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# The Enforcement of Property Rights: Comparative Analysis of Institutions Reducing Transaction Costs in Real Estate\*\*

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## I. Abstract

Defining multiple rights on land promotes specialization. Since land is immobile and durable, rights *in rem*, which ‘run with the land’, are easier to enforce than personal rights. Superior enforceability entails a cost, however. The more real rights there are on a property, the greater the information asymmetry suffered by land purchasers and lenders under purely private contracting. Developed legal systems reduce this asymmetry by making deeds or rights public and motivating the purge of contradictory rights. Building on this trade-off between enforcement and information, the article devises an analytical framework for comparing recording with registration of land transactions. To produce fully real effects, both systems require that private contracts (governed by parties’ free will) have the consent of the holders of any affected real right (in a process governed by independent officials). The performance of both systems is shown to depend substantially on the coherent design of each system.

Keywords: Transaction costs, property rights, real estate, land titles, recording, registration.

JEL: K11, K12, L85.

## II. Introduction

Property rights on land are critical for economic development. Land is not only an important resource in itself, but it provides the best collateral, reducing the transaction costs of credit. International aid organizations have been promoting land administration projects in most developing and former Socialist countries. The situation is disappointing, however. After much effort, only a few countries in the world are believed to have effective systems of land administration (Soto, 2000). There is also considerable disagreement on the design and effects of such projects.<sup>1</sup> Even in developed countries land conveyance systems are subject to considerable criticism. Professional structures seem ill adapted to prevailing market conditions. Even existing institutions that are effective at providing security are questioned, probably because they are costly and their very effectiveness makes them seem superfluous.

Governments creating or reforming the institutional framework for real estate transactions seem confused: the ends are clear but the means are not. There is a substantial gap between the demands of practitioners and the solutions offered by the academic literature. Theories developed in the disciplines of law and economics and property rights provide useful concepts and analyses.<sup>2</sup> However, they are too partial to provide much help to experts in the field who aim to define 'best practice' standards by induction.

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<sup>1</sup> These experiences have received extensive coverage in the literature. Some of them were discussed by Braverman, Brooks and Csaki (1993) and, more recently, World Bank (2001).

<sup>2</sup> These include, among many others, works on the role of possession and adjudication rules (Epstein (1979), Baird and Jackson (1984), Miceli and Sirmans (1995), Miceli, Sirmans and Turnbull (1998, 2000)); and studies on the effects of property rights on land in development [Anderson and Lueck (1992), Alston, Libecap and Schneider (1996), Jaffe and Louziotis

Further connections with law and management seem necessary to fill the gap. This article aims to contribute something in this direction by providing an understanding of the legal processes and their supporting organizational structures. It develops a simple analytical framework to examine how modern legal systems organize land transactions. Empirical evidence comes mainly from a cross-section comparison of five jurisdictions in both the Common and Civil Law traditions. This provides variety, as there is no correspondence between these traditions and the administrative solutions adopted. Both the system of deed recording (used in France and the USA) and registration of rights (England, Germany, Spain) are employed in countries under both traditions. Historical evidence on primitive, Roman and medieval legal institutions is also used but it mostly illustrates problems that are absent in modern systems.

The remaining contents of the article are structured as follows.

Section II formulates a theoretical framework to analyze transaction costs in real estate. It is based on the essential legal distinction between ‘real’ versus personal rights. Real rights are those which ‘run with the land’. They have an ambiguous effect. On the one hand, they facilitate specialization by ensuring enforcement, given that right holders’ consent is required to affect real rights. But, for the same reason, their survival after conveyance of the land increases information asymmetries between the conveying parties, thus endangering trade and specialization.

Section III applies this framework in order to present and analyze the main institutional solutions. Under private conveyance, rights and encumbrances remain hidden to potential purchasers, and this increases transaction costs. For this reason, all modern legal systems

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(1996), Atwood (1990), Place and Hazell (1993), Place and Migot-Adholla (1998), and Larson, Palaskas and Tyler (1999)].

require publicity to enforce real rights, compelling parties to make either deeds or rights public. Courts in jurisdictions with deed recording establish real rights according to the date when deeds are recorded. Information on the quality of title can therefore be reliably produced before a conveyance takes place, reducing information asymmetries and motivating private removal of title defects.<sup>3</sup> Under registration of rights, priority is also decided according to the date of filing. Furthermore, all deeds are reviewed by a public official and accepted for registration only if no other rights are damaged. This removal of all defects allows the legal system to consider registered rights as conclusive. Purchasers are fully protected when they rely on the register.

Section IV identifies the organizational patterns that are common to recording of deeds and registration of rights. Both of them safeguard private conveyance contracts on the basis of freedom to choose providers of assurance and other contracting services. Competition among providers offering reputational guarantees is sufficient to assure quality. It also makes possible different degrees of vertical integration that are currently transforming and introducing elements of convergence in the way this industry is structured in different countries. The need to protect the interests of third parties, however, makes it necessary in both systems for any decisions (on filing dates, definition of affected parties and allocation of real rights) that are relevant for establishing real rights to be made by agents who are independent from the parties to the conveyance. Consistently, parties cannot choose recorders, courts or registrars.

Section V compares these two systems, examining their strong and weak points. This comparison stresses which factors can in fact substantially modify their comparative

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<sup>3</sup> The word 'title' often refers to both a legal right, as here, and to the evidence of it. Established practice makes it impossible to avoid this ambiguity, which, on the most part, is

advantage in practice. Recording and private assurance should enjoy the advantages of selective demand and privately organized supply. However, both of these are doubtful. First, selectivity of demand does not greatly reduce costs, as most of them are fixed. Second, supply suffers from natural monopoly conditions and regulation. When compared to the public franchise solutions used in registration, it is unclear where the advantage lies. Registration, on the other hand, is generally thought to provide greater security. However, this benefit is hindered by the incomplete coverage of registration, often caused by the consideration of unregistered 'overriding' interests as real rights.

Finally, section VI discusses some of the assumptions and speculates on some potential applications of the analysis.

### III. Analytical framework

#### A. Specialization requires multiple rights and transactions

The fact that land is valuable makes it sensible to define a variety of property rights and encumbrances on most parcels of land (sometimes referred to as ‘multiple seisin’). These rights define different possibilities of possession and use according to many physical and legal dimensions. Physical dimensions are mainly related to space and time. Legal dimensions include the rights to sell, purchase, foreclose and exclude others. Right holders on any parcel of land may be specific individuals—for instance, a mortgage lender or the owner of an adjacent plot. Other right holders are more diffuse, however. This is the case with government rights, which include police power (planning, zoning, rent control, etc.), eminent domain, taxation and escheat.

Defining multiple rights on a specific parcel of land enhances the possibilities of specialization in many directions.<sup>4</sup> These relate to the efficient use of that parcel of land, both in a productive and a contractual sense, and the production of public goods.

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<sup>4</sup> Even primitive societies develop sophisticated systems of multiple rights, trying to exploit specialization advantages in accordance with their technology. This is the case, for instance, in the separation of rights to the use of land and the fruit trees growing on it, common in Fiji and part of New Guinea, or rights to extract roots and hunt rats (Lowie, 1920, pp. 226-229). The same author shows the use of land as collateral for debt or deferred payments of land purchases. For example, the Ifugao people of the North of Luzon (Philippines) set up sophisticated *fiducia* and used remunerated intermediaries (pp. 230-31).

The obvious example is that of specialization between ownership and control by conveying the right to usufruct but retaining ownership (for instance, through a lease). A variant that is less important now than in the past is that of conditional estates which basically aimed to condition the specialization of resources according to the preferences of the grantor (*X* donates the land ... so long as it is used for a Church, or after *Y* marries). A newer creation are time-sharing arrangements that provide specialization in both time and space.

Ownership and other rights (some leases, for instance) can also be used to create ‘derivative’ rights. The main one of these is the mortgage, which reserves the land as collateral for some specific obligation. In this case, the specialization that is enhanced is that of lender and borrower. Many other derivative rights are also linked to other transactions, such as an option to buy, often granted to lessees by contract or to neighbors by regulations on the use of rural land.

Finally, the existence of economies of scale and the high transaction costs of alternative arrangements are behind the solutions adopted to make individual ownership compatible with efficient use of rural land and communal elements in condominiums. The rules governing deed restrictions and easements by necessity testify to this.<sup>5</sup> More generally, community property shared by spouses as well as government rights allow the coordination of specialization at higher levels.

Needless to say, in a changing world, continuous transactions are required to allocate land resources efficiently and attain the advantages of specialization. These transactions mainly involve the transfer of rights between people. But they also comprise the ‘decomposition’ and

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<sup>5</sup> Ellickson (1993) provides a detailed analysis of these and other problems in the definition of property rights on land.

aggregation of rights and the investments that cause physical transformations in land resources, giving rise to new assets and frequently modifying existing rights.

The existence of multiple rights obviously increases the chances that transactions might generate negative externalities between right holders. The control of these externalities differs substantially depending on which rights are treated by the legal system as real or as personal rights.

## **B. The enforcement benefits of real rights**

Rights in land can be defined and easily enforced as real rights, *iura in rem*, claimable against the land itself and therefore valid *erga omnes*, against all persons. Real rights are said to ‘run with the land’, meaning that they survive unaltered through all kinds of transactions dealing with other rights on the same parcel of land or on a neighboring parcel. For example, the mortgagee keeps a claim on the land even if the mortgagor sells it. Real rights oblige all people: the new owner who has purchased the land is obliged to respect both the mortgage and, in particular, the right to foreclose in case the guaranteed debt is not paid. Enforcement is independent of who holds the real right and who holds other rights on the same asset.

Alternatively, rights in land can be personal rights, enforceable against a specific person, *inter partes*. To clarify the difference, consider what happens in the case of a lease of land, a right that in some jurisdictions may be defined as either personal or real. Assume that the land is sold during the life of the lease. If the lease is a personal right, the lessee loses possession, following the old principle according to which ‘sale breaks hire’, and gains instead a personal right against the lessor. However, if the lease is a real right, the lessee keeps possession. It is then the land purchaser who may have a personal right against the seller, if the sale was made free of leases. The buyer is subrogated into the seller’s position. There is no change to the

lease, which has run with the land from the seller to the buyer, surviving intact after the sale transaction.

Land is unmovable and, of all assets, is the most durable. It cannot be lifted away and is barely subject to abuse. Defining property rights in land as real rights therefore substantially facilitates enforcement.<sup>6</sup> In particular, in the context of multiple rights, right holders are protected against any change in the personal status of other right holders. Personal obligations, on the other hand, are more difficult to enforce. Human beings are not durable and their reliability is subject to all kinds of moral hazards. In the absence of effective institutional tools to make possible the use of land as collateral, institutional solutions that make personal obligations more easily enforceable are applied. These are not fully effective, however, as we will see below.

Enforcement is important to all right holders. It ensures that investors in land (usually right holders in possession) will collect the return on their investments. Furthermore, it affords protection to any right holders who are not in possession. For instance, mortgage lenders may collect the unpaid debt from the land if the mortgagor fails to pay and sells the land, and owners keep their right even if absent.

Legal systems enforce real rights by simply requiring that right holders give their explicit or implicit consent to any transaction that may affect (i.e. damage) them. In a way, a second contract takes place between the parties and all affected right holders. Consent can be given explicitly, by private agreement, declaring to the register or in court proceedings, as well as implicitly, by applying a statute of limitations, for instance.

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<sup>6</sup> This ties in with the observation that real rights are also defined on relatively durable chattels, such as cars, planes and ships.

Consent is intrinsic to the enforcement of a right as real. Transactions among parties do not convey real rights with the promised extent until all affected right holders have consented. Before this consent, the corresponding transaction only produces personal effects. In an extreme case, without the consent of the true owner, a grantee gets only a personal obligation against a grantor who is not the true owner. More generally, any intended real right is in fact partially personal if an affected right holder keeps a contradictory or concurrent right against it. Let us assume, for example, that *X* conveys to *Y* a lot to build a house but later *Y* realizes the construction would block a right of way enjoyed by a dominant lot owned by *Z*. If the legal system enforces the right of way as a real right, *Y* has a personal right against *X* if the lot was sold free of such an easement. *Y*'s lot will be burdened with the easement until *Z* consents to release or abandon it. As we will see below, this means that most rights in systems of private conveyance and recording are not fully real, except in cases in which there has been a judicial purging or quiet title suit.

### **C. The information costs of real rights**

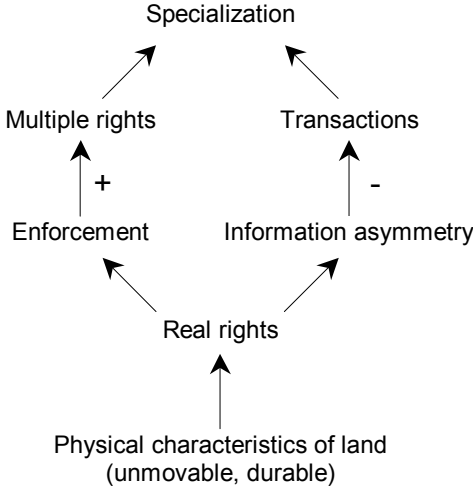
Irrespective of all their enforcement benefits, real rights increase the information asymmetry suffered by potential acquirers of residual rights.<sup>7</sup> This may in turn hamper real estate transactions. Information asymmetry increases mainly because the grantor normally knows more than prospective buyers and mortgage lenders about which real rights the grantor can legally convey and which are the encumbrances on the land. The asymmetry is greater with respect to abstract rights and encumbrances, such as ownership and liens, because these

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<sup>7</sup> These information asymmetries relate to the legal quality of the exchange. They complicate the standard problem of assuring physical quality, avoiding hidden defects, which is perhaps a lesser problem in the case of land than in other durable goods, given that land is less subject to moral hazard.

do not produce external manifestations offering information on their existence to potential grantees. The abstract, unphysical nature of ownership and liens complicates identification of the true owner and finding out about existing liens. However, in principle, as with real rights, true ownership survives a conveyance by an illegal grantor. Similarly, liens outlive all conveyances.

**Figure 1. The basic tradeoff of real rights**



In summary, multiple real rights on land pose a trade-off (Figure 1): their enforcement as *real* rights causes information asymmetry that may endanger trade in land. If the gains from this trade are sufficiently high, institutions will tend to develop to overcome such difficulties.

## IV. Alternative institutional solutions

Modern land laws have solved this problem by constraining contractual freedom in a way that departs substantially from the standard applied in other fields of law. They motivate the publicity of contracts in land for them to attain real effects, and this reduces information asymmetry. They also limit the variety of real rights, avoiding real externalities and making consent easier to achieve.

To be potentially enforced as real rights, new rights have to be made public. If kept private, they lose or risk losing real effects. They may create obligations among the parties but do not bind third parties (in practice, mainly future potential buyers or lenders). Publicity of past transactions thus allows potential grantees to know about the quality of the rights that are being granted. In some solutions, publicity of pending transactions also provides the means for potential claimants to know about them and to block or consent to them. Publicity may also have negative effects, however, such as making government opportunism easier.<sup>8</sup> The article will postpone the analysis of this potentially negative effect of publicity to the last sections.

Specific land laws vary substantially, however, with respect to how and when any contradiction with other real rights must be purged by obtaining the consent of the holders of these affected rights. This ‘second’ contract can take place either immediately after the private

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<sup>8</sup> For many centuries, this was a critical impediment for the development of publicity in some European countries, as citizens did not want to facilitate taxation. This may account for the longer survival of privacy and slower introduction of registration in the United Kingdom

contract, ex ante, or later, ex post. It can be either compulsory or voluntary. Jurisdictions also differ in the kind of publicity they provide, which may consist of the deeds evidencing the rights or the real rights themselves. There is also a logical adaptation of the specific devices used to produce this publicity in each environment.

The article focuses on the two ways of providing publicity and organizing consent for real estate transactions: recording and registration. A brief analysis of the solutions adopted when legal systems enforce real land rights that have remained hidden provides the best starting point and serves as reference. It will study marginally a solution that complements publicity, by which the law directly constrains the freedom of right holders to decompose real rights. This is frequently referred to as the *numerus clausus* principle in the realm of Civil Law, where it has been applied more strictly and explicitly than in Common Law.<sup>9</sup>

## **A. Private contracting**

Under private contracting, private conveyances reach real effects on third parties even if the parties keep them secret. Certain formalities are only required to avoid fraud and facilitate the potential future work of the courts.<sup>10</sup> In cases of conflict, courts ‘establish title’ (i.e. allocate real rights) on the basis of evidence of possession and the legality of past transactions (the ‘chain of title’), whether or not they have remained hidden (Figure 2). This potential enforcement of adverse hidden rights causes an acute information asymmetry that endangers trade, specialization and the very existence of abstract rights on land such as ownership and

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compared to the rest of Europe, in the background of the different political equilibriums described by Pipes (1999, chapter 3).

<sup>9</sup> On the rationale for this principle and its importance, even in Common Law jurisdictions, see Heller (1999), Hansmann and Kraakman (2000) and Merrill and Smith (2000).

mortgage. More precisely, the level of specialization attainable using the privileged enforcement power of real rights is very limited because all transactions in land give rise totally or partially to personal rights. This can be clearly observed in the functioning of the two sources of evidence used to establish title—possession and the chain of title.

Firstly, the use of possession as the basis for establishing real rights intrinsically limits specialization, because it is not applicable to abstract rights like ownership and mortgages.<sup>11</sup> To the extent that possession is used to establish ownership, specialization of ownership and control is hindered—control requires possession, and this subjects owners to the risk of possessors using their position to acquire ownership or convey owners' rights. In such cases, owners will only hold a personal right against the possessor committing the fraud. Similarly, credit will involve personal guarantees provided either by the debtor or by the lender. This is because the only way of providing a real guarantee to the lender is by transferring ownership (the Roman *fiducia*) or possession (*pignus*) to the lender, thus leaving the debtor subject to the lender's moral hazard, safeguarded only by the lender's personal guarantee. Moreover, it is not possible to use the same land to secure debts with several lenders. For these reasons, possession is used only to produce complementary evidence, except in primitive legal systems.

Secondly, some of the problems posed by possession are solved by embodying abstract rights such as ownership and liens in titles. Evidencing rights with the chain of title certainly facilitates the separation of ownership and control. However, this benefit comes at the cost of creating new possibilities for fraudulent conveyance, which again gives rise to personal rights

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<sup>10</sup> Although these compulsory forms may provide some publicity, their effectiveness is very limited when contracting among strangers.

<sup>11</sup> For a detailed analysis of the role played by possession in the transfer of property rights in different kinds of assets, see Baird and Jackson (1984).

against the fraudulent grantor and the professionals involved in the transaction.<sup>12</sup> The chain of title also serves to enforce a real guarantee, by depositing it with the lender. However, this burdens the debtor with the lender's moral risks, similar to those of the Roman *pignus*. In addition, second mortgages continue to be unfeasible. Transactions of unregistered land in England suffered these difficulties until quite recently.<sup>13</sup>

Understandably, parties try to contract relying on the same evidence used by the courts to establish title. However, the enforceability of hidden rights under private contracting makes it very difficult for the parties to have all the relevant information. Consequently, acquirers of land will inevitably end up holding personal rights. In particular, removal of title defects and contradictions is motivated only by the limited publicity provided by possession and formal conveyance and the risk the grantor faces when giving title warranties on a defective title. These warranties create only personal obligations, however, and grantees have limited possibilities of knowing what they are buying. They in fact acquire residual real rights plus a personal right against the grantor for the difference between the real right effectively granted

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<sup>12</sup> The pervasiveness of compulsory proof attests to the importance of making fraudulent conveyance (e.g., predating a sale or a mortgage to distract some assets) more difficult. Primitive societies even treated deeds as sacred. The precedent of today's deeds are sacred stones, like the *kudurrus* used in Mesopotamia around 2500 BC that were kept in temples. Similar solutions were adopted later in Sumer and Egypt around 2350 (Ellickson, 1993, p. 1329), with Egyptians already transferring land by conveying the full chain of title (Powelson, 1988, p. 19). The use of titles might have been even older. Surviving practice among the Ewe people shows that titles do not need to be written, not even for using the chain of title as evidence of good title. Cowrie shells were used, dividing them between seller and buyer. Also, litigants had to be able to recite the whole chain of title and boundary lines (Lowie, 1920, pp. 223-224). Later legal systems also impose formal proof requirements, including the use of witnesses, surely the simplest solution, often qualified in terms of number, age, expertise and authority. Ritual ceremonies, often marking the delivery of possession (e.g., the 'livery of seisin'), also facilitate memory of transactions. Documents improve on human memory, with the added benefits of making symbolic delivery (the Roman *traditio longa manu*) possible. Notaries in the Roman tradition improved on witnesses, as enhanced assurance allowed their documents to be considered authentic by the court.

and what the grantor had promised to deliver. This is applicable to all kinds of rights. Having been acquired subject to these uncertainties, all rights have a residual character and are complemented by personal rights—their value depends on the wealth of the grantors and the enforcement of personal rights, and they lose real efficacy.

Parties and legal systems counterbalance the failure of real rights by strengthening personal rights. Enforcement of personal obligations is privately reinforced by having the title warranties underwritten by a third party. In primitive societies, this is done implicitly, by making extended families responsible for their members' debts. There are also some explicit arrangements of this kind. Witnesses are often personally liable on a subsidiary basis. Similarly, contracting third party eviction guarantees, a precedent of title insurance, used to be common in England. Public enforcement of personal obligations is also strengthened. Western societies have relied, until recently, on debtors' prison and personal indenture. In some parts of the world, children continue to be used as bonds, and slavery is still a common consequence of unpaid debts.<sup>14</sup> This contrasts with the tendency of more developed legal systems to soften the enforcement of personal obligations in the case of personal bankruptcy, perhaps to motivate risk-taking initiatives by providing some limited liability at the personal level.

It is revealing of the failures of private conveyance that all developed countries currently use land registers as the core element of their land laws. There are two basic types of register that differ substantially in their products and processes. For the most part, the analysis will focus on the basic traits of these two types. Existing registers depart to some extent from these

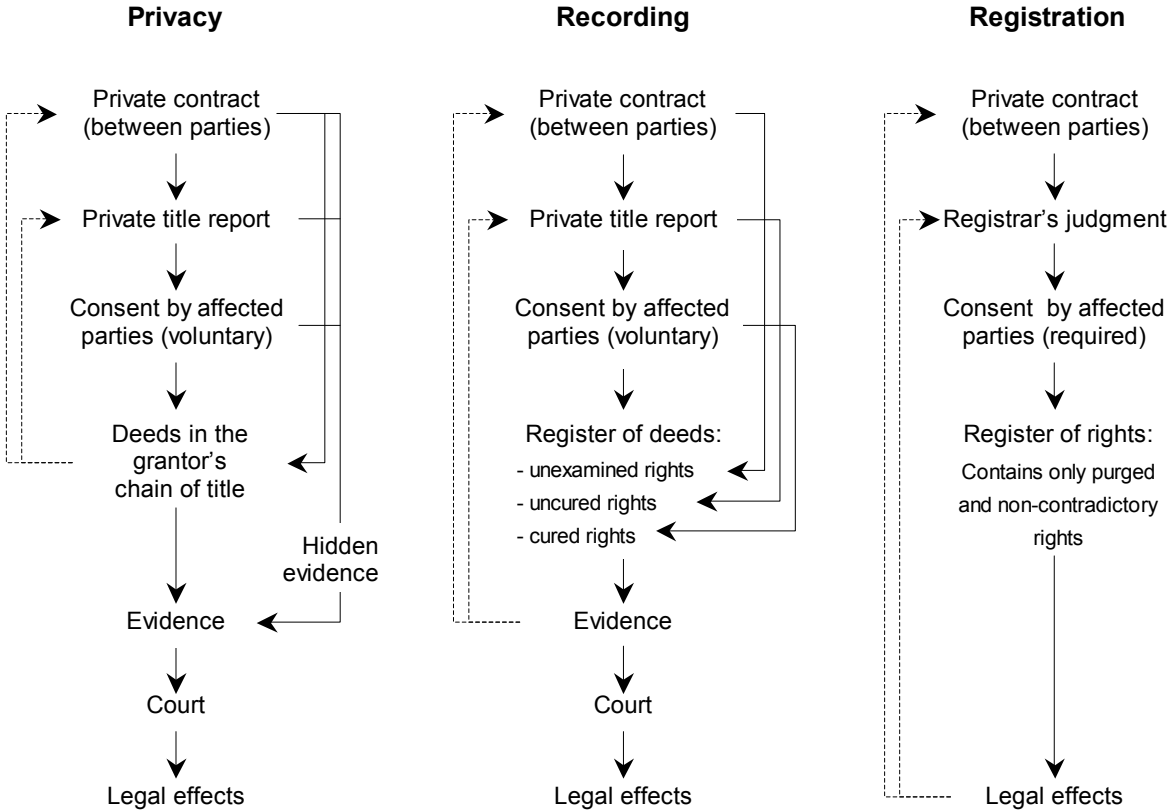
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<sup>13</sup> For brief descriptions of these transactions, see, for example, Bostick (1987, pp. 75-76) and Sparkes (1999, pp. 76-77, 477).

two model types of register. Attention will be paid to national attributes, however, only to the extent that these attributes show important organizational features.

**Figure 2. Comparison of private contracting, recording of deeds and registration of rights**

Explanatory note: broken lines represent information flows; continuous lines, alternative parties' decisions with respect to demanding a report on title, purging contradictory rights and keeping evidence out of the chain of title. Under the three systems, parties to the private contract enjoy different degrees of discretion as to these decisions.



<sup>14</sup> For example, Hoebel (1979, pp. 107, 231) provides examples in primitive societies. “Slave-ships in the 21st Century?” (*The Economist*, April 19th 2001) reports on current practices in West Africa.

## B. Recording of deeds

Registers of deeds record private contracts ('title deeds') and thus keep and provide evidence on potential real rights. This evidence is used by the courts to allocate real rights ex post—after litigation. It is also publicly available for the parties in order to produce information and, where appropriate, to purge rights ex ante—at the time of private contracting. They have been used since the end of the 18th century in the USA, part of Canada, France and a few other countries with strong links with the USA or France.

Under this system, contracts have effects on parties from the moment they are completed. However, courts apply a non-standard priority rule. When deciding on a conflict with third parties, they determine the priority of claims from the date of recording in the public register and not from the date of the contract.<sup>15</sup>

This priority rule effectively motivates parties to record from fear of losing title through, for example, a second sale. If such a second sale were recorded first, it would gain priority over the first one. Consequently, all relevant evidence on real rights is publicly available by

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<sup>15</sup> History shows that this change in the priority rule is necessary to avoid the problem of incomplete recording, which hampered the old recording systems. Over several centuries, many European governments repeatedly ordered all titles to be recorded, only to have the mandate disobeyed and the law implicitly or explicitly repealed or postponed. When they required recording only before the judicial proceedings eventually purging the rights, the real function of the register was one of completing the relevant evidence, a necessary step to purge the rights. This happened for instance with the Spanish *Contadurias de Hipotecas* between 1768 and 1861. See, for Spain, Oliver (1892). Similar problems were faced by the Scottish Register of Sasines between 1503 and 1693 (Kolbert and Mackay, 1977, pp. 280-284) and the French *conservation des hypothèques* between 1798 and 1855 (Weill, 1979, pp. 547-552). In any case, the incompleteness of these registers made them almost useless for the purpose of producing ex ante information on the quality of real rights and purging title defects ex ante.

inspecting both the public records and the land itself.<sup>16</sup> From the point of view of third parties, the register is complete. Some other rights may not be recorded and may well be binding for the parties conveying them, but these hidden rights have no effect on third parties.

It is therefore possible to produce information on the quality of title ('title reports') by having an expert examine the recorded deeds. If there is sufficient demand, a whole industry will develop to supply these services. This may take different forms: notaries public in France and lawyers, abstractors and title agents in the USA. To motivate diligence and technological innovation, and to spread remaining risks, a standard of strict liability ('title insurance') tends to be applied to this activity.<sup>17</sup> Title reports substantially reduce information asymmetry between the parties. Transaction prices might be modified accordingly and defects removed before contracting.

Contractual and judicial procedures are used to remove contradictions. Compared to private contracting, deed recording provides further incentives for the removal of title defects, because defects are better known to buyers and insurers. Moreover, most jurisdictions provide a procedure for summary judicial hearing that reduces bargaining costs in complicated cases. This continues to exist today in the judicial *purge* used in France and the US 'quiet title suit'. The existence of this court-ordered procedure also stimulates affected parties to reach an agreement privately.<sup>18</sup>

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<sup>16</sup> In most jurisdictions, it is also necessary to inspect the land to know about physical possession. This inspection then provides 'constructive notice' as to the existence of a claim or right. The priority rule also varies substantially and is usually subject to good faith or qualified by buyer's knowledge. See Baird and Jackson (1984). In this work, these complementary sources of evidence are sidelined to focus on the role of registers.

<sup>17</sup> Arruñada (2001b) analyzes the role of title insurance under both recording and registration.

<sup>18</sup> See Cabrillac and Mouly (1997, pp. 732-740).

When the removal of defects is voluntary, parties will be guided by private optimization. In this case, the register may contain evidence on potentially contradictory rights. The recording office is obliged by law to record all deeds respecting certain formal requirements, whatever their legality.<sup>19</sup> It will therefore contain potentially three kinds of deeds. First, those resulting from private transactions made without previous examination. Second, those granted after an examination but without having defects removed. Finally, those that define purged and non-contradictory real rights (Figure 2).

The expert examining the title of a specific parcel does not know a priori which kinds of deeds are recorded about that parcel. For each transaction in a parcel, it is therefore necessary to examine all deeds dealing with it in the past. The cost of examining the deeds can be reduced with proper organization of the register, however. This explains the decisions taken in 1955 to create the *fichier immobilier* in the French register and to introduce the principle of ‘consecutive tract’ (*règle de l’effet relatif*) that forbids recording a deed if the grantor’s title is not recorded. When public records are poorly organized, it may be useful to build parallel registers (US ‘title plants’) that replicate public records in a more complete, safe and accessible manner. Fundamental improvements are tract indexes to locate the relevant information fast and safely, and a daily take-off and abstracting of relevant data. Computerization of land records, which allows searching by tract, may substantially reduce this need in the future.

The rule of property applies for adjudication of personal and real rights. If the seller’s right is shown to be defective, the buyer loses the real right to the benefit of the true owner. All the

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<sup>19</sup> For example, articles 27202 of the California Government Code, 291 of the New York Real Property Law and 2146-2156 of the French Civil Code.

buyer would have would be some personal rights against the seller, the title examiner and the title insurer.

### **C. Registration of rights**

Registers of rights contain information not on claims but on the rights themselves. They thus require a previous, complete purge of real rights. Created within the German legal tradition, they were developed during the 19th century (Prussia, 1783; Austria, 1794; Spain, 1861; Australia, 1875; Germany, 1900) and are now used in most of the world, including the Australian ‘Torrens’ variety, which has been introduced in some other Common Law jurisdictions.

Registers of rights also apply the priority rule, as in deed recording. Private contracts gain priority when they are first lodged or ‘presented’ to the register. They are then subject to substantive review by the registrar, in order to detect any potential conflict which might cause contradictory rights. Possibilities here differ in their degree of automatism and flexibility. Where real rights are narrowly defined by law, with strict application of the *numerus clausus* principle, the law itself establishes who the affected parties are. They are automatically notified by the registrar. The parties then give or deny consent. This is how the German *Grundbuch* functions. When the law is less compulsory, real rights are also defined by contract. It is therefore necessary for the registrar to first identify who the affected third parties are. The registrar then requires the parties to the contract to bring the consents of these affected third parties. The Swiss *Registre Foncier* and the Spanish *Registro de la Propiedad* work this way. The German solution is simpler but more rigid. It also loses specialization advantages, while the Swiss-Spanish solution requires better incentives and qualification on the part of the registrar.

Rights are registered when the registrar considers they do not affect any other real right, or the holders of affected rights have given consent. Rights are retroactively registered as of the date on which the deeds were first presented. A register of rights can thus be fruitfully seen as a double register: It is both a temporary register of deeds (the 'lodgment' or 'presentation' book that dates titles) and a definitive register of rights.

Information on the register is simplified in parallel with the purge of rights. Rights defined in each new contract are registered together with all surviving rights on the same parcel of land. Extinguished rights are removed, however, which makes access to the register very simple. The use of tract indexes also allows the location of all rights in each parcel.

Given that any contradictions have been purged, the register is able to provide 'conclusive', 'indefeasible' title, meaning that a good faith buyer acquires a real right if the purchase is based on the information provided by the register. Even if the seller's right is shown to be defective, the buyer keeps the real right and the true owner gets a personal right against the seller. Adjudication is decided following a rule of liability instead of a rule of property.

Registration is not free from errors, however. When errors occur, the security provided to acquirers leads to reduced security for right holders. To correct the damage, errors give rise to personal rights against the register, which has to compensate deprived right holders for registration errors.

## **V. Common organizational principles**

Despite the differences between recording and registration, the two systems use the same structure of incentives. This explains why similar organizational patterns are used in each contractual step in the two systems. In particular, the private or ‘first’ contract is safeguarded by the parties’ free choice of providers. However, provider independence is required to protect the interests of third parties in the ‘second’ contract. Furthermore, in all cases, incentives in the form of residual claims are allocated to the agents that produce the critical information.

### **A. Safeguard**

Contracts between parties convey personal, but not real rights: they oblige parties to the contract but not third parties. These contracts involve substantial information asymmetries with respect to quality of title. Seemingly, there is a considerable variety of solutions across jurisdictions. All solutions share the same incentives, however. First, parties are free to choose contractual partners and assurance agents. Second, providers enjoy quasi-rents. Under recording, parties choose either lawyers, title agents and insurers (US) or notaries (France). Under registration, they choose between solicitors and conveyancers (England) or notaries (Germany, Spain). In all countries, to the extent that some of these information and contractual agents depend substantially on lenders, parties are in fact protected by their freedom to choose lender. All these suppliers are motivated by quasi-rents, created by means of barriers to entry (notaries), or reputation and brand name capital (insurers, banks, professionals after liberalization measures).

Identifiable trends in the evolution of this part of the industry are related to the availability of these safeguards. In particular, they make it possible to solve the conflict of interests between parties and suppliers of assurance services using very diverse degrees of vertical integration. This is reinforced by more structural changes in the nature of the parties and the transactions themselves. Old systems of private conveyance mandated or demanded the professional intervention of individual contracts, on behalf of either one party (British solicitors, US lawyers and conveyancers) or all parties (Civil Law notaries). Increasingly, however, some of the parties in standard transactions—banks, title insurers, real estate agents, large developers—have reached positions of impartiality, because they are large and reputed parties contracting standard transactions repeatedly. They can thus engineer and safeguard residential transactions by themselves.<sup>20</sup> Furthermore, transactions are also subject to a good deal of mandatory law, trivializing potentially legal work. Unsurprisingly, recent decades have seen liberalization, a decreasing role in conveyance for lawyers (‘unauthorized practice of law’ in the US, and the parallel debate in Europe about mandatory notarial intervention in standard transactions) and increased vertical integration of real estate development and mediation, title assurance and insurance services, and provision of credit.<sup>21</sup> Increasingly,

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<sup>20</sup> For analyses of this ‘asymmetric’ relational contracting in other industries, see Arruñada (2000) and Arruñada, Garicano and Vázquez (2001).

<sup>21</sup> In most of the USA, not only are attorneys not involved in home sales, but insurers have integrated as many functions as they are allowed to and banks are now moving into title insurance and self-insuring titles. In Britain, solicitors have lost the fact monopoly they used to enjoy on conveyance and those practicing are increasingly integrated with real estate agents. French notaries have been main players in real estate mediation for a long time. Spanish notaries are responding to added competition by increasing group practice and working more closely with banks. Portugal recently reduced the scope of compulsory notarial intervention and made it possible to create specialized private notary offices.

freedom to choose among professionals is being substituted by freedom to choose the fundamental service (mortgage loans for title agents and notaries).<sup>22</sup>

This process is changing even the nature of some functions. Perhaps the most revealing evolution is that of impartial intervention in conveyance. Each party to a conveyance contract in Common Law countries is supposed to hire partial assistance to represent his interests. Increasingly, however, US brokers, lenders and title and escrow companies represent more parties to the transactions. In this sense, they are becoming like European notaries. Interestingly, this is happening at the same time as European notaries are becoming increasingly dependent on lenders who now, for instance, write most mortgage contracts.

## **B. Independence**

Contracting personal rights is simple. As they oblige only the parties, parties can be left to care for themselves. Competition among suppliers will provide quality assurance even in situations of information asymmetry. Real rights, however, oblige everybody. It is therefore understandable that everybody wants to intervene when they are produced. Different solutions exist for this purpose, as we have seen.

In all of these solutions there is an agent who decides which rights will be enforced as real rights and which rights will be merely personal. Under recording, this agent is the judge, who eventually decides title matters on the basis of priority as established in the records office. Under registration, the registrar decides. The incentives for all these agents have the same objective: to make them independent with respect to all the parties. Their impartiality is

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<sup>22</sup> This indirect enforcement of reputational safeguards is similar to the indirect selection of financial auditors by buyers of securities, triggering similar discussions about professional independence and the scope of services (Arruñada, 1999).

needed not so much between the parties to the first, private, contract but mainly between them and any third parties, that is, those holding affected real rights.

Given that affected third parties are not present, that frequently they do not even know the situation and are often diffused, it is understandable that the parties to the private contract should not be allowed to choose the providers of recording or registration services. Freedom to choose is ineffective in protecting right holders that are not in a position to choose. Take, for instance, the possibility of a lender determining who will decide the priority of his mortgage among many other competing mortgage claims. All kinds of registers are therefore organized as territorial public monopolies when they produce evidence or directly decide on real rights. Registers of financial assets are no exception: they do not deal with 'real' multiple rights.<sup>23</sup> The issue is also shown by the inevitably private function of US title plants. Even the exception of the Chicago 1871 fire confirms the rule. True, private abstracts were used for public effects, after public records were destroyed. However, those private abstracts were produced before the fire, when parties could not have guessed of their future public use.

It is frequently asserted that registration of rights causes a radical change in how property rights are established and transferred.<sup>24</sup> The analysis shows that some changes do in fact exist. They are limited, however, to the timing and the completeness of the public intervention and do not affect the nature of the intervention. Registration mandates a full removal of title contradictions *ex ante*. The procedure is controlled by independent registrars but ultimate decisions are made by right holders in application of the consent principle. Recording follows a similar procedure with different timing and heavier reliance on private production of

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<sup>23</sup> More precisely, since there is only one real right (ownership), there are no affected parties. When there is a possible affected party (when using values as security), this party usually takes possession. Cfr. the discussion in LANDECON (1998-1999).

<sup>24</sup> See, for example, Shick and Plotkin (1978, p. 20), who focus on the Torrens version.

information. Rights, however, are also the product of private decisions in a process controlled by a court which is also independent from the parties.

### **C. Liability**

Finally, the third common organizational pattern is a standard incentive mechanism. The party who guides the allocation of resources tends to bear responsibility and is compensated for it. Title insurance is a clear example. Considering the low ratio of losses to revenue (7.9% in 1980-1994), this must be seen as a way of providing residual incentives to the party organizing most of the title assurance process. Title insurance started out as a complement to professionals' errors and omission insurance. Since then, residual incentives have been motivating insurers to integrate other functions in order to better screen and reduce risks.<sup>25</sup>

Similar reasoning seems to be applied in the liability structure of registers of rights. In particular, the choice of funding for compensating any errors is related to how it is established who the affected parties are, this decision being critical for protecting their real rights. When it is the law that defines the affected parties (Germany), the state budget pays. When registrars decide on who the affected parties are, they are subject to strict personal liability (Spain). A mixed solution has been adopted in many Torrens registers and a public insurance fund, financed by users' fees, pays eventual losses. The cases also show complementarity between liability and residual compensation. Both Spanish *Registradores* and French *Conservateurs* are still subject to personal liability and are paid with a residual. Puerto Rican *Registradores* ceased to be paid with a residual in 1914, after they could not pay their losses. Similarly, but

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<sup>25</sup> This has been explained more fully in Arruñada (2001b).

with opposite causality, Italian *Conservatori* ceased to be liable after their compensation changed from residual to fixed, in 1983.

## VI. Elements for an institutional comparison

Comparative evaluation of recording and registration systems is plagued with difficulties, not the least of which is that their products are different. Given that their costs and performance depend substantially on design and management, comparisons are, however, useful to improve our understanding of how the systems work and then provide better management and regulation. With this in mind, this section derives some performance elements from the previous analytical framework.<sup>26</sup>

Both recording and registration systems have strong and weak points. Recording should be cheaper but registration should provide better legal security. There might also be a trade-off over time, with registration likely to show higher start-up costs but lower operating costs.<sup>27</sup> Under recording of deeds, the removal of title defects is carried out later and more selectively. Recording is also more privately driven, with supposedly better incentives, whereas registration is designed to provide better legal security, which should lower transaction costs. It also has greater scope for effective legal gatekeeping.

In practice, however, some of these benefits are fictitious, as we will see in a moment. Even more importantly, both systems' strong and weak points depend on how they are managed and complemented. The systems can usefully be seen as different technologies. Comparisons are meaningless without considering specific contexts. When comparing bikes

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<sup>26</sup> Arruñada and Garoupa (2001) provide a more formal comparison.

<sup>27</sup> See, for instance, the opinions along these lines of Cribbet (1975, p. 318), Janczyk (1977), Baird and Jackson (1984, p. 305) and Bostick (1987). Other authors, considering only the US

to cars, assumptions about availability of drivers and road conditions are crucial. Similarly, the likely technological superiority of registration might well depend on availability of knowledgeable regulators and the fitness of land law and the courts.

#### **A. Is recording less costly?**

Recording is believed to enjoy an advantage in terms of lower costs. This stems essentially from the fact that title examination and purging are voluntary. This advantage is doubtful, however. Voluntary title assurance may incur fixed costs similar if not higher than those of public registration because of duplicated efforts and lost economies of scope.

Duplication plagues recording when a mature title assurance sector develops. First, title plants have to file information on all transactions and relevant facts, not only on those rights being transacted. As a consequence, there is hardly any advantage in being able to choose between ex ante or ex post purging. Second, title plants serve only companies' internal administrative functions, as they have no legal effect.<sup>28</sup> Third, a double duplication of costs takes place in the US system. Private title plants duplicate the information of the public registers. In addition, different title plants hold duplicate information, given that in many areas there is more than one title plant. This duplication was avoided by the French Register when it incorporated a tract index (*fichier immobilier*) in 1955. The benefits of having an optional purge are thus reached only for 'fly specks' (those minor defects not worth purging, which are then insured on a casualty basis either by the parties themselves or the third party

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experience with Torrens registration, conclude that registration is costlier and less effective (Shick and Plotkin, 1978).

<sup>28</sup> This lack of public function is necessarily the case as the incentives of the plant owner would be very poor otherwise. Imagine the potential conflict of interest if the title insurer

insurer). Under registration, the need to remove these minor defects may cause substantial costs because of bargaining costs.<sup>29</sup>

Potential economies of scope in information production and purging of rights and of register information are not reached under recording. Information on the quality of titles is under-utilized and has to be produced repeatedly. This is also due to the voluntary nature of purging, as in many cases title defects are not removed after being identified by the title report. Furthermore, even when defects are removed, the information on the public records is not simplified accordingly. The public register accumulates information on all kinds of rights, defective and clean, dead and alive.<sup>30</sup> This mix of rights increases the cost of future title searches. Potential savings will be incomplete and will depend on hiring the same insurer. Even if private title plants can simplify their information, they face two problems. First, this might be risky because they lack legal effects and the law may have changed since the previous examination (Johnson, 1966, p. 401). Second, if a new insurer is retained in a later transaction, it will frequently examine the full chain of title again. These problems are shown by the diversity of practices and proposals regarding reliance on prior examinations (McCormack, 1992, p. 126) and reissue discounts (Boackle, 1997). Third, they have to keep a substantial volume of cross references (Janczyk, 1979, p. 573).

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could manipulate the priorities of subsequent mortgages. This has been analyzed in Arruñada (2001a).

<sup>29</sup> This can be seen as an example of the ‘anticommons’ problem analyzed by Heller (1998) and Buchanan and Yoon (2000).

<sup>30</sup> This perverse effect may be reduced if the legal system or the interest in inducing demand drives notaries or lawyers to purge all titles before recording the deeds. This was perhaps the case in Ontario, where the conversion of deed recording (there called ‘Registry’ system) into a register of rights (‘Land Titles’) is claimed to have been made possible by the cumulative work of lawyers in examining and purging titles (Troister and Waters, 1996). To the same extent, however, the recording system loses the advantage of ‘insuring over’ instead of curing the fly specks mentioned in the previous paragraph.

Lastly, some degrees of freedom can be introduced under registration in order to adapt it to specific circumstances. There are several ways to provide for different degrees of protection under registration: voluntary registration, registration of possessory titles and gradual introduction of the register. The most basic is freedom to register instead of compulsory registration. This is achieved by enforcing real rights when the grantor is the true owner, even if these rights were not registered. (However, skipping registration is fully safe only when the previous owner cannot convey again, especially in conveyances *mortis causa*). The registration of possessory titles drastically contains start-up costs.<sup>31</sup> Gradual introduction, either for a limited geographic area (the case of England) or using part-time registrars (Spain), reduces fixed and start-up costs. Despite the evidence, this is not favored by practitioners involved with international agencies leading registration projects in less developed countries.<sup>32</sup>

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<sup>31</sup> Registration of possessory titles, which essentially applies the general property concept of using possession as ‘the root’ of title (Epstein, 1979), has been used in most jurisdictions. See, for example, for Spain, Costa (1888) and de la Rica (1945); for England, the Land Registration Act 1925; for Minnesota, the solution adopted in 1982 (Unknown Author, 1985); for Australia, Park, Ting and Williamson (1998); for Ireland, the Registration of Title Act (1964). Voluntary registration and registration of possessory rights have nothing in common with the simultaneous functioning of both a record of deeds and a register of rights in the same jurisdiction, as was the case in Cook County and many other USA jurisdictions, which may have caused adverse selection problems for the register of rights (Miceli, Munneke, Sirmans and Turnbull, 2000).

<sup>32</sup> The ‘complete coverage of the registry’ was defended in World Bank (2001) and rightly criticized by Munro-Faure, from FAO, in Land Policy (2001).

## B. Does recording involve more private incentives?

It is often pointed out that recording enjoys the advantage of private incentives in the supply of title assurance and insurance services.<sup>33</sup> However, this belief should be qualified on two counts.

First, as title plants enjoy decreasing unit costs, suppliers are natural monopolies. Understandably, their behavior has been repeatedly scrutinized and sanctioned by competition authorities.<sup>34</sup> More generally, the two main versions of the title assurance industry have been heavily regulated in both France and the US, with administered pricing, entry barriers, rules on products and processes, and repeated incidents of fraud and bankruptcy.<sup>35</sup>

Second, empirical evidence shows that registration of rights may function well with the stimulus of powerful, private incentives. The traditional solution is to make the civil servants residual claimants in the office they manage. The practice comes from the *Ancien Régime* but can be understood as an application of the modern principles of private franchise management.<sup>36</sup> It is finding its way in through the development of modish ‘internal

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<sup>33</sup> As a major textbook of land law asserts, “title registration puts title assurance in the hands of the government whereas the recording system puts title assurance in private hands using the public records” (Dukeminier and Krier, 1998, p. 721). This might allow recording to produce better information on title quality, supposedly overcoming its information difficulties, as “the private company with a profit motive will do a better job of identifying flaws up front as compared to the government which, presumably, is only interested in balancing the budget” (Miceli and Sirmans, 1995, p. 86).

<sup>34</sup> See FDC (1999) for references to two acquisitions which led to consolidation of title plants in several markets. Divestures were required, on the argument that, “[b]ecause of the county-specific way in which title information is generated and the local character of the real estate markets in which the title plant services are used, geographic markets for title plant services are highly localized”.

<sup>35</sup> See Suleiman (1987) for French notaries, and Lipshutz (1994) and Palomar (2000, chapters 15 and 18) for US title insurance.

<sup>36</sup> A government department manages the relation with a professional network of civil servants. The department regulates entry, processes and prices. Each civil servant then

markets'.<sup>37</sup> A similar possible approach is that of standard franchise bidding. This has been applied to the introduction of registration systems in developing countries.<sup>38</sup> This possibility shows that the conversion of private title plants into registers of rights, as defended by Janczyk (1977, pp. 226-227), would not be as strange as it might appear if they were allocated territorial monopolies.

### **C. Does registration add more value?**

Out of the USA, it is generally thought that registration is superior at least in efficacy if not in efficiency. Even those who recognize the higher cost of registration believe it provides more security for property rights, for several reasons.

First, registration makes it possible to use a rule of liability earlier (*bona fide* grantees keep the land even in the rare case of a true owner emerging after judicial proceedings), instead of a rule of property (land returns to the true owner and the grantee gets a personal right). This provides full legal security to *bona fide* acquirers of real rights. The protection provided by recording is intrinsically inferior in that it is largely personal in nature so does not take advantage of all the enforcement benefits of real rights.

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manages an office, recruiting its employees, who are not civil servants, some of whom are also paid with a share of the residual. A similar system, that of Spanish notaries, has been analyzed in Arruñada (1996).

<sup>37</sup> Generally with lower-powered incentives, as shown by the paradigmatic 'fundholder' doctors of the British National Health Service.

<sup>38</sup> For example, in the former Soviet Republic of Moldova and the Caribbean island of St. Lucia (<http://www.stewart.com/international/projects/moldova.htm>, visited June 2, 2001). A move in this direction was the transformation in 1990 of the English Land Register, formerly a branch of the civil service, into a semi-privatized executive agency. In the following years, processing times were reduced drastically, from 34 weeks to eight days on average (Sparkes, 1999, p. 18). A similar transformation took place in The Netherlands in 1994, with the creation of the Agency for Cadastre and Public Registers (Jong, 1998). See, in general, Williamson (2000) and Holstein (1996).

Moreover, it tends to be overlooked that the protection given by registration is not detrimental to current right holders. They are protected because under registration there is always a quasi-judicial procedure that substitutes for any eventual *ex post* judicial action they might prompt. This quasi-judicial procedure takes place for all transactions and happens before registration. Furthermore, they cannot be deprived because of adverse possession, since this does not originate real rights—there is even a reversal of cause and effect in jurisdictions that use registration to create a presumption of possession. On the contrary, under recording, removal of title defects is voluntary. Its design allows defects to persist. As pointed out by Baird and Jackson, “[i]n a world where information is not perfect, we can protect a later owner’s interest fully, or we can protect the earlier owner’s interest fully. But we cannot do both” (1984, p. 300). The assertion is accurate but the assumption is crucial: registration is designed to produce perfect information and thus protect both the earlier and the later owner.

Some American authors view recording (plus title insurance) and registration on equal footing with respect to the incidence of claims—i.e., the same level of surviving defects.<sup>39</sup> This view finds some support in the appalling functioning of some US Torrens registers. It cannot, however, be applied to properly functioning registers. If registration works as intended, it eliminates most title defects, for the reasons just explained. If it does not work, for instance if it makes too many mistakes, it is reformed or abolished. First, courts start deciding against the conclusiveness of the register. Second, insurance funds go bankrupt, as happened in many US jurisdictions. In other words, effectiveness in reducing the incidence of claims is a necessary condition for applying a liability rule when solving conflicts.

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<sup>39</sup> As in Miceli and Sirmans (1995), Miceli, Sirmans and Turnbull (1998), and Miceli, Sirmans and Turnbull (2000). See, however, Miceli, Sirmans and Kieyah (2000) and Arruñada and Garoupa (2001) for models with different assumptions.

Finally, empirical indications also support that registration provides higher security. Amounts paid out for losses and damages caused by the Spanish and Australian registers of rights are much lower than those paid by their functional equivalents.<sup>40</sup> Similarly, estimates of the potential size of the title insurance market in Europe put its total *revenue* at amounts more in line with the *losses* paid than with the revenue of title insurance in the USA (Arruñada, 2001b, n. 28).

The alleged superiority of registration in providing legal security may fail in practice, however, because of several systematic but not universal inadequacies. Registers fail to fulfill the promises of registration by being slow and incomplete. Oddly, they also fail by being too effective.

Slowness means that a long time is needed to get registration. Meantime, private deeds are given priority conditional to final registration. During the extent of the ‘registration gap’ the register functions as a register of deeds.<sup>41</sup> The registers of Puerto Rico, England and Cook County saw episodes of this which resulted in very different outcomes—title insurance, successful reform and closure, respectively. The lesson is that registration can hardly function without strong incentives.

Incompleteness of registration is driven by both legal and judicial decisions which lead to enforcement as real rights of interests which are not registered, causing imperfect application of the so-called ‘mirror principle’. Many of these ‘overriding interests’ are possessory rights

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<sup>40</sup> Gross numbers are approximately 1:100 when compared to French notaries and 1:1000 for US title insurers. These magnitudes seem large enough for a substantial difference to remain even after considering other explanatory factors, such as differences in land laws, general litigiousness and insurance coverage, especially because these differences are small with regard to France. Details in Arruñada (2001a, section 4.4.2). Sources of data were: Fuentes (1999), for Spain; the New South Wales Law Reform Commission (1996), for Australia; the French notaries; and ALTA (1994).

and tacit liens (held by employees and governmental agencies, for instance). Even the Grundbuch gives such status to former unregistered owners in Eastern Germany. The consequence is that acquirers of rights need to produce information from additional sources, mainly by physical inspection of the land.<sup>42</sup>

Solution of the problem comes up against not only legislative barriers but judicial opposition. Registration of rights constrains the monopoly of the courts in deciding cases. If registration decisions are conclusive, courts cannot allocate real rights but only personal rights. It is understandable that when the registers are not part of the court system,<sup>43</sup> courts tend to defend their monopoly. Even when registers do not err often, judges are only too keen to deny the conclusiveness of registration, thus debasing the system. These problems have been suffered by many registers, not only in the US. This is perhaps why the offices of the most complete register, the German Grundbuch, are headed by judges (*Grundbuchrichter*).

Finally, governments find it useful to use effective registers as gatekeepers for all kinds of public obligations.<sup>44</sup> This has always been done by explicitly defining a certain obligation as real. Land taxation is an old example. Public use regulation is a more recent case. With increasing frequency, minor obligations are implicitly given real status by requiring them to be fulfilled before a right can be registered. Taken to extremes, this can generate two substantial problems. First, users will tend to avoid the register. This is the time-old conflict between taxation and publicity. The reduction of transaction costs in private transactions

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<sup>41</sup> The registration of ‘caveats’, giving notice of uncertain outstanding interests, has a similar effect (McCormack, 1992, p. 91), but only on those titles affected.

<sup>42</sup> In the past, registers suffered incompleteness in a legal dimension, as land parcels were poorly identified. The predominance of urban land made this problem less severe, however. New mapping technologies are now making it disappear altogether.

<sup>43</sup> This happens often, because the poor functioning of courts is one of the main motivations for creating a land register.

increases the transaction costs in public transactions. The lesson should be clear for aid agencies in the developing world: it is not possible to create a private system of property rights that is independent from the political system. Governments with established registration systems must also understand that the scope of these systems cannot be stretched indefinitely. Second, when the obligations are perceived as inefficient, there will be a temptation to dilute enforcement instead of changing the law, which is usually harder to do and needs greater consensus. A vicious circle may develop. Legislators may enact new good-intention but naïve laws in the expectation of lenient application.

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<sup>44</sup> See Kraakman (1986) for a theory of legal gatekeeping.

## VII. Concluding remarks

The focus of the article has been on identifying common organizational elements and comparing the two main solutions now in use. As a consequence, it has skipped very interesting questions that might be clarified by applying the same analytical framework. Some conjectures and preliminary suggestions for further work are worth mentioning, nevertheless.

First, having seen how long all European societies hesitated about the introduction of publicity,<sup>45</sup> a theoretical question and a practical doubt emerge. The question is which forces determine the optimal degree of publicity for a given society. Both the benefits and the costs of publicity on real rights are likely causes. First, the gains from trade in land are probably constrained by technology and economic development. Second, potential losses from publicity increase when there is substantial risk of excessive taxation. The doubt concerns the wisdom of the current drive to construct complete registration systems in countries with low degrees of economic and political development. Poor or mixed results found in empirical analysis of these projects are not surprising.

The framework is also applicable to analyzing mobile goods and registration of merchants and companies. When comparing chattels, the testable hypotheses are that the more valuable and durable they are, the higher the number of rights and the more sophisticated the marking

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<sup>45</sup> Between 1535 and 1832, in England alone 26 laws were enacted or devised to create a land register (Sparkes, 1999, pp. 1-3). Matters were no different in other countries. Already in 1528, the Spanish *Cortes* asked Carlos I to introduce mandatory registration of leaseholds—instead, the King reenacted the Roman penalty for eviction in *mancipatio* (double damages), thus keeping it as a personal obligation (Oliver, 1892, p. 244). An effective registration law was not enacted in Spain until 1861, however.

and registration technologies used. This is consistent with casual observation on the use of branding of livestock, the kind of transportation equipment which is registered, rented and leased and the types of machinery that are branded and mortgaged.

Similarly, merchants and company registrations are needed as a form of publicity, to use a rule of liability instead of property, and so reduce the transaction costs of trading. When the merchant sells or the company representative contracts, in a sense they are conveying real rights. True owners of the merchandise or shareholders of companies may have a personal right against the merchant and the representative. They cannot, however, recover from the third party.

Lastly, the analysis suggests a hypothesis for the historical development of land rights. First, the cost of hidden real rights arises only on the occasion of transactions. Therefore, societies with low gains from trade can achieve the benefits of specialization and enforcement without the troubles and risks of publicity. Each transaction is more costly than the previous one, but there are fewer of them. To keep the number of transactions low it might be efficient to have durable rights. An easy solution might have been to make them hereditary, as in medieval times, so that acquirers would not suffer information asymmetry. Second, the analysis also helps in explaining the centuries-old fight for the creation of registers, which were frequently demanded by the cities and opposed by the nobles. Publicity imposed similar costs on both groups in terms of added taxation risk. The cities enjoyed larger benefits, however, if the number and anonymity of transactions were higher in the cities, which seems likely.

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