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Privatizing public registries: a comparative analysis of organizational options

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The Organization of Public Registries: A Comparative Analysis

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Abstract

This work analyzes the main tradeoffs in the organization of public registries, comparing five forms of organization: (1) the bureaucracies or "discretionary expense centers" used to provide privately valuable services in the welfare state; (2) the internal markets introduced to reform them, and the hybrid solutions that have been used by the liberal state since the 19th century to provide such privately valuable services, including (3) revenue centers based on user fees; (4) franchised systems in which professional civil servants are paid from the profit of an office; and (5) the contemporary variant in which the Government contracts out the provision of the whole service to a private firm. This comparison suggests that hybrid forms allow market forces to play a more effective role in organizing public registries because they are limited to a few variables, which makes stronger incentives possible while, at the same time, reducing the need for extensive planning and supervisory staff.

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1. Introduction

Contracting property (understood as *in rem* or real) rights,[2] which is desirable because of its enforcement benefits, requires recurrent reallocation of rights that must be public because it affects third parties (Arruñada, 2012, 2017). This explains why decisions on property rights are made by bodies or agents that are independent of transactors, which usually implies that they are organized on the basis of a territorial monopoly: parties are not free to choose a registry or a judge but are assigned to one on a geographical basis.

The reason is simple. Property, *in rem*, rights, oblige everybody and, to protect everybody's interests, those controlling their creation must be independent of all actual and potential parties to both originative and subsequent transactions in the chain of transactions relating to a given asset. By contrast, a similar constraint would not make sense for contract, *in personam*, rights because agreeing to exchange contract rights only obliges the parties to the agreement, who can thus be left to fend for themselves. For the same reason, transactors are generally allowed to freely choose which individual professional, if any, they will retain to prepare their conveyancing contracts.

1.1. The organization of public registries

This requirement of independence must be satisfied by all titling systems (e.g., private conveyancing, recordation of deeds, or registration of rights), even if they create property, *in rem*, rights in different ways and at different moments. Privacy and recordation delay their creation until an eventual judicial intervention, whereas registration creates them at the time of registration. However, in all three systems, independent agents decide which rights will be enforced as property rights and which rights will be merely contractual, including the effective date establishing *in rem* priorities. Under privacy and recordation, this includes the judge, who ultimately decides on title matters, as well as, in the case of recordation, the recording officer, whose actions—even though mechanical—determine such priorities. In the case of registration, it is the registrar who first sets the priority date when lodging the application and then decides whether to register or require additional consents as a condition for registration. Consequently, incentives for all these decision makers, whether judges,

[2] If a given claim on an asset is enforced against everybody, so that everybody must respect it, the claimant holds a right *in rem* (a property right *stricto sensu*). But if the claim is enforced only against specific persons, the claimant holds a mere right *in personam* (a "contract" right). Suppose that landowner *O* grants a secret lien to *L* at time t_1, sells the land to *B* at time t_2, and then *L* seeks to seize the land to satisfy the lien at time t_3. Two resolutions are possible. Either *B* is given the land unencumbered by rival claims, with *L* relegated to action for damages against *O*; or *L* is given the right to enforce the lien, with *B* relegated to an action for damages against *O*. In both cases, one party is given a property (i.e., *in rem*) right with the other being given a contract (*in personam*) right.

recorders, or registrars, have the same objective: to make them independent in relation to all the parties.

Impartiality is not primarily needed between the parties to the private conveyancing contract, but mainly between them and third parties, that is, those holding property, *in rem,* rights affected by the conveyance—impartiality is required between parties to both originative and subsequent transactions. Because these potentially affected third parties are not present, are frequently not even aware of the originative transaction, and are often dispersed, it is understandable that the parties to the originative contract should not be allowed to choose the providers of recordation, registration, or judicial services. Take, for instance, the possibility of a lender determining who will decide the priority of his mortgage among other competing mortgage claims. Freedom to choose cannot protect rightholders who are not choosing. All kinds of land recorders and registries are thus organized as territorial public monopolies, both when they produce evidence determining future judicial decisions, as recorders do, or when they decide directly on property rights, as registries of rights do.

Alternative solutions to a costly monopoly seem to be insufficient to guarantee effective independence in the production of reliable evidence for switching priority rules (from date of contract to date of filing). Neither is it viable to imitate the dual organization of liberalized utilities, including telecommunications, railroads, and electricity, in which several competitive providers use the same monopoly distribution network. This paradigm could theoretically be applied to registries because, in addition to providing legal services and decisions, registries also keep an archive of deeds or rights. This archiving activity benefits from decreasing unit costs, thus generating a situation of natural monopoly. By itself, this monopoly would not preclude free choice between judges, recorders, or registrars, who could share a common archive to achieve economies of scale, in a similar fashion to utilities which channel the services of several providers. But this arrangement is not viable for registries because such free choice on the part of conveying parties would endanger the interests of third parties, a problem that does not exist for utilities because there are no important externalities between consumers.

These requirements explain why public registries are organized as a public service within the state apparatus and constrain the organizational choices, even though different countries have a variety of organizational structures (Arruñada, 2012). A few countries have traditionally organized registries as a kind of public franchise, with each registrar being compensated from the profits of the office (as was the case in Belgium, some regions of Brazil, France, Luxembourg, and Spain), but most countries organize registries as standard, fixed-salary bureaucracies (Cook County, which included the city of Chicago in Illinois; England, before the reforms introduced in 1990; and Puerto Rico, where the registration system was first established with variable salaries but moved to fixed salaries early on), and in some cases within the court system (as in Germany, Scandinavia or the Land Court of Massachusetts).

1.2. **The organization and reform of public services**

Most other public services are also organized as bureaucracies or what the literature of Managerial Accounting calls budget or "discretionary expense centers" (Kaplan and Atkinson 1989:531-33), so that each supplying unit receives a budget with which it must provide services, usually unpaid, to other departments or end users. When, if ever, the performance of such units is evaluated, this is usually based on subjective judgment and a variety of

incomplete indicators. Many of the decisions on what to produce, for whom and even how are usually centralized or subject to detailed decision-making procedures.

In business firms, the use of expense centers is usually limited to areas in which it is difficult to measure their activities, not only in terms of efficiency but also of effectiveness, and in which it is difficult to link the resources used to the services rendered and also to define and evaluate the degree to which the objectives are achieved. Such characteristics can especially be found in central departments and in the actual general management of firms. How difficult it is to make such measurements usually depends on the type of resources and technology used and the services provided. The resources may be difficult to evaluate due to their high human capital content and because the costs are shared among or can be allocated to a wide range of users and products. In addition, many of the production processes may have a low degree of standardization and provide a wide range of services to other departments within the same organization, or to external customers. Finally, many services are of an intangible nature, so that, although their quality is very important, it is difficult to evaluate them because subjective elements are involved. It is often only the users that are aware of the quality, and this knowledge is difficult to pass on to the person with authority to take corrective action. In the worst possible case, not even the users are aware of the real quality. This is particularly so when activities are intensive in human capital so that their quality can only be evaluated by qualified personnel.

In public services, technology also limits the possibility of measurement because many activities share the same characteristics. This is especially the case in the production of what economists call public goods: those goods for which there is no "rivalry" (i.e., use by one user does not reduce availability to others), and "exclusion" is impossible (i.e., users cannot be excluded from use). They are characteristic of services defining the "liberal state", such as national defense or the police.

It is much less difficult to measure the services that constitute the core of the "welfare state," such as health, education, or pensions and other types of social insurance. These are privately valuable services in which it would be possible to exclude people from consuming them (except for their "external effects", which are of varying importance and could be handled in many other ways than by direct state provision). However, despite their private nature, they have often been provided free of charge by state agencies that have been financed by taxes unrelated to consumption.

Moreover, in many cases, it was also decided that discretionary expense centers should be responsible for their own organization, with a budget being allocated to the civil servant or the department rendering the service without paying them on a performance basis. These two patterns stand in contrast to system usually adopted for public services that provide private utility, such as those provided by public registries. Particularly in the services that were re-organized during the liberal state of the 19th century (justice, registers, pharmacies, and even, to some extent, education), activities were highly regulated but explicit fees were charged to users, and high-powered incentives were offered to suppliers. In some cases, professionals were even treated as public franchisees and compensated with the residual profit of their unit, after paying for any other resources for which they were responsible.

Recent reforms of public services, which have for decades been provided free of charge by expense centers, aim to recreate a market, introducing both some form of user choice and supplier incentives by increasing competition between suppliers. It is not a question of "inter-organizational" competition between different organizations but rather of "intra-organizational" competition between the divisions or departments of a single public organization. Such intra-organizational competition within the Administration is like that

which often exists in large corporations. The problems it creates are not completely new, but they are more complex (Arrow 1970:229). Large, multi-divisional corporations have extensive experience of dealing with this and have developed many formulas for this purpose. As with the Public Administration, such corporations constantly suffer from the tendency for administrative units to grow excessively and to provide services inefficiently to the other divisions. At root, such failures can only be remedied by changing the incentives of the two parties: firstly, the incentive of the internal users, making them pay for the services they receive from the expense center and, secondly, the incentives of the internal suppliers, taking from them their monopoly on the provision of such services. Sometimes, an attempt is made to create a sort of "internal market" within a firm. The general management of the organization then must act as regulator of the competition that arises between its internal divisions.

This work first examines the general difficulties that arise when elements of this type of internal competition are introduced in the Public Administration, and it suggests that the role of market forces may be more productive if it is limited to a few variables. This seems to make stronger incentives possible, while reducing the need for extensive planning and supervisory staff. The argument is then applied to the reform and privatization of public registries, to the extent that some of these efforts actually only modify the legal status of registries within the organization of the state without providing strong incentives, but expanding the regulatory bureaucracy charged with managing the new system.

The rest of the work proceeds as follows. Section 2 discusses the typical failures of bureaucracy and the role of competition in overcoming them. First, section 2.1 describes how public services commonly organized as budgetary or "discretionary expense" centers, which do not charge users, tend to be too large and inefficient. Then, section 2.2 examines the possibilities and difficulties arising from the transformation of such expense centers into units that are to some extent subject to market forces, with users facing opportunity costs and suppliers being subject to competitive pressure. Lastly, section 2.3 explores solutions that have been used since the inception of the liberal state to organize legal and judicial services in continental Europe, focusing on the case of Spain. These solutions involve strong incentives with little management, indicating that, instead of spending huge amounts of money on developing comprehensive internal markets with large management staffs but weak incentives, effective solutions may instead be based on relatively automatic management of strong incentives based on a few key performance variables. Based on this framework, section 3 analyzes the traditional organization of public registries, mainly as revenue centers and franchised units, and compares it to recent privatization efforts. Section 4 concludes.

2. The failure of bureaucracy and the role of competition

2.1. The pathology of bureaucracy

Whether located in the public or the private sector, expense centers tend to be chronically inclined towards oversizing and overspending (Niskanen 1968, 1971). This is the result of the

incentives of both producers and users, and the lack of information available to the budget office controlling the activity.

With regard to incentives, the remuneration, power, and promotion prospects of those responsible for the expense center—and, in general, for all those working within it—usually increase when the center's budget increases, which means that they all have a common interest in enlarging it. Moreover, when users do not pay for the goods and services they receive or when what they do pay does not vary in step with their consumption, they tend to demand more than the optimum level, that is, the level at which the cost would be the same as the marginal value for the organization or the group. Obviously, this possibility is greater for goods or services that provide utility to users, such as registration services, as opposed, for instance, in an extreme case, to tax audits.

The budget office in charge of allocating and controlling the use of resources among expense centers finds it difficult to perform its tasks because it suffers information asymmetry with respect to the cost and value of the services that are provided. Even if it were possible to set the budget for each expense center at its optimal level, it would still be difficult to evaluate how the budgets are spent. For example, if an expense center has neither a deficit nor a surplus, this indicates neither wastage nor efficiency because the center's products are not measured. And managers of expense centers are interested in maintaining their informational advantage over the budget office. They will therefore resist any policy aiming to measure the amount or quality of the services. For the same reason, they will tend to conceal the availability of idle resources and are unlikely to present a budget surplus, since this might be interpreted as meaning that they have excess resources. They are more likely to spend all available resources, even on purchases offering limited utility. Similarly, users will tend to exaggerate the value of what they consume.

Because of these information asymmetries, the most that can be expected is that the problem will be contained within sustainable limits, using palliatives of doubtful efficiency, such as supervision and budgetary reviews. An incremental procedure is often adopted, focusing not on volume or resources, but only on any new budget allocations or cutbacks. In practice, attempts to draw up new budgets starting from zero and reviewing all expenditure are both costly and inefficient. Since expense centers have this tendency to overspend, they often find that their budgets are cut when the organization they belong to is experiencing hard times (Neuman 1975), whether it is a company, a town council, or a government. Such cutbacks entail certain problems. It is often not known in which areas a reduction of expenditure would be most effective or, even if this is known, it may be impossible to implement cutbacks in one area and not another. Crises often lead to general cutbacks to contain the costs generated by budgetary battles, but their effects are temporary. Overspending soon reappears because cutbacks do not tackle the root problem, which lies in the interests of users and providers, and is aggravated by the information asymmetries suffered by the budget office, which often end up in strategic budgetary games. Cutbacks may not even reduce expenditure because they come up against all sorts of restrictions and defense strategies on the part of those affected. The threat of dumping dead bodies in the manager's office has been used so often that it features as a category in some texts on hospital sociology.

Admittedly, this description simplifies the conduct of expense centers, at least in three dimensions. First, it describes privately valuable services better than purely public services. The theory therefore tallies with the argument that bureaucracies tend to over-provide private goods and under-provide public goods (Breton 1974). Second, bureaucrats often focus more on leisure than on growth (Peacock, 1983), and may aim to increase not the whole budget

available, but only those items that provide greater personal utility (Dunleavy 1985, 1991). Moreover, it assumes a degree of autonomy that only exists in certain administrations, especially in the USA (Peters 1996:26-27). However, this criticism pays more attention to formal autonomy and its short-term effects than to the actual autonomy that creates the information asymmetry and, especially, to the implicit collusion between suppliers and users, as well as the long-term effects, which are similar irrespective of the degree of formal autonomy. Many expense centers in the public administration certainly have little formal discretion. However, they enjoy an information advantage that gives them considerable informal discretion to allocate resources internally and manipulate central decisions on resource allocation and procedures. For professional services, formal regulation of production processes is usually very detailed, but officials still enjoy considerable discretion over their own productivity and quality of service. Lastly, budget battles between expense centers often leave some of the them grossly understaffed and poorly motivated when their final users are not politically active or are represented by intermediaries who prioritize their own interests.

The latter case is relevant to land registries, which are subject to a very special demand, as their direct users (conveyancers and title insurers) may prosper or at least experience an increase in demand as a result of ineffective registries (Arruñada, 2012:224-28, 2018:673). Examples abound of registries being captured by the private interests of notaries, conveyancers, and title insurers who provide substitute services, such as title reports and title insurance policies (Arruñada, 2002) and legal opinions (Arruñada and Manzanares, 2016); or even of other public agencies such as cadasters, which constrain registries in their attempt to extend registries' natural monopoly to themselves (Arruñada, 2018). The result is that land registries often show serious dysfunctions, with slow procedures for lodging deeds in recordation offices and long delays in reviewing applications in registration systems (Arruñada, 2012:62-67).

2.2. Internal competition as a solution to the problems of bureaucracy

As an alternative to such palliative measures, a more radical way of dealing with expense centers is to change participants' incentives, so that users incur a cost when they demand services and suppliers are paid for their performance. Ideally, this should provide an automatic control of the quantity and quality of services, eliminating surplus demand and utilizing the information users and suppliers have about utility and cost, without any need to transfer this information to the budget office. Ideally, the system should play the informational role of the market (Hayek 1945).

Users and suppliers' incentives. The most basic requirement as regards motivating users to ensure that their decisions help to achieve a better allocation of resources is that their consumption decisions should cause them to incur a positive opportunity cost. They will then reveal their evaluation of the service and, providing other conditions are met, the supplier will be encouraged by the competition.[3]

[3] It is debatable whether paying internal prices without any freedom of choice as regards either the amount of services or their price also generates incentives for control, as argued by Zimmerman (1979).

This opens many possibilities for reform. The most obvious way of generating an opportunity cost is to charge a real price for internal transactions. Paying a real price provides a strong incentive; however, nominal prices are often used, with corresponding entries in the in the accounts both users and suppliers have in the organization's accounting system. In the public sector, such nominal charges usually take the form of vouchers with which citizens can access services from specific public and private suppliers. The use of nominal prices reduces users' motivation, but does not necessarily destroy it altogether, provided that such nominal prices reflect real opportunity costs, as when users are able to obtain other services with those resources or, at least, access the same services but from different suppliers.

Under all circumstances, in order to be an efficient control mechanism, suppliers should be in competition or users should at least be able to use their resources for other, alternative, purposes. If, for example, each department in a university is allocated USD 100,000 to be spent only on photocopying, such departments would not have much motivation to control a single internal supplier. If, however, they can spend this amount on other things, they would implicitly be controlling the supplier by moving their demand elsewhere even though, by doing so, they would be complicating the budget problem and causing uncertainty and even duplicating expenses in the short run.

As regards suppliers, the most important general options are in theory represented by the different possibilities of divisional organization of expense centers in the form of cost centers, revenue centers, profit centers, and investment centers, and even franchises, the latter being a hybrid solution between organization and market. Since decisions are increasingly delegated to the center in question, the performance indicator will need to be increasingly global (Kaplan and Atkinson 1989:529-33). This means that the manager in charge of a cost center usually decides how resources should be used, but neither the quantity that should be produced nor their quality. This manager is evaluated based on some indicator of production cost. In a revenue center, the manager in charge is evaluated by turnover or revenue, and a decision is freely taken on the amounts sold or the selling price, but not on both variables. A profit center manager must maximize some type of divisional accounting profit and is usually free to decide not only how resources should be used but also production, quality, and product prices. Managers of investment centers, in addition to the decision rights of profit centers, also enjoy freedom and responsibility as regards the use of capital. Finally, a franchise is a hybrid solution in which the franchisee owns a large proportion of the assets and is paid from the profits of the local outlet.

The remuneration of whoever oversees such a center must be linked to some sort of performance indicator, so that they show interest in using their resources optimally. For example, the school director who has managed to raise demand or to improve students' academic performance could be rewarded with an annual bonus or promotion. And vice versa, if the performance indicators drop, not only would the director see a drop in income and fewer chances of promotion, but the school might lose its independence, or a substitute director might be called in to turn it around.

The nature and costs of control. In theory, there are many possibilities for this type of transformation of expense centers, but the essential characteristics are defined by just two variables: freedom and responsibility. Freedom refers to the degree of discretion that participants are given to make decisions. Responsibility refers to the mechanisms used to evaluate and compensate their performance. Together, these two variables give rise to a wide

range of possibilities from which reformers must choose (Table 1).[4] Freedom is introduced by redistributing decision rights: decisions that were previously centralized are delegated to users and suppliers. Responsibility, which previously mainly hinged on hierarchical or vertical control that aimed to evaluate compliance (rather than performance), is instead based on some degree of horizontal and mutual control: the control exerted by users on suppliers through their purchase decisions and by suppliers on users through their pricing policy.

Table 1. Design dimensions: participants' freedom and responsibility

	Freedom: *Decision-making rights of participants*	*Responsibility:* *Performance evaluation and incentives*
Users	Choice of supplier: - Where: inside or outside the organization - By whom: the users, a representative, a gatekeeper	Opportunity costs: - Shadow invoice - Voucher - Price - Co-payment
Suppliers	Discretion in relation to: - Organizing the activity - Transacting internally - Transacting externally	Divisionalization: - Responsibility centers (for profit, cost, investments) - Franchised administration (units' managers hold property rights, hire employees, and are paid with the unit's profit) Individual compensation function: - Pay for performance - Professional career - Units' profits (in franchised administration)

4 This analysis of the elements of organizational control is based on Arrow (1964) and, especially, Jensen and Meckling (1995). Arrow formulates organizational control as the interaction of operating rules and enforcement. Jensen and Meckling express these operating rules as the allocation of decision rights (freedom) and distinguish two phases in enforcement (responsibility)—evaluation and compensation for performance.

The existence of such horizontal control does not make vertical control less necessary. However, it does transform its nature: it must ensure that mutual control between users and suppliers functions correctly, so that, while pursuing their own self-interest, their interaction is socially beneficial. The agency responsible for both users and suppliers must preclude them from using their freedom to serve only their own goals, sacrificing the common interest. Given that users and suppliers now enjoy more discretion and stronger incentives, vertical control must, in fact, be more, not less, effective (Milgrom and Roberts 1992:226-28).

Ideally, reform will re-create the functioning of the market, which is why authors often talk about "internal markets" (e.g., Enthoven 1991), as will introducing competition, both between suppliers and between the ways in which users might allocate their resources. It might even go so far as to change the nature of the supplying unit, converting it into a profit center or even a franchise. However, such a radical solution usually requires considerable investment and expenditure on planning and managing the whole process (Arruñada and Hansen 2015). Its effectiveness is therefore uncertain. In fact, in order to supervise the reform and manage the internal market, a huge planning apparatus is often set up, a "Gosplan" that, in turn, itself has all the characteristics and potential failures of an expense center (Arruñada 1997). An internal market is only a market in name, as there are no property rights and all prices are administered (Hayek 1945).

2.3. The organization of privately valuable services in the liberal state

A seemingly more modest, alternative solution is to only apply some market mechanisms, or only in some dimensions, but more forcefully. The patterns followed by the traditional organization of public services in the liberal state were often of this type, combining partial discretion by decision makers (limited, e.g., to certain dimensions such as the choice of supplier by the user or the tenure-based choice of specific jobs by professional civil servants) with strong incentives (based, e.g., on user fees and pay for performance, a solution commonly found in the organization of notaries, registrars, judicial clerks or family doctors).

In order to illustrate the arguments, I will review three solutions adopted in the 19th century for judicial and quasi-judicial services in the Spanish Public Administration: notaries, registries, and courts. These solutions differ drastically from both standard expense centers and internal markets. In contrast to the standard expense center, services are financed by user fees, and at least some key suppliers are paid for performance. In contrast to an internal market, incentives are much stronger, as users pay real money and suppliers are paid real bonuses. However, they are characterized by the limited size of the planning or supervisory agency. Instead of aiming for a complete and artificial market, which would arguably be too costly and ineffective, these admittedly suboptimal—in Simon's (1956) terms "satisficing"—solutions might provide a better alignment of a few key dimensions of participants' behavior.[5]

Strong user fees. Court users paid fees that financed a substantial proportion of courts' costs. Elimination of these judicial fees in 1986 put an end to this system. This resulted in

5 Arruñada and Hansen (2015) compare several of these solutions in greater depth.

congestion, rationing, frivolous litigation, capacity increases, and greater delays in civil than in criminal cases (Pastor, 1993). User fees were reintroduced for commercial cases in 2002 and generalized in 2012 (Gómez, Celentani and Ganuza 2012). In contrast, both notaries and registrars are paid explicit, regulated fees by one of the parties, and these fees fully finance their services. Both notaries and registrars have shown considerable flexibility in adapting to the drastic swings in market demand caused by the real estate bubble in the period 2000–2007 and the adaptation of corporation law a decade earlier. In contrast, Spanish civil registries and land cadasters, which are organized as expense and revenue centers, respectively, perform appallingly in terms of delays and adaptation to changes in demand (Arruñada, 2014).

Limited user choice. Free choice of supplier is only allowed for essentially private services such as notary services (Arruñada 1996), but not for registries and courts. Since the notary mainly serves the parties to a contract, it makes sense for them to freely choose the notary. It is also understandable that notaries tend to be flexible as regards the wishes of the parties, interpreting legal restrictions in the way that suits them best. Conversely, for courts and registries, freedom of choice would endanger their impartiality and their basic function of protecting third parties: e.g., a free choice of land registry would not protect parties such as future land purchasers, who are unknown at the time of choosing (Arruñada 2003).

Strong incentives for suppliers. The incentives for notaries and registrars are as strong as they can be, since both notary offices and registries function as public franchisees. Each notary and each registrar is responsible for one office, hires his own employees and resources, and is paid (together with top employees) from the residual profit of the office, after the non-professional staff and any other office costs have been paid. Conversely, judges are paid a fixed salary with substantial increases linked to tenure and promotion, a typical characteristic of judicial careers (Posner 1995). However, in a system that remained in place in many courts until the 1980s, although its phasing-out began in 1947, court clerks were paid substantial bonuses linked to processed cases.[6] This motivated productivity in terms of paperwork without damaging the quality of court decisions. Court clerks controlled judges' productivity because, if the latter did not deal with cases expeditiously, they did not receive the full variable remuneration; and judges (who were often more poorly paid than the clerks, so felt a degree of rivalry that was not always negative) controlled the quality of the office's administrative work, which, since it tended to be done quickly, was not always as it should be. In all cases, the key elements of quality control were the deferred nature of remuneration and personal liability for professional decisions. This latter aspect is particularly important for registrars, who are subject to a standard of strict (i.e., non-negligent) liability.

The role of automatic control. Instead of specialized control exercised by a supervisory bureaucracy, incentives are arranged in a way that favors mutual control by participants. Not only do users control suppliers and suppliers control users, but complementary suppliers control each other (e.g., registries control notaries, and vice versa, and court clerks and judges control each other). Such controls between complementary suppliers are enhanced by using different compensation functions. For instance, both notaries and registrars are paid from net user fees. However, notaries are chosen by users and compete, while registrars enjoy territorial monopolies. Consequently, notaries strive to satisfy their clients, while registrars

6 In 2004, to deal with court congestion, the Government introduced short-term performance targets, which caused an increase in average measured productivity and reduced the productivity of top-performing judges (Bagues and Esteve-Volart 2010). They were opposed by judges' associations and may have damaged professional morale.

strive for legal quality and the protection of third parties who are different from notaries' clients. Similarly, court clerks were paid a variable fee for performance, motivating them to speed up case paperwork, while judges were paid a fixed salary and worried about possible appeals that might damage their reputation and chances of promotion. In both cases, these—more than different—*opposite* compensation functions create tension between complementary suppliers, providing some degree of automatic control as well as two sources of competitive information for regulators. A similar formula was used in connection with regulation, administrative appeals, and inspections of notary offices and registries by concentrating these supervisory tasks in the hands of a tiny and specialized body of civil servants at the General Directorate for Registries and Notarial Offices. These civil servants were paid a fixed salary that was lower than the variable compensation of the notaries and registrars they were inspecting, so that they tended to be strict about any slackness.

3. Options for the organization of public registries

3.1. Traditional hybrid organization of public registries

Interestingly, the traditional organization of many public registries partly relies on some of these patterns, which sets them apart from the standard bureaucratic arrangements for expense centers that are characteristic of public administration. For registries, it has been common to rely on more independent agencies, which are not financed by taxes but by user fees, treating them as revenue centers, and to pay at least the key professional workers—the registrars—on a performance basis.[7]

In England, for example, the Land Registry was organized as a non-ministerial government department in 1862, as an executive agency in 1990, and as a trading fund in 1993. The 1990 reform reduced average processing times from 34 weeks to eight days, even though it did not always avoid registration delays, and, since 2003, its objective has been to achieve a minimum 3.5 percent return on average capital employed. It is staffed by civil servants but has its own pay bargaining and pay and grading structures, which are suited to its requirements. Since 2009, different British governments have even considered privatization as a possibility for its future organization. Similarly, Companies House is organized as an executive agency with trading fund status and, as such, is subject to business-like organizational patterns, including a 3.5 percent return on capital and performance pay. As trading funds, they have standing authority under the Government Trading Funds 1973 Act to use their receipts to cover their expenditures.

In France, the land registry is also financed by user fees and run by the *conservateurs d'hypothèques* who, though civil servants, used to enjoy a special status with variable compensation and substantial deferred compensation in the form of pensions. They had personal liability for registration errors, as in Luxembourg. Likewise, the *greffiers* du Tribunal de Commerce who maintain the French company registry are public officers

[7] This section borrows from Arruñada (2102:217–20), omitting most references.

endowed with public authority and liberal professionals and, as such, are compensated from the net revenue of the registries.

As mentioned above, a similar solution is applied in Spain, where both land and company registries are run by registrars who are civil servants (*registradores*). A government department regulates entry, procedures, and prices. But each registrar manages a registry office, bears its costs, and earns its residual profit. Each registrar recruits the office employees, who are not civil servants and some of whom are typically paid a share of the office's profits. The performance of land registries with such arrangements has been superior to that of other public registries organized as standard bureaucracies (the case of the Cadaster, the civil registries, the Patent and Trademark Office, and the General Registry of Intellectual Property). The Cadaster takes between 12 and 36 months to register a property, a task less complex than property registration, which, however, must be completed in less than two weeks. Spain's Patent and Trademark Office takes about 18 months to publish a patent application, and an additional 14 to 24 months to grant it, as well as between 12 and 20 months to resolve an application to register trademarks. Similarly, the General Registry of Intellectual Property takes about six months to resolve an application. Land registries have also demonstrated a much better ability to adapt to demand increases: for instance, they were able to cope with the real estate bubble in the first decade of the 21st century, while at the same time the network of civil registries was unable to handle the simultaneous increase in the naturalization of immigrants (Arruñada, 2014).

Stronger incentives have also been introduced in registries in many countries, for instance the Netherlands in 1994. Other jurisdictions, such as New Brunswick, have relied on state-owned companies and others on specific public-private partnerships. Furthermore, registries' incentives are often strong in other dimensions. For instance, it is common for user fees to be so high that registries are not only self-financed, but also become cash cows—i.e., important sources of revenue for governments, with clearly dysfunctional consequences, as in the case of the US Patent and Trademark Office analyzed in Arruñada (2012:221-24). Individual providers are also subject to strong incentives, especially in countries where registrars, despite being civil servants, are compensated with the net revenue of the office, after hiring and paying for all other resources. In contrast, land titling efforts in developing countries have often deviated from these patterns, charging users a small fee or none for services and paying fixed salaries to providers. Unsurprisingly, they tend to suffer the common problems of discretionary expense centers: excessive size, unsatisfied demand, low productivity, and budgetary crises.

In line with these strong incentives in some registries, both users and providers are subject to administrative constraints and economic incentives designed to provide automatic control. Thus, users are not free to choose providers, and providers must follow a detailed set of procedures, which substantially limits their discretion. This arrangement is broadly similar to the one found in privately organized franchising networks, in which the discretion of franchisees is constrained in order to produce a homogenous service across the whole network. At the same time, however, they are strongly motivated to make efficient use of local resources (Rubin 1978, and Blair and Lafontaine 2005). This makes sense in registries, given that their outputs are the inputs of further judicial and contractual processes, which makes standardization of quality a key attribute.

In addition, economic incentives are adapted in several ways to automatically control service quality. First, subsequent providers are often subject to contrary incentives, creating a system of checks and balances. Registries are monopolies and users cannot choose between registrars, who are thus placed in an independent position, suited to protecting the interests of

third parties. However, conveyancers are in competition with each other and clients are free to choose among conveyancers, who are encouraged to place the interests of their clients before those of third parties. Understandably, these contrary incentives give rise to a productive structural tension between registries and conveyancers. Similarly, when registrars are subject to strong performance incentives, their regulators and supervisors (including judges) tend to be paid fixed salaries, a difference that also generates opposing views and fruitful tensions between registrars and their controllers.

Second, some quality attributes, such as service time and even legal quality, are often internalized by specific incentives. For example, providing speedy service is motivated by making fees collectible only after completion of the service. Following this pattern, users of registries of rights pay lodgment fees after applying for registration, but only pay registration fees after registration, thus reducing the perennial tendency of these registries to delay registration decisions. Postponing payment in this way seems to provide weaker incentives than urgency surcharges, but it is also less prone to abuse (e.g., urgency surcharges encourage the registry to delay its standard processing).

Conversely, the legal quality of registration decisions is automatically controlled by subjecting registrars to strict, instead of negligent, liability. This method ensures law enforcement by the registry, which risks causing a backlash against the registry when the enforced rules are themselves inefficient. Moreover, repeated observations suggest that personal liability is also hardly viable unless registrars are paid as liberal professionals. In Italy, strict liability was transformed into a weaker, negligence-based regime ten years after discontinuing the system of compensation with a residual profit. In Puerto Rico in 1914, the inability of registrars to indemnify parties damaged by registration failure also put an end to the system of compensating them with residual profit; since then, the registry has suffered considerable delays. In France, the 2013 reform simultaneously transferred to the state the civil liability previously borne by individual registrars and modified their compensation from a variable amount linked to volume to a fixed salary.

All these characteristics—administratively regulated procedures, strong legal effects, fees for services, compensation with the residual profit, strict personal liability, and organizing providers as State franchisees—constitute a hybrid organizational form somewhere between public administration and private provision of registry services. This hybrid model is probably more effective, sustainable, and flexible than the more extreme solutions whereby registries are either purely private or part of standard public administration. Private registries may enjoy stronger incentives but lack public effects. Recall in this regard the US cases of title plants operated by title insurance companies (Arruñada, 2002), as well as that of the Mortgage Electronic Registration System (Arruñada, 2012:74-75). And public registries have stronger effects but weaker incentives, especially when they are organized as standard public agencies, which often leads to substandard performance or, in the case of registries of rights, severely weakens them. The solution seems to lie in hybrid organizational forms, which can produce public effects while maintaining strong performance incentives.

3.2. **Privatization efforts**

Several provinces/states in Canada and Australia, as well as the Government of the United Kingdom, have recently privatized or made plans to privatize their land registries.[8] These privatizations are based on a long-term contract or lease by which the state subcontracts the provision of registration services to a firm which, depending on the specific case, is at least partly owned by private investors. This contract establishes rights, duties, and standards, including payments (both an initial lump sum and annual royalties often based on transaction volumes), with data ownership and regulatory powers remaining with the government.[9]

In most cases, the government contracts out what was previously organized as an expense or revenue center within the government bureaucracy. In contrast, Saskatchewan province in Canada started by first creating a Crown-owned corporation, which 13 years later sold shares to the public. The proposal in 2016 by the UK Government for the Land Register of England and Wales was partly similar, since, between 1990 and 1993, it had been transformed from an expense center (a non-ministerial government department with no specific financial targets) into a kind of state-owned firm with an objective of a return of 3.5% on average capital employed, the return being the difference between user fees generated net of expenses (Arruñada and Hansen, 2015).

The organization of privatized registries shares some of its main features with franchised solutions and others with state-owned firms (which are closer to the "internal market" solution). They are like franchised registries in that the profit is appropriated by the service provider, while in a state-owned firm, it is appropriated by the state. (For example, any surplus generated by the English Land Registry remains in a separate account with the Bank of England, which can be drawn on to cover losses in years with few property transactions.) However, they are like state-owned firms in that professionals (mainly, registrars) are not paid from the profit but are paid a salary and (at most) a bonus based on an artificial indicator of individual performance. Moreover, liability for registration errors is borne by the firm and the state, while in the franchised solution, it is borne by the individual registrars themselves, often based on strict liability.

These differences have consequences for both the strength and the organization of incentives. Incentives are understandably weaker when profits are retained by the state. First, from the registrar perspective, they are much stronger in a franchised organization, as registrars are compensated from the profit of the registry they oversee. Second, with respect to planning and management, given the lack of individualized profits and liability, both state-owned and private firms need to spend more on creating and running an artificial incentive structure for registrars. Third, franchise registries need to develop mechanisms to establish and enforce homogenous criteria for registration decisions, including some sort of appeal system within the network. Lastly, the incentives in franchise networks and registries organized as bureaucracies and state-owned companies may lead to different inefficiencies,

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[8] See Thomas, Griggs and Low (2018). The UK Government also held a public consultation on moving Land Registry operations to the private sector though a contract between the government and a private operator, but finally decided against it because of substantial opposition (UK Parliament, 2016).

[9] See, for instance, the recommendations contained in the report issued by a committee of the Parliament of Victoria (2018).

for instance too many and too few offices, respectively, as exemplified by Spain and England (Arruñada and Hanssen, 2015:191).

In any case, the nature of registries makes it necessary for them to be monopolies: they must be neutral, not only between contracting parties, but also with respect to strangers to the contract. Consequently, contracting parties cannot be free to choose or influence the registry and registrar. This makes privatization more difficult because, to avoid abuses, a privatized registry needs to be tightly regulated. Given that privatization introduces stronger incentives, the necessary regulation may even need to be tighter than under bureaucratic systems with weaker incentives.

All types of privatization also raise the possibility of bankruptcy (Thomas et al., 2018), as registries can hardly be allowed to fail, the case being perhaps more similar to the hypothetical failure of a central bank than to that of systemic financial institutions. The risk linked to being unable to indemnify registration failures, which has been historically more serious for franchises, may be alleviated by mandatory liability insurance covering both individual registrars and the network, precluding cases like the one previously mentioned concerning the register of Puerto Rico. However, this does not solve and may even worsen the economic risk of bankruptcy. The obvious outcome will often tend to be that substantial pressure will be exerted on regulators not to force prices down nor to enhance competition. It should perhaps be accepted as an arguably second order feature of the system, after considering that, first, the condition of natural monopoly is inescapable; second, competition among agents making dating and registration decisions should in any case be disregarded; and, lastly, that the performance of these hybrids must be compared not with that of private competitive firms but with the purely bureaucratic real alternatives. In addition, within franchise networks, given that governments tend to be reluctant and slow to close unprofitable offices, mechanisms are needed to make unprofitable offices viable through cross-subsidies (such as those implemented in Spain under the *congrua* system).

Moreover, offering powerful incentives to registrars is more important in registration systems in which their role has a more professional content and is more discretionary and less automatic. The main differences in this regard lie in the type of registry—recordation versus registration—and, for registration, in the type of technique that is used.

First, registries acting as pure recorders of deeds, which mostly perform duties consisting of the simpler administrative tasks of dating and filing lodged documents, as well as issuing copies and certificates, will be damaged less if they are organized as standard bureaucracies. However, even for them, it is necessary to ensure speedy processing and preclude corruption, so they perform better when bureaucrats are paid for performance and when compensation is deferred. Conversely, given that registries of rights must ensure that filings respect third parties' property rights, conform with the law and respect property rights held by third parties before they are registered, their performance crucially depends on the application of legal knowledge by competent registrars. Unsurprisingly, successful registries of rights tend to adopt some of the features of private law firms. In particular, registrars' competence must be at least comparable to that of the conveyancers who prepare the filings that registrars must examine. Therefore, registries must pay registrars competitive salaries to recruit and retain competent lawyers. Registrars must also play a key role in organizing all other resources, as their contribution defines the performance of the whole registry. Given the importance of their registration decisions, the organization of registries of rights tends to be focused on supporting them by subordinating other resources that attend to administrative tasks and perform routine checks. Variable compensation creates a direct link between pay and performance, even though it requires additional mechanisms, such as stricter personal

liability. Moreover, rising compensation based on seniority should correlate with the accumulation of human capital and the consequent increase in outside opportunities.

Second, the scope of the *numerus clausus* of property rights and the subsequent registration technique are also important. In particular, the role of automatic processes should in principle be greater in registration systems with a stricter *numerus clausus* as well as clear application of the abstraction principle, as is the case in Germany. Conversely, it should be smaller in countries such as Austria, Spain, or Switzerland, especially when registry entries summarize the essentials of transactions, instead of merely indexing the *in rem* dimensions.

4. Concluding remarks

This work compares five ways of organizing the provision of privately valuable public services: budgetary bureaucracy based on expense centers, comprehensive internal markets, including revenue centers, traditional hybrid solutions with franchised units, and privatized public services. These hybrid solutions, which have survived for many decades and produced relatively effective outcomes, are in stark contrast not only to those of standard bureaucracy but also to those found in modern internal markets and privatized services.

Whereas internal markets strive to develop comprehensive measures of performance but provide weak incentives, these liberal state solutions rely on partial measures of performance but provide strong incentives. Moreover, in contrast to privatized services, these incentives operate at the level of the individual professional in charge of the service. Furthermore, instead of requiring a large staff to manage suppliers and their interaction with users in the internal market, such hybrid solutions operate in a regime of "automatic management" and are therefore frugal in their use of planning and supervision resources.

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