UNIVERSITÀ DEGLI STUDI DI TRENTO
Facoltà di Giurisprudenza

FROM CONTRACT TO REGISTRATION

AN OVERVIEW OF THE TRANSFER OF IMMOVEABLE PROPERTY IN EUROPE

Edited by
ANDREA PRADI

2015

UNIVERSITÀ DEGLI STUDI DI TRENTO

Facoltà di Giurisprudenza

QUADERNI DELLA FACOLTÀ DI GIURISPRUDENZA

19

2015

Al fine di garantire la qualità scientifica della Collana di cui fa parte, il presente volume è stato valutato e approvato da un *Referee* esterno alla Facoltà a seguito di una procedura che ha garantito trasparenza di criteri valutativi, autonomia dei giudizi, anonimato reciproco del *Referee* nei confronti di Autori e Curatori.

PROPRIETÀ LETTERARIA RISERVATA

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Via Calepina 14 - 38122 Trento

ISBN 978-88-8443-678-8
ISSN 2284-2810

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Dicembre 2015

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THE LAW AND ECONOMICS OF THE TRANSFER AND THE PUBLICITY OF IMMOVEABLE PROPERTY: AN OVERVIEW

Andrea Rossato[*]

1. Introduction

Law and economics traditionally analyzes the legal issues related to the transfer of immoveable property – or the transfer of real estate to use an expression more familiar to common lawyers – within the framework of the transaction costs economics and the Coase Theorem. In other words, the transfer of ownership is viewed as a costly transaction, and the economic analysis of law is mainly focused at understanding the impact of the legal rules governing the conveyancing process on these costs.

The transfer of property rights is perceived, by economics, as the cornerstone of the production of wealth in society. Economic agents are depicted, by mainstream economics, as utility (or profits) maximizing entities, either individual or collective, whose utility (or profits) production functions are determined by exogenous variables, individual preferences or costs functions (these later mostly due to technological constraints). Since utility is related to preferences and preferences represent individual tastes, the consumption of the very same resource may produce different levels of utility for different individuals, which leads to the possibility of voluntary exchanges of resources – or property rights over resources and assets – by transferring them to the agent who values them the most.

This description of voluntary exchanges is usually referred to as the "Bargaining Theory", according to which, whenever there is a difference over the subjective values of a good by different economic agents,

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then there is the possibility of an exchange which will make every party better off[1]. This exchange will increase social wealth by the amount given by the sum of the difference between the subjective value of the resource each one is acquiring and the value of the resource they are renouncing to. This increase of social wealth is named "cooperative surplus", and its existence is what makes possible market transaction which are defined as Pareto efficient.

The Pareto efficiency, when related to market transactions, thus indicates a situation after which all the involved parties have seen their utility increased. The transaction itself is assumed to be costless, but this assumption is obviously unrealistic[2]. When its costs are, on the contrary, taken into account we may then conclude that many Pareto efficient transactions might not occur because the cooperative surplus they produce is less than their costs.

For our purposes transaction costs may be defined as the cost of concluding the transfer of a property right, and they basically involve search, negotiation, monitoring and enforcement costs. The notion of transaction costs was introduce by Ronald Coase in a seminal article, published in 1937, dealing with the nature of the firm[3]. In this contribution Coase was trying to understand the reason why market transactions are substituted by other form of hierarchical relations, like the firm, for coordinating human interactions aimed at production. Within the analytical framework provided by rational choice, we would expect only individual independent contractors to use the market for exchanging, through Pareto efficient transfers, goods and services: in other words the price system should be the only way to coordinate each individual productive activity. It is the presence of costs involved with these trans-

[1] For an introduction see R. COOTER, T. ULEN, *Law and Economics*, Boston, Mass., 2012, pp. 78 ss.

[2] On the realism of the assumptions in economic theories there has been a very long debate, started by the landmark contribution by M. FRIEDMAN, *The Methodology of Positive Economics*, *Essays on Positive Economics*, Chicago, 1953. For an introduction, from a Popperian perspective, see N. DE MARCHI (edited by), *Post-Popperian Methodology of Economics: Recovering Practice*, New York, 1992, and L. BOLAND, *Foundations of Economic Method: A Popperian Perspective*, Florence: Kentucky, 2003.

[3] R. COASE, *The Nature of the Firm*, 4 *Economica* 386 (1937).

actions which requires other institutional forms for the coordination of human activities.

Coase's analysis was purely descriptive and tried to capture the emergence of the firm as a market alternative for the coordination and the exchanges in response to the presence of transaction costs. This analysis can be generalized also to account for the institutional responses to other types of market failures, such as, for example, the problems of externalities.

Externalities involve the transfer of wealth, due to incompatible uses of resources, which takes place outside any market mechanisms and can be either positive or negative. A typical example of a negative externality is the air pollution caused by a given productive process, pollution which is a burden imposed on the neighborhood without compensation: the productive process requires the use of a resource, clean air, which is incompatible with its use by the neighbors. If the production of a widget is imposing an external cost which is not internalized, the private marginal cost of production is less than the total, private and social, marginal costs of production, with the consequence that the charged price of the widget will be lower than that which would be charged if the social cost of production would be totally internalized. This leads to overproduction[4].

A possible correction of this kind of market failure is the so called Pigou taxation: by imposing a tax on the productive process, its external cost is thus internalized and calculated by the profit maximizing firm as one of the costs of production. While this solution is theoretically sounded, fiscal remedies are not flexible enough to take into account the actual external cost generated by a given productive process.

Coase, in the most cited article «The Problem of Social Costs», analyzed other types of institutional solutions to the problem of externalities and, while noticing that without transaction costs the pricing system is expected to produce Pareto efficient reallocations of property rights which would induce the internalization of external costs, he also noted that firms and public institutions are the most common solutions, for

[4] In a purely competitive market, not internalizing social costs leads to extra-profits, a different cause of over-production.

example through zoning regulations, to what is indeed a market failure[5].

Mainstream (neo-classical) economics and law & economics translated the purely descriptive analysis of Ronald Coase into what it is now called the Coase Theorem, a policy guideline that can be thus summarized: 1. if there are no transaction costs the problem of externalities will be solved by the market through Pareto efficient reallocations of property rights; 2. if transaction costs are present, the initial allocation of property rights matters for an efficient outcome and that requires either efficient allocations of rights or institutional responses aimed at minimizing transaction costs[6].

Reduction of transaction costs implies addressing their different sources: clear definitions and allocations of property rights and appropriate remedies for their effectiveness and enforcement. For example, in a situation which involves a huge number of parties, liability rules should be preferred over injunctive remedies: while the former require compensation for any incompatible use of resources – but this use is not prohibited –, the second give to every party a veto power which may jeopardize the possibility of reaching an agreement with everyone involved in the situation – the last parties to agree would have the incentive of maximizing the price of their consent[7].

Clear and precise definition of property rights is probably the most important requirement for lowering transaction costs: land registers may thus be seen as the principal way of reducing transaction costs in the realm of the transfer of ownership of real estate.

[5] R. COASE, *The Problem of Social Costs*, 3 *J.L. & Econ.* 1 (1960).

[6] For an introduction see R. COOTER, T. ULEN, *Law and Economics*, cit., chap. 4; see also S.G. MEDEMA, R.O. ZERBE, *The Coase Theorem*, in B. BOUCKAERT, G. DE GEEST (edited by), *Encyclopedia of Law and Economics*, 836-92, Cheltenham Northampton, Mass., 2000; S.G. MEDEMA, *Coase Theorem*, in J. BACKHAUS (edited by), *Encyclopedia of Law and Economics*, New York, 2014.

[7] R. COOTER, T. ULEN, *Law and Economics*, cit., chap. 4.

2. The Economics of the Transfer of Property Rights and Land Registers

Transaction cost economics and the Coase Theorem represent the conceptual frameworks used by the law & economics literature to analyse the transfer of real property and the economic role of land registers.

Obviously any assumption of zero transaction costs must be ruled out when analyzing the complexity of the transfer of real property – the existence of a transaction industry provides clear evidence of that[8].

The early economic analyses of the land title systems for transferring real property assumed that the transaction was indeed inherently costly, and that different title assurance systems were equally efficient in providing title security[9].

Whitman analysed five different methods commonly used in the USA for title assurance. Some of these methods are based on private records, maintained by private title insurance companies or lawyers whereas others use public records maintained by county government or other local jurisdictions[10].

Among the methods based on public records a major distinction can be made between the so called Torrens systems (a land registration system) and the title recording system (a deeds registration system). The first consists in a register where every transfer of the title or successful claim of a property right over a parcel is annotated in an official register. It thus provides an indefeasible title if this is correctly included in the register as the last one[11]. The second system consists in the recording of all the instruments related to a parcel of land, thus the validity of

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[8] J. JANCZYK, *An Economic Analysis of the Land Title Systems for Transferring Real Property*, 6 *J. Legal Stud.* 212-33 (1977).

[9] «It is assumed that the degree of title security is equal for a title processed in either the recording or the Torrens system, that is, that the benefits are the same». *Ibid.*, p. 215.

[10] D.A. WHITMAN, *Optimizing Land Title Assurance Systems*, 42 *The George Washington Law Review* 40-66 (1973), pp. 47 ff.

[11] For an account on the use of the Torrens system in the U.S. see B.C. SHICK, I.H. PLOTKIN, *Torrens in the United States: A Legal and Economic History and Analysis of Land-Registration Systems*, Lanham, Maryland, 1978.

a title depends on the proper execution of each instrument and the presence of a valid "chain of title", created by all the recorded documents, which must be ascertained.

According to Janczyk, while both systems provide the same level of title assurance, they have different managing costs and different costs for actually transferring the title: under a recording system the transfer of the title costs twice the cost of the transfer under Torrens system: the «Cook County [whose data were used in the model] could save $76 million by adopting the Torrens system»[12].

The second problem addressed by Janczyk was related to the managing costs of the system and the cost of switching from a recording system to a registration system. The author describes the switching process in the Cook County, to be carried out when a transfer of title takes place:

> «[t]o begin the process of registering a parcel, the Cook County Abstract Department collects information on all of the recorded and unrecorded property rights that have been asserted against it. For the property rights that have been recorded, the Abstract Department must search through all of the *grantor-grantee* and other alphabetical indices in the Recorder's Office to find the set of ownership and other claims for the particular parcel of property. For unrecorded claims such as adverse possession, as well as for a survey of the property, a real estate inspector of the Abstract Department must personally visit the property. Finally, all of this information on re- corded and unrecorded claims is assembled into an abstract […].
> This abstract is then examined by a judge of the Land Title Court to determine the current legal owner of the parcel of property as well as the set of legally valid claims that have been asserted against it. Each transfer of ownership and every property right must fulfill certain statutory conditions to be legally valid. If the judge has any difficulty evaluating these, owing to a lack of either information or legal precedent, he holds a court session. The results of this judicial process are summarized in a decree which states the identity of the current legal owner as well as a description of the validated claims. The decree is sent to the Registrar's Department, where it is typed onto a document called an "Official Certificate," and the property is henceforth considered to be in the Torrens system».

[12] J. JANCZYK, *An Economic Analysis of the Land Title Systems for Transferring Real Property*, cit., pp. 215 ff.

Using the number of real property transfers per year in the analysed county, the author concluded that:

> «[u]sing a social rate of discount of 4%, the present value of the net savings that could be realized by adopting the Torrens system in Cook County is $76 million in 1976 prices. In undiscounted terms this consists of approximately $102 million during the first 40 years and a further savings of $10 million annually, once all of the property in the recording system is registered into the Torrens system»[13].

When the scale of operation – the number of property transfers – is taken into account, Janczyk's analysis predicts that the savings from switching from a recording system to a Torrens systems are positive only when the number of transfers are higher than a certain threshold[14].

While Janczyk's contributions were the first to use the analytical framework of law & economics to address the issues related to the transfer of property, they ultimately consist in a financial analysis of the cost of different title assurance mechanisms, without any further investigation about the relationship between the legal rules governing the process of transferring real property and the resulting structure of transaction costs related to this process.

There is obviously a strong connection between the conveyancing – the legal process of transferring ownership – and the registration or recording of the title of ownership. The first relates to the prerequisites, the nature, and the requirements of the agreement transferring the ownership title: what if the seller is not the actual owner – acquisition *a non domino*? Acquiring from someone in possession is enough for taking a valid title? Is consent enough or consent also requires some other legal elements like material transfer of possession and/or title transfer registration? Title recording or registration, on the other hand, is related to the means for creating legal certainty about ownership. Both elements have an impact on the structure of transaction costs involved in the transfer of a property right over a given resource.

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[13] *Ibid.*

[14] J.T. JANCZYK, *Land Title Systems, Scale of Operations, and Operating and Conversion Costs*, 8 *J. Legal Stud.* 569-83 (1979) (accessed: October 2015), pp. 582-83.

A classical contribution, by Baird and Jackson, addresses these problems from the perspective of information economics:

> «[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. A rule that prevents an individual from becoming an owner if there is a thief in his chain of title protects present owners at the expense of would-be owners. (This cost is felt not only by prospective purchasers, but also by those who want to sell what they have, for they may find it difficult to convince prospective purchasers that they in fact own what they claim to own.) Alternatively, legal rules could ensure that we purchase assets without any risk of existing, superior claims. A rule that purchasers from a person in possession take good title provides such assurance by making other information (such as previous transfers of the property) largely irrelevant»[15].

The authors did not make an analysis of different title assurance methods in the transfer of property, but instead, and more abstractly, compared the economic and informational consequences of the presence or the absence of a recording – or registration – system. The differences between a land and a deeds registration system, indeed, only affect the consequences of registration: the second provides *evidence* of ownership rights, while the first *establishes* ownership[16].

In the case of what they call a possession system, a valid title is transferred if the purchaser acquired ownership from the possessor. This system has some costs:

> «[a] possession-based rule, for example, impedes temporal divisions of ownership of property. Under such a rule, one who acquires a remainder interest cannot easily take possession of the underlying property and ensure that his rights are superior to the rights of anyone else to whom his transferor might also try to convey the remainder interest. Moreover, a possession-based rule of title makes the tracing of claims for

[15] D. BAIRD, T. JACKSON, *Information, Uncertainty, and the Transfer of Land*, 13 *J. Legal Stud.* 299 (1984), p. 300.

[16] *Ibid.*, p. 308, nt. 25.

> more than one generation difficult and hence increases the risks of a thief in the chain of title»[17].

Another possibility is represented by what Baird and Jackson refer to as a filing system:

> «[p]ublic recording of interests in property may reduce the uncertainty concerning the transfer of property, because they contain virtually all relevant information, apart from that imparted by possession itself. Filing systems may also aid in the tracing of transfers over time and hence, compared to a possession-based system, reduce the risk of non-consensual transfers at the same time that they provide assurance to subsequent purchasers that they can in fact acquire good title»[18].

These two types of system are suited for different kinds of property: filing systems are more efficient for valuable property when it is not transferred often, when it can be shared between many individuals, when its physical use is important or when the underlying property right is abstract and unembodied: «[r]eal property is the paradigm of property for which a filing system of title claims is superior»[19], but other examples include intellectual property like patents or copyright[20]. This is due to the fact that maintaining a recording system is inherently costly and when transactions occur often a possession system is deemed more efficient, like in the case of money[21].

Recording and possession systems are not mutually exclusive, as there are obviously intermediate examples, like security interests.

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[17] *Ibid.*, p. 303.

[18] *Ibid.*, p. 303.

[19] *Ibid.*, p. 304.

[20] «Rather than try to change an abstract right into tangible property and rely on possession, one can also go in the other direction and keep the right abstract, but rely on a title-recording system. Under such a regime, rights to a patent, a copyright, or a trademark would turn on whether one's interest was properly noted in a public file». *Ibid.*, p. 311.

[21] «Money is the polar opposite of real property in that it is the best example of property that is not suitable for a filing system. Even though a $20 bill can be identified precisely by serial number, a recording system would be hopelessly impractical, as would a rule that did not recognize the paramount rights of someone who acquired it in good faith». *Ibid.*, p. 306.

As noted before there is a strong link between the conveyancing and the title assurance system. With reference to this relation the statutes regulating the filing systems in the United States are classified into three basic categories: "notice", "race-notice" and "race" statutes[22]. Under a "notice" statute a subsequent purchaser «with neither record notice nor actual or constructive knowledge of an existing property claim at the time of his purchase transaction prevails over a prior purchaser holding such existing property claim»[23]. Under a "race-notice" statues, instead, in order to prevail over a previous purchaser, a subsequent purchaser must record her claim first. Under a "race" system «knowledge gained outside the filing system (or from possession) is irrelevant. The first party to file – and hence the first party to give record notice – wins»[24].

An example may clarify the point: suppose O conveys her property to A and, at a latter time, to B. Under a purely "notice" statute if B doesn't have actual knowledge of A's acquisition B wins even if she records the deed after A. If A records *before* B's acquisition (which makes B to have constructive knowledge) or B has actual knowledge of it, then A prevails. Under a purely "race" statute always prevails who records first, regardless her knowledge. Under a "race-notice" statute, in order to prevail B must register first and have no actual knowledge of A's acquisition.

These different statutes relate the purchaser's knowledge to claims priority, and, «in general, there seems little to be gained from incorporating knowledge into priority rules with respect to most types of property»[25]. Moreover, «[i]ntroducing knowledge into the ordering of priorities […] creates insoluble circular priority problems when more than two parties are involved, one has knowledge of a prior interest, and another does not»[26].

More generally it must be also stressed the fact that under a purely "race" statute controversies are solved by taking into account objective

[22] *Ibid.*, pp. 312 ff.
[23] *Ibid.*, p. 313.
[24] *Ibid.*, p. 313.
[25] *Ibid.*, p. 317.
[26] *Ibid.*, p. 316.

facts easily ascertainable, while investigating the subjective element of the involved parties increases the administrative costs of the rule. On the other hand, these higher costs may be seen as a way for rewarding good faith in market transactions.

In the United States "race" statutes are very rare, the major exception being Louisiana, while the most common is the "race-notice" statute.

In a series of subsequent articles transaction cost economics has been used to address the problem of which title assurance system is more efficient, in terms of contributing to allocate it to the higher valuing users and increasing the value of property[27]. Miceli and his coauthors compared the recording system, under which legitimate claimants – with unrecorded claims – receive title to the land whereas current owners receive a monetary compensation, with the Torrens system, under which current owners who registered their title retain it whereas legitimate claimants are compensated. They concluded that when transaction costs are low,

> «the two land title systems differ only in the division of the surplus arising from the owner/possessor's valuation of the land in excess of its market value. […] Under both systems, the higher valuing user ends up with the land»[28].

On the other hand, in a situation with high transaction costs,

[27] T.J. MICELI, C.F. SIRMANS, *The Economics of Land Transfer and Title Insurance*, 10 *The Journal of Real Estate Finance and Economics* 81-88 (1995); T.J. MICELI, C.F. SIRMANS, *Torrens vs. Title Insurance: An Economic Analysis of Land Title Systems*, 11 *Illinois Real Estate Letter* 1 (1997); T.J. MICELI, C.F. SIRMANS, G. TURNBULL, *Title Assurance and Incentives for Efficient Land Use*, 6 *European Journal of Law & Economics* 305 (1998); T.J. MICELI, H.J. MUNNEKE, C.F. SIRMANS ET AL., *Title Systems and Land Values*, 45 *Journal of Law and Economics* 565-82 (2002) (accessed: October 2015); T.J. MICELI, C.F. SIRMANS, J. KIEYAH, *The Demand for Land Title Registration: Theory with Evidence from Kenya*, 3 *American Law and Economics Review* 275-87 (2001); T.J. MICELI, J. KIEYAH, *The Economics of Land Title Reform*, 31 *Journal of Comparative Economics* 246-56 (2003).

[28] T.J. MICELI, C.F. SIRMANS, *The Economics of Land Transfer and Title Insurance*, cit., p. 85.

> «the system that awards the land to the possessor is generally more efficient because it entails lower transaction costs of arriving at the efficient assignment of the land. Indeed, if transaction costs are high enough, the system that awards the land to the true owner may not end up giving the land to the party that values it the most»[29].

In other words, the authors conclude that Pareto-efficiency, in a situation of high transaction costs, pushes for the Torrens system.

With regard to the value of land, according to Miceli's analysis the Torrens system, *ceteris paribus*, leads to higher values, even though this is inversely related to the level of transaction costs[30].

3. A European Approach to the Economics of Land Registers

In the law & economic literature there seems to be a consensus over the following points: a) title assurance systems are generally useful tools in lowering transaction costs; b) registration systems seem to work better than recording systems, both because they have lower managing costs and because, especially in situations with high transaction costs, they tend to lead to more efficient results in terms of higher land values and in allocating resources to higher valuing users.

The contributions so far analysed were centered on the American legal system, whose conveyancing is historically linked with the English common law tradition. Within the civil law tradition there are two major ways of dealing with the transfer of immoveable – real – property: 1) a simple contract (consensual principle) according to which the agreement between the seller and the buyer is enough for transferring ownership – typical examples of this approach are the French or the Italian legal systems, where contracts have *in rem* effect –; 2) contract plus transfer (*traditio*), according to which the contract will only have obligatory effects – obligation to transfer – and must be followed by

[29] *Ibid.*, p. 87.

[30] «[H]igher transaction costs associated with the registration, or Torrens, system tend to reduce the value of land in that system relative to the recording system». T.J. MICELI, H.J. MUNNEKE, C.F. SIRMANS ET AL., *Title Systems and Land Values*, cit., p. 579.

another independent act, the transfer of possession, which must be registered in a land register[31].

Still, European contributions have been mostly using the theoretical framework developed by American scholars. For instance, Arruñada classifies the French title assurance method as a recording (of deeds) system, whereas the German and the Spanish ones are classified as registration (of rights) systems[32]. The English system before the Land Registration Act of 1925 is instead classified as a "privacy" system, where contracts have *in rem* effects on third parties even if kept secret[33].

The author is more problematic with regard to the comparative efficiency of the recording and the registration system:

> «the social choice of title system is given by the net balance of the following effects: recording causes underassurance of higher-value land, while registration causes crowding out and overassurance of lower-value land. The net balance of these effects and, therefore, the optimal title system are determined by the relative cost-effectiveness and pricing of titling (including private title assurance services). Recording triggers underassurance of land that, given its greater value, would be efficiently registered. Conversely, crowding out happens under a system of registration because its higher price leads owners to keep private some lower-value land that otherwise would have been recorded. Similarly, some midvalue land that would have been recorded is registered, causing overassurance. These results are quite general, as they hold, with minor differences, for situations with and without private assur-

[31] See L.M. MARTÍNEZ VELENCOSO, *Transfer of Immoveable and Systems of Publicity in the Western World: An Economical Approach*, 6 *Journal of Civil Law Studies* (2013), <http://digitalcommons.law.lsu.edu/jcls/vol6/iss1/5> (accessed: October 2015), p. 157. The Spanish legal system adopts a mixed system, contract plus *traditio*, but these two acts are causally linked: «distinctive characteristic of the Spanish system is the causal relation between the contract and the transfer of title. If the contract is invalid, the transmission of ownership cannot be said to have taken place».

[32] B. ARRUÑADA, *Property Enforcement as Organized Consent*, 19 *Journal of Law, Economics, & Organization* 401-44 (2003), <http://www.jstor.org/stable/3555110> (accessed: October 2015), p. 408; see also B. ARRUÑADA, *Titling Systems*, in B. ARRUÑADA, *Encyclopedia of Law and Economics*, New York, 2014.

[33] B. ARRUÑADA, *Property Enforcement as Organized Consent*, cit., pp. 406 ff.

> ance services, land improvements, and information asymmetry between sellers and buyers of land»[34].

The presence of these trade-offs leads the author to the following conclusion:

> «[m]ore generally, this paper confirms that the choice of an efficient titling system is an empirical issue that cannot be solved on purely theoretical grounds»[35].

A similar theoretical framework is used by Martínez Velencoso, who classifies title assurance methods into two categories: registration of deeds and registration of titles[36]. With regard to their comparative efficiency the author agrees with Arruñada on the impossibility for a theoretical approach to individuate an optimal solution regardless an empirical analysis of the actual cost imposed by each system.

The terminology and the classification used by these authors may be misleading from a comparative perspective. The European recording (or deed registration) system does not entirely overlap with the U.S. recording system. At the operational level only a recording system under "race" recording statutes will produce the same effect of a European recording system. In other words, in order to compare the legal rules governing the transfer of property and the title assurance methods we need to take into account the external effects of deeds and their relation with the type of land registration system used. Thus we could classify this phenomenon into four categories: 1. deeds have *in rem* effects on third parties even if secret (England before 1925); 2. deeds have *in rem* effects on everyone if recorded or only on those who have actual knowledge of them if unrecorded (U.S. with "notice" or "race-notice" recording statutes); 3. deeds have *in rem* effects on third parties only if recorded (French, Italy, U.S. with "race" statutes); 4. rights *in rem* are

[34] B. ARRUÑADA, N. GAROUPA, *The Choice of Titling System in Land*, 48 *Journal of Law and Economics* 709-27 (2005), <http://www.jstor.org/stable/10.1086/430493> (accessed: October 2015), p. 724.

[35] *Ibid.*, p. 725.

[36] L.M. MARTÍNEZ VELENCOSO, *Transfer of Immoveable and Systems of Publicity in the Western World*, cit., p. 173 ff.

acquired with both a deed and its registration (Germany, Spain, Torrens and title registration systems).

The third and the second system differ only with regard to the role of knowledge and good faith, and the second introduces some administrative costs in managing the rule (investigating the subjective element) for rewarding *bona fide* purchasers.

The fourth system, instead, provides greater protection from the "wild deed" problem, better illustrated by an example: suppose O conveys her property to A, who doesn't register, and A later conveys it to B. O, after A's acquisition, conveys the same property to C. Under the second system the recorded deed between A and B is "wild" and does not provide to C constructive notice of A's acquisition from O, and thus C will prevail over B. Under the third systems C will prevail for the break in the chain of titles. Under the fourth system, instead, such an occurrence is made more improbable by the conveyancing process, since the registration is a constitutive element of A's ownership.

Moreover, while the first, classified by Arruñada as a "privacy" system, is deemed mostly obsolete and inefficient, the second and the third ones are inherently complex, since the deed registration process does not provide protection to the problems related to reconstructing the chain of title from the sequence of deeds between grantors and grantees, an error-prone task. This is a reason why, especially in the United States, a market for title insurance policies emerged, which is due to the fact that the costs of the system complexity is beared by the private parties involved in the transaction. In a title registration system, the fourth one, the reconstruction of the chain of title is instead part of the registration process, and its costs are part of the managing costs of the system, a public service. In other words, while recording systems externalize part of their administrative costs on the private parties involved in a conveyance, a title registration system may be seen as part of the public enforcement of property rights. Apart for considerations pertaining the overall comparative efficiencies of the analyzed models, and from the standpoint of transaction cost economics, there are strong arguments for considering title registration systems as having a greater impact on the reduction of transaction costs in the transfer of real property.

4. Titling in Less Developed Countries

We have seen that European authors are more prudent than American scholars in assessing the comparative efficiency of different titling systems. Nevertheless there seems to be a consensus on the economic soundness of title assurance systems to increase the value of resources and the social welfare by allocating them to higher valuing users. Another economic reason of titling systems is the use of the land as a collateral for getting access to credit, a way to increase agricultural productivity.

These are the foundations on which international institutions, and specifically international financial institutions, have been adopting policies that, aimed at the reduction of poverty and the economic advancement of developing countries, promote and incentive the adoption of legal institutions for recognizing and securing property rights on land. On the other hand an analysis of the consequences of the introduction of a titling system in a legal environment in which it did not spontaneously emerged may be seen as a testbed for empirically assessing these very foundations.

Clear definitions of individual property rights is described as a prerequisite for the access to land by poor people[37], and crucial to the establishment and the enforcement of property rights that can be traded and exchanged is the presence of a land titling system:

> «[t]he fact that informal rights cannot be traded and exchanged beyond the community is one of the reasons why, in many historical circumstances, they have been replaced by more formalized property rights

[37] «Access to land and the ability to make productive use of such land is critical to poor people worldwide. In addition to its direct effect on house- holds' welfare and their strategies for risk coping, together with other factors, the system of land tenure will also affect the scope for the emergence of markets and the structure of governance at the local level». These are the open words of K. DEININGER, *Policies for Growth and Poverty Reduction. A World Bank Policy Research Report*, 2003, <http://documents.worldbank.org/curated/en/2003/06/2457830/land-policies-growth-poverty-reduction> (accessed: October 2015), p. 1. Moreover, «[i]ndividual assignment of property rights is the arrangement that provides the greatest incentives for efficient resource use». *Ibid.*, p. 28.

> once resource values have increased sufficiently to justify the cost of doing so. The main mechanisms for formalizing rights have been land registries and title documents, which not only provide protection from challenges to individuals' rights, but also make transferring these rights easier, and therefore allow the emergence of secondary financial instruments, such as mortgages, that are built on the existing rights system»[38].

International development institutions like the World Bank are aware of the complexity, and the costs, of the creation of such a system:

> «[t]he formalized western land registration systems are basically concerned with identification of legal rights in support of an efficient land market and do not adequately address the more informal and indigenous rights to land found especially in developing countries where tenures are predominantly social rather than legal. Therefore, traditional cadastral systems cannot adequately provide security of tenure to the vast majority of the world's low income groups or deal quickly enough with the scale of urban problems. A new and innovative approach is found in the continuum of land rights (including perceived tenure, customary, occupancy, adverse possession, group tenure, leases, freehold) where the range of possible forms of tenure is considered as a continuum from informal towards more formal land rights and where each step in the process of securing the tenure can be formalized»[39].

Nevertheless some experiences proved to be encouraging in demonstrating the relationship between title registration, more efficient use of the land and greater access to credit:

> «[t]he Armenia Title Registration Project (FY99) has successfully promoted private sector development by implementing a transparent, parcel-based, easily-accessible, and reliable registration system for land and other immoveable property[40].

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[38] *Ibid.*, p. 33.

[39] K. DEININGER, C. AUGUSTINUS, S. ENEMARK ET AL., *Innovations in Land Rights Recognition, Administration, and Governance. A World Bank study*, 2010, <http://documents.worldbank.org/curated/en/2010/01/13088520/innovations-land-rights-recognition-administration-governance> (accessed: October 2015).

[40] WORLD BANK, *Land Policy: Securing Rights to Reduce Poverty and Promote Growth*, 2009, <http://documents.worldbank.org/curated/en/2009/07/11479948/land-policy-securing-rights-reduce-poverty-promote-growth> (accessed: October 2015), p. 3.

> The Kyrgyz Republic Land and Real Estate Registration Project (FY00) supported the development of markets for land and real estate for more intensive and effective use by introducing reliable property rights registration. The primary beneficiaries of this project have ranged from private farmers to small- and medium-sized enterprises and urban property owners. […]
> The number of mortgages, which were virtually nil prior to the Project, reached a cumulative annual total of 22,400 in the year 2002, the first year when most of the registration offices were operational, and doubled to 45,300 in 2007»[41].

And similar results were reported for other developing countries. Nonetheless some scholars have been criticizing the World Bank policies. For instance Migot-Adholla, with his coauthors, while assessing the result of the land registration programs in Kenya during the second half of the last century, concluded that possession of land titles was not perceived, by land owners, has being «very beneficial relative to the costs of [its] acquisition (including transaction costs)»; that «land disputes are frequent even after the systematic and comprehensive registration and titling of land»; that «possession of title was weakly related to the occurrence and terms of formal credit loans»; and that there seems to be «no evidence to suggest that possession of current registration or title deed is related to land productivity as measured by crop yields»[42]. The conclusion is that

> «governments must consider whether adjudication, registration, and titling of land, which is costly, is the best way to spend scarce resources. Expenditures targeted toward the improvement of rural infrastructure, health and education, and agricultural technology will not only improve the welfare of the rural population, but may also serve to increase the demand for land titles»[43].

[41] *Ibid.*, p. 3.

[42] F. PLACE, S.E. MIGOT-ADHOLLA, *The Economic Effects of Land Registration on Smallholder Farms in Kenya: Evidence from Nyeri and Kakamega Districts*, 74 *Land Economics* 360-73 (1998), <http://www.jstor.org/stable/3147118> (accessed: October 2015), p. 371.

[43] *Ibid.*, p. 372.

Migot-Adholla did not object the basic foundations of the World Bank policies for substituting indigenous – and mostly communal – land tenure systems, seen as a constraint on agricultural development, with individualized, formalized, and western based tenure systems. Indeed also the indigenous systems seem to evolve toward individualization of property rights under given circumstances:

> «the contrast between indigenous African tenure and Western property rights systems should be perceived not in terms of opposite extremes but as points along a continuum between communal rights systems and privatized rights systems. In response to population pressure, agricultural commercialization, and technological change, indigenous African tenure systems have moved along that continuum in the direction of greater individualization of land rights»[44].

Generally, taking into account localized and socially accepted rules leads to more positive results:

> «[f]ormal land tenure registration systems, particularly titling, tend to be expensive, badly tailored to local contexts and inaccessible for poor groups. Yet, the innovation documented in recent land tenure reform in Ethiopia, Mozambique and Niger shows how more enabling pro-poor frameworks can be developed. These and the localised initiatives documented in Uganda, Namibia and South Africa, illustrate more appropriate and more flexible land tenure systems, which build on positive aspects of socially embedded rules and on group organisation. In Ethiopia, Niger, Mozambique and Uganda, verbal as well as written evidence is accepted for registering land rights. In both Mozambique and Niger, collective rights may be registered and build on the principle of collective management of common property resources. Collective management options appear to be significant in reaching some of the poorest

[44] S.E. MIGOT-ADHOLLA, P. DN B.B. HAZELL, F. PLACE, *Indigenous Land Rights Systems in Sub-Saharan Africa: A Constraint on Productivity?*, 5 *The World Bank Economic Review* 155-75 (1991), <http://documents.worldbank.org/curated/en/1991/01/439369/indigenous-land-rights-systems-sub-saharan-africa-constraint-productivity> (accessed: October 2015), pp. 171-72.

and most disadvantaged groups, such as pastoral groups in the Niger case»[45].

On the other hand, importing individualized and formalized property right systems has been linked, by a growing number of scholars, to the so called «land grabbing» phenomenon. «Land grabbing» is defined as large-scale acquisitions of land in developing countries by companies or individual, which lead to land concentration in the hand of the few[46].

While some have been stressing the complex relationship between «land grabbing» and formalized land tenure and titling systems[47], others see the registration of individualized property rights as a prerequisite that makes land concentration possible[48]. This process strongly resembles the enclosure movement Europe in general, and England specifically, have been experiencing throughout the medieval and modern times[49].

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[45] N. KANJI, C. TOULMIN, D. MITLIN ET AL., *Innovation in Securing Land Rights in Africa: Lessons from Experience*, *International Institute for Environment and Development*, 2006, <http://pubs.iied.org/12531IIED.html> (accessed: October 2015), p. 11.

[46] For an introduction to «land grabbing» see L. COTULA, *The International Political Economy of the Global Land Rush: A Critical Appraisal of Trends, Scale, Geography and Drivers*, 39 *The Journal of Peasant Studies* 1-32 (2012); L. COTULA, *The Great African Land Grab? Agricultural Investments and the Global Food System*, London, 2013.

[47] P. HIRSCH, *Titling Against Grabbing? Critiques and Conundrums Around Land Formalisation in Southeast Asia*, *Paper presented at International Conference on Global Land Grabbing*, April 2011, <http://www.future-agricultures.org/papers-and-presentations?task=doc_download&gid=1283> (accessed: October 2015).

[48] See, for instance, S. LASTARRIA-CORNHEIL, *Who Benefits From Land Titling? Lessons From Bolivia and Laos*, *International Institute for Environment and Development, Gatekeepers Series*, 2007, <http://pubs.iied.org/pdfs/14553IIED.pdf> (accessed: October 2015); P. SAMRANJIT, *Land Grabbing and Impacts to Small Scale Farmers in Southeast Asia Sub*, *Paper series of the Conference Programme «Land Grabbing. Perspectives from East and Southeast Asia»*, 2015, <http://www.iss.nl/fileadmin/ASSETS/iss/Research_and_projects/Research_networks/LDPI/CMCP_60-Samranjit.pdf> (accessed: October 2015); M.B. DWYER, *The Formalization Fix? Land Titling, Land Concessions and the Politics of Spatial Transparency in Cambodia*, 42 *The Journal of Peasant Studies* 903-28 (2015).

[49] For a critical view see F. CAPRA, U. MATTEI, *The Ecology of Law. Toward a Legal System in Tune with Nature and Community*, San Francisco, Cal., 2015, chap. 3.

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