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Antony Dnes
University of Hull

Dean Lueck
The University of Arizona

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Department of Agricultural and Resource Economics
College of Agriculture and Life Sciences
The University of Arizona

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Asymmetric Information and the Structure of Servitude Law

ANTONY DNES AND DEAN LUECK

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Abstract. This article explains the structure of servitudes on land using key ideas from the economics of information. Our focus is on easements and covenants and the rules governing their formation and application. The legal doctrine on servitudes has long been viewed as a Byzantine tangle of doctrine emanating from property law, contract law and courts of equity. We develop a model of land markets that incorporates asymmetric information (adverse selection) and specialization in ownership, and use this to offer a rationale for the seemingly illogical limits on the use of servitudes. Our model uses information costs to explain variations in legal doctrine over time and across space, particularly comparing servitudes in America and in England. An alternative approach to explain servitude doctrine based on the “anticommons,” is seen as a special case of the more general problem of information asymmetry arising from measurement costs in land. This is the first paper to model adverse selection issues attached to land law.

Dnes: University of Hull, England, a.dnes@hull.ac.uk. Lueck: University of Arizona, USA, lueck@email.arizona.edu Research support was provided by the Cardon Endowment for Agricultural and Resource Economics at the University of Arizona.

I. INTRODUCTION

The law of servitudes has a reputation for being a Byzantine tangle of doctrine with sources in the law of property and contract and in courts of equity.¹ This doctrinal tangle represents a challenge for law and economics because it appears to be rife with inconsistencies and redundancies and because the terminology itself is not transparent. Servitude law comprises rules that govern the simple rights of way for travel across another's land or use another's land (e.g., corridors for pipelines, power lines, irrigation canals) as well as rules that allocate rights of light and storage, rights to remove assets from the land (e.g., minerals, game, wood), covenants on townhouses and homes in associations, and modern conservation easements. In legal terms servitudes are 'private law devices that create interests running with the land.'² All of these legal devices are essentially property rights in the real (estate) property of another (whether a right to cross, to extract, or limit use) and are methods by which property rights are partitioned into specialized components. We argue that the law of servitudes actually provides a further illustration of the efficient evolution of property rights over time, in the sense claimed in other areas of property rights by Demsetz.³

Servitudes are a prime example of how the common law supports the fragmentation and specialization of property rights in space, time, and use. The underlying economic rationale for this fragmentation is based on the gain from specialization in the ownership and use of land, and on the possible avoidance of high costs in laying in services such as power cables, sewers, or roads, or the avoidance of conflict over the resource (Barzel 1997, Ellickson 1993, Stake 1998,

¹ It is worth repeating here is the famous and overused quote by Rabin, (1974, p.489) "*The law in this area is an unspeakable quagmire. The intrepid soul who ventures into this formidable wilderness never emerges unscarred. On looking back they see the trail they thought they broke obscured with foul smelling waters and noxious weeds.*"

² See American Law Institute (2000, p.1).

³ See H. Demsetz (1967 and 2002).

Lueck and Miceli 2007) For instance, allowing an oil company to own and manage underground hydrocarbons, while a farmer manages the soil, increases the total value of the land. Similarly, the joint value of two neighboring pieces of land is likely maximized by a locked-in piece buying the right, typically an easement, to use an access route across the property contiguous to the highway. If, ahead of time, two neighbors can foresee conflict over their exercise of independent property-right entitlements, possibly because one will emit noise, an easement might turn what would otherwise be a nuisance (a negative externality or unpriced spillover effect) into an entitlement. Unlike leases, which are exclusive but time-limited possessory rights, servitudes are non-possessory rights held by someone other than the fee owner.

Although the basic economic rationale for the existence of servitudes is straightforward, the structure (and evolution) of the doctrine is puzzling and largely unexamined.⁴ Indeed, servitude doctrine is noted as a “quagmire of principles possessing little apparent coherence.”⁵ Although there are numerous restrictions to be examined, two doctrines turn out to be particularly important. First, the English common law evolved to allow and enforce just four types of negative easements (i.e., those restricting the actions of land owners) by the early nineteenth century following concern over excessive creation of “novel restrictions.” Such restriction has been influential in America, which is only a little less restrictive on negative easements. Second, American common law does not permit, and English common law is reluctant to permit, the creation of negative easements by prescription; that is, creation by long use akin to adverse possession.⁶ The climate of restriction has modern implications, e.g., in the

⁴ Stake (1999) notes the paucity of economics work on servitudes; Lueck and Miceli (2007) note the lack of work on legal doctrines concerning land. Early work by Reichman (1978) notes that touch and concern requirements are central to enforcing covenants as though they were easements, are inherent in the definition of an easement, and define specific performance as the context for bargaining. See also Stake (1998) and Gordley (2003).

⁵ Casner, et. al. (2004).

⁶ See Dukeminier and Krier, (2002, p.781); Gray and Gray (2005, p.637).

US, the early twentieth century difficulties over enforcing conservation easements that were eventually solved by statute.

The “list of four” began with the English case of *Keppell v. Bailey*, in which enforcement of a *covenant* to buy limestone from a particular seller and then to transport by the Trevil Railroad was denied.⁷ From this beginning there ultimately came to be just four recognized categories of negative easement protecting the entitlement to: 1) a flow of water in an artificial stream; 2) a flow of air through a defined route; 3) a quantity of light through windows; 4) support for a building from a neighbor’s building. In England, you may covenant over other restrictions, for example the preservation of views or shelter for structures, but not in a way that would “run with the land.”⁸ The general effect of the list of four is to push restrictions on land use out into the market place for highly visible periodic contracting or judicial supervision under the law of nuisance. The list of four is influential in American jurisdictions and American courts have been only a little more generous, as in their recognizing the right to a view, for example, in *Petersen v. Friedman*.⁹

In this article we develop an economic rationale for the structure of servitude law, focusing primarily on observed limits on the use of servitudes and on requirements on the structure of enforceable servitudes.¹⁰ Contrary to much of the prevailing legal literature that emphasizes chaos and historical accident, we argue that servitude law has an underlying economic structure that is designed to reduce information asymmetry that could otherwise alter

⁷ 2 My. & K. 517, 39 Eng. Rep. 1042.

⁸ For example, in *Phipps v. Pears*, 1 Q.B. 76 (1965) the court refused to recognize a prescriptive easement protecting a wall from exposure, claimed following the demolition of neighboring property (“The only way ... to protect ... is by getting a covenant”).

⁹ 328 P.2d 264 (Cal. Ct. App. 1958)

¹⁰ Stake (1998, p.439) also argues that these are the key questions in understanding servitude doctrine: “*The interesting economic issues relate not to why rights in Whiteacre can be subdivided according to usage, but rather why the law fetters the subdivision of rights, and whether there is any current utility to having multiple doctrines with differing rule by which rights are subdivided.*”

incentives and hinder the operation of a market in real property. In our framework, limits on the structure and application of servitudes allow specialization in property rights to enhance the total value of land, but also recognize limits resulting from imperfect information.

Our general argument is that because complex divisions of property, such as those defined by servitudes, can often be hard to measure and to verify, limits on their use can actually clarify rights to land and thus allow efficient market transactions.¹¹ Much of the legal discussion of servitudes in terms of “title clogging” can be viewed, in our terms, as the identification of an adverse-selection problem. Indeed there is much discussion in English and American cases about the potential devaluation of property through obscuring the true characteristics of land. In addition in both jurisdictions there appears to be considerable effort expended by buyers of land in ascertaining its characteristics. Much of servitude doctrine then may be regarded as efforts to control the risk of undermining the market in land owing to the “clogging of title” by uncertainty over its quality.¹² We use this asymmetric information and measurement costs framework to consider distinctions that have been maintained between easements and covenants, and to various other doctrines, such as appurtenance, “touch and concern”, privity requirements and modifications of easements and covenants. These doctrinal distinctions make sense in terms of controlling information asymmetry.

There is some recent literature related to the economic structure of servitudes. First, there is general issue of the “*numerus clausus*” structure inherent in property law; that is, the tendency to limit the number of permissible property-rights fractions so as to preserve property values.

¹¹ This is an application of a general argument made by Barzel (1997).

¹² Title clogging may also depend on the nature of externalities among neighbors and those holding different sets of rights in a property. An externality might create a complex cost relationship, including the case of a non-separable externality that is hard to control with a simple pricing rule. A separable externality is one that affects an activity independently of its scale, and is therefore easily valued. However, if the impact of the externality depends on the scale of the victim’s activity, it is non-separable and cannot be controlled by a pricing rule, which creates a presumption in favor of the *merger* of the two activities (Davis and Whinston 1962). Merger could include partial merger, which is the use of an easement, or, for limited periods, a covenant.

Merrill and Smith (2000) argue that such limits on the types of property regimes reflect information and measurement costs. Second, Hansmann and Kraakman (2002) have argued that property law verifies ownership of rights by presuming that they are held by a single owner, subject to the exception that a division is enforceable if there is adequate notice to subsequent owners. Hansmann and Kraakman conclude that because the benefits of fragmented property rights are often low, high cost of verification encourages courts to limit the number of partial property rights. Third, there is the recent application of the ‘anticommons’ model to the question of servitude law (Depoorter and Parisi 2003; Parisi, Depoorter, and Schulz 2006).¹³ We believe our approach is generally consistent with these literatures but more importantly generates testable hypotheses that are consistent with the evolution and variation of servitude law. For instance, there is, in practice, a vast search activity, consistent with a perceived information problem rather than the “hold up” by successive layers of controlling interests that would reflect the anticommons thesis. Third, our analysis of servitudes is also linked to recent work on land-titling systems,¹⁴ as many American differences, compared with England, reflect the early introduction of title *recording* in America: and note that the emergence of some more permissive servitudes doctrines in England follows the introduction of land *registration*.¹⁵

We begin in section II with a short discussion of the basic structure of servitude law, noting the legal origins emanating from property law, contract law and courts of equity. In

¹³ The anticommons literature stems from Heller (1998) who observed empty store fronts in Moscow, which he attributed to excessive layers of rights of exclusion from bodies such as the government and the mafia. Buchanan and Yoon (2000) develop a formal model that is analogous to open access rent dissipation with each party choosing price rather than a level of extraction in the tradition model. Lueck and Miceli (2007), however, argue that anticommons is more appropriately viewed as an investment problem with incomplete property rights.

¹⁴ See Arruñada (2003) who argues that land registration acts as title assurance but reduces the number of permitted fragmentary rights compared with title recording; and Arruñada and Garoupa (2005) who show that an optimal titling system depends on empirical characteristics, is ambiguously defined in theory, and depends partly on issues connected with adverse selection.

¹⁵ The *Restatement 3rd of Property, Servitudes*, (American Law Institute, 2000) recommends liberalizing servitude doctrine too.

section III we then develop an economic model of the land market under asymmetric information to understand this structure. In section IV we test some implications of the model by examining details of the law and some important differences in the law in America and England where these provide a natural experiment. Section V summarizes the study.

II. THE STRUCTURE OF SERVITUDE LAW

All servitudes create rights or obligations that can remain a part of the land even after a transfer; that is, they “run with the land.” As we note above, the examples are many and include such common practices as rights of way over servient land¹⁶, restrictions on home designs in residential developments, rights to hunt game or harvest timber, and even rights to pews in a church, or to use a kitchen. Servitudes commonly arise out of private agreements either established when the land was initially transferred, or later.¹⁷ To understand fully the structure of servitude law, however, one must understand the genealogy and evolution of the doctrine. Figure 1 summarizes these sources and shows that servitude doctrine emanates from the common law of property and contracts as well as from courts of equity. The figure, however, does not show the temporal and topical history of this evolution and this is what we discuss below.

-- Figure 1 here --

Easements in Property Law

An easement is defined more formally as "an incorporeal [nonpossessory] hereditament [inheritable right] comprising a positive or negative right of user over the land of another" and

¹⁶ Servient land is a legal term that refers to the affected plot of land to which the servitude attaches.

¹⁷ See Washburn (1885) for a general discussion. As we note below, easements can be created by grant, implication, prescription (public and private) and dedication. Dedication is voluntary but can be conditioned upon payment of tort damages, as in cases following *Spur Industries, Inc. v. Del E. Webb Development Co.*, 49 P2d 701 (Court of Appeals, AZ 1972). Historically, there has been a move away from attaching purely personal obligations to land ownership, as in the failed attempt in *Keppell v. Bailey*, *op cit.*, where the court saw the intention to restrict supply sources as anticompetitive.

may be “appurtenant,” so that the benefit and burden attaches to land, or “in gross, where the benefit is not attached to land.”¹⁸ A classic right of way through a neighbor’s (servient) land is an example of an easement appurtenant. In America, but not in England, the benefit of an easement need not be attached to dominant land and is then said to be in gross, as would be, for example, a typical railroad right of way.¹⁹

Easements may be "affirmative", where the owner of the dominant estate has a right to do something on the servient estate, or, less commonly, “negative”, where the right is to restrict activity. The common law has traditionally been very wary of negative easements, which are seen as potentially proliferating restrictions. Classic affirmative easements comprise rights of way, rights of storing goods, rights of establishing advertising billboards, and rights of action that might otherwise be nuisances. For example, in Coase's (1960) principal case, *Sturges v. Bridgman*²⁰, the (confectioner) defendant unsuccessfully claimed an implied easement to make a noise based on “long use.” A negative easement gives the holder the right to prevent defined actions on the servient land. Courts traditionally discouraged negative easements and the English courts, in particular, are widely held to have limited negative easements to four specific appurtenant types.²¹ The recent case of *Hunter v. Canary Wharf* shows the persistence of the traditional conservatism in England: the court refused to recognize a new negative easement that had been claimed, as the right to interference-free television reception, following construction

¹⁸ Gray & Gray, (2005, p 620). We pass over two closely related property servitudes, profits and licenses, which are not central to our purposes. Licenses reflect revocable permission to use another's property. *Profits à prendre* are non-possessory, but possibly permanent rights to enter and take something from another's land (e.g., minerals, timber, game). Profits might be viewed as ‘easements of removal’ and could be in gross (American Law Institute 2000, p.12).

¹⁹ These distinctions are not always clear because appurtenance does not always require parcels to be adjacent geographically, as in an easement for a pew in a nearby church (Washburn 1885). Simpson (1986) notes that after 1868 easements in gross were not allowed in England, and English law distinguishes a *profit à prendre* from an easement.

²⁰ [1879] 11 Ch. D. 852. The defense might have succeeded had Bridgman been there a few years longer.

²¹ Supra note 5. The *Restatement Third* replaces the term negative easement with "restrictive covenant."

work that impeded broadcasted signals.²²

An easement converts what would otherwise be a nuisance into a minor property right, but there are alternatives because neighbors could avoid the costs of establishing an easement by relying on other legal structures. In particular, they could periodically contract over abating some nuisance, creating a personal covenant. Alternatively, they could just rely on the judicial supervision of nuisance, as in *Sturges v. Bridgman*. More temporary modes of restriction would make sense if the impact grows over time with the scale of the business on the servient land.²³

Easements may be terminated by agreement, most simply by merging the dominant and servient estates and thus re-establishing a unified estate.²⁴ Termination may also occur by express revocation by the dominant landowner, or abandonment, possibly following a buy out by the servient landowner. Courts can condemn, or vary an easement under the doctrine of changed circumstances, although there is a traditional resistance to doing this lightly.²⁵ Variation of access routes is permitted in America (American Law Institute 1998), although the case law is mixed, but is still resisted in England despite calls for it.

Real Covenants in Contract Law

Servitudes also arise in contract law as real covenants. A real covenant is one allowed to “run with the land,” and originates as a personal agreement in which one party (the covenantor) promises another party (the covenantee) to engage in or refrain from specified activities affecting a defined area of land. They were principally developed in the late nineteenth century as

²² *Hunter v. Canary Wharf Ltd* [1997] AC 655.

²³ The growth of the impact in such a manner represents a non-separable externality, for which there is no simple pricing structure owing to feedback, which suggests non-fragmentation of the property right, or short periods of fragmentation (Davis and Whinston 1962). This principle was well known when more attention was paid to the theory of welfare economics (the underlying logic of economic analysis of law). See also Mahoney (2002) who discusses this problem with application to conservation easements.

²⁴ Washburn (op cit, p.688) summed it up: “[W]henver two estates which have been dominant and servient in other person's hands become his by a joint absolute ownership and possession, all easements and servitudes previously existing between them are thereby extinguished.”

²⁵ Gray & Gray (2005, p. 659) note the possible usefulness of variation of right of way.

landowners tried to circumvent the unwillingness of judges to use negative easements to create restrictions to land use under property law, following *Pakenham's Case*.²⁶ In England and in the United States doctrines developed slowly to allow covenants to "run with the land," albeit that in England the burden of a real covenant traditionally can run in a lease contract only. Real covenants are particularly common in modern housing developments and along with zoning regulations make up most modern land use restrictions.

Because a typical contract does not impose obligations on parties not in the original contract, the main issue for enforceable real covenants is what is required to make the covenant bind all others, acting like an easement and allowing the burden to "run with the land." First, the contract must be written and show a clear intention that the covenant run with the land. Second, the covenant must "touch and concern" the land of the covenantee and must not be a purely personal obligation. In terms of economics, it seems that touch and concern implies the existence of a benefit that will increase the value of the land, regardless of who owns it.²⁷ Although a precise definition of touch and concern is elusive, courts do look for this feature, which is similar to appurtenance in easements.²⁸ We return to this theme in our empirical section.

A third requirement for a covenant to run is that there must be privity of estate between the parties. Privity, generally means the existence of a mutual or successive relationship in the property, so that a requirement of privity before a covenant could run means that the parties to the agreement must have such a current relationship.²⁹ In general the privity conditions for

²⁶ Y.B. 42 Ed III. 3 pl.14 (1369), also known as the *Prior's Case*, in which a covenant requiring religious order to sing could run with the land.

²⁷ Both the idea and the terminology of touch and concern originate in *Spencer's case*, 77 Eng. Rep.72 (K.B. 1583). See Depoorter and Parisi (2003, p.8).

²⁸ The Restatement suggests the amalgamation of easement and covenant law and the abandonment of the requirement for touch and concern (American Law Institute, 2000). Reichman (1978) suggests "touch and concern" defines when the dominant estate can hold out for bargained compensation to abandon the servitude, given that a purely contractual right could be "taken" by the court subject to payment of court-governed money damages.

²⁹The concept of privity, which comes in two forms - horizontal and vertical - is just as elusive, at least in economic

establishing a real covenant are much wider in America than in England, so that real covenants in America have much wider application and are easier to enforce.

Covenants, may be affirmative (e.g., a requirement to maintain a neighbor's fence) or negative (e.g., do not erect a fence) burdens on the servient estate. Real covenants are typically created by grant, but can be created by implication or even, rarely in America but not at all in England, by prescription.³⁰ Typically prescription is not applicable across the jurisdictions, which might lead us to suppose courts can be more liberal in allowing restrictions compared with easements. A merger of the two estates may terminate real covenants, as can condemnation and the doctrine of changed conditions.³¹ Real covenants are enforceable as a contract, with a standard remedy for breach being money damages. Unlike negative easements, real covenants are not much restricted in their scope in American law.³² In English law the scope has remained restricted, following *Keppell* in which the then Lord Chancellor severely criticized "incidents of a novel kind."³³

Servitudes in Courts of Equity.

The third avenue for servitudes has been through Courts of Equity. In England, property and contract law limited the types of land use restrictions that could be established as property interests despite the growing demand for these interests. Although America developed a

terms, as touch and concern. Horizontal privity refers to a relationship between the original parties and vertical privity refers to a relationship between the original parties and their assignees. Vertical privity requires that the exact estate, in the original agreement, be succeeded (either by conveyance or inheritance) in order for the covenant to run with the land, which may be a device to save the costs of rewriting the contract when the terms are very clear. In England, horizontal privity is satisfied only if the parties have a current landlord-tenant relationship (*Keppell v. Bailey* 39 Eng. Rep. 1042 Ch. 1834) and not, for example, by two adjacent landowners as in U.S. law. For a clear discussion see Casner (2004, p. 957).

³⁰ Implication usually arises through the actions of a developer. The *Restatement*, section 2.16 recognizes the (rare) validation of an imperfectly created covenant by a prescriptive period: see Casner (2004, p.993).

³¹ French (1982) notes that this doctrine did not emerge until the early 20th century and thus its absence may explain law's historical resistance to new servitudes.

³² In *Shelley v. Kraemer* (334 U.S. 1, 1948) the Supreme Court prohibited racial covenants on Constitutional grounds.

³³ Op cit. above.

substantial law of real covenants, England ultimately developed a similar addition to property law under equity. In 1848, in *Tulk v. Moxhay*³⁴ the Court of Chancery created equitable servitudes by using equity principles to enforce what would otherwise have been a real covenant.³⁵ *Tulk* repudiated *Keppell* and allowed restrictions on land to run and to be enforced in equity. The Court held it inequitable to allow a landowner purchasing with notice of a restrictive covenant to sell on (at a higher price) without the covenant. In *Tulk*, both affirmative and negative restrictions were enforced, but the doctrine has evolved to enforce only negative restrictions as equitable servitudes.³⁶ Equitable servitudes in the U.S. have a similar origin,³⁷ but now American courts also will enforce affirmative obligations as equitable servitudes, unlike their English counterparts.³⁸

As a result of the development of equitable servitudes, in both American and English courts, restrictive covenants may now run with the land much as does an easement. However, it is unusual to see covenants in England or America where the benefit is in gross and the burden runs with the land, as noted by Justice Holmes in *Lincoln v. Burrage*.³⁹ Equitable servitudes can in fact show many features in common with real covenants.⁴⁰ They may be created by implication but, not by prescription. The requirements for running with the land are also similar to those for real covenants. The restriction must touch and concern the land but there is no requirement for horizontal privity and only a limited requirement for vertical privity. The focus is on beneficial reliance by the purchaser, rather than on assessing privity issues, although privity

³⁴ 41 Eng. Rep. 1143 (Ch. 1848). See also *Whatman v. Gibson* 59 Eng. Rep. 333 (1838).

³⁵ Indeed, equitable servitudes are often called "restrictive covenants."

³⁶ *Haywood v. Brunswick Permanent Benefit Bldg. Soc.*, 8 Q.B.D. 403 (1881).

³⁷ See *Hills v. Miller*, 3 Paige Ch. 254 (N.Y. 1832), a case similar to *Tulk*.

³⁸ See French (1982), arguing there is no modern functional distinction between real covenants and equitable servitudes in modern American courts.

³⁹ 177 Mass., 378, 59 N.E. 67 [1901].

⁴⁰ Depoorter and Parisi (2003) disagree with this view of similarity, but their analysis is not based on comparisons across American and English common-law jurisdictions.

may in fact be an indicator of reliance. An equitable servitude can be terminated by merger of the two estates and by the doctrine of changed conditions. An equitable servitude is treated as a right in property and is thus generally enforced by injunction like an easement, though the recommendation in the latest *Restatement* is to merge law and equity and allow either injunctive or damages remedies.

III. THE ECONOMIC STRUCTURE OF SERVITUDE LAW

In this section we use the economics of asymmetric information and transaction costs to fashion an economic theory of servitude law. In particular, we rely on the literature on measurement costs (Barzel 1982, Holmström and Milgrom 1991) and adverse selection⁴¹ (Akerlof 1970), which suggests that markets may disappear when items to be traded become very difficult to value with precision, and an approach based on the value of an item of average quality is substituted by buyers. The models we develop are stylized and focused on the problem of illuminating the structure and evolution of servitude law in the English and American common-law jurisdictions.

The recurring worry of courts is that “novel restrictions” could so encumber land that the market for land would be undermined. Actually, this cannot happen if there is clear information about the restrictions, because they would be reflected in market value and sellers would soon learn the extent of their financial loss from high levels of restriction, assuming that the seller controls the grant of an easement. Also, the problem of individuals overly restricting land at the point of their death, when they might not care so much about financial advantage, is dealt with separately by the rule against perpetuities.⁴² The key problem of asymmetric information is that

⁴¹ More generally see Bolton and Dewatripont (2005).

⁴² Property transfers must vest within a reasonable time following the lifetime of someone alive at the time of

restrictions might emerge and be difficult to detect for sellers and, particularly, buyers and thus limit the market. For example, an easement by implication might emerge soon after a land transaction has occurred and not be anticipated by the seller and surprises the buyer. In extreme cases of asymmetric information --- where sellers have full information about a title defect, but buyers can only assume a statistical distribution over a known range -- adverse selection can result and better quality land can fail to sell.

We develop a model similar to that of Arruñada and Garoupa (2005) who examine adverse selection in the context of asymmetries in knowledge of the likelihood of title forfeiture. We recognize adverse selection but emphasize asymmetric information and the costs generated for the buyer in researching title for the presence of servitudes. In the cases of easements and covenants, the idea that the buyer must incur information search costs, whereas the seller has full information, is a reasonable fit with observed practice. Alternatively, a typical adverse selection model in which the buyer assumes that there is a uniform distribution of likely values, and uses an average of these to form a buyer's valuation, does not seem to be a reasonable fit. Although, mathematically, the asymmetry resulting from the buyer's assumptions compared with the seller's knowledge is convenient, it may mask some important institutional matters of interest in explaining the law of servitudes, because what we see is a great deal of search activity and quality assessment.

For our purposes we assume that the buyer's expectation of the reduction in the value of the i^{th} piece of land, because of the existence of servitudes, is defined as $E_B[S_i]$, distributed over the interval $[0, S]$. The seller has precise information, $E_S[S_i] = S_i$. The use of expectations over the change in land value following from encumbrances is a convenient formulation in the

conveyance. This requirement places clear limits on the influence that the dead can have on the welfare of those now living. Other restrictions on whose preferences are to count can be found in family law (adults count for more than children) and in contract law (incapacity).

following analysis. We assume land parcels to be standardized apart from the encumbrances placed upon them. The maximum value of an unencumbered parcel is S which is common knowledge. The buyer's knowledge is influenced by search costs, C , which would normally encompass legal research, and by institutional factors. The buyer's valuation is determined by the number of transactions in land (N), and jurisdictional characteristics (A), such as the age of the legal system, whether it follows particular legal doctrines, and whether it has land recording, or registration, systems in place. A large number of transactions, particularly if relative to a small number of titles, will tend to reveal servitudes over time. Recording and registration systems should enhance the buyer's perception of the true value of S_i . Therefore:

$$(1) \quad E_B[S_i] = f(C, N, A)$$

where $f'(C) \leq 0, f'(N) \geq 0, f'(A) \geq 0$ and $f''(C) \leq 0, f''(N) \leq 0, f''(A) \leq 0$, reflecting a range of increasing expectation of fractional change in a system characterized by older, numerous transactions, and a lower expected fractional change following search. We should expect fixed effects to follow from such things as changes in legal doctrines, or the introduction of land registration or recording systems.

The buyer always has the option of not searching, in which case the buyer assumes S_i to be uniformly distributed over the interval $[0, S]$, with $E_B[S_i] = S/2$. The buyer searches to improve information on the i^{th} land transaction when:

$$(2) \quad dC_i < E_B[S_i] - S/2$$

In other words, the search (legal research) strategy is adopted when the marginal costs are less than the value of the expected improvement in information. We assume the search strategy dominates, for all parcels of land $i = 1 \dots n$, and the buyer's expectation over the servitude value is given by the application of legal research in a defined legal environment.

Turning now to interactions in the market for land, let buyers and sellers agree on the valuation of a standardized parcel of *unencumbered* land as $V_i = V, i=1 \dots n$. The buyer's valuation of encumbered land, which is offered at a price $P=V$, is therefore $(1-E_B[S_i]) V$, and the seller's valuation is $(1-S_i) V$.⁴³ The seller will sell parcels of encumbered land for which $P - (1-S_i) V > 0$, which indicates accepting the buyer's offer if $S_i > E_B[S_i]$. Some encumbered land will not be sold, owing to the buyer's inability to assess and offer its true value, which implies adverse selection if the buyer systematically underestimates the servitude value across the land stock.⁴⁴

IV. TESTS USING PRINCIPLES FROM CASE LAW

In this section we examine the structure of servitude law and argue that the legal rules and practices are largely explained by the model.⁴⁵ The evidence suggests that the structure of the law is generally consistent with wealth maximizing legal institutions. In particular, the effect of doctrines, especially in relation to titling systems, may be interpreted as embodying attempts to establish the equality between the seller's valuation of the servitude and the buyer's expected valuation; that is, $S_i = E_B[S_i]$. We now examine several in turn, beginning with the English Court's closure of the list of allowable negative easements.

The "List of Four"

The English Court had restricted the list of allowable negative easements by the mid-nineteenth century.⁴⁶ The restricted list relates to light, air, building support, and riparian water rights, and

⁴³ If there is no servitude, then $S = 0$ and $V = P$.

⁴⁴ In a standard model of adverse selection, the buyer uses $S/2$ in place of $E_B[S_i]$ and the higher valued land is excluded from the market. Our model shows the importance of search in producing information and shows that some land transactions will be deterred.

⁴⁵ Finklestein and Poterba (2006) is a recent empirical study of adverse selection.

⁴⁶ Casner et al, (2004, p. 959).

in each case there is a precise definition of the scope of the allowable easement. For example, rights to air are described as delimited by a *defined* channel, and riparian rights are described as naturally occurring flows that are to be left undiminished. The logic behind the restriction is often discussed in relation to the holding in *Keppell v. Bailey*, which was actually a nineteenth century *covenant* case, where the court described the unfettered creation of restrictions “of a novel kind” as likely to lead to land becoming worthless and impossible to trade.⁴⁷ The court’s anxiety was on the difficulty of dealing with restrictions for which there was no easy point of definitional reference, owing to “novelty,” and this type of discussion surfaces time and time again, either in property law, in relation to easements and easement-like devices, or, in contract, as covenants. A modern case showing the doctrines of restriction still to be good English common law, revealing the Court’s anxiety over reducing the value of land, is *Allen v. Greenwood*.⁴⁸

A general system of registering land titles did not develop in England until 1925, which probably reflects the vested interests of landowners worried about questionable older titles. Notably, the English system that emerged in 1925 was one of *registration* rather than simple title *recording* as in America. Registration gives ownership finality, defining the first to file registrant as the owner, with an insurance system in place to cover for mistakes, although, up to the present day, there remains unregistered land in England. As the model implies, the uncertainty over unregistered title in England, pre-registration and for non-registered land now, is expected to encourage caution over allowing encumbrances on land titles that might be uncertain in effect, or might be misrepresented at future dates.

⁴⁷ *Keppell v. Bailey*, *op cit*.

⁴⁸ [1980] Ch.119, House of Lords (requirement for natural light in relation to the ‘normal use’ of a greenhouse).

In principle, the court in *Keppell v. Bailey*, could have been worrying about the range of values affecting servitudes, or about the difficulties of assessing servitudes, both of which might suggest a need to simplify the allowed categories to aid the clear identification of restrictions likely to apply, to be ‘watched out for’, in assessing title to property. It is most unlikely that the court was worrying about servitudes where their value was well known to both parties to a transaction: However burdensome these were, the parties could simply bargain over price and there would be no barrier to trade in land. The court seems to have been mostly concerned with the world in which sellers might hide restrictions, and buyers would need to ascertain them. This occurs when $S_i < E_B[S_i]$.

Nor, in comparison with the anticommons thesis, did the court seem to worry about the sheer number of restrictions, or the number of persons holding power through servitudes. The law allows many people to hold restrictive rights, as long as the restrictions are of the permissible class. When modern servitude law requires that the restrictions not completely undermine the use of the servient land,⁴⁹ a single servitude could be the cause of undermining. A permitted easement is not exclusive, and one right over servient land could benefit several dominant landowners.⁵⁰ Covenants could be contracted with many parties, and so do not reduce the numerus clausus of fragmented rights, at least for periods of time.⁵¹ The focus of the courts does not appear to be on the number of holders of fragmentary property rights. Rather, the focus seems to be on possible complexity and difficulties in knowing values. The court’s focus on efficiency also surfaces in its refusal to support the attempted restrictive practice in *Keppell v.*

⁴⁹ *In Re Ellenborough Park*, op cit.

⁵⁰ Indeed, it is possible to extend the number of dominant landowners if an existing easement would confer similar benefits to them, comparable to the benefits enjoyed by the existing dominant landowner, without creating costs (Gray and Gray, 2005, p.659).

⁵¹ The covenants can be chained to last for very long periods of time.

Bailey, which is not a concern if viewed purely in terms of the number of controlling interests, but is simply a novel restriction of no welfare benefit.

In Heller's (1998) original version of the anticommons, the corruption endemic in Russia resulted not in servitudes on land, but rather an ability of local officials or organized criminals to veto development absent a bribe: this is not the same situation as the one where an underlying *technical* externality leads to the use of easements, covenants, or nuisance law; Heller's anticommons observations relate to an underlying *pecuniary* (distributional) externality (Davis and Whinston, 1962). In fact, it is possible to go further and note that Heller's example illustrates a situation that cannot arise when corruption and extortion is held in check by criminal law, and that it anyway represents irrational behavior. Even in the absence of criminal law, the Mafia, or the government, should only extract the surplus on the activity, so that it continues to run at a normal profit: we simply should not see these multiplications of taxes, levies, bribes and other charges, unless there is a major failure in coordination.⁵² The storefronts were boarded up in Heller's observations precisely because unchecked coercion was present, with each of many exploitative agencies believing, as in Mel Brooks' *The Producers*, that it could end up owning 100 per cent of the show, or at least enough of the show to make force worth while. There was no agency able to say "enough." Neither coercion, nor control of pecuniary externality is generally present in cases of conflicting *use* of land in a well functioning common-law system,⁵³ but problems associated with technical externality, underlying servitudes, do persist.

⁵² It has been argued that corruption may have worsened in the move from communist oppression in the former Soviet Union, as one coordinated corrupt set of officials, representing monopoly corruption and interested in surplus maximization, was replaced by less coordinated, somewhat open-access corruption in which an official tries to exert control providing there is any return to the control. See the articles in Shleifer and Vishny (1998).

⁵³ Note *Keppell's* eschewing of restrictions on trade, which do reflect pecuniary externality (one producer gains another loses, but there is no net welfare change, rather as in the traditional view of pure economic loss in tort).

In England the resistance to extending the list of four negative easements saves the costs of juridical supervision in a country where land title can be ancient and where easements can be created not only by grant, but also by implication and, in particular, by prescription. For affirmative easements, the position is different. By definition, the affirmative easement implies a typical pattern of *complementary* land uses. Opportunity costs are clearer, and even probably visible, such as a right to stack wood. If the owner of the servient land does not like the arrangements, it should be possible to calculate a value and either sell the servient land, or buy out the easement.

Negative easements are harder to measure and define than positive easements. Forbearance over actions is harder to measure and this implies uncertainty over the quality of and a greater need for judicial supervision. In particular, there may be more scope for the impact of such restrictions on the value of the servient land to grow as the development value of the servient land grows. A negative easement appears to have greater potential for reflecting a non-separable, or at least a very complex, externality relationship. Suppose, for example, the right were to enjoy a “flow of air,” the scope for litigation would be very high. Almost any development could be opposed as having some effect on the airflow of neighboring properties. Clearly, some improvement of definition is needed, which in practice has been based on a reasonable channel of airflow. The alternative might have been not to allow this type of easement, but to leave matters to contracting or to the law of nuisance, possibly resulting in a judgement of reasonable user in many cases of conflict.⁵⁴

⁵⁴ That appears to be precisely what happened in the English case *Hunter v. Canary Wharf*, *op cit.*, in which the court held that there was no easement for terrestrial TV signals, nor an actionable nuisance for their impedance. The individuals affected by the development must buy cable, which seems to be the current cost-effective solution. Note also the anxiety caused in Australia, particularly among western Australian mineral companies, by *Mabo & Others v. The State of Queensland*, 175 CLR 1 (1992). *Mabo* recognized native title as a property fragment that may inhibit economic development judged likely to prevent the carrying out of tribal rituals on certain lands.

Our examination of the “list of four” suggests that the established negative easements are so defined as to make it unlikely that their impact would grow as the scale of business carried out on servient land grows. Rights of light must be judged “sufficient” for the normal use of a building and in relation to a defined aperture.⁵⁵ Similarly, the flow of air is preserved in a defined channel, water flow is protected in relation to riparian rights and defined in artificial conduits, and there is a right to building support from a neighboring building. Careful examination of these categories indicates that the impact on the servient land is highly unlikely to grow with the use of the servient land or create any other kind of complex effect on costs.

Partitioning and Variation of Easements

There is an interesting comparison to be made between partitioning and varying (that is, altering) easements, in that American and English courts are much more receptive to partitioning compared with variation. In principle, both possibilities represent changing the nature of the easement.

It is well established that the purchaser of a subdivision of land can expect to enjoy “annexed” access rights and similar affirmative easements, to the extent that these affect the subdivision and do not alter the burden of the easement.⁵⁶ Negative easements will also continue to affect the subdivision, for it would be odd for the dominant land to lose a benefit just because the servient land is subdivided (Gray and Gray, 2005, p.679; Casner et al, 2004, p.943). This is entirely consistent with the view that the easements are well defined in such cases, and purchasers should have no difficulty in making appropriate comparisons of value, over such dimensions as whether to subdivide, whether the servient and dominant land parcels are worth

⁵⁵ See Gray and Gray, (2005, p.663).

⁵⁶ *Brown v. Voss*, 715 P.2d 514 (Wash. 1986) is a case reflecting the standard view. The rule in *Wheldon v. Burrows* (1879) 12 Ch D 31 is applied throughout the common-law world to transfer the benefits of easements to purchasers of subdivisions.

more, taken together, with the easement than without. In terms of our earlier analysis, subdivision need not necessarily undermine the equality $S_i = E_B[S_i]$, showing correct, matching land valuation by buyers under the legal structure, and is more likely to represent a redistribution of existing benefits. Increases in information complexity are to be feared, not simple increases in the number of holders of fragmented rights.

Matters are different for variation of easements, which is routinely resisted by the courts, unless it can clearly be shown that an easement has become obsolete. More generally, English and American courts are highly resistant to arguments emanating from owners of the dominant or servient land requesting variation of the obligation. The courts seem to be very cautious even in the case of an access right of way, where economic logic might suggest that rerouting would benefit the servient land without harming the dominant land (French 2003). In England there is outright resistance to such variation, even though the potential benefits of rerouting are well recognized (Gray and Gray, 2005, p.659). In America, some courts have allowed rerouting⁵⁷, and some have not⁵⁸, although the American Law Institute now recommends permitting rerouting in the *Restatement (Third)*. Caution is warranted because of the danger that an owner of servient land may try to pass off a costly change as a simple change of no consequence to the owner of dominant land. Variation could imply a change in the underlying technical externality. Therefore, it seems better to force the parties to negotiate, possibly in terms of condemning the existing easement and making a new grant.

⁵⁷ *Roaring Fork Club v. St. Jude's Co.*, 36 P.3d 1229 (2001) Col. Supreme Ct., en banc, following the approach of the *Restatement 3rd*.

⁵⁸ *Davis v. Bruk*, 411 A.2d 660 1980, in which the Supreme Judicial Ct. of Maine disallowed a unilateral move keeping the same entry and exit points on the basis of avoiding the creation of windfall gains to the owner of servient land.

The American Rejection of Negative Easements by Prescription

American courts adopted negative easements, along with covenants, by the mid nineteenth century.⁵⁹ Their source was English law, but they had the benefit of making a later choice over the exact details of the adoption: and they rejected the possibility of negative easements coming into being by prescription. The American courts also became associated with a less-restrictive approach to the creation of negative easements, and are not tied to the “list of four,” although this turns out to be a very slight difference in practice, amounting to recognition of an easement of view⁶⁰ and some established use of conservation easements.

American courts could afford to be less worried about extending the list of easements. The American continent has land in much greater abundance than England, and has much newer titles. Moreover, a title-recording system for land came into place much sooner in America. There was therefore much less uncertainty over the quality of land, because a “notice” factor could work automatically and clearly.

Allowing negative easements to come into being by prescription could have been problematic in nineteenth century America. This method of creation would have required considerable amounts of judicial supervision because it would tend to generate litigation. Although America had land in abundance, and few problems connected with uncertain ancient titles, it did have a relatively short supply of judicial expertise. Under such circumstances, the prohibition on prescriptive negative easements can be seen as a low-cost method of aligning buyer and seller expectations over the value of encumbered land, again helping to bring about $S_i = E_B[S_i]$.

⁵⁹ Casner et al, op cit, at 962.

⁶⁰ *Petersen v. Friedman*, 328 P2d. 264 (Cal. Ct. App. 1958).

Notice that the American equilibrium did not lead to a burgeoning of negative easements. There is mainly a difference in the formation of negative easements, which can be explained by path dependency, rather than in their scope. In both America and England, courts do not worry much about affirmative easements and do worry a lot about negative ones, suggesting that the possibility of complex externality being associated with long-lasting restrictions is a general problem.

The Significance of Rules Governing the Formation of Easements.

The standard evolved rules for forming easements obey principles of minimizing information costs, and are principally concerned with the avoidance of unmanageable complexity.⁶¹ The requirements focus on clarity and predictability, and, comparing with the anticommons, not at limiting the numbers of holders of rights. In particular, an easement does not confer exclusive rights, as one may end up sharing an access right with other grantees, nor the right to exclude, or even co-occupy with, the owner of the servient property.

The requirement that an easement be capable of grant is mainly one of definiteness. That clearly must relate to predictability in effect, measurability and delimitation. These are all factors controlling complex cost effects. Most obviously, the requirement that the servient land should suffer no direct financial costs, nor be subject to any onerous burden of action, but that the owner must suffer no more than acts of forbearance, strongly indicates the suppression of potentially complex cost effects. Similarly, the need to identify a dominant and servient tenement, not necessarily contiguous, allows forecasting of the effects of the easement. Novelty is not *necessarily* an objection but its effects may be.⁶² The resistance to an easement of

⁶¹ Gray and Gray, (2005, p.621); Gasner et al, (2004, p.894); *In Re Ellenborough Park*, op cit., at p.140.

⁶² See *Simpson v. Godmanchester Corporation* (1897) AC 696 which allowed the creation of a right to enter on land to operate sluices.

wandering at will on land for recreational purposes most probably reflects a lack of definiteness in a right to roam.

The easement must not substantially interfere with a significant portion of the activities carried out on the servient land.⁶³ The clear implication of this requirement is that the activities should either be complements rather than substitutes, or substitutes of predictable and contained effect capable of pricing in at the point of grant, or of later assessment by a court under creation by implication or prescription. Either way, the requirement limits complex cost effects, including nonseparability where the impact of the easement might grow with the scale of economic activity on the servient land.

Rules Governing the Formation of Real Covenants and Equitable Easements.

Much of the apparent quagmire underpinning legal studies of covenants concerns the rules allowing covenants, ordinarily regarded as contractual and, therefore, personal in nature, to act like easements and run with the land. The broad economic effect of this change is to introduce a property rule so that the servitude may be condemned at a price agreed by the dominant landowner who is backed by the possibility of an injunction requiring specific performance. Otherwise as a personal obligation, the servitude is governed by a liability rule and may be bought out subject to court-governed expectations damages (Reichman 1978).

The covenant that remains personal, that does not run, gives the landowners and the courts somewhere to go in the case of an externality that is not suitable for treatment as an easement. Some encumbrances may be desirable for periods of time but need to be pushed out to the market for renegotiation, and courts can usefully govern that process. In yet other circumstances, as noted, simple reliance on the law of nuisance is another alternative. One

⁶³ In *London & Blenheim Estates Ltd v. Ladbroke Retail Parks Ltd* (1992) 1 WLR 1278 the servient owner could not be left with little use of the land.

suggestion is that the proprietary route, creating an easement or similar device, is suitable for externality relations likely to remain stable over time (Posner 2003). The suggestion here is that if something like an access route is likely to remain of similar value over the years, in terms of its effect on the joint value of “Whiteacre” and “Blackacre,” then the effect may as well be capitalized to have a once and for all effect on the sales values and save the transaction costs of periodic re-negotiation. This view is consistent with the argument that what matters for the acceptability of an easement is the predictability of the effect on costs across affected land. In the case of covenants, if despite contractual origins they are found to act much like an easement, causing no problems of unpredictability, they may as well be treated as an easement: this principle is discernable in the case law covering touch and concern and privity, for real covenants, and in the quasi-proprietary focus on equitable servitudes.

From a literal perspective, the requirement that a covenant touch and concern the land before it can run with the land is puzzling, as there is an apparent suggestion that public policy be operated for the benefit of land. Touch and concern can be an elusive concept, although the leading cases⁶⁴ have clarified the meaning. As stated earlier in this paper, the requirement boils down to requiring an impact on the value of land, regardless of ownership, and it rules out benefits in gross. It is best to regard the economic impact of touch and concern, affecting both real covenants and equitable servitudes, as a test of whether the encumbrance on land is suited to long-term stable existence akin to that of an easement, or whether it should be forced out into the market from time to time. The requirement seems to provide the ground from which to assess

⁶⁴ See *Mayor of Congleton v. Pattison* (1808) 10 East 130, updated for England by *P&A Swift Investments v. Combined English Stores Group Plc* (1989) AC 632 which requires that 1) a benefit to dominant owner terminate with cessation of ownership; 2) there not be an effect on the nature, quality, mode of user, or value of the dominant land; and 3) there be no expression of personal rights). American jurisdictions follow *Congleton* as noted in *Flying Diamond Oil Corp v. Rowe*, 776 P. 2d 618. The origins of this line of cases is *Spencer's Case*, 77 Eng. Rep. 72 where a tenant's obligation to build a wall ran with the assignment of the lease.

the value of the encumbrance and from this stems Reichman's⁶⁵ observation that the governance impetus changes from a liability rule to a property rule, as the owner of servient land will most likely need to buy out the real covenant or equitable easement.

Privity requirements are of some interest because they differ between America and England in a way that reflects differences in the history of recording land titles. The origin of privity is in the contractual nature of covenants, and the preservation of traditional rules for assigning benefits but not burdens of contracts,⁶⁶ assuming that the covenant remains personal. Thus the starting point for possibly finding a running covenant was the preservation of the parties in the same contractual positions as the original covenantor and covenantee, which was interpreted as requiring horizontal and vertical privity of contract. Vertical privity required succession to the estate in land of the covenantor and covenantee, for the burden and benefit, respectively, of the covenant. Horizontal privity requires a property relationship to exist such as that between a landlord and tenant, or between grantor and grantee, or servient owner and easement holder; that is, a current land-use relationship. In England, the courts limited the transmission of the burden of a covenant that touches and concerns the land to leasehold contracts where horizontal privity is satisfied by a landlord-tenant relationship, following *Keppell v. Bailey*. American courts generally dropped the horizontal privity requirement or held it satisfied by a current conveyance of some kind,⁶⁷ so that the American courts relaxed the prohibition on transmitting in law the burden of a covenant outside of a landlord-tenant relationship.

Why should the English courts show such caution and the American ones more innovation over real covenants? The answer once more seems to lie in the difference in title-

⁶⁵ Reichman (1978) really only points to the natural consequence of establishing proprietary status.

⁶⁶ *Robson v. Drummond* (1831) 2 B & Ad 303.

⁶⁷ *Wheeler v. Shad*, 7 Nev. 204 (1871).

recording systems (Casner et al 2004, p. 995). In England, prior to the *Land Registration Act* of 1925, there was no mechanism to protect a purchaser of land against legal obligations attached to land, whether or not the purchaser had notice of them (Arruñada and Garoupa 2005). America had title *recording* systems from early on, and there were therefore fewer opportunities for hidden encumbrances emerging to surprise an unfortunate purchaser. In England, once the *registration* system was in place, although even now it still does not cover all property, we should thereafter see pressure mounting for the relaxation of privity restrictions, as indeed we do. Sections 56(1) and 78(1) of the *Law of Property Act* of 1925 appeared to remove the common-law restrictions in England too.⁶⁸ In addition, The Law Commission for England and Wales has also proposed relaxing the distinctions between easements and covenants, in just the same way that this has been the modern approach of the American Law Institute. According to our analysis, excessive relaxation of traditional restrictions is misguided if it fails to recognize the information economizing role that traditional doctrines fulfil.

It is also notable that the enforcement in courts of equity, as equitable servitudes, of the burden of restrictive covenants judged to touch and concern the land, is driven by information considerations. England had no mechanism for judicially supervising the condemnation or modification of covenants but required the agreement of all parties. Once the courts began to recognize the equitable creation of servitudes, it was important to limit them to the categories unlikely to yield complex cost effects that would be difficult to value. Uncertainty was to be avoided at all costs. Under these circumstances two matters are of particular interest. The English courts, after *Tulk v. Moxhay* limited equitable servitudes to forbearance over negative covenants, refusing to impose positive obligations costing money, and rather mirroring the

⁶⁸ Note the clarifications in *Beswick v Beswick*, (1966) Ch 538 which states that a claimant and beneficiary must fit a generic description, and in *Federated Homes Ltd. v. Mill Lodge Properties Ltd* (1980) 1 WLR 594 which recognizes third party enforcement of restrictive covenants.

doctrine of no direct burden from easements. The unwary purchaser of land was protected against hidden traps by the doctrine of notice, as a bona fide purchaser without notice of a restrictive covenant took the land free of it.⁶⁹ American jurisdictions have been easier on the use of equitable servitudes, allowing positive obligations to run, but at the same time have a more accommodating approach to modifications (Casner et al. 2004, p.961).

V. SUMMARY AND CONCLUSIONS

By examining easements and covenants, focusing on Anglo-American differences and trends over time, it can be seen that the structure of servitude law has underlying economic rationale. The legal rules over the formation and operation of servitudes reflect information considerations, particularly in relation to information asymmetry and the possibility of adverse selection inhibiting the operation of the market for land. The examined doctrines in land law work carefully to avoid cost complexity and the conflict it would engender. In this regard, servitude law can be viewed as permitting the efficient evolution of property rights.⁷⁰

We can treat information complexity caused by a proliferation of controlling interests as a special case of our analysis. We note that those historical instances that seem to lead to an ‘anticommons’ result are associated with a lack of legal structure, and a failure of the criminal law to reinforce the coercive power of the state in suppressing duress. Proliferating controlling interests are associated with rent seeking and pecuniary externality (i.e., with distributional effects) whereas the broad thrust of servitudes law is more concerned with the control of real, technical externalities over the use of land that remain a problem under developed legal systems

⁶⁹ This is still the case: notice occurs through registration, or possibly otherwise on unregistered land.

⁷⁰ See Demsetz (1967, 2002) and Rose (1998).

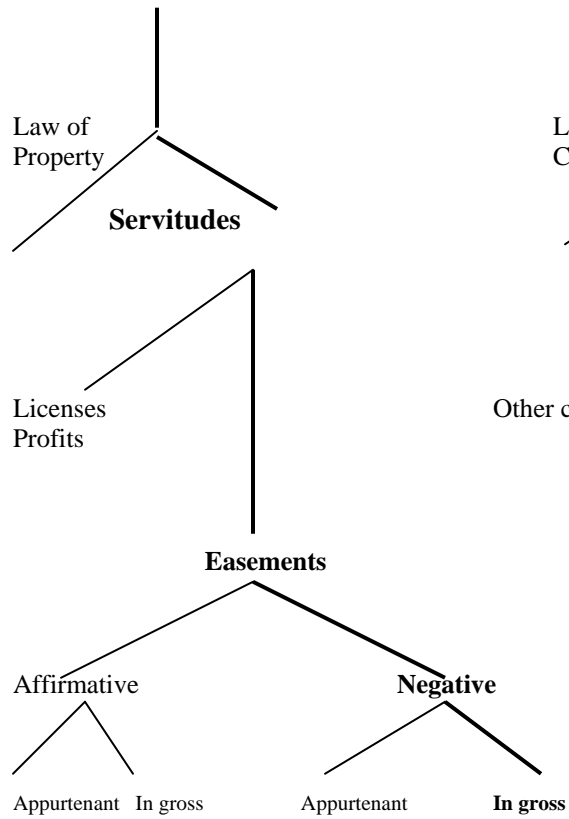
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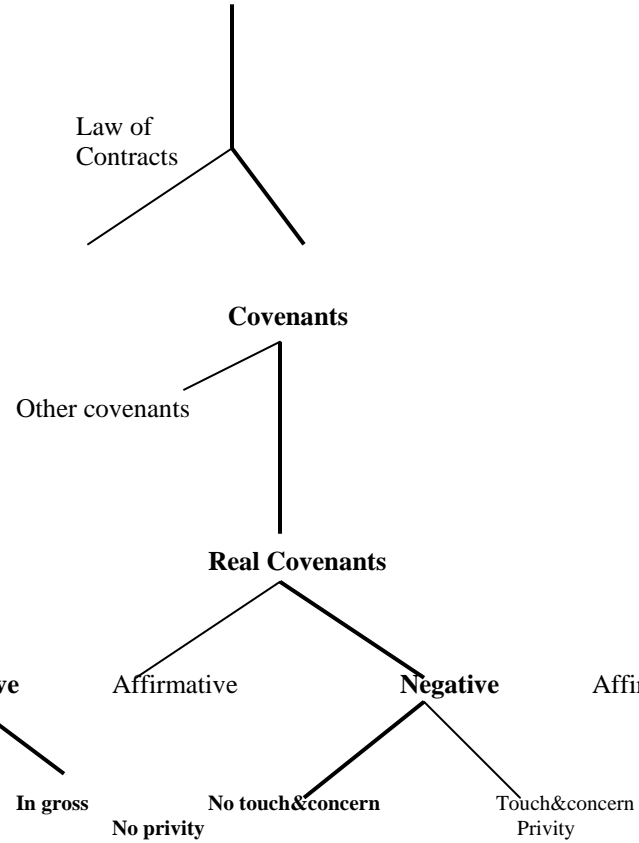
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FIGURE 1: LEGAL HISTORY OF SERVITUDES

PROPERTY EASEMENTS



REAL COVENANTS



EQUITABLE SERVITUDES

