

The Theory and Policy of Contractual Registers

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Preliminary draft for discussion

April 5, 2010

Abstract

Institutions supporting impersonal markets must overcome the tradeoff between strong property rights and low transaction costs by protecting acquirers. Preserving rightholders' consent protects property rights and allows them to be efficiently diluted but consent needs to be verifiable by judges, to prevent rightholders from opportunistically denying their previous choices. When these choices are not public as a byproduct of economic activity, contract registration is essential to make them verifiable, ensuring that rightholders remain committed to them. This paper develops this argument into a theory of contractual registries, explaining their function and throwing light on current debates on property titling and business formalization.

JEL Classification: O17, K22, K23, L59.

Keywords: property rights, formalization, impersonal transactions, titling, all countries.

1. Motivation

Inspired by the works of Coase, North and Williamson, discussions on economic development have lately focused on the role of institutions in protecting property rights and reducing transaction costs. In particular, the idea has taken root that development would benefit from facilitating access to legality. It is thought that, if entrepreneurs are able to “formalize” (for our purposes, publicly register) their businesses easily, they will benefit from operating them as legal entities. For instance, they will have access to the courts for enforcing contracts and settling disputes. They will also be able to get credit and invest more, and firms will grow faster and be more productive. Similarly, if small owners of real estate have good titles to their land, they will enjoy better incentives to invest and can use their land as collateral for credit.

These simple ideas, reminiscent of widespread arguments in the most developed economies of the nineteenth-century, have motivated thousands of reform and aid programs in developing countries, where the state of legal institutions is often inadequate. Some authors have even held that providing better institutions would automatically lead to greater development. These ideas have also influenced policy in developed countries, where some of the institutions created in the nineteenth century for formalizing property and businesses have since become outdated or captured by private interests.

Outcomes from these efforts have often been disappointing, however, failing to fulfill their promise of economic growth and even that of improving the institutional environment. Instead, common mistakes have been committed, such as building universal property titling systems where there is little demand for titling, disregarding the minimum quality that registries must provide in order to be socially valuable, and confusing cause and consequence when assuming

that informality is causing poverty instead of being well adapted to the low value of assets and the fixed costs of formalization processes.

This chapter comments on some of these policy issues based on the theory of “formalization” institutions—i.e., mainly a theory of business and real property registries—developed in Arruñada (forthcoming). By explaining the rationale for registries as an essential part of the institutions that make impersonal trade feasible, the theory in section 2 tackles the fundamental question *Why are registries valuable?* and provides a solid grounding for analyzing the validity of policy-supporting arguments and current reform efforts in the two areas of business formalization and property titling. It thus also helps in outlining answers to the two key policy questions: *When are registries valuable?* (section 0) and *How should they be organized?* (section 4).

2. The rationale for publicly registering private contracts

2.1. The importance and nature of impersonal exchange

Modern economies prosper on the basis of specialization and trade. More specialized resources and firms are more productive, but this greater specialization only makes sense when producers can sell their production in a larger market. Specialization and, therefore, economic growth become more feasible when trade goes beyond the personal circle of known people. By expanding the market, impersonal exchange opens all sorts of new specialization opportunities which are essential to economic growth.¹

However, in most economic exchanges, contractual performance is based on personal characteristics of the parties, such as their wealth, solvency and reputation. The personal nature

of most exchanges is a more or less continuous attribute, derived from the more or less personal nature of the safeguards used to enforce contractual performance. In turn, the nature of these safeguards affects the amount of personal information that parties need to gather before committing themselves to the exchange. Going from the most to the least personal (and omitting individual moral traits), the starting point are expectations of future trade and market-observable reputation, then intermediate cases of indirect liability (community responsibility systems) and, lastly, impartial judicial enforcement of contractual agreements.

Conversely, the focus here is on truly impersonal exchange: that for which contractual performance is independent of any of the parties' characteristics. This greatly simplifies the parties' information problem but it can be achieved only by defining rights in respect of assets instead of persons.

2.2. The conflict between property rights and transaction costs

Property rights on assets can be enforced strictly, so that in case of conflict goods are always returned to their legal owners unless they had granted their consent: they can be treated as rights *in rem*.² This will encourage investment by providing the maximum degree of protection to rightholders. But such strict enforcement would increase transaction costs by worsening the information asymmetry suffered by acquirers of all sorts of rights, who would always have to gather the constructive or real consent of the legal owners. Strictly enforcing property rights would therefore endanger trade.³ It would also endanger specialization, because it is often based on agents acting as owners' representatives, and acquirers would doubt the legal authority of the agent. Let us see why.

In most economic activities several transactions are interrelated sequentially. The most simple sequence is one with only two transactions. First, one or several “principals”—such as owners, employers, shareholders, creditors, etc.—voluntarily contract with one or several “agents”—possessors, employees, company directors and managers—in an “originative” transaction. Second, the agent then contracts “subsequent” transactions with third parties.

These sequential exchanges offer the benefits of specialization in the tasks of principals and agents—between landowners and farmers, employers and employees, shareholders and managers, etc. But they give also rise to substantial transaction costs, because third parties suffer information asymmetry about the previous originative contract. In particular, third parties are often unaware if they are dealing with a principal or an agent, or if the agent has sufficient title or legal power to commit the principal. This constitutes a grave impediment, especially for impersonal transactions when transactors do not know each other.

Moreover, when trying to contain this asymmetry, principals also face a serious commitment problem because their incentives change after the third party has entered the subsequent contract. Before contracting, principals have an interest in third parties being convinced that agents have proper authority but, if the business turns out badly, principals will be inclined to deny such authority. This is why the typical dispute triggered by sequential transactions is one in which the principal tries to elude obligations committed by the agent in the principal’s name, whether the agent had legal authority or not.

The law can adjudicate in such disputes in favor of the principal or the third party. Favoring the third party will be referred to here as enforcing “contract rules”, as opposed to the seemingly more natural “property rules” which favor the principal. The two terms “property rule” and “contract rule” echo the property and contract rights that the original owner retains in each case.⁴

Their effects are clear. Take the simple case in which an agent exceeds his legal powers when selling a good to an innocent third party (that is, a good-faith party who is uninformed about the matter in question.) Applying the “property rule” that no one can transfer what he does not have, the sold good returns to the “original owner” and the innocent third party wins a mere claim against the agent. This will maximize property enforcement but will worsen the information asymmetry suffered by all potential third parties with respect to legal title. Conversely, the law can apply an indemnity or “contract rule” so that the sold good stays with the third party and the principal only wins a claim against the agent. This will then minimize information asymmetry for potential third parties but will also weaken property enforcement.

In principle, the choice of rule involves a tricky tradeoff between property enforcement and transaction costs. On the one hand, enforcing contract rules obviates the information asymmetry usually suffered by third parties and encourages them to trade. It thus transforms the object of complex transactions into legal commodities that can be traded easily, thus extending the type of impersonal transaction that characterizes modern markets. On the other hand, enforcing contract rules weakens the principals’ property rights, endangering investment and specialization in the tasks of principals and agents.

To overcome this tradeoff between property enforcement and transaction costs, expanding the set of viable contractual opportunities without damaging property rights, the law tends to apply contract rules, but allowing principals to opt for property rules when they make their choice public. Principals can produce this publicity by various means, such as keeping possession of movable assets or filing their claims to immovables in a public registry. This way, when principals opt for a property rule, their rights become safer while, thanks to publicity, third parties will suffer little information asymmetry. Similarly, when principals choose a contract

rule, third parties' rights are safe while principals' rights are weaker. But this weakening of property is limited since principals choose the agent who, for instance, they entrust with possession or appoint as their representative, this being the moment when they implicitly "choose" a contract rule.

The smooth operation of this switching of rules poses varying degrees of difficulty for different transactions. The difficulty is minor when the originative contract inevitably produces verifiable facts, such as the physical possession of movable goods or the ordinary activity of an employee. For these cases, judges can base their decisions on this public information, which is produced informally. What judges or legislatures have to do is to clearly define the efficient contract rules to be applied. Conversely, greater difficulty arises when the originative contract produces less verifiable facts, making informal solutions harder to apply. Such informal solutions may even be impossible if the contract remains hidden and its consequences are not observable. Consider, for example, the difficulties for clearly establishing by purely private contract the existence of a corporation, distinguishing the corporation's assets from the personal assets of its shareholders.

In such contexts of harder verifiability, defining contract rules is not enough: To make originative contracts verifiable, it is necessary to enter and preserve at least some information on them in a public registry, which must enjoy independence and public access. First, to prevent interested manipulation, the registration process must be independent of all the parties involved, including parties to the originative contract. (This requirement of independence makes registration wholly different from documentary formalization, which is designed to safeguard the relation between parties to the same contract.) Second, at least the key features of the originative

contract need to be made available to the public or at least to potential third parties, so that they can know beforehand which rules are applicable to any subsequent contracts.

In essence, registration becomes the means to make the voluntary choice of market-enabling rules verifiable by courts and therefore commit principals to their choices: Only registers can ensure that owners of resources have consented voluntarily to a weakening of their property rights with respect to innocent acquirers, and that they cannot opportunistically renege from such consent. When purchasers of land and mortgage lenders rely for their contracts on the information filed with the registry, developed legal systems protect their acquisitions even against unregistered legal owners. A similar function is performed by company registries with respect to personal and corporate creditors so that, for instance, if a corporation has remained unregistered this should not damage third parties. In both cases, these protections in fact eliminate the information disadvantage suffered by third parties, and so reduce transaction costs, making trade easier. Furthermore, well-functioning registries achieve these feats without damaging the property rights of landowners or company shareholders.

2.3. An historical overview of the demand and supply of formalization institutions

The analysis above shows that contract rules are the primary institutional solution to enable impersonal market exchange. Thus, modern legal systems protect innocent third parties directly, reducing transaction costs by enforcing contract rules for the adjudication of title disputes. Consequently, they protect rightholders indirectly, minimizing damage to property rights by requiring an element of consent for selecting the applicable rule. With this expansion in the role of contract rules, property rules have ended up playing a minor and declining role in both corporate and property law, almost becoming an exception. In corporate law, innocent third

parties are increasingly immune against legal defects in the corporate decision-making process; and, even if shareholders are free to introduce limitations in articles of incorporation and representation powers, these limitations are most often ineffective against innocent third parties (Arruñada, 2010a). In property law, the old regime of privacy titling now plays a residual role; recordation sets priorities between property claims in the order they have been recorded; and recordation itself is being replaced by registration which, in addition, guarantees indefeasible title for innocent acquirers (Arruñada, 2003).

History tell us much about when formalization institutions become valuable and why their development often faces substantial difficulties.

The predominance of market-enabling contract rules is consistent with the growing weight of impersonal exchange but has developed unequally across economic activities. While contract rules covering commerce and finance were applied in business trade as from the medieval Law Merchant (Berman, 1983, 348-50), it has taken almost ten more centuries to apply similar contract rules in property and company law. This difference may be mainly driven by different trade opportunities and, therefore, differential *demand* for institutional change across economic activities and legal areas. But something else must also be going on, as contract rules were applied earlier in those areas where judges can safely base their decisions on the publicity produced as an unintentional byproduct of contractual and economic processes. This observation suggests an additional *supply* explanation: contract rules are applied later where their application requires the support of registries. Both property and company registries also started to be proposed by cities and merchants back in the Middle Ages but they were generally created much later, often unsuccessfully. Governments have struggled for almost ten centuries to organize registries that could make contract rules safely applicable to real property (Arruñada, 2003).

Similarly, company registries, despite having been invented within the Law Merchant, were adopted by most governments only in the 19th century (Arruñada, 2010a). Moreover, though most countries in the world have run property and company registries for more than a century, only a few have so far succeeded in making them fully functional.

Demand factors therefore make the application of contract rules more or less valuable and supply factors make it more or less costly. On the one hand, the major determinant of demand for the enforcement of contract rules is, of course, the existence of opportunities for profitable impersonal trade, which might be wasted in the absence of market-enabling contract rules. This is not only an economic problem, because opportunities are not open to everybody and beneficiaries of the old system may have little to gain in the new one. In other words, economic demand does not necessarily imply political demand for institutional change. This is why the strength of the demand negatively correlates with the strength of alternative institutions, which are suited to different forms of production that rely little on markets or only on personal transactions and local markets. In these cases, institutional change is often resisted by those with vested interests in the traditional order, be they the tribal chiefs in a primitive region, the organizers of squatters in an urban slum or the nobles and conveyancers of the European Ancient Regime.

On the other hand, supply factors make the enforcement of contract rules more or less costly to introduce. When originative contracts are verifiable as an automatic and non-manipulable byproduct of the productive process, this verifiability comes free. When this is not the case and contract verifiability is not readily available, a public intervention is necessary not only to change the rules (as in commerce and finance) but also to organize and operate contractual registries. And registries involve multiple additional difficulties, not the least substantial being

initial investments that would be lost if demand fails to materialize. But demand is uncertain, and conditioned to solving a collective action problem among beneficiaries because part of the benefits of registering accrue to others (Arruñada, 2010a). In addition, functional registries are fragile creatures. The value of their services disappears altogether when their corruption or incompetence lead to fraud, error or, most often, delays and gaps in registration. They also have to fight private producers of palliative services (i.e., documentary formalization) who usually prefer a weak or dysfunctional registry as this increases the demand for their services. Lastly, the delay in the creation of institutional support for impersonal exchange is probably related to the simple fact that mainstream law first developed for facilitating personal exchange. Consequently, most legal resources, including not only the human capital of judges, scholars and all sorts of law practitioners, but also other intangible assets, such as conceptual frameworks and academic curricula, were originally—and to a large extent, still are—adapted to personal exchange. Institutional delay is thus partly due to path dependency.

The theory and history of contractual registries enlightens current policy dilemmas, which are mainly of two types: (1) adjusting institutional development to the demand for institutional support; and (2) considering organizational imperatives, substitution possibilities and counterbalance of private interests when organizing contractual registries.

3. Adapting formalization institutions to market demand

There are two types of deficit in countries' provision of institutional support for impersonal trade: less developed countries simply lack appropriate institutions while many developed and medium-developed countries would benefit from drastically reforming their existing but dysfunctional institutions. In both cases a successful intervention needs to match demand and

supply and, as a first step, should identify which institutions would be consonant with existing demand. In less developed countries, this requires estimating the demand for titling and business formalization and creating functional, well-adapted institutions. In more developed countries, reformers can take demand for granted but they need to know why current institutions fail to satisfy it and how to transform them.

Both problems have technical and private-interest aspects. Technical aspects have to do mainly with adapting institutions to the demands of economic activity: institutions for impersonal trade are needed when there are profitable trade opportunities. Different private interests are also decisive in both types of country. In less developed countries, there is often a clash of interests between the economic agents involved in customary forms of economic activity, and the coalition formed by emerging economic agents who would prosper in an economy more open to wider markets and the industry, providing all sorts of services for formalization reform (including consultancies and international aid organizations). Conversely, in more developed countries, including countries with a medium level of development, the main private interests are those of professionals providing imperfect substitutes for formalization services, most commonly lawyers and conveyancers providing documentary formalization who would be hindered by improvements in public contractual registries that would reduce demand for their services.

Theory helps us by providing a structured analytical framework to adapt reforms to demand, building sensible expectations, identifying market signals and prioritizing reforms within a necessarily long-term horizon.

3.1. Appraising the real value of formalization for development

Given the high cost and doubtful results obtained by many formalization projects which have invested huge amounts of money in property titling and business registries, the starting point of any reform effort in less developed countries must be a careful consideration of the existing demand for institutional support and the possible alternatives which, being less costly, may well constitute a better policy in the short term and also provide a sound basis for launching formalization reform in the longer term.

Ascertaining the demand for formalization is necessary because satisfying such demand is costly so supply of formalization services should be properly matched with demand in both time and space. The goal is not to provide a perfect match but merely to avoid the type of costly mistake that dominates the empirical literature on these issues.

Assessing demand is difficult: those who know it best are likely to benefit the most from formalization projects, because they will either be subsidized users or privileged suppliers so will tend to exaggerate demand. In particular, suppliers of new formalization services often commit two types of misrepresentation to exaggerate the demand for formalization: confusing the demand for security of tenure and the demand for public titling capable of facilitating transfer and credit transactions; and promoting formalization as a silver bullet for growth, disregarding that underdevelopment and poverty are mainly a cause, not a consequence, of informality.

Benevolent reformers should therefore compensate their poor information by taking into account not only surveys and expert opinions but also market signals through which market participants indirectly reveal their true demand. Unlike surveys and mere opinions, such signals result from real transactions and are thus backed by the real expenditures that transactors incur to carry them out. There are several types of signal that meet these requirements for truthful

demand revelation: use of inefficient contracts, confused and unreliable jurisprudence and market prices.

First, in the absence of functional property registries, parties are inclined to use vicarious contractual solutions to realize the collateral value of land. For this purpose they might, for instance, contract securitized credit by means of sales accompanied by repurchase agreements. The absence of this type of contract may be taken as an indication that mortgage credit will not be forthcoming even after developing a land titling project. A similar market signal in business formalization would be the habitual presence in business contracting of unincorporated companies, such as in 18th and 19th century England and currently in Bolivia. (Note that this has little to do with these firms being administratively informal, though it may overlap).

Second, in less developed countries, if judges rely on secret documents for deciding on conflicts involving third parties, this often signals a lack of proper institutions (though judges are involved, it can still be considered a market signal because it is a consequence of existing contracts). In more developed countries, the subordinate role of the law of impersonal transactions can be inferred from the prevalence of confusing law, full of exceptions and contradictory jurisprudence.

Third, some market prices are also especially revealing for detecting the need to reform existing but poorly functioning registries in more developed countries. This is the case, in particular, of the spread or difference between the interest rates of secured and non-secured (i.e., personal) credit. When this difference is small, as in most medium-developed countries, it is a sure indicator that registries and likely land law need a radical upgrade, because they are unable to realize the collateral value of land. Some other prices are informative but they are much noisier and need close scrutiny, such as the level of expenditure on title reports and legal

opinions, and the market price of shelf companies. The same happens with other indicators of the need for stronger contractual registries, such as mandatory (both legally or de facto) intervention by conveyancers; the relative price of conveyancers and registries; the use, cost and legal complexity of lawyers' title reports; and the reliance on legal opinions for ordinary company transactions.

Fourth, demand should guide not only the initial decision about whether to create contractual registries but also how they are to be created, and the best way to ensure demand revelation is by charging full prices to registry users. Notwithstanding the need for specific universal titling in some circumstances where there are important externalities, as a general rule, voluntary titling and fee financing should be used to reveal demand for formalization, thus guiding the gradual deployment of registries in time and space. A main factor in this judgment is the truism that in any case titling is unavoidably voluntary with respect to second transactions even when initial titling is universal.

3.2. Logical sequence of reform

In addition to ascertaining the demand for institutional support of impersonal exchange, formalization efforts should establish a logical sequence of reforms.

As a first step, even before undertaking the more costly deployment of land and business registries, policymakers may exhaust the possibilities of notoriety-based contract rules. As theory and history show, contract rules are safely enforced based on notoriety for most commercial transactions. In particular, it is not necessary for individual entrepreneurs to be registered in order for contract rules to be applied to the benefit of third parties transacting with them in their commercial transactions (on either movables, agency or employment).

Second, it often makes sense to first develop or upgrade the institutions used for identifying individuals, such as civil registries, and then to continue with contractual registries and the courts. Given the interaction between institutions such as civil registries, contractual registries and courts, it is hard to establish priorities when developing the institutional foundations of markets. Creating or improving all of these organizations will often be inefficient or impossible because of scarce resources. In this case, it can be argued that civil registries and other means of identifying individuals (e.g., IDs, postal addresses) should be given precedence because they facilitate personal exchange, based on reputation, even without functional courts and, moreover, they provide necessary inputs for contractual registries. A similar input-provision argument supports giving precedence to contractual registries in courts: contractual registries make courts' decisions simpler by making originative contracts verifiable.

4. Organizing formalization institutions

Creating and reforming contractual registries entails three seemingly simple elements: respecting the organizational imperatives required to make them functional; managing tradeoffs in their design, so that they are well adapted to the particular characteristics of the economic and institutional environment in which they will be operating; and counterbalancing private interests that otherwise tend to hamper them.

4.1. Respecting organizational imperatives

Business and property registries provide a valuable service when the information they provide is reliable enough for judges to base their decisions on it. Only then can economic agents rely on such information for contracting, thus reducing their information asymmetry and

facilitating impersonal transactions. The documents filed in formalization registries must therefore contain the legally required information, which must be preserved and accessible and, whatever its content, must not be influenced by parties. In sum, registries must be reliable and independent.

Reliable registries must be organized in line with their function and there must be reasonable links between pay and performance. Registries (especially those performing more extensive legal reviews) are similar to law firms in their resources and activities; they should therefore use similar incentives. As in law firms, deferred compensation is needed, both to encourage investment in specific human capital and to discourage corruption. This makes it essential to charge users fees, as these are a good means of protecting the registry against crises in the state budget. Otherwise, the deferred portion of the compensation tends to be expropriated during such crises and the expectation that this may happen will make deferred compensation ineffective from the start. In other words, registrars will be discouraged to invest in their careers if they expect to be expropriated later. In addition to deferred compensation, pay for performance is appropriate but needs to be well adapted to the function. For example, urgency surcharges are often counterproductive. Better to postpone payment until after registration, an effective device when pay is linked to performance. Similarly, another key incentive which in practice is only possible when paying for performance is to subject registrars' decisions to strict instead of negligent liability, surely the strongest means to reduce registration errors.

Moreover, registries must be independent of all the parties to originative and subsequent transactions and free of corruption; not only the mild corruption that leads to speeding up the processing of documents but the much more serious practice of faking the date when the documents are filed, which makes registry certificates useless as proof. When such incidents are

suspected to be frequent, judges will end up disregarding registry certificates. Economic agents will soon follow them, relying instead on personal safeguards, which drastically limits their trade and specialization opportunities. They will also have little interest in registration because its main consequence is a bigger tax and regulatory burden.

When planning and evaluating reforms, these requirements of reliable and independent registries hold important consequences for identifying key users and setting priorities.

First, to focus on the main contribution of registries—lowering future transaction costs by reducing the information asymmetry suffered by transacting parties— reformers should consider judges as the key users of registries’ services. Even if judges are only occasional last-resort users, they are the fundamental users because they determine the value of the whole system for all other users. Unfortunately, many reform projects overlook judges and hear only the opinions of owners and entrepreneurs. Their overreliance on these direct users amounts to taking formalization as an end in itself, ignoring that it must serve to facilitate future contracts: the outputs of formalization are judicial and contractual inputs. For a start, real private users are the parties in such future contracts, who may rely on the information in the register. But they will become users only if the information is indeed used by judges. By focusing on filing parties, reformers therefore risk setting wrong priorities: minimizing initial private costs and neglecting not only value but also future and public costs. In contrast, paying heed to judges will remind them that the main goal of reform should not be only to reduce the private initial cost of formalization—a cost paid only once—but, rather, mainly to reduce transaction costs in the future. Although most of these future transaction costs are hard to see, stemming from exchanges that have become impossible, they are recurring and usually much larger than the costs of initial formalization.

Second, the priority when setting up new registries or reforming existing ones should be to have them providing useful legal services. Ensuring this minimum legal quality is more important than reducing costs. It is nonsense to spend resources on refining systems that are all but useless by, for example, computerizing or speeding up the production of potentially partial information. Only reliable, independent registries are able to reduce transaction costs and act as catalysts for economic activity.

Lastly, reaching economies of scope between contractual and administrative formalization serving public agencies, such as tax authorities, should be considered as a second-order objective. This is especially so because in pursuing such an objective, policies tend to subordinate contractual registries, reducing their specialization and endangering the incentives of private parties to register.

4.2. Optimizing organizational tradeoffs

Different designs of formalization systems offer different mixes of costs and benefits at different moments in the exchange and contractual process, require different complementary services and are financed with different sets of private and public funds. All these possibilities pose tradeoffs which have to be considered not only for planning reforms but also for evaluating their performance.

First, there is substitution between initial and subsequent transaction costs. For example, land registration is initially more costly than recordation but is more effective in reducing future transaction costs. In general, better formalization services should reduce future transaction costs further by making it easier, for example, to identify property rightholders and company representatives, to know their rights and representation powers and to foreclose mortgages after

borrowers' default. Consequently, less "title search" and "due diligence" work should be needed before transacting. Also, litigation should be less prevalent and eventually faster and cheaper, as suggested by empirical data (Arruñada, 2010b). A similar tradeoff takes place between less extensive company registration and costlier due diligence work performed by lawyers later, including the issuance of more detailed legal opinions (Arruñada, 2010a).

Second, and partly as a consequence, there is also substitution between compulsory and voluntary services and, therefore, their costs, as different formalization systems require different complementary services to be provided by different agents before formalizing a transaction. Moreover, while in some countries these requirements are legally mandatory (whatever the real need for them), in others they are de facto indispensable to achieve a satisfactory level of legal certainty. For example, property registration provides transacting parties with title certainty while land recordation systems require more conveyancing services to examine titles. This examination is mandatorily performed by notaries in France and by lawyers in several US states, but is not required in other US states, although in most states parties retain professionals—not necessarily lawyers—to perform it.

Third, there is little justification for mandatory intervention of conveyancers (lawyers, notaries), surveyors and other professionals (e.g., accountants), to provide complementary services to registration (Arruñada, 2007b). Given that most legal effects of these services are circumscribed to contractual parties, these have the right incentives to decide whether to purchase them and from whom. This aspect of the substitution can therefore be freely decided in the market, which will usually lead to the use of these complementary services only for more valuable transactions.

Fourth, there is substitution between the costs paid directly by users and by taxpayers. In the real property area, governments often subsidize land titling efforts, charging owners nominal fees, and financing them instead with resources from general taxation and foreign aid. Similarly, when they create single windows or one-stop shops for company incorporation, they rarely charge users for the additional investments that their electronic systems require.

Lastly, substitution also happens between taxes. For instance, some countries opt to tax land mainly through transaction or transfer taxes with correspondingly lower tenure or property taxes (e.g., France, Spain) while others opt for levying lower transfer taxes and greater property taxes (e.g., most of the United States, Great Britain). These tax structures encourage different degrees of geographical mobility and are thus likely to be adapted to different types of social capital, with wide-ranging consequences. For instance, higher transaction taxes are likely to lead to less mobility and investment in forms of social capital that are more suitable for personal trade.

Full consideration of these tradeoffs would require information on many costs and benefits produced at different moments of the contractual process. It is therefore out of the question. However, current practice could be substantially improved, as many reform efforts only consider a narrow set of costs. For example, the initial formalization costs incurred by users have figured more prominently than all sorts of public and future costs in administrative simplification efforts influenced by the World Bank's Doing Business "starting a business" and "registering property" indicators. Their methodology, originally devised as a warning system on excessive red tape, considers only some costs and, when used for broader policy analysis, risks prejudicing the results without proper examination, damaging policy in both areas (Arruñada, 2007a, 2009). First, these indicators only estimate initial costs of formalization, which impedes considering the tradeoff between initial and later costs, including the reduction in future transaction and

administrative costs. Second, they consider only mandatory procedures, which precludes comparing the costs of mandatory and formally voluntary procedures. Third, they compute only the private costs paid by entrepreneurs and property owners, which obscures the costs incurred by the government for providing better formalization services. Lastly, they disregard private intermediaries between users and public formalization agencies (so-called facilitators), which impedes consideration of the relevant tradeoffs when determining the optimal degree of public and private involvement—that is, how much of the formalization process should be vertically integrated in the state. In particular, this tends to bias the choice between public and private solutions, favoring public, vertically-integrated single windows.

For policy analysis and institutional design, a broader perspective is advisable, considering information on all these tradeoffs. This requires, first, estimating at least some later costs by measuring, for example, the incidence of litigation and those contractual and judicial processes (such as the repossession times), whose effectiveness can be attributed to registries' performance. Second, instead of considering only mandatory procedures, all those followed by most users should be considered. Third, any costs paid by government agencies should be added to the costs paid by entrepreneurs and property owners. Lastly, the prices charged by private facilitators should be regarded as a market valuation of the total private costs incurred.

4.3. Counterbalancing private interests

Formalization institutions are often inefficiently organized or do not exist because of vested interests; and these same vested interests also prevent efforts to reform or create them. Improving formalization institutions therefore involves fighting vested interests, mainly to build reliable public registries and to suppress unnecessary procedures. But it also involves avoiding being

captured by private interests; not only by the old vested interests but also by the new private interests that appear within the reform: policymakers and reform suppliers are also self-interested and the new bureaucracies soon evolve into vested interests themselves.

First, building effective formalization institutions tends to be opposed by those professionals providing palliative services. This is understandable considering that more effective formalization reduces future legal and judicial costs, and therefore reduces the demand for lawyers. First, if the system is more efficient, as with a properly functioning registry, it reduces aggregate demand for conveyancing. Second, it moves demand between types of lawyers. For example, going from recordation of deeds to registration of rights moves demand from lawyers and experts providing conveyancing services in private practice (be they solicitors, notaries or lay title examiners) to government lawyers working for the public registry. Given this conflict of interests, registries are at permanent risk of being captured and debased by conveyancers. To avoid this, registrars must have powerful incentives, which are seldom available when using the standard civil-service structure. Within such structures, especially when registrars are paid a fixed salary, they will often be happy to see their functions reduced and transferred to conveyancers, even when this will be socially inefficient. To avoid this risk and make registries sustainable, the powerful incentives of conveyancers should be counterbalanced with powerful incentives for the registrars, paying them for performance.

But reform efforts are also affected by private interests that may cause them to depart substantially from the common good. Some puzzling regularities observed in modern formalization projects are prime suspects in this regard, including specific policy choices such as: opting for universal titling in areas where little demand for transactions exists; subsidizing titling efforts, especially in these same areas; advertising the benefits of titling in countries where

owners are reluctant to formalize second transactions; subsidizing mapping and surveying land even where these maps and surveys offer questionable utility and are in any case unsustainable; choosing capital-intensive technologies in countries with plenty of labor; and focusing the improvement of the business environment on the registration of companies in countries with very few companies. In tackling these conflicts of interests, a benevolent planner should rely on market forces as much as possible, as indicated in previous sections, to ascertain the real demand in time and space. Also, in terms of quality, users should be free to use, or not, the complementary services of conveyancers, surveyors and accountants.

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Notes

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¹ On the importance of impersonal exchange see mainly North and Thomas (1973), Granovetter (1985), North (1990), Seabright (2004) and, for a more foundational treatment, Hayek (1982).

² The paper will rely on this definition of property rights as rights *in rem*. Note that the economic literature often uses a broader concept of property rights, including both property and contract rights.

³ This trade-off between the strength of one's rights and their transferability at low cost is more or less explicit in, among many others, Calabresi and Melamed (1972), Baird and Jackson (1984), as well as in more recent works which have mostly focused on the role of the *numerus clausus* of property rights, such as Heller (1999), Merrill and Smith (2000), and Hansmann and Kraakman (2002).

⁴ These rules are similar but distinct from the "property" and "liability" rules defined by Calabresi and Melamed (1972) because, instead of a taking that affects only two parties, here the rules are defined in the context of a three-party sequence of two transactions.