property is obvious. The issue of respecting land tenure may be modeled as a prisoner's dilemma: all parties gain when tenure and land claims are respected (because of the lower costs associated with defending one's

⁴⁴ Robert Axelrod, *The Evolution of Cooperation* (Place: Basic Books, 1984) [Axelrod, *Evolution of Cooperation*]; Robert Axelrod, "The Emergence of Cooperation Among Egoists" (1981) 75 *The American Political Science Review* 306 [Axelrod, "Cooperation Among Egoists"].

⁴⁵ David Kreps, Paul Milgrom, John Roberts & Robert Wilson, "Rational Cooperation in the Finitely Repeated Prisoners' Dilemma" (1982) 27 *Journal of Economic Theory* 245.

⁴⁶ David Kreps & Robert Wilson, "Reputation and Imperfect Information" (1982) 27 *Journal of Economic Theory* 253.

⁴⁷ Glenn Ellison, "Cooperation in the Prisoner's Dilemma with Anonymous Random Matching" (1994) 61 *The Review of Economic Studies* 567.

⁴⁸ James Anderoni & John Miller, "Rational Cooperation in the Finitely Repeated Prisoner's Dilemma: Experimental Evidence" (1993) 103 *The Economic Journal* 570.

land, etc.), but each party has an incentive not to respect other parties' claims. The exploitation of communal resources has also been viewed in this way.⁴⁹ While the pessimistic predictions of the prisoner's dilemma have been used in the past to argue for a strong state to enforce order (dating back to Hobbes' *Leviathan*), if cooperation can emerge as discussed above, this problem might be overcome without the state's intervention. Ellickson provides a narrative of how this type of cooperation might emerge.⁵⁰

The evolutionary game theory approach also has implications for property rights considerations. Axelrod uses this approach and shows that a strategy of tit-for-tat (cooperation in the first round followed by playing whatever strategy the other player played in the previous round) is a collectively stable strategy.⁵¹ Axelrod also shows how a relatively small cluster of individuals playing tit-for-tat can invade a population which is primarily comprised of defectors. In the context of property rights, this suggests a plausible mechanism for how cooperation and mutual respect can emerge and how it might be collectively stable. Cooperative play (respect for land tenure) might emerge, since even small groups which decide to respect land tenure might be more successful than those groups which do not respect tenure, and thereby come to dominate larger populations.

The Law and Social Norms Literature

Ellickson examines how various informal rules can emerge which in certain circumstances make the formal legal system irrelevant.⁵² Ellickson predicts that when social

⁴⁹ Ellickson, "Property in Land", *supra* note **Error! Bookmark not defined.**; Hardin, *supra* note 11.

⁵⁰ Ellickson, "Property in Land", *supra* note **Error! Bookmark not defined.** at 1366.

⁵¹ For a discussion of evolutionary stability in the biological context, see John Maynard Smith, "The Theory of Games and the Evolution of Animal Conflicts" (1974) 47 *Journal of Theoretical Biology* 209.

⁵² Robert C. Ellickson, *Order Without Law: How Neighbors Settle Disputes* (Cambridge, Mass.: Harvard University Press, 1991) [Ellickson, *Order Without Law*].

relations are close-knit, informal norms will encourage people in non-zero-sum situations to make choices that will conjoin to produce the maximum aggregate objective payoff to the group by minimizing deadweight losses and transaction costs.⁵³ This has led Ellickson to suggest that lawmakers should defer to these informal norms, as the norms are more likely to be welfare maximizing than centrally crafted rules.⁵⁴ Epstein reaches a similar conclusion, noting that “custom should be followed in those cases in which there are repeat and reciprocal interactions between the same parties, for then their incentives to reach the correct rule are exceedingly powerful.”⁵⁵ This implies that customary arrangements can be sufficient to generate order between parties.

Although Ellickson’s prediction was rather optimistic, it needed to be supplemented by processes which explain when and why these norms emerge. Thus, it is important to highlight theories which examine more specifically the individual decision to adhere to a norm. McAdams suggests an esteem-based theory of norms, whereby a norm arises if “(1) there is a consensus about the positive or negative esteem worthiness of engaging in [an action], (2) there is some risk that others will detect whether one engages in [that action], and (3) the existence of this consensus and risk of detection is well-known within the population.”⁵⁶ These conditions change the costs and benefits of engaging in or not engaging in an activity, and a norm will arise if the esteem benefit (cost) is greater than the benefit (cost) of (not) engaging in the activity. Eric Posner presents an alternative signaling-based model of norms, whereby social norms arise from

⁵³ *Ibid.* at chapter 10. See also Robert Ellickson, “A Hypothesis of Wealth-Maximizing Norms: Evidence from the Whaling Industry” (1989) 5 *Journal of Law, Economics & Organization* 83.

⁵⁴ *Ibid.* at chapter 16.

⁵⁵ Richard Epstein, “International News Service v. Associated Press: Custom and Law as Sources of Property Rights in News” (1992) 78 *Virginia Law Review* 85 at 126.

⁵⁶ Richard McAdams, “The Origin, Development, and Regulation of Norms” (1997) 96 *Michigan Law Review* 338 at 358.

the actions of individuals who are trying to signal to others that they are a cooperative type in order to gain benefits from interactions with those individuals.⁵⁷ Although the two theories have differences, they both highlight how a norm can arise through the rational actions of a large number of individuals. Over time these norms may become internalized such that individuals might adhere to a norm even in situations where doing so might not be strictly rational.⁵⁸

In the context of property, this would suggest that cooperation might be possible which would lead to norms emerging which would lead to many of the benefits which are claimed to flow from formal property rights. With respect to security of tenure, for example, Ellickson's analysis suggests that tenure security might arise among a close-knit group if this were a welfare maximizing rule, and McAdams and Posner's theories provide two similar analyses of how that norm might arise. This type of reasoning seems to have echoes in the literature which stresses that tenure security can increase in response to increasing relative scarcity of land, i.e. because the welfare gains from secure tenure increase as the scarcity of land increases.⁵⁹ Similarly, Sjaastad and Bromley have noted the presence in many African societies of a norm that dictates that when an individual loses ownership of a piece of land, the individual taking ownership must compensate the individual losing ownership for the value of improvements made to the land.⁶⁰ This norm may provide the necessary incentives to make improvements to land without some of the costs associated with greater tenure security.

⁵⁷ Eric Posner, "Symbols, Signals, and Social Norms in Politics and the Law" (1998) 27 *The Journal of Legal Studies* 765; Eric Posner, *Law and Social Norms* (Cambridge, Massachusetts: Harvard University Press, 2000) at 18-27 [Posner, *Law and Social Norms*].

⁵⁸ Posner, *Law and Social Norms*, *supra* note 57 at 43-44.

⁵⁹ Gershon Feder & Raymond Noronha, "Land Rights Systems and Agricultural Development in Sub-Saharan Africa" (1987) 2 *World Bank Research Observer* 143 [Feder & Noronha]; see also Demsetz, "Theory of Property Rights", *supra* note 11.

⁶⁰ Espen Sjaastad & Daniel Bromley, "Indigenous Land Rights in Sub-Saharan Africa: Appropriation, Security and Investment Demand" (1997) 25 *World Development* 549.

One difference between the game theoretic analysis of cooperation and the law and social norms literature is that while the former supposes no order and shows how people might rationally cooperate, the law and social norms literature examines some of the negative (e.g. gossip, violent self-help) and positive (e.g. rewards) sanctions that groups may use to enforce compliance with a norm or convention.⁶¹ Thus, while the game theoretic literature examines how rational cooperation can emerge because of repeated interactions, the law and social norms literature highlights some of the other sanctions (other than simply choosing not to cooperate in the Prisoner's Dilemma) that can be used to maintain order, showing how incentive structures can be changed through decentralized mechanisms.

It is important to note that all of the informalist theories presented above relate to property relations among individuals; none of it has to do specifically with tenure security in the sense of freedom of a reasonable apprehension of expropriation of land by the state. In terms of this aspect of property ownership, it seems unlikely that an informalist would contest the fact that tenure security vis-à-vis the state is important, but it might be suggested that the perception of tenure security against the state can be accomplished in a variety of ways. All that is required for this type of tenure security is that the individual not fear expropriation without compensation. To this end, predictability may be more important than formal rights.

4 – Assessing the Empirical Evidence

Having examined the theoretical perspectives of formalist and informalists, it is important to examine the empirical evidence underlying each of these positions. A number of studies have been conducted which have broadly linked strong property rights and economic development

⁶¹ For a survey of this point as well as a substantial list of articles which examine a variety of negative sanctions, see Richard McAdams & Eric Rasmusen, "Norms in Law and Economics", online: (2004) http://papers.ssrn.com/sol3/papers.cfm?abstract_id=580843 [McAdams & Rasmusen].

without always specifying the causal mechanism or the particular property rights in question. While such studies are of less value than empirical studies which examine particular rights and particular benefits, they are still worth noting, if only because of their prominence in the economic development literature.

In his important paper on the determinants of economic growth, Barro asserts that strong property rights are associated with higher growth rates, although rather than using any direct measure of property rights, he uses measures of political instability and asserts a direct linkage to property rights⁶²; while this is an important paper in the literature, it is likely of limited value in our context. Knack and Keefer note the problem in the Barro paper and other earlier papers of using poor proxies for property rights, and using an aggregate of a number of indicators of institutional quality, they find a linkage between property rights and income.⁶³ Rodrik, Subramanian, and Trebbi find a link between strong property rights and growth, although they explicitly acknowledge that their results do not allow any conclusion to be drawn about the precise form of property rights which promote development.⁶⁴ Similarly, Acemoglu and Johnson, using panel data from a number of countries, conclude that countries with stronger property rights (as measured by greater constraints on politicians and more protection against expropriation) have higher incomes per capita, greater investment rates, stronger credit markets, and more developed stock markets.⁶⁵ They find that property rights are much more important than strong contractual rights.⁶⁶

⁶² Robert Barro, "Economic Growth in a Cross-Section of Countries" (1991) 106 *The Quarterly Journal of Economics* 407.

⁶³ Knack & Keefer, *supra* note 37.

⁶⁴ Dani Rodrik, Arvind Subramanian & Francesco Trebbi, "Institutions Rule: The Primacy of Institutions Over Geography and Integration in Economic Development" (2004) 9 *Journal of Economic Growth* 131.

⁶⁵ Daron Acemoglu & Simon Johnson, "Unbundling Institutions" (2005) 113 *Journal of Political Economy* 949.

⁶⁶ *Ibid.*

Numerous authors have also highlighted the importance of property right in the rapid growth of the Western world. De Long and Shleifer link pre-18th century European economic development with security of property rights.⁶⁷ Similarly, in a less rigorous and more narrative approach to analyzing economic development, North and Thomas suggest that sustained economic growth in the West was a result of the development of private property rights.⁶⁸

The Empirics of Property Rights and Efficient Use

Although more research is needed on this particular aspect of property rights, the evidence here appears to be mixed. On the positive side, McCarthy et al., in their examination of Mexico, find that individually held land is more efficiently used than is common use land, the latter being subjected to overproduction of low productivity crops as well as overgrazing.⁶⁹ In one of the earlier studies conducted of this type in the developing world, Bottomley argues that the inability to capture the full returns from investment on communal land leads Libyan tribesmen to use land for animal-grazing instead of more productive and profitable almond-tree growing.⁷⁰ In a classic example from Western economic history, McCloskey estimates that there were substantial efficiency gains from the enclosure movement⁷¹, although some have disputed the magnitude of these gains.⁷² These issues continue to have relevance within developed countries; for example, Flanagan and Alcantara argue that weak and highly politicized property

⁶⁷ J. Bradford De Long; Andrei Shleifer, “Princes and Merchants: European City Growth Before the Industrial Revolution” (1993) 26 *Journal of Law and Economics* 671.

⁶⁸ Douglass North & Robert Thomas, “An Economic Theory of the Growth of the Western World” (1970) 23 *The Economic History Review* 1 [North & Thomas]; see also Douglass North & Robert Thomas, *The Rise of the Western World: A New Economic History* (Cambridge, UK: Cambridge University Press, 1973).

⁶⁹ Nancy McCarthy, Alain de Janvry & Elisabeth Sadoulet, “Land allocation under dual individual–collective use in Mexico” (1998) 56 *Journal of Development Economics* 239.

⁷⁰ Anthony Bottomley, “The Effect of Common Resource Ownership upon Resource Allocation in Tripolitania” (1963) 39 *Land Economics* 91.

⁷¹ McCloskey, *supra* note 38.

⁷² For example, see Gregory Clark, “Commons Sense: Common Property Rights, Efficiency, and Institutional Change” (1998) 58 *The Journal of Economic History* 73.

rights regimes on Canadian aboriginal reserves are a significant impediment to efficient resources use and economic growth.⁷³

Although more limited empirical work has been done on this point, there is some evidence to indicate that insecure property rights can have a detrimental impact on businesses' investment decisions. Claessens and Laeven show that firms operating in areas of weak property rights protection will tend to have fewer intangible assets relative to tangible assets, as the latter are easier to protect from appropriation by other firms than the former.⁷⁴ Moreover, they find that this asset choice has resulted in significant inefficiencies, with stronger growth, especially among new businesses, being realized in firms in countries with stronger property protections and relatively higher stocks of intangibles.⁷⁵

In other situations, however, informal norms can result in efficient resource allocation and exploitation. Katz compares two regions of Guatemala, one with a long-standing population and informal social norms and one which is quite new and thus lacking in those social norms, and shows that even in the absence of formal property rights, resources can be managed sustainably where there are unwritten social norms guiding their use.⁷⁶ Similarly, Ostrom provides a number of examples of relatively informal mechanisms for governing communal resources, thus indicating that local solutions and decision-making can result in efficient land use.⁷⁷ For example, in Törbel, Switzerland, a village of only 600 people, communal space for

⁷³ Tom Flanagan & Christopher Alcantara, "Individual Property Rights on Canadian Indian Reserves" (2004) 29 Queen's Law Journal 489.

⁷⁴ Claessens & Laeven, *supra* note 15.

⁷⁵ *Ibid.* Their results are particularly striking, as they appear to be robust to a number of alternative model specifications. See 2423-2431.

⁷⁶ Elizabeth Katz, "Social Capital and Natural Capital: A Comparative Analysis of Land Tenure and Natural Resource Management in Guatemala" (2000) 76 Land Economics 114.

⁷⁷ Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (Place: Cambridge University Press, 1990).

cattle grazing is regulated by an alp association which is governed by the villagers themselves.⁷⁸ Similarly, Ostrom provides a number of examples of Japanese villages that created village assemblies and utilized informal sanctions to govern common lands.⁷⁹ Migot-Adholla et al. also note that the inefficiencies in communal land tenure in parts of Africa may be very minor.⁸⁰ Thus, where groups are relatively tight-knit, social norms may develop which will lead to efficient resource use.

With respect to the alienability of land, some authors have argued that market-type mechanisms have developed in customary law, especially where the efficiency gains from those mechanisms are highest, e.g. where land is relatively scarce.⁸¹ Indeed, extreme scarcity may result in the development of informal land markets even where market transactions are illegal, such as in Rwanda.⁸²

While some authors have contended that market transfers will be inhibited without the certainty available from formal title, customs have emerged in some circumstances which can at least partially substitute for formal title in creating that certainty. Jacoby and Mintent, in their analysis of land in Madagascar, discuss how most formal land sales in rural areas were accompanied by a sales receipt which was signed by the village head, often with other witnesses

⁷⁸ *Ibid.* at 61-65.

⁷⁹ *Ibid.* at 65-68.

⁸⁰ Shem Migot-Adholla, Peter Hazell, Benoit Blarel & Frank Place, "Indigenous Land Rights Systems in Sub-Saharan Africa: A Constraint on Productivity" (1991) 5 *The World Bank Economic Review* 155 [Migot-Adholla et al.].

⁸¹ For a discussion of this phenomenon in Kenya, see Richard Barrows & Michael Roth, "Land Tenure and Investment in African Agriculture: Theory and Evidence" (1990) 28 *The Journal of Modern African Studies* 265 [Barrows & Roth]. Where this is the case, it may be more efficient to recognize local mechanisms of land transfer rather than try to graft Western ones onto what may be functional customary institutions. See Admos Chimhowu & Phil Woodhouse, "Customary vs Private Property Rights? Dynamics and Trajectories of Vernacular Land Markets in Sub-Saharan Africa" (2006) 6 *Journal of Agrarian Change* 346.

⁸² Catherine André & Jean-Philippe Platteau, "Land Relations Under Unbearable Stress: Rwanda Caught in the Malthusian Trap" (1998) 34 *Journal of Economic Behavior & Organization* [André & Platteau].

present.⁸³ This was meant to provide the buyer with certainty that the land had not already been sold to someone else and that, in the eyes of the community, the land belonged to the buyer.

Informal mechanisms for land transfers have also been documented in urban housing markets. In her study of Ho Chi Minh City, Kim finds a booming housing market, despite relatively weak formal property rights protection for most properties. She finds that neighbourhood block committees and ward officials play a major role in settling disputes and providing the requisite certainty for a land market to develop.⁸⁴ Interestingly, using a hedonic price model, she also finds that while the added certainty of formal legal title does increase property values, this increase is relatively small: formal title increases the value of a house by 11%, making formal property rights more valuable than having a telephone connection but less valuable than having a toilet.⁸⁵

The Empirics of Property Rights and Access to Credit

There have also been several studies which have examined the linkage between security of tenure and the availability of credit. In this respect, the evidence is somewhat mixed, although there is evidence of a linkage. It is important to note the interplay between these studies and those noted above. While title may increase the supply of credit, it may also increase the demand for credit, as landowners will desire to improve their property.

On the positive side, Feder and Onchan show that in Thailand land title and tenure security increased access to institutional credit and thus led to greater capital formation.⁸⁶ Field

⁸³ Hanan Jacoby & Bart Minten, "Is Land Titling Cost-Effective? Evidence from Madagascar" (2007) World Bank Economic Review 1 at 7 [Jacoby & Minten]

⁸⁴ Annette Kim, "A Market Without the 'Right' Property Rights" (2004) 12 The Economics of Transition 275 at 301. [Kim]

⁸⁵ *Ibid* at 298-299.

⁸⁶ Feder & Onchan, *supra* note 21.

and Torero examine the impact of a titling program in Peru, and they find that title increased the loan approval rates from public lending institutions.⁸⁷ Title did not affect the loan approval rate from private lending institutions, but conditional on receiving a loan, interest rates were significantly lower.⁸⁸ The 2005 World Bank Development Report also asserts that “farmers with secure title in Costa Rica, Ecuador, Honduras, Jamaica, Paraguay, and Thailand obtain larger loans on better terms than those without.”⁸⁹

By contrast, in the case of Nicaragua, Laiglesia finds a linkage between formal title documents and investment, but does not find that any evidence of greater availability of credit.⁹⁰ Migot-Adholla et al. similarly find no improvement in access to credit for titled land in many countries in sub-Saharan Africa.⁹¹ Johnson finds no evidence that Mexican farmers were asset-rationed out of the credit market because they did not hold title.⁹² Carter and Olinto reach a more nuanced result. In their analysis of Paraguay, they find that the supply of credit is differentially available in response to stronger title, as the credit supply effects of tenure security are non-existent for small farms and only begin to become important when farms are larger than 15 hectares.⁹³

Where informal credit markets exist and at least partially substitute for the formal credit market, it seems that the importance of title is significantly diminished. Pamuk examines how

⁸⁷ Erica Field & Maximo Torero, “Do Property Titles Increase Credit Access among the Urban Poor? Evidence from Peru” online: (2002) Research Program in Development Studies Working Paper #223, Princeton University http://econ.ucsd.edu/seminars/seven_src/Field_Torero914.pdf [Field & Torero].

⁸⁸ *Ibid.*

⁸⁹ World Bank, *supra* note 4 at 81.

⁹⁰ Juan de Laiglesia, “Investment and Credit Effects of Land Titling and Registration: Evidence from Nicaragua”, online: (2004) <<http://ideas.repec.org/p/zbw/gdec05/3483.html>>

⁹¹ Migot-Adholla et al., *supra* note 80.

⁹² Nancy Johnson, “*Tierra y libertad*: Will Tenure Reform Improve Productivity in Mexico’s *Ejido* Agriculture?” (2001) *Economic Development and Cultural Change* 291.

⁹³ Michael Carter & Pedro Olinto, “Getting Institutions “Right” for Whom? Credit Constraints and the Impact of Property Rights on the Quantity and Composition of Investment” (2003) 85 *American Journal of Agricultural Economics* 173 [Carter & Olinto].

informal credit arrangements emerged in Trinidad which serve the large section of the population without formal title.⁹⁴ Similarly, André and Platteau describe how mortgages were readily available in Rwanda from informal credit associations known as *tontines*, who had sufficient authority to seize the debtor's lands in the event of a default, despite the absence of formal title.⁹⁵ Even Feder and Onchan, who are otherwise staunch defenders of the theory that formal property rights can increase access to credit, acknowledge that their evidence shows that the impact of formal property rights on access to credit was negligible in one Thai province which already had a well-developed informal credit market.⁹⁶

The Empirics of Property Rights and Investment

There are a number of studies in various settings which suggest that tenure security leads to increased investment. In a cross-country regression analysis, Svensson finds that countries with stronger property rights had higher investment rates.⁹⁷ There are also a number of studies of states in the developing world which make the linkage between property rights and investment. Besley finds some support for the linkage between investment and property rights in Ghana.⁹⁸ Alston et al., in their analysis of land in the Brazilian Frontier, conclude that title increases farm-specific investment as well as land value.⁹⁹ In his analysis of Guatemala, Schweigert, after controlling for the availability of credit, found that households with formal title

⁹⁴ Ayse Pamuk, "Informal Institution Arrangements in Credit, Land Markets and Infrastructure Delivery in Trinidad" (2000) 24 *International Journal of Urban and Regional Research* 379.

⁹⁵ André & Platteau, *supra* note 82 at 21.

⁹⁶ Feder & Onchan, *supra* note 21.

⁹⁷ Jakob Svensson, "Investment, Property Rights and Political Instability: Theory and Evidence" (1998) 42 *European Economic Review* 1317.

⁹⁸ Besley, *supra* note 25.

⁹⁹ Lee Alston, Gary Libecap & Robert Schneider, "The Determinants and Impact of Property Rights: Land Titles on the Brazilian Frontier" (1996) 12 *The Journal of Law, Economics & Organization* 25 [Alston et al.].

generated greater output and invested more family labour towards generating future production.¹⁰⁰

By contrast, Lanjouw and Levy find that while formal title increases tenure security and the value of the land, they also find that informal mechanisms can effectively substitute for those in certain situations.¹⁰¹ Both increasing age of the community (indicative of greater time for social norms to develop) and paying a community organizer (a decentralized social order mechanism) were found to reduce the value of title. They thus suggest that titling programs should be focused on new and disorganized communities. Similarly, Brock examines customary land tenure in Uganda and finds that in most parts of the country, land tenure is relatively secure under customary law; at the very least, customary law has not impeded the planting of coffee, which is a long-term cash crop requiring the expectation of relatively secure tenure.¹⁰² Cooter similarly points out how customary law in Papua New Guinea is exceptionally nuanced, definite, and flexible in regulating property arrangements.¹⁰³ One study in the Gambia argues that it is the perception of tenure security rather than actual tenure security which provides investment incentives.¹⁰⁴

While most of the above studies have focused on security of tenure in the agricultural context, there is similar evidence linking tenure security to investment in urban settings. Field finds that investment in housing increased significantly once title was issued to slum-dwellers in

¹⁰⁰ Thomas Schweigert, "Land Title, Tenure Security, Investment, and Farm Output" (2007) 40 *The Journal of Developing Areas* 115.

¹⁰¹ Jean Lanjouw & Philip Levy, "Untitled: A Study of Formal and Informal Property Rights in Urban Ecuador" (2002) 112 *The Economic Journal* 986.

¹⁰² "Customary Land Tenure, "Individualization", and Agricultural Development in Uganda", 1969

¹⁰³ Robert Cooter, "Inventing Market Property: the Land Courts of Papua New Guinea" (1991) 25 *Law & Society Review* 759 [Cooter]; see also Michael Trebilcock, "Communal Property Rights: The Papua New Guinea Experience" (1984) 34 *University of Toronto Law Journal* 377 [Trebilcock].

¹⁰⁴ Joseph Hayes, Michael Roth & Lydia Zapeda, "Tenure Security, Investment and Productivity in Gambian Agriculture: A Generalized Probit Analysis" (1997) 79 *American Journal of Agricultural Economics* 369.

Peru. She finds that this effect is independent of increased access to credit, because there were similar increases in investment among both those who received credit as well as those who were rationed out.¹⁰⁵ Struyk and Lynn reach a similar conclusion in their analysis of housing investment in Manila.¹⁰⁶

The investment decisions of firms may also be significantly altered by the perceived security of property rights. In their examination of reinvestment rates of firms' profits in different countries in the former Eastern bloc, Johnson, McMillan and Woodruff found that entrepreneurs reinvested less of their retained earnings when they perceived their property rights to be less secure.¹⁰⁷

The interpretation of some of the above results must be made with some caution, as there are some papers which seem to suggest that the causality between formal property rights and investment may be reversed. There are two mechanisms through which this may operate. First, it may be the case that investments in land are actually made as a mechanism for improving tenure security rather than as a result of it. Razzaz examines squatter settlements in Jordan and concludes that parties would invest in their properties in order to gain de facto property rights, since the state would be less likely to demolish completed houses.¹⁰⁸

Second, it may be the case that individuals seek out greater tenure security once their property is more valuable or they have made more investments, rather than the reverse. In these circumstances, an endogeneity bias may inflate the estimated impact of title on investment in

¹⁰⁵ Erica Field, "Property Rights and Investment in Urban Slums" (2005) 3 *Journal of the European Economic Association* 279.

¹⁰⁶ Raymond Struyk & Robert Lynn, "Determinants of Housing Investment in Slum Areas: Tondo and Other Locations in Metro Manila" (1983) 59 *Land Economics* 444.

¹⁰⁷ Simon Johnson, John McMillan & Christopher Woodruff, "Property Rights and Finance" (2002) 92 *The American Economic Review* 1335.

¹⁰⁸ Omar Razzaz, "Examining Property Rights and Investment in Informal Settlements: The Case of Jordan" (1993) 69 *Land Economics* 341 [Razzaz].

many studies. Antle et al. show that the positive effect on investment decisions of titling are smaller when simultaneous equations are used than single-equation models, consistent with the idea that the causality is reversed.¹⁰⁹ Brasselle, Gaspart and Platteau similarly find that once the endogeneity bias is controlled for, increased land rights do not significantly increase investment.¹¹⁰

The Empirics of Property Rights and Resource Competition

Although research in this area is more limited, there do indeed seem to be cases of individuals and groups in an environment of insecure property rights undertaking activities solely for the purpose of protecting their property. As noted above, Razzaz describes how squatters would attempt to erect permanent structures extremely quickly between state bulldozing of their settlements.¹¹¹ An even more striking example of such an activity is examined by De Vany and Sanchez, who examine the fertility decisions of *ejiditarios* living on communal *ejidos*. They find evidence of greater fertility among *ejiditarios* than among other landowners, and they posit that those families choose to have more children because of several advantages which children provide in terms of securing larger property plots for those families.¹¹² Although it is difficult to estimate or quantify the inefficiencies resulting from the above activities, they do show the existence of expenditures made for the protection of property claims. Thus, insecure property rights may lead to socially excessive investments, as individuals use scarce resources on costly measures to attempt to enforce property claims.

¹⁰⁹ John Antle, David Yanggen, Roberto Valdivia & Charles Crissman, "Endogeneity of Land Titling and Farm Investments: Evidence from the Peruvian Andes" online: (2003) Working Paper, Department of Agricultural Economics and Economics, Montana State University <http://www.tradeoffs.montana.edu/pdf/titling.pdf>.

¹¹⁰ Anne-Sophie Brasselle, Frédéric Gaspart & Jean-Philippe Platteau, "Land tenure security and investment incentives: puzzling evidence from Burkina Faso" (2002) 67 *Journal of Development Economics* 373.

¹¹¹ Razzaz, *supra* note 108.

¹¹² Arthur De Vany & Nicolas Sanchez, "Land Tenure Structures and Fertility in Mexico" (1979) 61 *The Review of Economics and Statistics* 67.

One attempt to quantify the magnitude of this inefficiency has been undertaken by Erica Field in her examination of the effects of the titling program in urban Peru. Her study focuses on quantifying the degree to which insecure tenure forces households to spend time guarding their residences instead of working. She finds that, after controlling for a variety of factors, newly-titled households worked on average 45 hours per week more than non-titled households.¹¹³ Although this is one of few studies of this type, this provides preliminary support for believing that secure property rights may increase labour market participation.

5 – Property Rights and Growth: The Case of China

China is an important case study in the examination of the relationship between protection of property rights and economic development, given that it has achieved dramatic rates of economic growth despite weak formal property rights protection. Moreover, because of the sheer size and diversity of China as well as significant temporal and geographic variation in its policies, China provides an excellent example of many of the issues highlighted above. Because of its importance and its recent record of economic growth, the case of China will be referred to throughout this paper. This section will examine many of the issues discussed above in the context of two different aspects of economic activity in China: rural land and agricultural production; and private enterprises.

Agricultural Production in Rural China

In the years following the Chinese Revolution, the Chinese government instituted massive social changes which significantly impacted the agricultural sector. Private property in rural land was effectively abolished by 1956, and rural agricultural production was organized

¹¹³ Entitled to Work, *supra* note 29 at 36.

around communes or collectives.¹¹⁴ These provided limited incentives to work and increase agricultural production, as individuals or families could not realize the benefits of increased labour or investment. Similarly, because there were monitoring costs for production team managers and such supervision was consequently imperfect, there were limited penalties that accompanied limited effort.¹¹⁵ Unsurprisingly from the perspective of property rights formalists, grain production grew relatively slowly between the early 1950s and the late 1970s.

This situation was altered dramatically with the introduction of the Household Responsibility System (HRS) in the early 1980s. Under the HRS, while the collective retained legal ownership of the land, contracts were provided to farmers and their families to give them use rights over the land through long-term leases. The initial term of these leases were for five years, but this was extended to fifteen years in 1984 and in 1993 to thirty years.¹¹⁶ Tenure security was further strengthened in the 1998 revision of the Land Management Law, which provided for thirty year leases with strong restrictions on when readjustments could be made.¹¹⁷ In 2002, the Rural Land Contracting Law was passed, which strengthened farmers' rights by not only prohibiting land readjustments in all but the most exceptional cases, but also by requiring the execution of written contracts between the collective and farmers which spelled out farmers'

¹¹⁴ Samuel Ho & George Lin, "Emerging Land Markets in Rural and Urban China" (2003) 175 *The China Quarterly* 681 at 682-683 [Ho & Lin].

¹¹⁵ Justin Lin, "The Household Responsibility System in China's Agricultural Reform: A Theoretical and Empirical Study" (1988) 36 *Economic Development and Cultural Change*, Supplement Why Does Overcrowded, Resource-Poor East Asia Succeed: Lessons for the LDCs? s199.

¹¹⁶ Peter Ho, *Institutions in Transition: Land Ownership, Property Rights, and Social Conflict in China* (Oxford: Oxford University Press, 2005) [Ho].

¹¹⁷ Ho & Lin, *supra* note 114.

rights.¹¹⁸ Most recently, a new property law passed in 2007 further strengthened land tenure by giving farmers the right to renew their thirty year leases upon expiry of the lease.¹¹⁹

Although there is significant variation in these rights over time and between regions¹²⁰, some generalizations are possible regarding the nature of the Chinese agricultural property regime. On the one hand, these formal use rights fall short of the full bundle of rights which most formalists advocate. For example, although farmers have options regarding the cultivation of their land, they are not permitted to convert the land to non-agricultural use; this might impede the creation of certain potential efficiency gains. Furthermore, the mortgaging of farmland continues to be prohibited, thereby constraining the supply of rural credit.¹²¹

On the other hand, these use rights seem to provide many of the protections that are associated with formal private property rights regimes. Most importantly, subject to the conditions above as well as certain implicit and explicit taxes, use rights are intended to be relatively secure. Land markets are also theoretically facilitated by these use rights, as they are transferable in a variety of ways, including inheritance and lease.¹²² Land transfers within the collective were formally permitted by the 1986 Land Management Law, while in 1998, amendments to the Land Management Law allowed for contracting of the land to those outside the collective, provided a sufficient proportion of the collective consented.¹²³ Thus, even if formal ownership rests in the collective, the legal framework of use rights seemingly provides

¹¹⁸ Zhu Keliang et al., “The Rural Land Question in China: Analysis and Recommendations Based on a Seventeen-Province Survey” (2006) 38 N.Y.U. J. Int’l L. & Pol. 761 [Keliang].

¹¹⁹ “Caught between right and left, town and country” *The Economist* (March 8, 2007) online: <<http://www.economist.com>> [Economist].

¹²⁰ Charles Krusekopf, “Diversity in Land Tenure Arrangements under the Household Responsibility System in China” (2002) 13 *China Economic Review* 297. [Krusekopf]

¹²¹ Economist, *supra* note 119.

¹²² Weiguo Wang, “Land Use Rights: Legal Perspectives and Pitfalls for Land Reform” in Peter Ho, ed. *Development dilemmas: land reform and institutional change in China* (Routledge, 2005) .

¹²³ Ho & Lin, *supra* note 114.

sufficiently strong claims to individuals to yield many of the advantages of private property discussed above by the formalists.

There are, however, four reasons why even the formal use rights which individuals hold would fail in practice to provide many of the posited benefits of private property. First, administrative redistribution of land by the village leadership is common, leading to decreased tenure security. A 2005 survey found that 74.3% of villages had conducted at least one land redistribution since the implementation of the HRS, while 55.0% of villages had experienced two or more readjustments.¹²⁴ This occurs most often in response to demographic changes, such as changes in household size, or changes in labour supply.¹²⁵ Although the central government has issued directives against such redistribution and occurrences of such redistribution have been decreasing, it remains widespread.¹²⁶ This may be the result of a continued perception by many of land as a communal resource.¹²⁷ This might thus be a situation where a significant deviation between formal law and informal norms has meant that the latter has undermined the former.

Second, especially in rural areas near towns and cities, there is a risk of expropriation of rural land for development, also decreasing tenure security. The Chinese constitution specifically allows the state to expropriate collective land, and this is a power which local officials have seemed to exercise with some frequency.¹²⁸ Keliang et al. find that the number of expropriations

¹²⁴ Keliang, *supra* note 118 at 775.

¹²⁵ Loren Brandt, Jikun Huang, Guo Li & Scott Rozelle, "Land Rights in China: Facts, fictions and issues" (2002) 47 *The China Journal* 67 [Brandt et al.].

¹²⁶ Wang, "Land Use Rights: Legal Perspectives and Pitfalls for Land Reform"; Indeed, Krusekopf suggests that the village leader, rather than the central government, is the ultimate determiner of land relations in a given village. See Krusekopf, *supra* note 120.

¹²⁷ James Kung, "Choice of Land Tenure in China: The Case of a County with Quasi-Private Property Rights" (2002) 50 *Economic Development and Cultural Change* 793 [Kung].

¹²⁸ Ho & Lin, *supra* note 114; for an English language version of the 1982 Chinese Constitution as well as a list of subsequent amendments, see <<http://english.people.com.cn/constitution/constitution.html>>.

of rural farmland increased fifteen-fold between 1995 and 2005.¹²⁹ Moreover, this expropriation often occurs without real consultation, and the compensation provided is significantly less than either the market value of the land or the amount needed to compensate farmers for the loss of their livelihoods.¹³⁰ Even this meager compensation is sometimes not provided; Keliang et al. find that where compensation was promised in return for expropriation, about one-third of farmers failed to receive that compensation.¹³¹

Third, while land transfers are formally permissible, there continue to be barriers to the development of an active market for land. These include cultural taboos related to the commoditization of land, the perception of the need for land as a social insurance function, and, in some areas, local prohibitions on the transfer of land, despite its formal legality at the national level.

Finally, and more generally, there is a general inability for peasants to access the legal system to enforce their rights. The court system is largely out of reach of rural farmers, and in many cases no written contracts or certificates were issued to farmers detailing their entitlements to the use of a certain plot of land.¹³² Keliang et al. find that, as of 2005, 36.8% of households had neither a contract or certificate which provided written evidence of their land rights.¹³³ Potentially more disturbing is the poor quality of these documents; only 10.4% of farmers possessed either a contract or certificate which fully outlined their rights and contained all the

¹²⁹ Keliang, *supra* note 118 at 780.

¹³⁰ Xiaolin Guo, "Land Expropriation and Rural Conflicts in China" (2001) 166 *The China Quarterly* 422.

¹³¹ Keliang, *supra* note 118 at 782.

¹³² Randall Peerenboom, *China's Long March Toward Rule of Law* (Cambridge: Cambridge University Press, 2002) at 483 [Peerenboom]; also see Peerenboom, Chapter 7 for more general commentary on the inadequacies of the judiciary.

¹³³ Keliang, *supra* note 118 at 788.

contractual provisions required by the legislative and regulatory framework.¹³⁴ As a result, there is often a significant divergence between the formal rights and entitlements of farmers and the treatment they receive from local officials.

While the transition from communal agricultural production to the HRS brought significant growth in grain production, the reasoning of scholars supporting formal property rights regimes would predict that such growth would be limited by continuing tenure insecurity. Although grain production rose dramatically in the early 1980s—this growth being largely attributed to the incentives that were created by allowing farmers to internalize the benefits of increased yields—growth began to slow in the mid-1980s; from 1985 to 1994, grain output increased only 0.9 percent annually.¹³⁵ Some scholars have sought to explain the slowdown in the growth of grain in the mid-1980s by arguing that the efficiency gains resulting from partial privatization and increased labour input had been exhausted and that further growth would require increased physical inputs to agricultural production.¹³⁶ Thus, while the internalization of benefits associated with increased investment in labour and other inputs had increased production to a point, further production increases would require additional investment. They predicted that insecurity of tenure would dissuade farmers from making such investments, especially those investments which had a relatively long time-horizon.

Such analysis is challenged by some authors, however, who contend that agricultural production continued to be strong despite weak property rights. Some suggest that agricultural growth continued to be strong through the 1980s, with the stagnation in grain output largely

¹³⁴ *Ibid.* at 789.

¹³⁵ Brandt et al., *supra* note 125 at 68.

¹³⁶ Gershon Feder, Lawrence Lau, Justin Lin & Xiaoping Luo, “The Determinants of Farm Investment and Residential Construction in Post-Reform China” (1992) 41 *Economic Development and Cultural Change* 1 at 1-2 [Feder et al.].

caused by farmers switching away from grain in favour higher-valued crops.¹³⁷ Moreover, in the late 1990s, the rate of growth of grain production began to accelerate again, and agricultural output has seen substantial growth in recent years; this is consistent with the above reasoning, as the government relaxed its price controls on grain in the early 1990s, thereby increasing the incentives for farmers to produce it.¹³⁸ Indeed, rural economic growth throughout this period seems to have been strong, with one author noting that real per capita net income of rural residents rose by 67 percent between 1985 and 1997. Because of this seemingly unusual growth in the presence of weak property rights, it is essential to examine the empirical research which has been undertaken to determine what the relationship is between security of tenure and agricultural growth in the Chinese context.

Perhaps unsurprisingly, the empirical record linking agricultural output and security of tenure is mixed. On the one hand, some of the empirical work has shown a linkage between increased investment and stronger perceptions of tenure security. Li, Rozelle, and Brandt, using the length of time which a farmer has occupied a plot of land as a proxy for tenure security, found that increased tenure security increases incentives for long-term land-saving investments, though not for short-term investments.¹³⁹ Deininger and Jin reach a similar result in comparing Guizhou, a Chinese province which decided to enforce a policy of not redistributing land in response to demographic changes, with other provinces which otherwise shared many similar

¹³⁷ David Lambert & Elliot Parker, "Productivity in Chinese Agriculture" (1998) 49 *Journal of Agricultural Economics* 378 [Lambert & Parker].

¹³⁸ Lambert & Parker, *supra* note 137.

¹³⁹ Guo Li, Scott Rozelle & Loren Brandt, "Tenure, land rights, and farmer investment incentives in China" (1998) 19 *Agricultural Economics* 63; see also Hanan Jacoby, Guo Li & Scott Rozelle, "Hazards of Expropriation: Tenure Insecurity and Investment in Rural China" (2002) 92 *The American Economic Review* 1420.

characteristics.¹⁴⁰ Hu has similarly argued that the short time horizons provided by the current land tenure system have led to the presence of short-term resource mining and environmental degradation.¹⁴¹ While none of these studies could address the impact of formal title to land, they do indicate that increased perceptions of security led to greater investment. The logical conclusion of these arguments is that the increased security provided by formal title would bring even greater benefits in terms of investment and long-term planning and resource management. Indeed, Keliang et al. lend support to this thesis, finding that households that had been issued contracts or certificates were statistically significantly more likely to undertake investments than those that had not been issued contracts or certificates.¹⁴²

By contrast, Feder et al. find no statistically significant relationship between tenure security and investment in farm-related capital, with tenure security being measured by farmers' assessment of the probabilities of a) the re-allocation of land during the contractual period, and b) receiving the same plot of land when the contract is renewed.¹⁴³ Interestingly, Feder et al. also find mixed results relating to access to credit. They find that in certain areas, where there are constraints on certain inputs, the lack of access to credit is not a significant constraint on investment.¹⁴⁴ Where inputs to production are available, however, greater access to credit would increase farm investment. Similarly, Guo Li, in a 1999 unpublished PhD dissertation, provides a comprehensive overview of land rights and their effects on investment in China in which he

¹⁴⁰ Klaus Deininger & Songqing Jin, "The Impact of Property Rights on Households' Investment, Risk Coping, and Policy Preferences: Evidence from China" (2003) 51 *Economic Development and Cultural Change* 851 [Impact of Property Rights].

¹⁴¹ Hu, "Household land tenure reform in China: its impact on farming land use and agro-environment" (1997) 14 *Land Use Policy* 175.

¹⁴² Keliang et al., *supra* note 118 at 812-813.

¹⁴³ Feder et al., *supra* note 136.

¹⁴⁴ *Ibid.*

concludes that while tenure security does increase the use of inputs and production, the efficiency loss from less tenure security is not large.¹⁴⁵

If the efficiency loss is not large, this suggests that the investment incentives which the formalists posit would arise from more formal and secure title are limited. The question then arises as to why there is already a strong degree of agricultural investment in China without formal title. As Clarke points out, as acknowledged by many of the informalist scholars discussed above, it may be that predictability and expectations, rather than formal rights *per se*, are the important determinants of investment and growth.¹⁴⁶ He suggests that this explains the difference between Township and Village Enterprises (TVEs), which despite their lack of formal rights face limited risk of expropriation and have grown even more quickly than grain output, and the agricultural sector, where the risk of expropriation is somewhat higher.¹⁴⁷ This type of reasoning has parallels in the agricultural sector, as a key determinant of agricultural investment may not be formal rights, but rather farmers' perception of predictability and continued access to a given plot of land. Indeed, this same reasoning may explain the early growth in agricultural productivity despite somewhat unclear and insecure rights; despite unclear entitlements, there is evidence that a majority of farmers felt that their tenures were relatively secure.¹⁴⁸ The above reasoning also suggests, however, that agricultural growth might have been even stronger if farmers had had even greater levels of tenure security.

¹⁴⁵ Guo Li, "The Economics of Land Tenure and Property Rights in China's Agricultural Sector" (1999) Ph.D. Dissertation, Food Research Institute, Stanford University.

¹⁴⁶ Donald Clarke, "Economic Development and the Rights Hypothesis: The China Problem", (2002) 51 *The American Journal of Comparative Law* 89.

¹⁴⁷ *Ibid.*

¹⁴⁸ James Kung & Shouying Lui, "Farmers' Preferences Regarding Ownership and Land Tenure in Post-Mao China: Unexpected Evidence from Eight Counties" (1998) 37 *The China Journal* 33 [Kung & Liu].

This type of predictability can be related to the strong social norms, the importance of relationships (*guanxi*), and the corporatist ethic present in rural China.¹⁴⁹ It may be that strong social relationships have operated as a substitute for the rule of law in China; thus, within close-knit communities, the ongoing relationships between villagers and the local government and among the villagers themselves might provide a sufficient basis for tenure security. Indeed, a significant level of social trust between the local government and villagers would be consistent with the observation that a significant number of villagers support occasional land redistributions.

While tenure security has been a major source of debate in Chinese land policy, the issue of the development of land markets has also attracted attention. Land markets continue to be rather underdeveloped, and many villages continue to prohibit land transfers, despite laws to the contrary.¹⁵⁰ While some informalists have claimed that administrative reallocations of land are necessary to ensure equity, Deininger and Jin have shown how land rental markets are actually better than administrative solutions in terms of both efficiency and equity considerations.¹⁵¹ In another paper, Deininger and Jin also find that the ability to transfer land significantly increased long-term agricultural investment.¹⁵² In comparing market and administrative land allocation mechanisms, Carter and Yao find that equity concerns trump efficiency considerations in

¹⁴⁹ Peerenboom, *supra* note 132 at 470.

¹⁵⁰ Krusekopf, *supra* note 120.

¹⁵¹ Klaus Deininger & Songqing Jin, "Land Rental Markets as an Alternative to Reallocation? Equity and Efficiency Considerations in the Chinese Land Tenure System" online: (2002 World Bank Policy Research Working Paper No. 2930 < http://papers.ssrn.com/sol3/papers.cfm?abstract_id=636292>).

¹⁵² The Impact of Property Rights, *supra* note 140.

administrative allocation; this means that, over time, administrative reallocations could lead to significant inefficiencies in land use.¹⁵³

The Growth of Chinese Businesses

Since the gradual move towards marketization begun in 1978, the growth of business in China has been dramatic. In the 1980s, private enterprise was still viewed with suspicion by the state, and the legal framework was exceptionally inhospitable to private enterprise.¹⁵⁴ The primary sources of business growth during this period was from organizations such as Township and Village Enterprises which had aspects of both public and private ownership, with some growth also coming from household businesses and other cooperative forms.¹⁵⁵ Township and Village Enterprises were the most important source of economic growth, and the Chinese state sought to encourage their development by providing them with favourable tax treatment and extending significant loans.¹⁵⁶ In practice such organizations often operated as private firms, but they formally maintained the structure of a TVE because of the benefits associated with doing so.¹⁵⁷

In 1988 private enterprises were provided with some degree of legal recognition and protection. The constitution was amended in April 1988 to permit the existence of the private sector and to guarantee its rights.¹⁵⁸ This was followed shortly thereafter by provisional regulations of private enterprises. These regulations formally provided some degree of protection

¹⁵³ Michael Carter & Yang Yao, "Market versus administrative reallocation of land: An econometric analysis" in Peter Ho, ed. *Developmental Dilemmas: Land Reform and Institutional Change in China* (London: Routledge, 2005) 151.

¹⁵⁴ Vai Lo & Xiaowen Tian, "Property Rights, Productivity Gains and Economic Growth: The Chinese Experience" (2002) 14 *Post-Communist Economics* 245 [Lo & Tian].

¹⁵⁵ Yanlai Wang, *China's Economic Development and Democratization* (Hants, England: Ashgate Publishing House, 2003) at 152-155 [Wang].

¹⁵⁶ Lo & Tian, *supra* note 154.

¹⁵⁷ Lo & Tian, *supra* note 154.

¹⁵⁸ Wang, *supra* note 155 at 156.

for private businesses' property rights, as they specified that private enterprises had the right to own and transfer property.¹⁵⁹

These initial moves were followed by further legal protections in the 1990s. Forms of business organizations were clarified with enactments of the Company Law in 1993 and the Partnership Law in 1997.¹⁶⁰ This was followed in 1999 by a constitutional amendment which further strengthened the property rights of individuals and private enterprises.¹⁶¹ Over the period during which these changes were occurring, the private sector's share of industrial output grew dramatically from 8% in 1988 to 38% in 1998.¹⁶² Moreover, foreign investment in China has also increased dramatically since greater legal protections were implemented.¹⁶³

Despite a more hospitable legal framework than was present in the 1980s, the protection of property rights has remained far from perfect for Chinese businesses for a number of reasons, many of which have been noted above. Since local governments tend to be selective and self-interested in enforcing laws and regulations, the enforcement of laws and the effective degree of protection of property rights is much weaker than the legal framework would suggest.¹⁶⁴ Moreover, the lack of an unbiased and effective judiciary has rendered many businesses unable to enforce their rights.¹⁶⁵ Finally, the predatory tendencies of various levels of government have meant that businesses have been pressured or otherwise forced to give up their assets to the state.¹⁶⁶ Thus, as Peerenboom concludes, "China's legal system undeniably falls far short of any

¹⁵⁹ Lo & Tian, *supra* note 154.

¹⁶⁰ Lo & Tian, *supra* note 154 at 249.

¹⁶¹ Lo & Tian, *supra* note 154 at 249.

¹⁶² Lo & Tian, *supra* note 154.

¹⁶³ Peerenboom, *supra* note 132 at 463-464.

¹⁶⁴ David Wank, "Producing Property Rights: Strategies, Networks, and Efficiency in Urban China's Nonstate Firms" in Jean Oi & Andrew Walder, eds. *Property Rights and Economic Reform in China* 248 at 251 [Wank].

¹⁶⁵ Wank, *supra* note 164; Peerenboom, *supra* note 132.

¹⁶⁶ Wank, *supra* note 164.

reasonable standard for rule of law,” and there are still significant risks facing firms operating in China.¹⁶⁷ The question which then arises is how such dramatic economic growth was possible without the security and clarity of formal property rights.

Relational networks and *guanxi* have played a key role in the growth of businesses in an environment of insecure property rights, with firms strengthening relationships and building alliances with various levels of government and influential individuals.¹⁶⁸ Even prior to the formal legalization of private enterprises in 1988, quasi-private enterprises were created under the guise of collective or co-operative enterprises with local governments.¹⁶⁹ Che and Qian provide a formal model highlighting how linkages between businesses and government can be useful. They argue that in the face of a predatory state, linkages with local government can be beneficial for both the firm and the government. By operating within the governmental framework, the firm has greater security from expropriation or seizure of its assets and profits; costly revenue hiding will also decrease. Similarly, the government benefits because such enterprises often make significant contributions to public goods such as the provision of infrastructure.¹⁷⁰

Corporatist linkages between firms and governments may also bring other benefits in a transitional economy such as China's. In his examination of Township and Village Enterprises, Li asserts that where the regulatory environment is unclear and the government might try to block certain transactions, ambiguous property rights might actually be more efficient than

¹⁶⁷ Peerenboom, *supra* note 132 at 464.

¹⁶⁸ Peerenboom, *supra* note 132 at 430; Wank, *supra* note 164.

¹⁶⁹ Wang, *supra* note 155 at 152.

¹⁷⁰ Jiahua Che & Yingyi Qian, “Insecure Property Rights and Government Ownership of Firms” (1998) 113 *The Quarterly Journal of Economics* 467.

private property rights.¹⁷¹ This is the case, he believes, because firms can gain political influence and help with regulatory issues through fuzzy connections and a corporatist arrangement with the local government; the government, on the other hand, can use the TVE as a mechanism for achieving certain policy goals, e.g. curbing unemployment.¹⁷² This means that the nebulous ownership structure present in TVEs may actually provide greater opportunities for growth than would strictly private firms.

While such corporatist linkages may provide some degree of property protection in an insecure environment, they also have a number of drawbacks which may ultimately slow the growth of business.¹⁷³ First, in some cases, otherwise inefficient TVEs may survive because of local government support, thereby straining government resources and allowing inefficient firms to survive.¹⁷⁴ Second, the integration of businesses with political entities means that the success of a business may be more dependent on an individual's political connections than on the true profitability of the enterprise.¹⁷⁵ Third, property protections based on such connections may present opportunities for corruption and rent-seeking.¹⁷⁶ Finally, extensive reliance on such linkages may undermine efforts at promoting the rule of law in the long term.¹⁷⁷ Thus, although corporatist arrangements can substitute for formal property rights to some extent, they can create substantial social costs which could be avoided by a strong formal property rights regime.

B – The Costs of a Formal Property Rights Regime

¹⁷¹ D.D. Li, "A Theory of Ambiguous Property Rights in Transition Economies: The Case of the Chinese Non-State Sector" (1996) 23 *Journal of Comparative Economics* 1.

¹⁷² Peerenboom, *supra* note 132 at 486-487.

¹⁷³ See generally, Minxin Pei, China's Trapped Transition: The Limits of Developmental Autocracy (Cambridge, Mass.:Harvard University Press, 2006)

¹⁷⁴ Peerenboom, *supra* note 132.

¹⁷⁵ Wank, *supra* note 164 at 262.

¹⁷⁶ Peerenboom, *supra* note 132 at 472.

¹⁷⁷ *Ibid.*

1 – Monetary Cost

While the formalists may be correct about the efficiency gains which arise from formal property rights, some scholars contend that those efficiency gains may, in some circumstances, be outweighed by the costs of creating and enforcing the property rights regime. As pointed out by Demsetz, there are costs to creating and maintaining a formal property rights regime, and those costs can outweigh the benefits arising from the regime, especially in cases of relative abundance of land.¹⁷⁸ Anderson and Hill similarly note that “establishing and protecting property rights is very much a productive activity toward which resources can be devoted. But, like any other activity, the amount of this investment will depend on the marginal benefits and costs to investors of allocating resources to these endeavors.”¹⁷⁹

With respect to creating a formal regime, there are a variety of initial costs, including surveying land, creating a title registry, adjudicating conflicting claims, etc. As Banner points out, the transaction costs associated with valuing and allocating rights can be extremely high in the transition from one property rights regime to another.¹⁸⁰ In a survey of various papers which attempt to quantify the direct costs of creating land registration systems, Hanstad notes that land registration has been in some cases as expensive as \$240 per parcel.¹⁸¹ Moreover, there may be additional indirect costs in educating people about the benefits and mechanics of titling, without which the informal system may continue to prevail.

¹⁷⁸ Demsetz, “Theory of Property Rights”, *supra* note 11.

¹⁷⁹ Terry Anderson & P.J. Hill, “The Evolution of Property Rights: A Study of the American West” (1975) 18 *Journal of Law and Economics* 163 at 165 [Anderson & Hill].

¹⁸⁰ Stuart Banner, “Transitions Between Property Regimes” (2002) 31 *The Journal of Legal Studies* S359 [Banner].

¹⁸¹ Hanstad, *supra* note 28 at 19.

Once the regime is created, there are ongoing costs required to maintain that regime. While land registries, either in the form of land recordation systems or title registries¹⁸², provide the greatest degree of security and clarity, they also require continual updating and maintenance, thereby creating a number of ongoing costs. These costs can often outweigh the benefits supposedly derived from formal property rights.

The costs may also differ depending on the nature of the property in question. As Baland and Platteau note, the relative costs of maintaining and enforcing a property regime increase as the physical space which that resource occupies increases;¹⁸³ this suggests that especially in areas where land is used extensively rather than intensively—such as grazing land for animals—the costs of enforcing private property rights may be high relative to the benefits.

2 – Social Insurance and Equity

First, where communal land has traditionally played a role as a collective insurance mechanism, the titling of that land might eliminate that mechanism while not replacing it with anything else.¹⁸⁴ Richard Posner examines a number of insurance mechanisms in traditional societies and argues that traditional institutions, such as communal land or frequently redistributed land, can be efficient in some circumstances.¹⁸⁵ Baland and Francois formally model the insurance function of common land and show that where there exist incomplete

¹⁸² Hanstad, *supra* note 28.

¹⁸³ Jean-Marie Baland & Jean-Philippe Platteau, “Division of the Commons: A Partial Assessment of the New Institutional Economics of Land Rights” (1998) 80 *American Journal of Agricultural Economics* 644.

¹⁸⁴ Rohini Pande & Christopher Udry, “Institutions and Development: A View from Below” online: (1999) Yale University Economic Growth Center Discussion Paper No. 928 http://papers.ssrn.com/sol3/papers.cfm?abstract_id=864044 [Pande & Udry]; Trebilcock, *supra* note 103; for a discussion of some of the geographical conditions under which the communal property arrangements are efficient, see Jeffrey Nugent & Nicolas Sanchez, “Common Property Rights as an Engogenous Response to Risk” (1998) (80) *American Journal of Agricultural Economics* 651.

¹⁸⁵ Richard Posner, “A Theory of Primitive Society, with Special Reference to Law” (1980) 23 *Journal of Law and Economics* 1.

insurance markets because of because either information asymmetries or limits on contract enforcement—two very plausible conditions in many developing countries—if individuals are sufficiently risk averse and the efficiency gains from privatization are sufficiently limited, privatization of communal land can be welfare-decreasing.¹⁸⁶ By contrast, Platteau argues that population pressures will naturally lead to the erosion of this insurance function¹⁸⁷, but he also acknowledges that the individualization of land tenure rights can be a separate force which leads to this outcome.¹⁸⁸

Related to this problem is the emergence of a landless class, which is much less likely where land is redistributed.¹⁸⁹ André and Platteau show how mounting population pressures and the development of informal land markets in Rwanda led to distress sales and the growth of a landless class.¹⁹⁰

This issue has been studied in the Chinese context, where a body of literature suggests that some Chinese farmers actually seem to prefer periodic redistribution because of the social insurance function which such redistribution plays. Kung and Liu claim that almost two-thirds of the farmers they surveyed were opposed to stable tenure for thirty years.¹⁹¹

Interestingly, Deininger and Jin have documented a type of learning effect, as households in an area which exogenously introduced greater tenure security were, *ceteris paribus*, generally more in favour of that tenure security than those elsewhere.¹⁹² Kung examined the village of

¹⁸⁶ Jean-Marie Baland & Patrick Francois, “Commons as insurance and the welfare impact of privatization” (2005) 89 *Journal of Public Economics* 211; see also Deininger, *supra* note 5 at 29-30.

¹⁸⁷ For a discussion of this point in Rwanda, see André & Platteau, *supra* note 82.

¹⁸⁸ Jean-Philippe Platteau, “The Gradual Erosion of the Social Security Function of Customary Land Tenure Arrangements in Lineage-Based Societies” online: (2002) World Institute for Development Economics Research Discussion Paper No. 2002/26 <<http://www.ciaonet.org/wps/plj01/plj01.pdf>>;

¹⁸⁹ Platteau, *supra* note 23; Feder & Deininger, *supra* note 19; Hanstad, *supra* note 28 at 21.

¹⁹⁰ André & Platteau, *supra* note 82.

¹⁹¹ Kung & Liu, *supra* note 148.

¹⁹² Impact of Property rights, *supra* note 140.

Meitan in Guizhou province, the same province that Deininger and Jin studied, and actually found a contrary result, finding that the introduction of more secure tenure had actually caused some in Meitan to oppose tenure security in favour of periodic reallocations.¹⁹³ Unsurprisingly, those who continued to favour tenure security were those that had benefitted from it, i.e. older families who had previously been assigned large amounts of land.

3 –Undermining Informal Mechanisms of Tenure Security

Some authors point to situations where the institutionalization of new formal norms can damage or disrupt informal norms. A theoretical account of this is given by Pildes, who notes that state action can undermine norms through three broad processes:

- i. Destroying the social conditions that enable reciprocity;
- ii. Direct attacks on the norms of reciprocity; and,
- iii. Failures by the state to appreciate the broad context in which norms emerge.¹⁹⁴

Similarly, Kahan shows how governmental incentive schemes can function as social cues that individuals are not inclined to cooperate voluntarily, and legislation can actually weaken social norms.¹⁹⁵ Applied to the context of property, formalization of title may potentially undermine norms of voluntary respect and cooperation for tenure security, thereby leading to less secure property rights—especially if there are substantial transaction costs for the individuals seeking to enforce them. Moreover, as Lanjouw and Levy note, “if one takes an area with a long-standing and well-understood customary property rights system and overlays a formal state titling program, it can make residents less secure because they are unsure which system will apply in

¹⁹³ Kung, *supra* note 127.

¹⁹⁴ Richard Pildes, “The Destruction of Social Capital Through Law” (1996) 144 *University of Pennsylvania Law Review* 2055.

¹⁹⁵ Dan Kahan, “The Logic of Reciprocity: Trust, Collective Action, and Law” (2003) 102 *Michigan Law Review* 71.

any given situation.”¹⁹⁶ Besteman notes that customary land tenure in Somalia was quite secure and that titling programs actually decreased security by calling into question the applicability of customary law and by creating the possibility of dispossession of unregistered farmers who continued to abide by customary law.¹⁹⁷

Cases have also been noted where the formalization of property rights has undermined traditional resource management arrangements. Jodha has examined how changes in parts of India in village governance structures and the privatization of certain plots of land have undermined traditional arrangements for the efficient management of common property resources.¹⁹⁸

A related problem in the property context is that the formalization of individual property rights may erode the rich and often disaggregated bundles of customary entitlements to land. As Banner notes, while in contemporary developed countries land is primarily allocated on a spatial basis, there have been and continue to be numerous property rights regimes where property rights are allocated on a functional basis.¹⁹⁹ Because customary practices often provided different owners with different rights to the same land—such as the right to grow cash crops, the right to graze cattle, the right to gather firewood, the right to use streams on the land for water, the right to traverse, etc.—the creation of exclusive individual rights can undermine traditional activities which depended on this (by Ellickson’s hypothesis, probably socially efficient) property rights

¹⁹⁶ Jean Lanjouw & Philip Levy, “A Difficult Question in Deed : A Cost-Benefit Framework for Titling Programs” (2004) 34 *William and Mary Law Review* 889 at 905.

¹⁹⁷ Catherine Besteman “Individualisation and the Assault on Customary Tenure in Africa: Title Registration Programmes and the Case of Somalia” (1994) *Africa: Journal of the International African Institute* 484 at 17 [Besteman].

¹⁹⁸ N.S. Jodha, “Depletion of Common Property Resources in India: Micro-level evidence” (1989) 15 *Population and Development Review, Supplement: Rural Development and Population: Institutions and Policy* 261; N.S. Jodha, “Population Growth and Decline of Common Property Resources in Rajasthan, India” (1985) 11 *Population and Development Review* 247.

¹⁹⁹ Banner, *supra* note 180.

division.²⁰⁰ Put differently, the transition from a functional to a spatial property system can entail significant costs and necessitate significant and potentially deleterious social reorganization. It is possible theoretically to formalize a functional property system and disaggregate all the rights over a certain piece of land, but this would almost certainly be prohibitively costly, both to record the various rights initially as well as to keep track of various changes over time.²⁰¹

4 – Social Unrest

There may also be externalities to the process of assigning property rights in the form of social conflict.²⁰² This conflict may occur in a variety of ways. First, proponents of titling and registration programs often implicitly assume that boundaries between property rights are clearly defined. If such boundaries are undefined or fuzzy, however, titling programs can bring conflicting claims to the surface.²⁰³ Two attempts by the Australian government to formalize land rights in Papua New Guinea created new land disputes, as individuals were concerned about losing customary entitlements and the accompanying finality of land holdings which would result from the registration process.²⁰⁴ Returning to the Chinese case study, Ho argues that China has deliberately maintained a degree of legal ambiguity in its property rights arrangements in order to minimize conflict between groups and to allow for further development of property institutions in the future.²⁰⁵ Whether or not this has actually limited conflict is unclear, however, as land disputes have become increasingly frequent in rural China.²⁰⁶

²⁰⁰ Platteau, *supra* note 23.

²⁰¹ *Ibid.*

²⁰² Daniel Fitzpatrick, “Evolution and Chaos in Property Rights Systems: The Third World Tragedy of Contested Access” (2006) 115 *The Yale Law Journal* 996 [Fitzpatrick].

²⁰³ Hanstad, *supra* note 28 at 10.

²⁰⁴ Trebilcock, *supra* note 103 at 413.

²⁰⁵ Ho, *supra* note 116.

²⁰⁶ Peerenboom, *supra* note 132 at 482-483.

Second, where titling programs transfer title from absentee landholders to occupants instead of simply titling untitled state land, a relatively easy formalization program can encourage invasions by squatters. In their study of land reform in the Brazilian rainforest, Alston, Libecap and Mueller found that a government program to expropriate unused land from large landowners and transfer it to peasants actually increased land conflict by encouraging peasants to invade and squat on land and assert claims to this land under the principles of the government's redistributive land policies.²⁰⁷

5 – The Flaws of the Titling Process

In other circumstances, the titling process itself can be carried out in such a way as to further marginalize already disenfranchised groups. Two such groups have been the focus of substantial study. First, titling programs which destroy customary tenure can significantly erode women's rights. This can occur for a number of reasons. First, the titling process will often provide title to land solely to men, while women will lose their customary rights.²⁰⁸ Second, Lastarria-Cornheil notes that the move to a market for land may disenfranchise women as the market may not be gender-neutral. She points out that not only are there often institutionalized male biases against women owning land, but women also enter the market at a disadvantage due to their lack of cash or access to credit, lack of political power, and the fact that they have a family to maintain.²⁰⁹ Finally, the transition from a functional to a spatial property regime, as discussed above, can be particularly devastating for women, whose livelihood often depends

²⁰⁷ Lee Alston, Gary Libecap & Bernardo Mueller, "A Model of Rural Conflict: Violence and Land Reform Policy in Brazil" (1999) 4 *Environment and Development Economics* 135.

²⁰⁸ Besteman, *supra* note 197; Carmen Deere and Magdalena Leon, "Who Owns the Land? Gender and Land-Titling Programmes in Latin America" (2001) 1 *Journal of Agrarian Change* 440 [Deere & Leon]; S. Lastarria-Cornhiil, "Impact of Privatization on Gender and Property Rights in Africa" (1997) 25 *World Development* 1317 [Lastarria-Cornhiil].

²⁰⁹ Lastarria-Cornhiil, *supra* note 208.

significantly on certain limited use rights, such as rights to collect wood and access to grazing land.²¹⁰ However, whether titling programs strengthen or weaken women's rights depends on the implementation of the titling program as well as the strength of supporting institutions for women's rights. Where legal protections are otherwise strong for women, programs such as joint titling may actually strengthen their position relative to customary law.²¹¹

The empirical evidence assessing the impact of titling programs on women's rights is somewhat mixed. While in some cases titling has eroded women's customary rights, this has largely depended on how the titling program was carried out. Deere and Leon's study is illustrative. They provide an overview of four different titling programs in Latin America and find mixed results, largely varying on how the program was carried rather than on the effect of title itself.²¹² Gopal provides an account of the impact of land reform on women in Kenya and Ethiopia and finds similarly mixed results.²¹³ In Kenya, she finds that land tenure reform damaged women's customary usufructuary rights by not providing any adequate safeguards, thereby turning them into a "landless proletariat." In Ethiopia, the land reform program was somewhat more successful, although in 1996, still only 18% of landowners were female. In other cases, such as in Uganda, women's movements have actively lobbied for titling programs because they see them as providing them with stronger protections than customary law. Firmin-Sellers and Sellers come to a more pessimistic conclusion in their study of Cameroon. They note that while customary rights granted women ownership over food crops and men ownership rights

²¹⁰ Thea Hilhorst, "Women's Land Rights: Current Developments in Sub-Saharan Africa" in Camilla Toulmin & Julian Quan, eds., *Evolving Land Rights, Policy and Tenure in Africa* (London: DFID/IIED/NRI, 2000) 181.

²¹¹ Aili Mari Tripp, "Women's Movements, Customary Law, and Land Rights in Africa: The Case of Uganda" (2004) 7 *African Studies Quarterly* 1.

²¹² Deere & Leon, *supra* note 208.

²¹³ Gita Gopal, *Gender Related Legal Reform and Access to Economic Resources in Eastern Africa* (World Bank, 1999).

over tree crops, the titling process has tended to marginalize women's claims as titles over the property were almost entirely granted to men.²¹⁴

Second, even in circumstances where the titling process would provide substantial benefits along the lines discussed by the formalists, differential access to formal titling because of differences in education, wealth or political power can create inequitable results and actually dispossess individuals of their land.²¹⁵ Even where registration is theoretically equally accessible to all, rural landowners may be misinformed and not fully understand the benefits of registration; conversely, elites may be able to manipulate the system and claim rights over large portions of land. Moreover, in cases where there is any charge for titling—or even when there are large indirect costs for registration, such as the requirement to travel a significant distance to the capital to register the land—wealthy elites will be significantly better positioned than the poor to reap the benefits from titling programs.

There is indeed evidence that titling programs have in some cases disproportionately benefited the elites of a given society at the expense of the poor. Feder and Noronha cite a number of studies indicating that it was chiefs and civil servants who had superior knowledge of the law that benefited from land registration in Kenya.²¹⁶ Similar manipulation was documented by Doornbos in Uganda's titling program.²¹⁷ However, it should be noted that, as with the discussion of the impact of titling on women's rights, it is not titling itself which necessarily leads to this deleterious effect, but rather the manner in which it is carried out.

²¹⁴ K. Firmin-Sellers & P. Sellers, "Expected Failures and Unexpected Successes of Land Titling in Africa" (1999) 27 *World Development* 1115 [Firmin-Sellers & Sellers].

²¹⁵ Platteau, *supra* note 23.

²¹⁶ Feder & Noronha, *supra* note 59.

²¹⁷ Martin Doornbos, "Land Tenure and Political Conflict in Ankole, Uganda" (1975) 12 *Journal of Development Studies* 54.

C – Concluding Remarks on the Costs and Benefits of a Formal Property Rights Regime

The above discussion of the costs and benefits of a formal property rights regime suggests that the picture is much more complex than many commentators and policy-makers have assumed. The creation of a formal property rights regime is not costless, and it will not necessarily be the case that the benefits of such a regime will clearly outweigh the costs. Given, however, that formal property regimes are ubiquitous in the developed world, there are reasons to believe that at a certain stage in a country's economic development, a formal property rights regime is necessary to secure further economic development.

At low levels of development, an informal regime may be adequate to realize many of the benefits of private property. Where economic life is largely organized around small units such as the village, the mobility of the population is low, and resources such as land are not overly scarce, informal mechanisms will likely be sufficient to provide the benefits of private property. Put differently, if individuals expect to be living in the same location, expectations of repeated interactions will create the conditions necessary for cooperation. At this point, informal mechanisms will likely suffice to bring the benefits of private property, so a formal property regime would entail significant social and economic costs without significant benefits.

As countries undergo economic changes, however, the relative benefits of a formal private property regime are likely to increase. There are three broad reasons for this. First, as development increases, communities are likely to become less close knit, leading informal norms to be less effective in maintaining order. As Feder and Feeny note, "with more advanced stages of development and increased mobility of individuals and entrepreneurs, transactions among

individuals who are not members of the same community are more frequent.”²¹⁸ Where the proportion of one-off encounters increases relative to continuing encounters, traditional methods of social cohesion are likely to be strained. Moreover, as Eric Posner notes, while informal norms can often result in a strong degree of security for items which can be easily possessed, such norms will be inadequate to protect goods which individuals cannot directly possess, such as land or capital dispersed throughout a number of locations.²¹⁹

Second, at higher levels of economic development, the value of land, goods, and investments may increase substantially, leading to more substantial benefits from more secure property rights. While informal mechanisms may be sufficient to provide an individual with the incentives to make minor investments, more capital-intensive, asset-specific investments will likely require greater certainty and security. Moreover, as the capital-intensiveness of activities increases, formal credit is likely to play a greater role in economic development, thereby increasing the benefits of clear and secure title.

Third, at higher levels of economic development, the relative costs of creating a formal property regime may be lower. As a country’s tax base increases, it will be relatively easier for the state to make the expenditures required for creating a formal property regime. Where insurance markets are likely to be more developed, the loss of the insurance function of customary land tenure is likely to be less severe. Similarly, where the state takes an increasingly large role in providing social benefits to its population, the equity concerns of potential landlessness are likely to be mitigated. Finally, the very forces that undermine informal tenure can also mitigate the effects of increased landlessness and social unrest; as mobility and

²¹⁸ Feder & Feeny, *supra* note **Error! Bookmark not defined.** at 140.

²¹⁹ *Law and Social Norms*, *supra* note 57 at 179.

migration opportunities increase, individuals will be more able to seek alternative economic opportunities elsewhere, thus lowering the cost to individuals of changes to property arrangements.

The above considerations suggest that the focus of certain previous titling programs may have been misguided both in terms of the targets of these titling programs as well as in the content of the formalization program. First, while many titling programs have focused on providing formal title to agricultural landowners, the above discussion suggests that, with the exception of newly-settled frontier land, established social norms in rural areas may be sufficient to provide an adequate degree of informal property rights protection. Urban titling programs, especially those aimed at newly-developing squatter settlements, may yield a greater social return. The greatest return from titling programs may come, however, from providing formal ownership to firms' land and assets, as informal norms may be lacking in such circumstances or inadequate to provide the certainty required for large investments or transactions entailing significant sunk costs and long pay-off periods. Second, to the extent that there are substantial benefits to providing stronger land rights to agricultural landowners in a given case, those benefits may be largely realized through the recognition and formalization of customary land tenure.²²⁰ This model of formalization in the agricultural sector may bring about the benefits of security of tenure at lower social cost than would the *de novo* creation of an individual-centered system of land rights. Both of these conclusions, however, should be taken only as general propositions, as the above discussion highlights how the analysis of relative costs and benefits of formalization is a highly context-dependent exercise.

²²⁰ For an insightful exploration of many of these issues of institutional design, see Daniel Fitzpatrick "Best Practice Options for the Legal Recognition of Customary Tenure", (2005) 36 *Development and Change* 449 [Fitzpatrick, 2005]; more generally on this point, see Deininger, *supra* note 5 at 62-65.

Finally, it should be noted that while the above discussion has largely focused on titling, the examples show that in some cases the primary source of insecure property rights is not the threat of expropriation by other households or landowners, but rather from expropriation by the state.²²¹ Where this is the main source of insecurity, formal title *per se* may not be necessary to increase individuals' perceptions of tenure security. Moreover, under such circumstances, formal title may not actually improve perceptions of tenure security, if individuals believe that they will not be able to enforce their property rights against a predatory state.²²² Rather, what is required in such cases to create the perception of strong property rights is a credible commitment by the state not to expropriate land or other assets.²²³ This can be a significantly less costly and more effective mechanism for gaining the benefits of private property rights than formal titling programs.

III – THE PRE-CONDITIONS OF A FORMAL PROPERTY RIGHTS REGIME

A property rights regime does not exist in a vacuum, but rather its operation depends on its interactions with a number of related social institutions. This section will examine the social, market, and state institutions which are conducive to or necessary for the operation of a formal property rights regime. Stated most generally, this section will note that people may ignore the formal legal mechanisms and continue to adhere to informal norms if they find the latter to be

²²¹ Timothy Frye, "Credible Commitment and Property Rights: Evidence from Russia" (2004) 98 *American Political Science Review* 453 [Frye]; see also Razzaz, *supra* note 108. Various levels of government have been a principal source of property rights insecurity in China; see text accompanying notes 125-127 & 164.

²²² Frye, *supra* note 221

²²³ Furubotn & Richter, *supra* note 12 at 97-100.

more efficient and cost effective.²²⁴ A basic point made by many authors—and stressed by De Soto—is that individuals will be more likely to continue to operate in the informal sector as the relative cost of operating in the formal sector increases.²²⁵

A – Informal Norms

Because the state can neither perfectly enforce all of its laws nor can citizens turn to the state for complete enforcement of their rights, the success and effectiveness of a formal legal system depends heavily upon the relationship between law and social norms. Law and social norms can in some circumstances be complementary. This is particularly the case when the law formalizes generally accepted practices.²²⁶ This does not necessarily imply legal or normative stagnation; incremental or marginal deviations in the law from social norms can play a role in gradually modifying those norms, thereby suggesting a potential path for reform.²²⁷ Some authors have noted the existence of norms of legal obedience.²²⁸ If individuals have internalized such a norm, then they may use the formal legal system, if the costs of doing so—either the transaction costs or the inherent disutility of breaching other norms—are sufficiently low. Thus, whether legal reforms will be rendered less effective by social norms largely depends on how closely those legal reforms mirror social norms.

The linkages between law and social norms may explain some of the successes of Papua New Guinea’s land courts—which in some sense formalized customary title by preserving the

²²⁴ Feder and Noronha, *supra* note 59; De Soto, *Mystery of Capital*, *supra* note 7; Pande & Udry, *supra* note 184; see especially Ellickson’s comments on the irrelevance of formal law to the Shasta county ranchers, Ellickson, *Order without Law*, *supra* note 52

²²⁵ De Soto, *Mystery of Capital*, *supra* note 7; Ellickson, *Order without Law*, *supra* note 52.

²²⁶ McAdams & Rasmusen, *supra* note 61.

²²⁷ Dan Kahan, “Gentle Nudges vs. Hard Shoves: Solving the Sticky Norms Problem” (2000) 67 *The University of Chicago Law Review* 607 [Gentle Nudges vs. Hard Shoves].

²²⁸ McAdams & Rasmusen, *supra* note 61; see also *Gentle Nudges vs. Hard Shoves*, *supra* note 227.

customary rules for dealing with land²²⁹—as well as the corresponding failure of the conversion process to freehold in that country.²³⁰ A related example from Cameroon also lends some support to this point. In many ways, the titling process in Cameroon was largely ineffective, with most farmers choosing to remain outside the legal system. However, by the process established in Cameroon, once farmers began the title process and paid certain fees, state agents would come to place concrete boundary markers on their land; following this, many farmers would give up on the formalization process. As Firmin-Sellers and Sellers note, while these boundary markers had no legal significance on their own, these markers enhanced tenure security because community members would believe that the land was in some sense backed by the state. This state action actually enhanced tenure security, since it a) was a relatively low-cost signal of tenure security, and b) did not conflict substantially with customary law as it existed in Cameroon.²³¹

By contrast, there may be informal norms which militate against the use of a more effective formal legal system. Kahan has noted that if there are norms which conflict with the formal law, this may inhibit law enforcers from applying the formal law.²³² Even beyond the law enforcers, if the formal law is in stark contrast with the norms of the individuals who are party to a dispute, they may simply avoid using it. Most pessimistically, in some circumstances there may be norms against using the formal legal system and instead in favour of resolving disputes

²²⁹ Cooter, *supra* note 103.

²³⁰ Robert Cooter, “The Rule of State Law versus the Rule-of-Law State: Economic Analysis of the Legal Foundations of Development” online: (1996) John M. Olin Working Papers in Law, Economics, and Institutions 96/97-3 http://works.bepress.com/cgi/viewcontent.cgi?article=1062&context=robert_cooter. See also Trebilcock, *supra* note 103 at 384-386.

²³¹ Firmin-Sellers & Sellers, *supra* note 214.

²³² Gentle Nudges vs. Hard Shoves, *supra* note 227.

informally.²³³ In these circumstances, individuals may be disinclined to make use of what might be a more efficient formal system.

Applied to the context of property, this may suggest that some of the benefits which the formalists suggest arise from land titling programs may not materialize because of the social context. For example, the ability to use land as collateral requires the ability of creditors to seize the land. If, however, judges are unwilling to order that the land of a defaulting debtor be transferred to a creditor, or if creditors are for some other reason unable to effectively repossess the land because of local norms, the mere fact of titling will not enhance the ability of landowners to gain access to credit.

Norms can also play an important role in encouraging or discouraging the evolution of the institutions necessary for the benefits from private property to be realized. For example, Platteau has discussed how land markets will not develop as long as landowners feel, because of their own conceptions or because of social pressures, that their land is inalienable.²³⁴ Moreover, as Fitzpatrick points out, where common property arrangements are supported by and closely bound up with kinship structures, they may be exceptionally persistent in the face of external attempts to create a new property rights framework.²³⁵ Unsurprisingly, these considerations all suggest that one of the major determinants of a given property regime's acceptance and success will be its compatibility with informal norms and customs.

B – The Existence of Other Markets

²³³ Rikke Broegaard, "Land Tenure Insecurity and Inequality in Nicaragua" (2005) 36 *Development and Change* 845 [Broegaard]; also see Ellickson, *Order without Law*, *supra* note 52.

²³⁴ Platteau, *supra* note 23.

²³⁵ Fitzpatrick, *supra* note 202.

The mere fact that individuals have some manner of formal individual property rights will not necessarily lead them to the neo-classical profit maximizing outcome, at least as long as supporting markets are undeveloped.²³⁶ Imperfections in credit, land, and labour markets can diminish the relative benefits of formal private property rights.

The existence of a well-functioning credit market is essential for many of the benefits of private property to be realized. Although the economic theory discussed above suggests that the potential collateral created by titling programs will increase the supply of credit, formal title will not increase farmers' access to credit if rural credit markets are themselves underdeveloped or imperfect.²³⁷ This will most obviously be the case where there are either formal restrictions which impede the efficient development of credit markets or where creditors are unable to use the legal machinery of the state to enforce debtors' obligations.²³⁸ Even absent such glaring failures, however, the transaction costs associated with lending may ration borrowers out of the credit market.²³⁹ Carter formally demonstrates how credit rationing can deprive smaller landholders even in unrestricted credit markets because of adverse incentive and selection effects.²⁴⁰ There is some evidence suggesting that such credit rationing has occurred in practice. Field and Torero examine the impact of a titling program in Peru, and they find that 34% of titled households remain rationed out of the credit market.²⁴¹ Boucher, Barham, and Carter find similar

²³⁶ Christopher Udry, "Efficiency and Market Structure: Testing for Profit Maximization in African Agriculture" online: (1997) Working Paper <<http://www.econ.yale.edu/~cru2/pdf/separate.pdf>>

²³⁷ Migot-Adholla et al., *supra* note 80; Boucher et al., *supra* note 24 at 12.

²³⁸ On the second point, see Platteau, *supra* note 23 at 59-60.

²³⁹ Feder & Deininger, *supra* note 19.

²⁴⁰ Michael Carter, "Equilibrium Rationing of Small Farm Agriculture" (1988) 28 *Journal of Development Economics* 83.

²⁴¹ Field and Torero, *supra* note 87.

evidence of small farmers being rationed out of the credit-market in Honduras and Nicaragua.²⁴² Such credit-rationing also explains the results of Carter and Olinto, discussed above.²⁴³

Such credit market inefficiencies can lessen the benefits of private property in a number of ways. First, the potential supply of agricultural improvements is reduced, as smaller farmers are unable to acquire the requisite capital to make efficient improvements to their land. Second, where credit markets are limited and the purchase of land cannot be effectively financed, land will not necessarily be transferred to the most efficient producers.²⁴⁴ Third, as Carter and Barnham argue, the differential availability of credit can actual harm labour opportunities for poorer farmers, at least in the short term. This can occur because increased access to credit might allow large landowners to substitute from away from labour in favour of capital-intensive farming, thus reducing the labour demand of large farmers.²⁴⁵ If this is coupled with newly titled landowners alienating their land to large landowners²⁴⁶, the demand for rural labour might decrease substantially, with potentially negative socio-economic consequences ensuing.

The underdevelopment of land markets can also negate some of the benefits of more formalized private property rights. Although many scholars assume that the formalization of property rights will facilitate the operation of land markets, in certain cases, because of the failures of other markets or the existence of certain social norms, the land market may be highly underdeveloped. Where there is not an active market in land, the other benefits of strong private property rights may be lessened. For example, if land markets are thin, land will be a highly illiquid form of collateral, thereby making it difficult for banks to foreclose mortgages; this will

²⁴² Boucher et al., *supra* note 24.

²⁴³ Carter and Olinto, *supra* note 93.

²⁴⁴ For the theoretical discussion and a survey of applicable literature, see Feder & Deininger, *supra* note 19.

²⁴⁵ Boucher et al., 24.

²⁴⁶ See text accompanying notes 189-190.

then hinder the ability of landowners to use their land as collateral to access credit markets.²⁴⁷ Moreover, if land is effectively inalienable, the value of improvements to land cannot be realized, thereby removing one of the avenues by which stronger property rights can increase investment.

Further inefficiencies can occur if there are simultaneous imperfections in both land and labour markets. Significant transaction costs in the labour market due to high search costs for labour or pronounced principal-agent problems can prevent households from employing an optimal amount of labour on their plots, leading smaller households to be relatively less productive.²⁴⁸ Such labour market imperfections are less important if land rental or sales markets can transfer the use of that land from less efficient to more efficient producers. However, in the presence of imperfections in both labour and land markets, formal property rights will not be sufficient to lead to efficient uses of land.

C – An Effective State

A formal property rights regime cannot simply be created by decree, but rather it requires the state to create and maintain a variety of institutions. The most obvious set of necessary institutions are those which are directly responsible for the functioning of such a regime. These include an effective method of recording claims such as surveys and a title registry which can issue title and record changes reasonably quickly, reliably and inexpensively.

Because these are often extremely complex systems, many states which have attempted to create such institutions and issue titles have been unsuccessful because of the significant

²⁴⁷ Gershenberg, “Customary Land Tenure as a Constraint on Agricultural Development: A Re-Evaluation” (1971) 4 East African Journal of Rural Development 51; Barrows & Roth, *supra* note 81 at 295.

²⁴⁸ Stein Holden, Bekele Shiferaw & John Pender, “Market Imperfections and Land Productivity in the Ethiopian Highlands” 52 (2001) Journal of Agricultural Economics 53. For evidence and further discussion of labour market imperfections, see Udry, *supra* note 236.

inefficiencies in these systems. An important case study which demonstrates this relates to Kenya's titling experience.²⁴⁹ There, the formal titling program begun in the 1950s was largely ignored. Unregistered land transfers through informal procedures occurred frequently, and this led to increased insecurity and litigation.²⁵⁰ Also problematic was the fact that people often entirely ignored deeds; ownership of land was determined by the informal networks which already existed. Similarly, Firmin-Sellers and Sellers note that the formal titling program in Cameroon was irrelevant to most rural inhabitants, largely because of the exceptionally high costs—in the form of exceptionally long waits for title, corruption, etc.—of obtaining title.²⁵¹ In Madagascar, high costs associated with recording land transactions meant that the title registry became increasingly out of date over time; property were largely defined by informal documents noting land transfer and ownership status.²⁵² In urban Vietnam, relatively few residents have taken advantage of titling programs because of the strict requirements on documentary evidence needed to prove residence as well as the fees involved in acquiring title.²⁵³

In their study of the land registry program in St. Lucia, Barnes and Griffith-Charles come to a related but slightly different conclusion. As with the above studies, they find that over time the formal property system is becoming increasingly irrelevant, as transfers in ownership fail to be recorded in the national registry.²⁵⁴ Unsurprisingly, this is linked to the cost of recording such changes. Surprisingly, however, they find that landowners systematically overestimate the costs

²⁴⁹ Simon Coldham, "Land-Tenure Reform in Kenya: The Limits of Law" (1979) 17 *The Journal of Modern African Studies* 615; Angélique Haugerud, "Land Tenure and Agrarian Change in Kenya" (1989) 59 *Africa: Journal of the International African Institute* 61.

²⁵⁰ The opposite manifestation of this trend was apparent in Rwanda, where informal land markets developed because of the rapidly increasing value of land, despite the fact that such markets were illegal under Rwandan law. See André & Platteau, *supra* note 82.

²⁵¹ Firmin-Sellers & Sellers, *supra* note 214.

²⁵² Jacoby & Minten, *supra* note 83.

²⁵³ Kim, *supra* note 84 at 281-286.

²⁵⁴ Grenville Barnes & Charisse Griffith-Charles, "Assessing the Formal Land Market and deformalization of property in St. Lucia" (2007) 24 *Land Use and Policy* 494.

of formally recording land transfers.²⁵⁵ This indicates that even where actual costs of formalization are low, the higher perceived costs of formalization may dissuade individuals from using the formal system.

While a successful formal property rights regime requires the creation of a number of specialized property-related institutions, it also requires the existence of a number of related state institutions which are necessary for the maintenance of rule of law. Without the existence of institutions which allow property owners to enforce their rights, those rights are meaningless, and the formal regime will not bring the benefits which it is supposed to provide. Under these circumstances, individuals will continue to rely on informal mechanisms for securing their rights, which, as discussed above, can significantly limit economic development beyond some point.²⁵⁶

The existence of a competent and uncorrupt judiciary is an important institution for the effective functioning of a formal property regime. Without a judiciary which is perceived as competent, individuals will be unlikely to turn to courts to settle their disputes, leading to informal dispute resolution mechanisms which may not provide individuals with complete legal protection of their property rights. Similarly, where a judiciary is corrupt and bribe-taking is the norm, the costs of accessing the justice system are significantly raised for individuals. This can also create disincentives for using the formal property regime.

Even where the judiciary is perceived as being competent, honest and fair, weak enforcement mechanisms can deter individuals from seek to enforce their rights through the courts. Given the costs associated with litigation, individuals may be loath to litigate disputes if

²⁵⁵ *Ibid.*

²⁵⁶ Richard Messick, "Judicial Reform and Economic Development: A Survey of the Issues" (1999) 14 *The World Bank Research Observer* 117.

they believe that a favourable judgment will not be enforceable.²⁵⁷ The problem of unenforceable judgments is severe in China. Concerns about enforceability may also influence the judgment itself. This problem has also been documented in China, where courts will be reluctant to make judgments which they believe are politically or socially unenforceable, such as evicting a tenant who has no place to go.²⁵⁸

While an independent and effective judiciary is a necessary institution for individuals to be able to enforce their property rights, it is by no means sufficient. Individuals also need the tools necessary to access those courts, i.e. lawyers. Where lawyers are prohibitively expensive and legal aid programs are nonexistent or underdeveloped, poorer property-owners may have difficulties enforcing their rights. As noted above, this has been a significant problem in China, where rural farmers have had limited access to justice and thus have difficulty challenging the illegal decisions taking by the collective or local governments.²⁵⁹

A functional police force is another institution which plays a critical role in enforcing and realizing the benefits of strong property rights. A strong police force protects private property by deterring and preventing the commission of crimes against property as well as by apprehending those who commit such crimes.²⁶⁰ Where the police are corrupt, individuals may be reluctant to turn to them; lower income households may particularly vulnerable, as not only might they be unable to afford the requisite bribes, they also have the fewest resources to privately enforce their property rights. Similarly, in some states, the police function more as a guarantor of the government's rule rather than as a protector of private citizen's rights. Under these conditions,

²⁵⁷ Donald Clarke, "Power and Politics in the Chinese Court System: The Enforcement of Civil Judgments" (1996) 10 *Columbia Journal of Asian Law* 1 [Clarke].

²⁵⁸ Clarke, *supra* note 257 at 33.

²⁵⁹ Peerenboom, *supra* note 132.

²⁶⁰ Stephen Holmes & Cass Sunstein, *The Cost of Rights: Why Liberty Depends on Taxes* (New York: W.W. Norton & Company, Inc., 1999) at 63-64.

property rights will effectively be weaker, as individuals will have fewer protections against the theft or vandalism of their property.

D – Concluding Remarks on the Pre-Conditions of a Formal Property Rights Regime

While the previous section of this paper concluded that the costs of a formal property rights regime may outweigh its benefits in some circumstances, this section has sought to emphasize that a formal property regime is intertwined with a number of other social, economic, and legal institutions. An evaluation of the operation and benefits of a formal property regime in a given country also necessarily involves an analysis of these related institutions, as the success of that property regime depends in large part on those institutions. Indeed, this section suggests that formal property rights institutions cannot simply be grafted onto any state or society. These insights also suggest a number of related conclusions.

The above analysis again demonstrates that there are no easy solutions to questions of economic development. Even if some scholars are correct in asserting that the lack of formal property rights is a major reason for underdevelopment, the creation of a formal property rights regime is likely to require the strengthening or creation of a number of related institutions.

This section also reaches a similar conclusion to that of the first section. Namely, this section provides some support for the proposition that a formal property regime will function more successfully in a more developed state. Where an economy is characterized by the presence of some functioning market institutions, anti-market social norms relating to prohibitions on the transfer of land may be less prevalent or will be more malleable. Moreover, where credit and labour markets are more developed and the state has more resources and a greater capacity to provide legal protections, individuals will be more likely to turn to the formal system rather than

relying on informal systems. Thus, this suggests that a formal property rights regime will be more likely to function successfully at medium rather than low levels of economic development.

IV – THE PROCESS OF REFORM OF PROPERTY RIGHTS REGIMES

A – Evolutionary Changes in Property Regimes

There is a sense in which the formal and informal positions discussed above do not reflect a stark dichotomy of property rights regimes, but rather general loci along a temporal continuum in the evolution of property. Indeed, a prominent view within the law and economics movement is that property rights will evolve in response to an increase in their relative benefits.²⁶¹ On the one extreme of the spectrum is an open-access regime, where land is exceptionally plentiful and the costs of any form of private property outweigh the benefits. As the relative benefits of private property increase, communal property rights which exclude outsiders may be a rational response to the economic situation.²⁶² As the relative benefits increase further, individual property rights may emerge, with—in an economically efficient world—the optimal degree of formalization occurring where the marginal cost of further formalization equals the marginal benefit acquired from increased security and clarity.

While greater privatization and formalization may emerge from more informal regimes as the benefits of such formalization increase and the costs of formalization decrease, it is important to identify precisely the major factors which drive this process. Anderson and Hill posit that privatization will increase as a) relative prices change such that the resource becomes valuable,

²⁶¹ Theory of Property, *supra* note 11; Ellickson, *Order Without Law*, *supra* note 52; North and Thomas, *supra* note 68.

²⁶² Migot-Adholla et al., *supra* note 80.

b) technological advances decrease the cost of enforcing such rights, and c) as collective action to enforce and recognize those property rights becomes relatively easier.²⁶³ If such evolution of property rights does indeed naturally occur, it might be the case that there are limits on what outsiders can and should do with respect to promoting property rights arrangements.

In a more recent paper, Demsetz has expanded his earlier work and identified three major sources of the changes in costs and benefits which have led towards the greater prevalence of private property.²⁶⁴ The first factor is the decreased importance of compactness to the overall economy, by which he means that private property will emerge as groups become less close-knit. The second factor is greater productivity; as productivity increases, so does the “societal interest in arrangements that encourage effort and facilitate some sharing of the gains from this effort.”²⁶⁵ The third factor is the increased complexity of resource allocation problems. Demsetz notes that as specialization of labour increases, coordination becomes more difficult. While the price mechanism is a strong decentralized coordination mechanism, it requires a strong degree of certainty to function, and this degree of certainty is provided by formal property rights.

Although the above accounts describe the conditions under which such transitions are expected to occur, they largely fail to identify a mechanism by which a transition between property rights regimes occurs. The reasoning underlying much of the work is that such transitions are simply the product of rational individual or coordinated decisions to define and

²⁶³ Terry Anderson & Peter Hill, “The Evolution of Property Rights” in Terry Anderson & Fred McChesney, eds., *Property Rights: Conflict, Cooperation, and Law* (Princeton: Princeton University Press, 2003) 118. Libecap produces a similar list of factors, but the third factor above is replaced by “shifts in preferences and other political parameters.” See Gary Libecap, *Contracting for Property Rights* (Cambridge: Cambridge University Press, 1989) at 16 [Libecap].

²⁶⁴ Harold Demsetz, “Towards a Theory of Property Rights II: The Competition Between Private and Collective Ownership” (2002) 31 *Journal of Legal Studies* S653.

²⁶⁵ *Ibid.* at S663.

enforce stronger property rights,²⁶⁶ although some commentators recognize the role of the state in responding to and formalizing such changes.²⁶⁷ In general, the prediction here is primarily one of the efficient evolution of social norms with respect to land. Demsetz's prediction is manifested in the norms literature by Ellickson, who hypothesizes that "land rules within a close-knit group evolve so as to minimize its members' costs."²⁶⁸ Not only will social norms emerge to create order, as discussed above, but furthermore, those norms will evolve efficiently in response to exogenous changes.²⁶⁹

There seems to be a significant body of empirical evidence in favour of this general pattern of efficient decentralized evolution. Alston et al. suggest that people have greater incentives to acquire formal title where land values increase and confirm this in their analysis of the determinants of title registration on the Brazilian frontier.²⁷⁰ Micelli et al. show that in Kenya, where there was a system of voluntary conversion from communal trust land to individual ownership, the likelihood of conversion and gaining formal title is strongly dependent on the costs and benefits of doing so.²⁷¹ Even in China, it may be that a process of Demsetzian evolution in property rights is occurring to some extent, subject to political economy considerations and intervention by the central government. Following the reasoning of Demsetz,

²⁶⁶ Anderson and Hill argue that "the creation of new property rights begins with the heterogeneous entrepreneurial perception of new and different attributes or uses of a resource. To keep the rents from this perception from being dissipated in a tragedy of the commons, the entrepreneur must contract to exclude others from the value of his perception. See Terry Anderson & Peter Hill, "Cowboys and Contracts" (2002) 31 *Journal of Legal Studies* S489 at S492-S493.

²⁶⁷ Libecap, *supra* note 263 at chapter two.

²⁶⁸ Ellickson, "Property in Land, *supra* note **Error! Bookmark not defined.** This apparently efficient endogeneity of property regimes has led some to argue that the state should offer a fixed menu of property options in order to strike a balance between the economic efficiency which arise from the ability of individuals to use a number of property regimes and the transaction costs which occur as the number of property regimes increases. See Thomas Merrill & Henry Smith, "Optimal Standardization in the Law of Property: The Numerus Clausus Principle" (2000) 110 *The Yale Law Journal* 1.

²⁶⁹ Ellickson, *Order Without Law*, *supra* note 52.

²⁷⁰ Alston et al., *supra* note 99.

²⁷¹ Thomas Miceli, C.F. Sirmans & Joseph Kieyah, "The Demand for Land Title Registration: Theory with Evidence from Kenya" (2001) 3 *American Law and Economics Review* 275.

Liu, Carter and Yao argue and provide some empirical support for the proposition that property protections will be strongest in areas which are land scarce (i.e. where the value of the resource is highest) and where there are significant off-farm opportunities (i.e. where the benefits provided by the insurance function of land are weakest).²⁷²

Examples of this type of evolutionary process are also available from the developed world. Anderson and Hill, in examining the American West, show how a trend from open access to private property occurred in response to the increasing benefits (greater population density, higher land values) and decreasing costs (the invention of barbed wire) of enforcing individual property rights.²⁷³ In his discussion of mineral rights in the United States, Libecap chronicles a relatively smooth emergence of property rights, as miners came to agreement relatively quickly about property rights and governments institutionalized these arrangements.²⁷⁴ In a different context, the development of water rights in the United States provides support for this thesis, as the relatively water-plenty Eastern states adopted the English system of riparian rights, while in the water-scarce Western states, the more individualized prior appropriation system emerged.²⁷⁵ In a study of the reversal of this evolutionary process, Haddock and Kiesling note that because the Black Death significantly decreased the scarcity of land, large amounts of land reverted from private land to open access, as it was no longer efficient to hold such land privately.²⁷⁶ If this evolution towards efficiency is a more general phenomenon, then it might be argued that the

²⁷² Shouying Liu, Michael Carter & Yang Yao, "Dimensions and Diversity of Property Rights in Rural China: Dilemmas on the Road to Further Reform" (1996) 26 *World Development* 1789.

²⁷³ Anderson & Hill, *supra* note 179.

²⁷⁴ Libecap, *supra* note 263 at chapter 3.

²⁷⁵ Carol Rose, "Energy and Efficiency in the Realignment of Common Law Water Rights" (1990) 19 *The Journal of Legal Studies* 261 at 265. See also Anderson & Hill, *supra* note 179 at 176-178.

²⁷⁶ David Haddock & Lynne Kiesling, "The Black Death and Property Rights" 2002 31 *The Journal of Legal Studies* S545.

state's role should be to facilitate, formalize, and enforce a variety of property rights regimes along the lines of those which have evolved in a given society.

B – Impediments to Evolutionary Regime Change

There are at least three reasons why this ideal type of evolution may not occur in property regimes. Each of these will be discussed in turn.

1 – The Property Regime as a Public Good

First, it may be that certain components of the process of property rights formalization are public goods which would be underprovided by rational individuals acting independently in the presence of collective action problems.²⁷⁷ For example, a central land registry might provide all registered property-holders with significantly enhanced tenure security compared to a customary tenure system by reducing land disputes, but no individual property owner has an incentive to invest in creating such a system because of the significant costs involved. Miceli and Kieyah formally model this and show that a universally welfare-improving property system is unlikely to be voluntarily adopted by all property owners when there are costs involved, as they cannot fully internalize the benefits of the system.²⁷⁸

This problem is likely to be more pronounced at higher levels of economic development. At lower levels of economic development where communities are smaller and more close-knit, collective action problems can more easily be overcome through informal norms and practices.²⁷⁹ Moreover, the costs of creating and maintaining an informal property regime are lower than that of a formal property regime, thus making collective action problems easier to

²⁷⁷ Banner, *supra* note 180 at S362; see also Deininger, *supra* note 5 at 23.

²⁷⁸ Thomas Miceli & Joseph Kieyah, "The Economics of Land Title Reform" (2003) 31 *The Journal of Comparative Economics* 246.

²⁷⁹ Banner, *supra* note 180 at S362.

overcome. Thus, although this collective action problem is likely not a substantial problem in relatively informal property regimes, if a formal property regime is indeed an efficient institution at a certain level of development where the need for security of tenure is relatively high, then this problem is likely to arise eventually.

2 – The Inefficiencies in Informal Regime Change

Certain critiques suggest that norms and informal arrangements might actually be inefficient, at least for certain periods of time. There are three reasons for this. First, with respect to Ellickson’s thesis about the evolution towards efficiency of norms in close-knit groups, Eric Posner points out that norms produced in this setting will only be socially efficient for those in the close-knit group itself.²⁸⁰ In these circumstances, costs will be externalized as much as possible, meaning that group outsiders can be significantly harmed by such norms. One might imagine manifestations of this in the context of property in the case of norms which prohibit the transfer of fertile land to group outsiders. Indeed, André and Platteau have shown how increasing scarcity of land in Rwanda has led to the development of tighter restrictions on certain groups’—such as return migrants, widows, and orphans—customary rights of access to land.²⁸¹ In an example from the developed world, Rose argues that a similar phenomenon occurred in the development of British water law.²⁸² For a period of time, instead of leading to more formally demarcated private property rights, the increasing scarcity of water resources led to a status quo approach to water management whereby ancient water uses were privileged over newer ones; this represented an effort by previously advantaged groups to maintain their previously allocated

²⁸⁰ Eric Posner, “Law, Economics, and Inefficient Norms” (1996) 144 *University of Pennsylvania Law Review* 1697 [Posner, “Inefficient Norms”].

²⁸¹ André & Platteau, *supra* note 82.

²⁸² Rose, *supra* note 275 at 268-273.

water rights to the detriment of newcomers.²⁸³ As pointed out above, this may be especially problematic in situations where group membership is very inflexible and is supported by family or clan ties, as this may further entrench an otherwise inefficient arrangement.²⁸⁴

Second, to the extent norms are sticky, reliance on norms may be extremely inefficient when there are significant lags in the adjustment of those norms to rapid exogenous changes, such as changes in population or technology.²⁸⁵ In the property context, this might suggest that norms which previously governed land use efficiently might lag in changing to significant exogenous changes in population or technology which make land relatively scarce. For example, while informal mechanisms of transferring land have developed in situations where they were previously non-existent, there may be a significant lag, leading to serious inefficiencies. One author has argued that this problem was actually present in Demsetz's case study of the Montagnais Indians, arguing that it took about two hundred years after the exogenous change in factor prices caused by the fur trade to lead to a greater degree of privatization in property relations.²⁸⁶

Closely related to this problem is the issue of path dependence. It may be that in certain cases, arrangements which have long been inefficient will be preserved by the sheer weight of the myriad social layers and interactions which have emerged under those arrangements.²⁸⁷ The initial inefficient arrangement may be reinforced by subsequent actions; as North writes, the

²⁸³ *Ibid.* at 273.

²⁸⁴ Fitzpatrick, *supra* note 202 at 1029.

²⁸⁵ This lag in regime evolution is likely partially related to the costs of transitioning between regimes. As Banner points out, there may be significant costs in the process of creating a new property rights regime. See Banner, *supra* note 180. Changes in norms may also be sticky because individuals have internalized a norm and continue to act on it despite its inefficiency. On internalization, see Law and Social Norms, *supra* note 57 at 43-44.

²⁸⁶ Posner, "Inefficient Norms", *supra* note 280 at 1712.

²⁸⁷ For a discussion of various aspects of this path dependence, see Douglass North, *Understanding the Process of Economic Change* (Princeton: Princeton University Press, 2005) at 51-52, 156-157 [North, *Process of Economic Change*].

“existing institutional structure [creates] organizations with a vested interest in the existing structure.”²⁸⁸ Where switching costs are or appear to be sufficiently high, this may prevent organic institutional change. This notion of path dependence may explain the continued existence of some cases of inefficient property arrangements.

Third, Mahoney and Sanchirico provide an alternative critique of the efficiency of norms based on game-theoretic analysis and norm evolution.²⁸⁹ Using the evolutionary framework employed by Axelrod, discussed above²⁹⁰, they point out that if the mismatch risk²⁹¹ of a norm is high relative to the gains from playing efficient strategies, then efficient norms are unlikely to emerge. They note, for example, that both always defect and tit-for-tat are evolutionarily stable strategies, and that using a slightly different pay-off structure from Axelrod’s analysis and assuming random mutations, it is quite likely for the equilibrium to tip from tit-for-tat to always defect, but not vice versa. Thus, they show that the evolution towards efficient norms is highly dependent on the particular costs and benefits of the various arrangements and that such evolution may not occur, even when it would be socially beneficial.

3 – A Political Economy Model of Change in Property Regimes

Finally, there are some authors who explicitly reject the efficient evolutionary framework in favour of a political economy framework of understanding changes in property regimes. Under this model, changes in property rights regimes occur when groups have sufficient political

²⁸⁸ *Ibid.* at 160.

²⁸⁹ Paul Mahoney & Chris Sanchirico, “Competing Norms and Social Evolution: Is the Fittest Norm Efficient?” (2001) 149 *University of Pennsylvania Law Review* 2027.

²⁹⁰ Axelrod, *Evolution of Cooperation*, *supra* note 44.

²⁹¹ A norm has mismatch risk if it is Pareto optimal when played against itself but does relatively poorly against disparate norms.

power to induce a property regime change which benefits their interests.²⁹² Libecap similarly notes that decisions about property rights institutions are made through the political process and that influential groups can thus have a significant impact in determining the property regime, irrespective of efficiency considerations.²⁹³ Because there are costs to creating and implementing a new property regime, relatively small groups will have an incentive to cooperate to facilitate regime changes where the benefits are concentrated in their hands and the detriments are widely dispersed among a large segment of the population.²⁹⁴ Sonin provides an alternative model which suggests that the rich may favour poor property rights protection; because of their wealth, they may be able to provide private protection for their own property while using that same private enforcement power to expropriate others.²⁹⁵ Thus, under a political economy framework of property rights, there is no reason to believe that property arrangements will naturally evolve towards efficient institutions; indeed, under certain circumstances, the reverse may occur.

Moreover, even where changes to the property regime would be efficient, under a bargaining or political economy framework of property rights, difficulties in bringing about those changes may lead to an inefficient status quo bias. To the extent that significant agreement is required among different members of a group for changes in property regimes to take place, certain group characteristics might make such consensus harder to achieve. As Libecap notes, as the number of interest groups increases or the heterogeneity of the interest group's preferences

²⁹² Saul Levmore, "Two Stories about the Evolution of Property Rights" (2002) 31 *The Journal of Legal Studies* S421. For a survey of the competing positions of efficient norm evolution and norm evolution as triggered by distributional benefits, see Jean Ensminger & Jack Knight, "Changing Social Norms: Common Property, Bridewealth, and Clan Exogamy" (1997) 38 *Current Anthropology* 1 at 4-5. For a historical analysis which argues that property rights arrangements are primarily determined by political considerations, see Daron Acemoglu, James Robinson & Simon Johnson, "Institutions as a Fundamental Cause of Long-Run Growth" (2004) NBER Working paper No. 10481. Available at: <<http://www.nber.org/papers/W10481.pdf>>.

²⁹³ Libecap, *supra* note 263 at 4.

²⁹⁴ Banner, *supra* note 180; Libecap, *supra* note 263 at 6.

²⁹⁵ Sonin, "Why the Rich May Favour Poor Protection of Property Rights" online: (2002) William Davidson Working Paper Number 544 <<http://hdl.handle.net/2027.42/39929>>

increases, agreement will be more difficult to achieve.²⁹⁶ Libecap argues that the presence of large numbers of heterogeneously-skilled fisherman was a major impediment to the development of efficient property arrangements in American fisheries.²⁹⁷

There is some evidence that political economy explanations have some degree of validity when applied to questions of Chinese property reform. Some authors have argued that village leaders play an important role in designing property arrangements for their villages. Recognizing that a diversity of arrangements exist throughout China, Rozelle and Li argue that a village leader's choice of a particular property regime will depend not only on the general benefits to the village, but also on the personal interests of the leader as well as the administrative cost of administering a given system.²⁹⁸ Such political economy considerations might also help explain certain elements of the 2007 Property Law, which provided certain concessions to the increasingly politically important urban middle class—such as rights to parking spaces for urban dwellers—while changing little for rural farmers.²⁹⁹

C – Responding to Evolutionary Failure: The Role of Outsiders

It is important to note that these different impediments to the Demsetzian evolution of property rights call for different responses from outsiders in helping to craft reforms property rights regimes in developing countries. These responses are quite different, and they point to the fact that a one-size-fits-all solution to creating efficient property arrangements is unlikely to be successful. From a policy perspective, when outsiders identify a state in which an alternative property arrangement would be more efficient than that already in place, a necessary prerequisite

²⁹⁶ Libecap, *supra* note 263 at 21-24.

²⁹⁷ *Ibid.* at chapter 5.

²⁹⁸ Scott Rozelle & Guo Li, “Village Leaders and Land-Rights Formation in China” (1998) 88 *The American Economic Review* 433.

²⁹⁹ *Economist*, *supra* note 119.

to an effective plan for remedying that inefficiency is an understanding of why that inefficient arrangement has persisted.

If property arrangements have reached a point of sufficient formalization such that certain aspects of the property regime have the characteristics of a public good, then the role for outsiders is largely limited to providing sufficient resources to the state in question to allow it to overcome this collective action problem. Expert advice may also be required to help those states with the challenging of designing and implementing a formal property regime. Resources and advice may also be required to help those states bolster other complementary institutions. In these circumstances, once the resources and expertise are provided, the new property arrangement should be quickly adopted, because, by hypothesis, the aggregate benefits to individuals of such private property rights will outweigh the costs.

Where the informal evolutionary regime of property arrangements has become inefficient, a much more active role is required by both the state and outsiders to create an efficient property regime. The first and most obvious challenge is determining that a particular set of norms is inefficient. Eric Posner lists five situations in which the state should take action because of inefficient norms:

1. If the group members tell the state or its agents that the norm is inefficient or change is desired.
2. If there is extensive bargaining around a norm.
3. Rapid economic or technological change.³⁰⁰
4. Highly unequal endowments of group members.
5. If the state detects inefficiencies before the group does.³⁰¹

Once an inefficient arrangement has been identified, the problem remains of crafting an appropriate and efficient solution as well as a strategy for implementing that solution. As above,

³⁰⁰ This is precisely the situation in which André & Platteau suggest the state should intervene. See André & Platteau, *supra* note 82.

³⁰¹ Posner, "Inefficient Norms", *supra* note 280.

this may involve significant amounts of financial support and expertise. However, in contrast to the first scenario discussed above, policy-makers face the additional hurdle of ensuring that the inefficient norms which the new formal system seeks to eliminate do not instead render that system ineffective. Thus, any new system must be sensitive to existing social norms regarding property. As discussed above, not only must the new system be obviously superior to existing norms, but moreover a) the new system must be perceived to be accessible at low cost relative to its benefits, and b) mechanisms which entail marked changes from entrenched social norms should be introduced gradually or on a voluntary basis.³⁰²

While the successful implementation of new property arrangements by either the state or outsiders may be difficult where inefficient norms are relatively stable and effective for at least certain groups, the case for active intervention is much stronger where land governance norms are breaking down. Extremely rapid changes in land scarcity have in some cases also led to increased land conflict, as inefficient norms have broken down without new norms emerging to replace them. In these circumstances, litigation or more violent means have consumed significant resources in resolving disputes,³⁰³ and there may be a significant role for the government or external actors in identifying such problems and crafting appropriate solutions.

While the above discussion optimistically suggests that the first two impediments can largely be overcome through the provision of resources and expertise, where an inefficient

³⁰² See text accompanying notes 232-234 and 249-253. See also Michael Trebilcock, "Comment on 'The Rule of State Law and the Rule-of-Law State: Economic Analysis of the Legal Foundations of Development,' by Robert D. Cooter" in Michael Bruno & Boris Pleskovic, eds. *Annual World Bank Conference on Development Economics 1996* (Washington, D.C.: The World Bank, 1997) 229.

Thrainn Eggertsson, "Open Access versus Common Property" in Terry Anderson & Fred McChesney, eds. *Property Rights: Cooperation, Conflict, and Law* (Princeton: Princeton University Press, 2003) 73 at 77.

³⁰³ On Kenya, see Barrows & Roth, *supra* note 81 ; on Rwanda, see André & Platteau, *supra* note 82; see also Karim Hussein, James Sumberg, & David Seddon, "Increasing Violent Conflict Between Herders and Farmers: Claims and Evidence" (1999) 17 *Development Policy Review* 397; see also Fitzpatrick *supra* note 202; Deininger, *supra* note 5 at 35.

arrangement exists because of political economy considerations, no such simple solution exists. Where an existing inefficient property arrangement benefits certain actors, those actors will resist attempts to change that regime. If the state is exceptionally weak or is captured by those interests benefiting from the inefficient regime, then the provision of resources or expertise is likely to have no impact, as the state will be unwilling or unable to use those resources to implement the new property regime. In such circumstances, a successful property regime change would require either a) strengthening those groups in favour of the reform, or b) convincing elites to accept changes either through rewards or sanctions. Although this is not the appropriate context to elaborate or propose theories of the political economy of property rights reform, the point remains that under these circumstances, the introduction of formal property rights would be significantly more difficult and could not be accomplished by even the best-designed World Bank titling program.

D – Concluding Remarks on the Process of Reform of Property Rights Regimes

While the discussion of the first two questions raised in this paper adopted a static approach to the examination of property regimes, this section has adopted a dynamic approach and examined potential paths of the development of property regimes over time. As in the above sections, this section suggests that the issue of whether outsiders should support the creation of a formal property rights regime is far from clear. The lack of a strong formal property regime in a given state may represent a lack of resources or some other evolutionary failure which calls for the assistance of outsiders. However, the absence of a formal property regime may also simply reflect the fact that such a regime would be inefficient in the circumstances. An analysis of

whether or not a titling program would benefit a given state thus necessarily involves understanding why a formal property system does not as yet exist in that state.

Moreover, as highlighted extensively in the preceding section on the pre-conditions of a formal property rights regime, this section has further demonstrated that the success of a formal property rights regime is highly dependent on the context. The same impediments blocking the efficient evolution of the property regime can also operate to render ineffective those very programs which attempt to overcome those hurdles. It cannot simply be presumed that the external provision of funding or expertise to create the framework of a formal property regime will be sufficient to ensure its successful adoption. Indeed, the same costs, inefficient social norms, or political interests which precluded the endogenous development of a formal property rights regime may similarly hinder the successful operation of that regime even after the institutional framework of that regime has been created.

V – CONCLUSION

The above discussion has highlighted many of the issues surrounding property rights and development. Because of the complex interactions between a property rights regime and the social, economic, political, and legal framework within which such a regime operates, it is not fruitful simply to argue in favour of or against the formalization of a property rights regime. Rather, the relationship between property rights and development is much more complex, and a much more nuanced approach to these issues is required. As North writes, “the first requirement for improving economic performance is to have a clear understanding of the sources of poor

economic performance.”³⁰⁴ This statement certainly applies to the relationship between property rights and economic performance.

The context-dependence of successful property regimes leads to three important considerations. First, property formalization programs must not be considered as isolated economic development projects as one might consider certain physical infrastructure projects, but rather they must be considered as part of a general framework for economic development, typically including a wider set of reforms aimed at the promotion of the rule of law.³⁰⁵ Contrary to the optimistic rhetoric of De Soto’s work, property formalization programs are not by themselves the key to unlocking the potential of the developing world.³⁰⁶ While a formal property regime may be a necessary condition for economic growth beyond a certain level of development, it is by no means sufficient.

Second, in determining what role outsiders can play in helping promote a state’s formal property regime, it is essential to ask a broader question about the similarities between optimal property regimes. If the optimality of a property rights regime is context-independent, then a titling program developed by theorists in Washington or from elsewhere in the developed world may indeed be applicable and beneficial to extremely diverse countries. However, because the characteristics of a property regime are highly dependent on local context, it is unrealistic to expect that one model of a successful regime would be applicable across various states. Indeed, one would expect that the characteristics of property regimes as well as strategies for their

³⁰⁴ North, *Process of Economic Change*, *supra* note 287 at 163.

³⁰⁵ Dam, *supra* note 1.

³⁰⁶ De Soto, *Mystery of Capital*, *supra* note 7.

implementation will differ substantially across states. This suggests that local or regional models of property regimes may be more successful in practice than Western models.³⁰⁷

Finally, significant changes to property regimes should be approached with caution and drastic, uniform top-down property changes should be avoided.³⁰⁸ Contrary to conventional economic thinking, the formalization of property rights is not necessarily desirable at all stages of development or for all property owners. Formalization programs can have far-reaching social and economic consequences, and under certain conditions, formalization programs can have negligible or deleterious impacts. The context-specificity of property rights regimes is not, however, a reason for inaction or a reason to counsel against the formalization of property rights in all cases. As noted above, formal property rights have under some circumstances increased efficiency and led to economic growth, and it would thus be poor policy never to support the formalization of property rights.

Because of these considerations, unless there is clear and compelling evidence pointing to the need for a systematic state-led formalization program, the optimal response may be a voluntary and sporadic system of title registration. Although a sporadic program of title registration is not without its own costs³⁰⁹, it also brings substantial benefits relative to a systematic formalization program. As one of us has argued elsewhere, in the face of limited resources and state capacity, a sporadic system of land registration has the benefit of providing

³⁰⁷ For recent work on this notion, see Sharun Mukand & Dani Rodrik, "In Search of the Holy Grail: Policy Convergence, Experimentation, and Economic Performance" (2005) 95 *American Economic Review* 374.

³⁰⁸ For a classic paper exploring the importance of avoiding drastic imposed changes, see Charles Lindblom, "The Science of 'Muddling Through'" (1959) 19 *Public Administration Review* 79; see also *James C. Scott, Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 1998).

³⁰⁹ Trebilcock, *supra* note 103 at 412.

the additional security and clarity of formal property rights to those desiring it most.³¹⁰ By simply providing an additional vehicle for owning property, a sporadic registration program does not require disturbing the arrangements of those groups who are content with the status quo. On the other hand, where customary arrangements limit individuals' economic opportunities, the option of formalization is present. These characteristics suggest that such a system can operate as the backbone of an efficient Demsetzian evolution of property regimes. Moreover, a voluntary system overcomes the collective action problem of providing the machinery for the enforcement of those property rights by having the state provide it and allowing people to opt into it.

Perhaps the strongest benefit, however, of a sporadic and voluntary formalization system is that it avoids the myriad unforeseeable and potentially negative consequences which can result from the top-down imposition of a uniform system of property arrangements. As this paper has stressed repeatedly, a property rights regime is not an isolated institution, but rather an institution which has strong interrelationships within a variety of other institutions. In such circumstances and where policy-makers have imperfect or limited information, it may be impossible to predict all the potential consequences flowing from drastic institutional changes, and unpredictable negative consequences may emerge from imposed changes.³¹¹ A gradual and reversible process of voluntary change at the individual level can mitigate such potentially harmful consequences.

Even in situations where a systematic program is clearly superior to a voluntary program, drastic and irreversible changes should be avoided. Rather, changes should be incremental in nature. For example, where communal property is prevalent, rather than registering individual titles to specified plots of land to the exclusion of all others, a rudimentary titling program could

³¹⁰ Trebilcock, *supra* note 103 at 412-413.

³¹¹ For interesting examples relating to this point, see James Scott, *supra* note 308; see also Rachel Kranton & Anand Swamy, "The Hazards of Piecemeal Reform: British Civil Courts and the Credit Market in Colonial India" (1999) 58 *Journal of Development Economics* 1.

be undertaken utilizing simple compass and chain rather than full-scale cadastral surveys where only the base group title would be registered without prejudice to the various functional rights that others might possess in customary law. Land-owning groups might also be given a more formal legal structure and clearer decision or governance rules (akin to private corporations with restrictions on share transferability), while maintaining limits on outright alienability of group land.³¹² Such programs lessen the potential for serious social conflict or disruption from abrupt legal change and facilitate an evolutionary process for the emergence of strong private property rights.

³¹² For an overview of these issues, see Fitzpatrick, 2005, *supra* note 220; see also Trebilcock, *supra* note 98.