



# **Coase and the Departure from Property**

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## Abstract

In “The Problem of Social Cost,” Coase (1960) used a simplified conception of property rights as the outcome of mere contracting in independent exchanges. This conception has been suitable for successfully analyzing many important issues, including that of externalities related to the use of assets and public goods. However, its implicit assumption that exchange in property rights does not affect future transaction costs provides an inadequate basis for understanding property institutions and has caused confusion on the efficacy of private ordering and the role of the state and legal institutions. It has thus limited the scope of most of the economics of so-called property rights to analyses of political interactions and contract rights in personal exchanges. In the real world, property is defined by interaction between multiple exchanges which cause exchange-related non-contractible externalities among market participants. When such exchange-related externalities are considered, property becomes inherently linked to public and legal interventions, which are indispensable to reach true property—that is, *in rem*—enforcement and truly impersonal—asset-based—exchange.

Keywords: property rights, externalities, enforcement, transaction costs, public ordering, private ordering, impersonal exchange.

JEL: D23, K11, K12, L85, G38, H41, O17, P48.

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## 1. Introduction

In “The Problem of Social Cost,” Coase (1960) considers a sample of cases in which firms harm each other (farmers and ranchers, railroads and farmers, a noisy confectioner and a quiet doctor). In its first pages, he argues that, assuming zero transaction costs, allocating rights to, e.g., farmers or ranchers, would not affect the final use of resources, as both parties would negotiate and contract to arrive at the wealth-maximizing solution. The rest of the article focuses on the real situation to show that, when there are significant transaction costs, the initial allocation of rights may determine the final outcome. In addition to showing the reciprocal nature of the problem, it points out the essential function of legal institutions in implementing alternative public interventions by judges and governments, and in reducing transaction costs to facilitate private exchange.

The analysis in Coase (1960) laid the foundations for a dual function for property institutions. Given that transaction costs make trade difficult, the law strives to reduce them (which requires, for example, “well-defined” property rights). Also, to the extent that transaction costs may impede trade, property law allocates rights in a way that maximizes value, making trade unnecessary (for example, by collocating certain sets of rights together, therefore avoiding any need to negotiate them).

However, despite the pervasive influence of Coase (1960) in legal, economic and institutional analyses, it has arguably failed to achieve a substantial impact on property law and,

more generally, on the analysis of property institutions. As recognized by Lueck and Miceli, “The economic analysis of property law is substantially less well developed than the economic analysis of contract law or tort law ... and much of the economics of property rights literature remains ignorant of property law” (Lueck and Miceli 2007: 187).

The reason for this divide is that “The Problem of Social Cost” relies on a simplified and partly implicit conception of property, which is sufficient for its original purpose, that of showing the inconsistencies of what was at the time the prevalent analysis of externalities and the weaknesses of its policy prescriptions, and proposing instead a new theoretical perspective for understanding externalities and for balanced comparative analysis in order to consider a fuller array of policy choices. It is, however, inadequate for understanding property institutions.

I argue here that the limited influence of Coase (1960) on property institutions is a consequence of maintaining its interlocked assumptions of single independent exchanges (that is, no effects take place between transactions on the same asset type or even the same asset) and perfect information on the allocation of rights. These assumptions are useful for the analysis of *use-related* externalities (those arising from using assets), but disregard *exchange-related* externalities (those arising from trading property rights on assets), which are of the essence in the core problem in property markets: not the two-party conflict between sellers and buyers but the three-party conflict between, e.g., sellers, buyers and owners.

Coase’s followers have taken his perspective to new areas but kept his assumptions, disregarding the fact that, while they are suitable for analyzing use-related externalities, the latter are relatively marginal to the core problem of property institutions. This has even prevented

some Coase-inspired works from taking a property perspective: despite its property label and worthy achievements, much of the economics of “property” rights in fact deals only with contracts and not with property.

Consequently, misconceptions tend to arise regarding the role and relative importance of property institutions. In particular, “The Problem of Social Cost” relies on an ambiguous assumption about availability of information on property rights which tends to minimize and obscure the role that public institutions play in, first, defining and enforcing property rights, and, second, by reducing transaction costs, enabling impersonal markets. As summarized by Coase, “if market transactions were costless, all that matters (questions of equity apart) is that *the rights of the various parties should be well-defined* and the results of legal actions easy to forecast. But as we have seen, the situation is quite different” (Coase 1960: 19, emphasis added).

Coase’s statement leaves open what constitutes or determines a good “definition” of rights. This is a sensible methodological option for Coase’s purposes. However, it has led most of the literature to limit the role of the state to the allocation of rights before any exchange takes place, disregarding that in an ongoing situation the quality of such a definition of rights is also affected by private exchange, and that, to guarantee information, some form of recurring public intervention is needed for each transaction. Without such public intervention, private contracting of property increases future transaction costs for third parties. And current transaction costs are also affected by previous contracting on the same type of asset and – most obviously – on the same asset, such contracting referring not only to transfers and divisions of assets and entitlements but also to delegation of authority to transact. The more private (that is, the more

“secret” or the less “public”) the transactions, the lesser their verifiability for third parties and the greater the future transaction costs of entitlements and assets, as acquirers of rights on such type of asset would find it difficult to know who holds which rights and how each right is held, this being the key determinant of enforceability and therefore economic value.

As a result, the analysis of property rights ended up focusing on enforcement problems linked to state action at both the wider institutional level (following the pioneer works by North and Thomas 1973, North 1981 and Olson 1993) and at the property market level (e.g., Epstein 1985), but disregarding the equally prevalent enforcement difficulties related to private action that are behind much of property law. Much of the literature worries about the state failing to make property secure or even becoming predatory, a reasonable concern considering the prevalent abuse of private property in less-developed economies and the creeping expansion of statism that has taken place in developed economies, mainly through uncompensated regulatory takings. However, it pays little attention to the expropriatory phenomena that take place between private parties through market exchange and, especially, the opportunity benefits of state action – that is, the “private takings” that are avoided by the functioning of *public* property institutions, and the importance of such state action for enabling impersonal market exchange.

This partiality is sometimes close to the typical mistake of Libertarian idealism: if Socialist idealism errs by comparing imperfect markets with perfect politics, Libertarian idealism makes the opposite mistake, by comparing perfect markets with imperfect politics. In so doing, it makes it impossible to understand the role that the state plays in making real markets less imperfect. This paper argues that misapplying the Coasean framework has led to this type of error in the

area of property markets and institutions, departing from the approach that Coase himself advocated in his 1960 article, based on comparing the actual costs “involved in operating the various social arrangements (whether it be the working of a market or of a government department)” (Coase 1960: 44). The rest of the paper examines Coase’s assumptions on property (Section 2), and how the role of the state changes in the presence of exchange externalities (Section 3). Section 4 concludes.

## **2. Coasean Assumptions on Property**

When considering “The Problem of Social Cost” from a property standpoint, a striking feature is apparent and has been repeatedly identified as characteristic: given that Coase is interested in “harmful effects” – i.e., negative use externalities – he focuses on asset uses instead of assets. Consequently, he does not deal with the exchange of property but of relatively minor – in a sense, derivative – “property rights” related to nuisances caused by some uses of assets between neighbors. These transactions on what, following Merrill and Smith (2001: 385) and to avoid confusion with property, I will refer to as “entitlements”, take place in the sidelines of property markets themselves, which mostly deal with assets instead of asset uses. For example, trade on the right to pollute is a minor part of all the property trades made by either the polluting firm or its neighbors: “[t]he types of transactions emphasized by Coase – agreements between two neighbors to modify entitlements more efficiently to manage spillover effects – are relatively rare. Much more common are outright purchases, leases, licenses, and lending of all stripes and varieties” (Merrill and Smith 2011: S91).

His focus on specific uses leads Coase naturally to treat property as a bundle of rights: “We may speak of a person owning land and using it as a factor of production but what the landowner in fact possesses is the right to carry out a circumscribed list of actions” (Coase 1960: 44). This bundle of rights perspective has been criticized most prominently by Merrill and Smith (2011: S89–S92) because, in addition to allegedly leading to excessive public ordering or statism, it fails to capture the right of exclusion, for them the distinctive feature of property; it conceives property as perfectly malleable by contract, disregarding information costs caused by private customization of property rights; and it makes reciprocity in externalities, one of the main results in Coase (1960), implausible. Accordingly, Merrill and Smith conclude that “Coase’s picture of property had a distorting influence and that, in certain respects, it may have impeded intellectual progress in developing our understanding of the institution of property” (2011: S89).

This criticism has been disputed from a variety of viewpoints (compare, for instance, Epstein 2011 and Baron 2014). What matters the most here is that it is doubtful that the contractual emphasis in Coasean analysis is a necessary consequence of the bundle of rights view: in principle, the rights in a bundle are not necessarily malleable. Less obvious than seeing property as a bundle of contractible rights but, as I will show, more damaging for understanding property markets and institutions, is the fact that Coase (1960) and most of his followers consider only independent single transactions: they focus on cases of bilateral exchange (which are intrinsically contractual in nature), and assume as a starting point not only that parties have perfect information on the allocation of rights but – crucially – that this availability of information is not affected by private contracts on either property or entitlements.

This is clearly the case for Coasean exchanges in externalities, which in Coase (1960) are implicitly assumed not to be affected by other previous transactions, nor to affect the cost of subsequent transactions on the same asset or, more relevant for causing externalities, on other assets of the same type. In particular, it remains undefined which type of rights (i.e., either real, *in rem*, property rights valid against all individuals or personal, *in personam*, contract rights valid only against specific persons) are held by whom: when the transactor in one of Coase's examples is assumed to hold a right to pollute, it is undefined if he also has a right to sell such a right or to sell the corresponding asset, and, if he does sell the asset, it is also unclear who would be committed by the previous transaction on the right to pollute – the seller or the whole world, including asset buyers. Furthermore, these possibilities are implicitly supposed not to affect the transaction costs incurred to remedy externalities and these externality-remedial transactions are also supposed not to affect the transaction cost of trading assets.

Let us examine, for example, the Coasean case of the noisy confectioner and the quiet doctor. When the transacted entitlement is enforced in personam and whatever the parties intend to transfer, the confectioner *C* transfers to his neighbor Doctor *D* the right to harm *D* but in such a way that if the owner (*C* or somebody else) then sells his land to *B*, *B* will enjoy the right to harm *D*. The doctor acquiring the polluting entitlement is less protected, as he is subject to the additional risks of, e.g., the owner selling the asset. This trading of in personam entitlements is therefore, on the one hand, a somehow less effective solution for contracting use externalities but, on the other hand, it does not affect the trade in assets.

Contrariwise, when the entitlement is enforced in rem and held by the confectioner *C*, *C* may transfer to *D* the right to harm neighbor *D* in such a way that if the owner of the land sells it to *B*, *B* will not enjoy the right to harm *D*. After purchasing the polluting entitlement from *C*, *D*'s land will therefore enjoy an additional in rem right. We then have the opposite effect of strengthening trade in entitlements, but trade in assets – in all land of that type – would suffer an added information asymmetry because asset buyers would have to respect the transferred entitlement even if the transaction on the entitlement had remained hidden. If they had bought the land free of such a burden, their only recourse would be a harder-to-enforce and therefore less valuable personal claim for indemnity against the seller.

At least as a first approximation, lacking in rem enforcement has a detrimental effect whose importance depends on the relative value of the entitlement and the other rights.<sup>2</sup> For the type of use externalities that were of interest to Coase, it seems relatively inconsequential, justifying his assumption of single exchange and his disregard for contract interaction, sequential exchange and in rem enforcement. However, it is more damaging for major rights, and they require specific solutions to make it possible to enforce and trade in rem rights. (In addition, the reciprocity conclusion in Coase (1960) remains valid: whatever the differential effects of alternative initial allocations on transaction costs, these differences should not in principle be affected by having the rights enforced in rem or in personam.)

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2. For Hansmann and Kraakman, not only use externalities but most “partial” rights are not enforced in rem: “Because the benefits of partial property rights are often low and the costs of verifying those rights are generally high, property law necessarily takes an unaccommodating approach to all but a few basic categories of partial property rights” (Hansmann and Kraakman 2002: S375).

Moreover, Coase (1960) does not explicitly say if the entitlements under discussion are being allocated and contracted in rem or in personam. What he assumes is that both parties know who has such rights. But, in principle, when Coase (1960: 19) prescribes that “the rights of the various parties should be well-defined,” he does not consider whether those rights will be enforced in rem or in personam, so that either the whole world or only one person, respectively, is obliged to respect them. One could therefore interpret that, under Coase’s assumption, rights would be well defined not only for the first transaction that internalizes the externality under analysis but also for ulterior transactions, even though, in principle, the first transaction might potentially obscure such a definition. Coase would therefore be assuming not only a transparent initial allocation of rights but also existence of the institutional mechanisms necessary to keep rights transparent after parties’ transactions.

Obviously, this interpretation is unnecessary in the world of Coase (1960) because his is a world of single exchange where obligations only exist between the transacting parties and their transaction does not affect third-parties’ rights or transaction costs. Assuming a single exchange implies that all effects take place between contracting parties. As other claimants simply do not exist, the only possibility is that the rights are granted to the parties to the transaction. Therefore, in this two-party world, rights in rem can only commit the transacting parties: all rights are in personam. This makes it possible to rely on purely contractual solutions, where the state is less necessary to enable transactions. Moreover, given that they have only inter-party consequences, they can also be personally safeguarded using private ordering arrangements.

The only problem is that such a two-party world is a fiction, and considering sequential exchange and in rem rights brings drastic changes. Above all, a contradiction emerges between the assumption of perfect information on property rights and the free private contracting solution for externalities. The conclusion that, when rights are initially well defined and transaction costs are zero, parties contracting will produce the socially optimal allocation of entitlements no longer holds because such private contracting obscures the definition of rights – the allocation of entitlements – for all assets of the same type, a definition which was assumed to be clear. Therefore, freedom of contract may solve some misallocation of entitlements but will also cause negative externalities in terms of greater information asymmetry for future acquirers, not only in that specific asset – an effect that may be more easily internalized – but – essential for causing externalities – in all assets of the same type, given that all of them may be subject to similar burdens.

If uncontained, these exchange-related externalities will reduce the value of all similar assets for at least two reasons, related to lesser standardization of rights and greater information asymmetry. First, when customized property rights are enforced in rem, the value of all assets may be reduced if acquirers incur greater costs for understanding the idiosyncrasies of what they are buying (Merrill and Smith 2000: 31–2, Smith 2011: 158–60). Second, and probably more important, granting in rem enforcement to hidden rights (for example, a hidden mortgage or, in the Coase [1960] scenario, a hidden entitlement to impede certain uses) decreases the market value of all assets which potential buyers might think may be encumbered with such hidden burdens. In both cases, as in Akerlof (1970), the externality comes about because the possibility

of fancy rights or burdened assets reduces not only the value of the assets subject to such rights or burdens but also the value of any assets of the same type potentially subject to them. This reduction in value results from the increase in acquirers' information (Merrill and Smith 2000) and verification costs (Hansmann and Kraakman 2002); and, more generally, from the costs that owners and acquirers must incur to overcome the additional information asymmetry and to gather and formalize relevant consents (Arruñada 2003) as well as from the residual opportunity loss caused by the fall in the volume of transactions and the extent of specialization.

Exchange externalities are, however, prevalent, because in rem rights are often inevitable, and they are hard to contain because private ordering solutions are relatively ineffective. Reliance on rights in rem and in personam is not a matter of contract or institutional choice, but is often a factual consequence of enforcement and value: adjudication of a certain type of conflict, which is of paramount importance in market transactions dealing with durable assets or the priority of rights and obligations, always consists of allocating remedies in rem and in personam. Moreover, negative exchange externalities are often impossibly costly to contract because they affect innumerable and unknown potential parties (e.g., the above-mentioned owners of unburdened assets). Containing them therefore requires institutional public ordering solutions. I will now develop this argument in greater detail.

### **3. The Role of the State in a Sequential-Exchange World**

The role of public or state ordering differs between single and sequential exchange in two main dimensions: first, the weights of default and mandatory rules in enabling market exchange,

which drive the relative importance of initial and recurrent allocation of property rights and also define the role of, and interaction between, contract and property law; second, the required scope of impartiality of third party enforcers and, in particular, judges, with consequences for the comparative advantage of private and public ordering and parties' freedom to choose enforcers.

### **1.1. Mandatory Rules, Allocation of Rights and the Interaction of Contract and Property Law**

The role of the state emerging from the single-exchange analysis in Coase (1960) is given by the fact that, when transaction costs impede transactions, some sort of legal intervention might be needed to allocate asset uses to whichever party values them the most.<sup>3</sup> However, this initial allocation is not mandatory: it could be abrogated contractually by the parties. In principle, in the single-exchange, in-personam enforcement world of Coase (1960), there is no justification for mandatory rules constraining parties' freedom to structure their rights: the only externalities arising are use externalities, and the transaction costs incurred to contract them are internalized by the parties. Under such an assumption of single exchange, it is understandable that property law is seen just as a starting point for contract law, a mere baseline for contract (Cheung 1970; Hermalin et al. 2007). Similarly, economic property rights tend to be seen as separable from legal rights (Alchian 1965; Barzel 1989).

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3. Compare, however, Priest (2014), who interprets that “the central theme of ‘The Problem of Social Cost’ is the radical view that governmental actions cannot importantly effect the allocation of resources in the society” (Priest 2014: 144).

Conversely, in sequential exchange, contract interaction causes exchange externalities which, as argued above, are hardly contractible because they affect strangers to the transaction, mainly owners of assets of the same type. In the interest of all market participants, and to enable impersonal transactions, containing these exchange externalities therefore requires mandatory public intervention. This encompasses the choice of two sets of mandatory rules to limit in rem enforcement to a closed number (*numerus clausus*) of rights in rem or subject in rem enforcement to conditions containing exchange-related externalities.

The most simple solution is to make certain minor rights or entitlements unenforceable in rem. This was often the case, for example, with leases under the Roman law rule “sale breaks hire”. This rule is mandatory and constrains private freedom of contract because it impedes parties from enforcing a lease in rem, granting the lessee an in rem right valid against the whole world. For instance, the lessee would have to relinquish the asset to the buyer when the lessor-owner violates their agreement and sells the asset. The lessee would only hold a personal claim against the seller, and – whatever parties contract – leases cannot be given in rem enforcement.

Alternatively, the rule has been modified in many jurisdictions so that the law enforces leases in rem when the lease is made public. This second solution can also be implemented in two ways: by relying on exchange byproducts, such as the informational value of possession (Arruñada 2015), or by developing dedicated organizations (that is, property registries) which, for each transaction, either produce qualified and publicly available judicial evidence, as the recorders of deeds found in France, Italy or the USA do, or publicly reallocate in rem rights, as the registries of rights of Australia, England or Germany do (Arruñada 2003).

This second solution explicitly clarifies the interaction and complementary role that property law plays with respect to contract law. It adds a more public phase to private contracting by conditioning in rem enforcement to additional public requirements. Thus property, in rem, rights are only transacted in a two-step procedure which includes a first step corresponding to the conventional private contracting between the parties, with effects of an in personam nature; and a second, relatively “public,” step which is capable of granting universal in rem effects because public authorities more or less explicitly represent the interests of all interested parties (Arruñada 2003).<sup>4</sup> (This second step is more public not because it necessarily involves state representatives but because it involves strangers to the intended transaction, in addition to being based on public knowledge and containing mandatory elements.)

The link between legal and economic property rights also becomes clearer, with economic rights becoming a consequence of legal rights. From a single exchange perspective, it is even considered that economic rights enforced by private ordering are not legal: “Legal rights are the rights recognized and enforced, in part, by the government” (Barzel 1989: 4), so that, more clearly, “[t]he rights delineated by a third party not using force are not legal rights” (Barzel 2002: 180). Even in a context of single exchange, this non-legal nature of privately-enforced rights is uncertain on positive grounds, because private ordering hinges on judicial forbearance (Williamson 1991). Nevertheless, it could at least theoretically be possible and even arguably optimal because the in personam, contractual, rights which are the object of single exchange can

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4. Notice that, from this perspective, the complementarity between contract and property runs deeper than the limitations on their substitutability sustained by Lee and Smith (2012: 151–54).

be enforced privately, as they are valid only between the transacting parties. However, this is not the case for the in rem, property, rights of any sequential exchange, which are necessarily enforced by “public” third parties – the state, for short – as they are valid not only against parties to a single transaction but against the world – that is, against parties to previous and future transactions. Therefore, on both positive and normative grounds, when considering sequential exchange, economic rights are not separable from legal rights. Economists often imagine societies without legal institutions, but they are only composed of, let us say, pairs of Robinson Crusoes and Fridays, a useful simplification that must not be confused with reality.

## **1.2. The Role of the Third Party Enforcer**

In a common interpretation of Coase (1960), the role of the courts is seen as allocating uses to maximize value when contracting is not viable. More generally, in addition to ensuring contractual enforcement, the judge is expected to fill the gaps in the contract, thus providing adaptation to unforeseen circumstances: “[a] dispute that brings parties to court implies that a contract did not delineate rights adequately, possibly because of changes in conditions after the contract was signed. The ensuing contract ruling then will explicitly delineate the parties’ rights” (Barzel 2002: 169).

To perform this function, the judge must be impartial with respect to the parties. However, given that in this single-exchange setup the judge adjudicates between two parties, she can easily be replaced by private ordering solutions based on the parties’ reputation and the expectation of future exchange. Those choosing an enforcing mechanism have good incentives when it must be

impartial only with respect to those making the choice. However, this is not sufficient in a sequential exchange, because there are interested parties who would not be represented in the choice: there are at least two contracts and three parties, and, for each of the contracts, one of the parties is not present. The main conflict in sequential exchange is not necessarily about unforeseen contingencies but about the legal rights of at least one of the transacting parties (e.g., seller and buyer). Such legal rights depend on a previous transaction with a third party (e.g., whether or not the owner has authorized the seller) and determine judicial decisions adjudicating the in rem and in personam remedies between two of, at least, the three parties (in the example, between owner and buyer). The enforcer's decision must be based on evidence about the authorizing transaction and such evidence must therefore be protected against potential manipulation by – in the example – all three parties, not only those involved in one of the two transactions. Moreover, the effectiveness of such protection will affect transactions costs for all assets of the same type. Even if owners internalize the effect of their choices on their acquirers' responses and, consequently, on the value of the transacted asset, they will not internalize the effect on potential acquirers of all other assets and, therefore, on their value. Furthermore, non-contractual rightholders, who by definition are not in a position to choose, would remain unprotected by the parties' right to choose the contract verification and commitment mechanism.

In sum, the distinction between single and sequential exchange is essential. Enforcement of in rem rights, which is the product of sequential transactions, requires a wider scope of impartiality than mere contractual enforcement, which is linked to a single transaction. The governance of in rem enforcers must therefore guarantee information and impartiality with

respect to parties involved in all transactions: not only transacting parties in each private transaction but also all parties holding rights on the asset or potentially acquiring rights in assets of the same type. Such parties, being complete strangers to most of the intended private transactions, are not in a position to choose or somehow incentivize the enforcer or those producing evidence that might be relevant for enforcement.

Because of this wider scope of impartiality, public ordering has an intrinsic advantage over private ordering in the enforcement of in rem rights. In essence, state enforcement cannot even be replicated by private ordering, which is only effective in protecting parties to the specific transaction at hand. This does not preclude individuals from overcoming their collective action problem and joining forces to develop self-governing, market-wide and independent third-party enforcers.<sup>5</sup> However, when they do so, they are not acting as parties to existing transactions. On the contrary: they are assuming that the third-party enforcer will be ruling on transactions in

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5. This argument is applicable to many accounts of allegedly “private” ordering solutions, including those relating to the Californian gold rush (Umbeck 1977), self-governing property arrangements (Ostrom 1990), the Merchant Law (Benson 1990), medieval Jewish Maghribi traders (Greif 1989, 1993), medieval fairs (Milgrom et al. 1990), the US West (Anderson and Hill 2004) or even anarchist solutions for land titling (Murtazashvili and Murtazashvili 2015). Some of these accounts also underestimate the reliance of these solutions on the state and, more generally, the interaction between local and wider institutions in parallel with the scope of the relevant market. The discussion therefore resonates in the old debate in history about the power of private property to enable a functional market economy. See, for instance, Edwards and Ogilvie (2012) and Sgard (2015), who reinterpret the case of the Champagne fairs with a much greater role for public order; Kadens (2012), who argues that the customary origin of the Merchant Law is a myth; and Arruñada (2012: 111), who stresses the role of the state in some of the cases described by Anderson and Hill (2004). In a different vein but closer to property law, I have also analyzed the limitations of private choice in titling in Arruñada (2003: 424–32) and the functioning of US private registries, both title plants (Arruñada 2012: 188–91), and the Mortgage Electronic Registration Systems, MERS (Arruñada 2012: 113–14).

which they have not yet entered and for which they therefore have incentives to prefer efficiency-minded and independent enforcers. They are, in fact, better described as creating the rudiments of an independent market-enabling state.<sup>6</sup> Coase himself seems to point in this direction when suggesting that, when traders are distant, private ordering is not enough for enabling markets:

It is evident that, for their operation, markets such as those that exist today require more than the provision of physical facilities in which buying and selling can take place. They also require the establishment of legal rules governing the rights and duties of those carrying out these transactions in these facilities. Such legal rules may be made *by those who organize the markets*, as is the case with most commodities exchanges. ... When the physical facilities are scattered and owned by a vast number of people with very different interests, as it is the case with retailing and wholesaling, the establishment and administration of a private legal system would be very difficult. Those operating in these markets have to depend, therefore, on *the legal system of the State*. (Coase 1988: 10, emphasis added)

#### **4. Concluding Remarks**

Coase criticized economists for not paying enough attention to reality:

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6. In particular, the institutions developed in primitive or allegedly stateless societies to transact property rights do not rely on privacy but on public procedures which are functionally similar to those used by modern states (see, e.g., Arruñada 2003).

Economists, by and large, do not study the workings of the actual economic system. They theorize about it. As Ely Devons, an English economist, once said at a meeting, “If economists wished to study the horse, they wouldn’t go and look at horses. They’d sit in their studies and say to themselves, ‘What would I do if I were a horse?’” (Coase 1999)

Coase did not need to look carefully at the horse of property to study use externalities. However, by retaining and even simplifying the Coasean assumptions on property, the so-called “economics of property rights” kept relying on contractual (that is, in personam) concepts of rights that have little to do with property. As a consequence, it is causing considerable confusion on the viable spheres of private and public ordering – that is, in identifying the proper role of private contracting versus the state and mandatory legal rules.

The root of this confusion lies in retaining the single exchange framework, which is useful for understanding use externalities. I have argued here that, for understanding property institutions, we need to focus on the transaction costs involved when we assume a sequential exchange with interaction between contracts, a type of exchange that is essential for specialization in contractual functions. In such a sequential exchange context, not only use externalities but also exchange externalities are prevalent, and public-ordering institutions are needed to contain them. This drastically modifies the nature and scope of public – in practice, state – intervention. In particular, there are additional reasons for property law to contain mandatory rules, unlike contract law. Moreover, the interaction between contract and property

law also changes, with contract law governing the inter-party manifestation of the consents needed in what is necessarily a double-stage (private and public) property transaction. Property law institutions – broadly defined, to include those dealing with all types of sequential exchange – also become the key mechanism for making truly impersonal exchange possible, this being understood as exchange in property, in rem, rights whose value is independent of parties’ personal attributes.

I contend that this perspective is necessary for economic analysis to start illuminating, instead of obscuring, some important problems. To date, it has favored contract law solutions which, being suitable for personal exchange, force market participants to rely on personal safeguards, squandering the potential benefits of in rem enforcement and impersonal exchange (Arruñada 2012: 114–18). In particular, it is behind a variety of specific policy issues, such as focusing reforms too narrowly on the liberalization of private contractual specialists (such as conveyancers, title insurers, patent lawyers, investment bankers) without proper development of market-enabling central outfits, such as registries and organized markets for financial derivatives (Arruñada 2012: 183–230), which are implicitly considered to be bureaucratic hurdles (Arruñada 2007).

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