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***The Tragedy of the Anticommons:
Property in the Transition
from Marx to Markets***

by Michael Heller

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Comments Welcome

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The Tragedy of the Anticommons: Property in the Transition from Marx to Markets

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Abstract

Why are many storefronts in Moscow empty while street kiosks in front are full of goods? This article develops a theory of *anticommons property* to help explain the puzzle of empty storefronts and full kiosks. Anticommons property can be understood as the mirror image of commons property. By definition, in a commons, multiple owners are each endowed with the privilege to use a given resource, and no one has the right to exclude another. When too many owners have such privileges of use, the resource is prone to overuse -- a *tragedy of the commons*. In an anticommons, by my definition, multiple owners are each endowed with the right to exclude others from a scarce resource, and no one has an effective privilege of use. When there are too many owners holding rights of exclusion, the resource is prone to underuse -- a *tragedy of the anticommons*.

Anticommons property may appear whenever new property rights are being defined. For example in Moscow, multiple owners have been endowed initially with competing rights in each storefront, so no owner holds a useable bundle of rights and the store remains empty. Once an anticommons has emerged, collecting rights into private property bundles can be brutal and slow. This article explores the dynamics of anticommons property in transition economies, formalizes the empirical material in a property theory framework, and then shows how the idea of anticommons property can be a useful new tool for understanding a range of property puzzles. The difficulties of overcoming a tragedy of the anticommons suggest that property theorists might pay more attention to the *content* of property bundles, rather than focusing just on the *clarity* of rights.

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**The Tragedy of the Anticommons:
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The bourgeoisie, by the rapid improvement of all instruments of production, by the immensely facilitated means of communication, draws all, even the most barbarian nations into civilization. . . . It compels all nations, on pain of extinction, to adopt the bourgeois mode of production; it compels them to introduce what it calls civilization into their midst, i.e. to become bourgeois themselves. In one word, it creates the world after its own image.

-- Karl Marx and Friedrich Engels, *The Communist Manifesto* (1848)¹

Introduction

This article is motivated by a property puzzle in the transition “from Marx to Markets.”² Under socialist rule, markets were stifled and shelves in stores were often bare. One promise of transition was that new entrepreneurs would acquire the stores, create businesses, and fill the shelves.³ However, after several years of reform, storefronts often remain empty while flimsy metal kiosks, stocked full of goods, have mushroomed up on the streets. Why don’t the new merchants come in from the cold?

Property theorists offer partial explanations for this puzzle of empty stores and full kiosks, including the ambiguity of new rights, local government

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¹ Karl Marx & Friedrich Engels, *The Communist Manifesto*, in KARL MARX: SELECTED WRITINGS 221, 225 (David McLellan, ed., 1977).

² Robert Ellickson and I developed and co-taught “From Marx to Markets” as a seminar at Yale Law School during Fall 1991. I teach an eponymous seminar at Michigan. Variations on the term have been widely used in describing transition. See, e.g., William Echikson, *Where Eastern Europe is Booming*, FORTUNE, July 12, 1993 (“the daunting road from Marx to markets.”); *Economists (should) rule*, OK, ECONOMIST, Aug. 14, 1993, at 19 (“the law of the market is replacing that of Marx or the military”).

³ Paralleling the conventional usage, I use the terms “transition” and “transition regimes” to refer to the 28 post-socialist societies in which some market-oriented reforms have been adopted, but which can not yet be described as fully-formed market economies. See FROM PLAN TO MARKET: WORLD DEVELOPMENT REPORT, 1996, at ix, [hereinafter WDR] (listing 10 countries in Central and Eastern Europe, 15 newly independent states formerly in the Soviet Union, plus China, Vietnam, and Mongolia).

corruption, and the lack of legal infrastructure.⁴ I argue that even if the initial endowment of property rights were clearly defined, corruption held to tolerable levels, and the rule of law respected, storefronts would remain empty because of the way governments are creating property rights. Transition regimes have often failed to endow any individual with a bundle of rights that represents full ownership of a storefront or other scarce resource.⁵ Instead, standard bundles have been broken up and distributed among competing owners.⁶ For example, in a typical Moscow storefront, one “owner” may be endowed initially with the right to sign a lease, another to receive lease revenue, and still others to sell, to receive sale revenue, to occupy, and to determine use.⁷ Each of these owners can block the others from using the space as a storefront. No one can set up shop without first collecting the other owners’ property rights.

Empty Moscow storefronts are a stark example of what I call *anticommons property*,⁸ which may result when initial endowments are created at the level of *rights* rather than *bundles* in scarce resources.⁹ More generally, anticommons property can be understood as the mirror image of commons

⁴ See generally Andrei Shleifer, *Establishing Property Rights*, in BRUNO M. & B. PLESKOVIC, EDS. PROCEEDINGS OF THE WORLD BANK ANNUAL CONFERENCE ON DEVELOPMENT ECONOMICS, 1994, at 93 (1995); ROMAN FRYDMAN & ANDRZEJ RAPACZYNSKI, PRIVATIZATION IN EASTERN EUROPE: IS THE STATE WITHERING AWAY? 170 (1994); Cheryl W. Gray, Rebecca J. Hanson & Michael A. Heller, *Hungarian Legal Reform for the Private Sector* 26 GEO. WASH. J. INT’L L. & ECON. 293, 303-305 (1992) [hereinafter *Hungarian Legal Reform*].

⁵ This article draws on the familiar image of property as a “bundle of rights,” where each right represents the relation between two actors over the use and control of a scarce resource. See Thomas Grey, *The Disintegration of Property*, 22 NOMOS 69 (1980) (criticizing the metaphor of property as a “bundle of rights”).

⁶ The viability of the idea of a “standard” bundle of rights and the equally controversial idea of “normal” use of property is discussed *infra* at note *. This article uses such terms descriptively by reference to analogous market legal systems.

⁷ See *infra* text accompanying notes * (Moscow storefront case study).

⁸ In Part II, *infra*, I discuss the fleeting appearance in the property theory literature of the idea of the anticommons and I develop a more useful definition.

⁹ The initial endowment of competing rights discussed differs from voluntary fragmentation of bundles in private property regimes. Market legal systems allow owners to break up property bundles, but also have rules that usually operate to create clear decision-makers over objects and limit extreme fragmentation of rights. For example, in U.S. law, joint owners may always partition commonly held property. See JOHN E. CRIBBET & CORWIN W. JOHNSON, PRINCIPLES OF THE LAW OF PROPERTY, 114 (1989). Also, many states have requirements to record covenants periodically in order to keep them in force, a rule which helps extinguish low-value rights. *Id.* at 392. But see *Irving v. Hodel*, 481 U.S. 705 (1986) (holding escheat of low-value devise and descent interests in allocated Native American lands to be an unconstitutional taking); see also *infra* text accompanying notes * (discussing *Hodel*).

property. By definition, in a commons, multiple owners are each endowed with the privilege to use a given resource, and no one has the right to exclude another.¹⁰ When too many owners have such privileges of use, the resource is prone to overuse -- a *tragedy of the commons*.¹¹ Property rights economists have shown how a move from commons to private property can help overcome the tragedy of overuse.¹²

In an anticommons, by my definition, multiple owners are each endowed with the right to exclude others from a scarce resource, and no one has an effective privilege of use. When there are too many owners holding rights of exclusion, the resource is prone to underuse -- a *tragedy of the anticommons*. For example, in Moscow storefronts, the tragedy is that scarce retail space is wasted in a shopping-starved post-socialist economy.¹³ Misallocation of a scarce

¹⁰ Standard examples of commons property resources include ocean fisheries, village greens, and clean air. A commons is "a scheme of universally distributed, all-encompassing privilege, . . . a type of regime that is opposite to [private property]." Frank I. Michelman, *Ethics, Economics and the Law of Property*, in NOMOS XXIV: ETHICS, ECONOMICS AND THE LAW 3, 9 (J. Roland Pennock & John W. Chapman, eds., 1982) [*hereinafter* Michelman, *Ethics*].

This vocabulary of *privileges of use* and *rights of exclusion* tracks Hohfeld's terms for describing legal relations that are now commonly used in property theory. See WESLEY N. HOHFELD, *FUNDAMENTAL LEGAL CONCEPTIONS AS APPLIED IN JUDICIAL REASONING AND OTHER LEGAL ESSAYS* 96 (Walter Cook, ed., 1923). In this context, "'rights' mean . . . that others are legally required to leave the object alone save as the owner may permit, and, . . . 'privileges' mean . . . that the owner is legally free to do with the object as he or she will." Michelman, *Ethics*, *supra* at 5.

¹¹ The literature on the tragedy of the commons is vast. *E.g.*, Garrett Hardin, *The Tragedy of the Commons*, 162 *SCIENCE* 1243 (1968) (introducing the term); ELINOR OSTROM, *GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION* (1990) (discussing applications of the tragedy of the commons and showing sustainable informal management of commons resources).

¹² See, *e.g.*, Harold Demsetz, *Towards a Theory of Property Rights*, 57 *AM. ECON. REV.* 347 (Pap. & Proc. 1967) (describing the effect of the tragedy of the commons on the development of private property); GARY LIBECAP, *CONTRACTING FOR PROPERTY RIGHTS* (1989) (empirical examples of Demsetz's proposition). A literature has grown up expanding and challenging the original insights. *E.g.*, ROBERT ELLICKSON, *ORDER WITHOUT LAW* (1991) (distinguishing closed from open access commons) [*hereinafter* ELLICKSON, *ORDER*]; OSTROM, *supra* note *.

¹³ See Shleifer, *supra* note *, at 94 ("The problem of establishing property rights is usually discussed in the context of a common pool problem, where some resource gets overused because too many agents have the right to use it. In Eastern Europe, the most important inefficiency comes not from the common pool problem, but from excessive political control rights over assets . . . The problem of establishing property rights in Eastern Europe is therefore to a large extent, equivalent to the problem of reducing the detrimental effects of
(continued...)

resource through underuse in an anticommons constitutes economic waste as much as the more familiar example of overuse in a commons. In this article, I show how bundling anticommons rights into private property can help overcome the tragedy of underuse.

The goal of this article is to introduce the anticommons as a useful new tool for both property theory and transition policy. *Part I* is an empirical study of the creation and resolution of anticommons property across a range of property in transition. *Part II* defines anticommons property more precisely and situates the term in a property theory framework. *Part III* briefly applies the anticommons idea to a number of puzzles in property law and transition policy and concludes with a warning.

The problem in an anticommons is that, in a sense, too much property has been created and too many decision-makers can block use. Once an anticommons has emerged, collecting rights into private property bundles can be brutal and slow. Rights-bundling entrepreneurs may try to use market transactions and intimidation to assemble private property, but holdouts by anticommons owners and high transaction costs may block this path.¹⁴ When anticommons owners exercise their rights through rent-seeking in political markets, governments may fail to re-bundle rights sensibly.¹⁵ Governments may be administratively and fiscally incapable of condemning anticommons rights and compensating owners, and they may be strategically unwilling to take rights

¹³(...continued)

bureaucratic control.”); Andrzej Rapaczynski, *The Roles of the State and the Market in Establishing Property Rights*, 10 J. ECON. PERSPEC. 96 (1996) (“The absence of a workable system of legal entitlements has clearly played a retarding role in the growth of small businesses in Russia. Many new Russian businesses operate out of kiosks and other temporary structures, while existing real estate is woefully underutilized.”).

¹⁴ If people expect that the current property regime will persist, and they exercise their anticommons rights in economic markets, then anticommons property may take on characteristics of a holdout problem. See generally Lloyd Cohen, *Holdouts and Free Riders*, 20 J.L. STUD. 351, 356 (1991) (discussing the economic features of holdouts such as the role of scale economies and the impossibility of coordinating certain uses of property). Conversely, in a commons each owner may free ride on forbearance by others.

¹⁵ If the future of the property rights regime is sufficiently unclear, then the anticommons may resolve itself into a rent-seeking problem. See generally JAMES BUCHANAN, ROBERT TOLLISON & GORDON TULLOCK, EDs., *TOWARD A THEORY OF THE RENT-SEEKING SOCIETY* (1980) (essays on public choice theory).

Rent-seeking is defined as any manipulation of the law or of government authority in order to generate or appropriate an economic rent. *Economic rents* are earnings from productive factors in excess of the minimum needed to keep that factor in its present use. WDR, *supra* note *, at viii.

without compensation.¹⁶ The difficulties of overcoming the tragedy of the anticommons suggest that property theorists might pay more attention to the *content* of property bundles, rather than focusing just on *clarity* of rights.¹⁷

Part I -- The Gradient of Property in Transition

Anticommons property may appear wherever new property rights are being defined in both transition and developed market economies. This Part explores the emergence of anticommons property against the backdrop of socialist legal transition. The first section sets the stage; the second develops the Moscow storefront as a paradigmatic example of an anticommons, and the third explores the dynamics of anticommons property in several empirical settings.

1. *Defining the Gradient of Property.*

a. Key Elements of Socialist Law

Socialist legal systems organized property in a fundamentally different way from private property systems.¹⁸ For example, socialist law did not have the legal concept of “real estate.”¹⁹ One could not point to a sharply-defined piece

¹⁶ This dilemma has been elaborated in Frank Michelman’s oft cited distinction between “settlement” and “demoralization” costs. Frank Michelman, *Property, Utility, and Fairness: Comments on the Ethical Foundation of “Just Compensation” Laws*, 80 HARV. L. REV. 1165 (1967) [*hereinafter* Michelman, *Property*].

¹⁷ Advice on clarifying property rights in transition has become a cottage industry for western legal academics. *E.g.*, WDR, *supra* note *, at 44-65, 87-97 (chapters on property rights and legal institutions); Paul H. Rubin, *Growing a Legal System in the Post-Communist Economies*, 27 CORNELL L. REV. 1 (1994); Paul H. Brietzke, *Designing the Legal Frameworks for Markets in Eastern Europe*, 7 TRANSN. L. 36 (1994); Gianmaria Ajani & Ugo Mattei, *Codifying Property Law in the Process of Transition: Some Suggestions from Comparative Law and Economics*, 19 HASTINGS INT’L & COMP. L. REV. 117 (1995); Michael Heller & April L. Harding, *Action Plan for Commercial Real Estate* (World Bank, mimeo, 1993) (copy on file with author).

¹⁸ See *Hungarian Legal Reform*, *supra* note *, at 303-05. There are many solid works detailing the Soviet legal system and socialist law of property. *E.g.*, F.J.M. FELDBRUGGE, *RUSSIAN LAW: THE END OF THE SOVIET SYSTEM AND THE ROLE OF LAW* (1993); VIKTOR P. MOZOLIN, *PROPERTY LAW IN CONTEMPORARY RUSSIA* (1993); W.E. BUTLER, *SOVIET LAW* (1983); GEORGE M. ARMSTRONG, *THE SOVIET LAW OF PROPERTY* (1983); Viktor Knapp, *Socialist Countries*, in VI INTERNATIONAL ENCYCLOPEDIA OF COMPARATIVE LAW, ch. 2 (Frederick Lawson ed., 1975). This section touches on only those elements of the socialist legal system that set up the anticommons argument and leaves for another day a more nuanced explanation of why socialist systems divided property as they did.

¹⁹ “Soviet law traditionally did not distinguish between real and personal (or immovable and movable) property. State ownership of land made it unnecessary to pay attention to real property as such.” FELDBRUGGE, *supra* note *, at 245. In the US, “real property” and its synonym “real estate” are defined as “land and anything permanently affixed
(continued...)”

of real estate and say that it belonged to a particular entity. Instead, all land -- "the hard core of state property"²⁰ -- was owned indivisibly by the state with no right of alienation.²¹ Complex use rights were allocated for administrative convenience to state organizations.²² Structures had a somewhat different legal regime and could be transferred from one state organization to another free of charge, but could not be alienated to private individuals.²³ Conflicts among users of state property were resolved through a dispute settlement mechanism which accorded primacy to state socialist expediency, rather than to abstract legal principles.²⁴ The ordinary mechanisms that market legal systems use to distinguish one plot of land from another were not maintained. Since there were no land markets, there was no need for legal tools such as land registries.²⁵

The absence of real estate as a legal category suggests three elements that distinguished socialist property laws from market legal systems and set the stage for the emergence of an anticommons:

(...continued)

to the land." BLACK'S LAW DICTIONARY 873 (abridged 6th ed. 1991). The term "real estate" first appeared in post-Soviet Russian statutes in the Law on the Principles of the Federal Housing Policy, Dec. 24, 1992, published in ROSSIISKAIA GAZETA, Jan. 23 1993 (translation on file with author); see also William Frenkel, *Private Land Ownership in Russia: An Overview of Legal Developments to Date*, 3 PARKER SCH. J.E. EUR.L. 257, 287 (1996).

²⁰ FELDBRUGGE, *supra* note *, at 247.

²¹ BUTLER, *supra* note *, at 253.

²² FELDBRUGGE, *supra* note *, at 243-46.

²³ BUTLER, *supra* note *, at 170.

²⁴ BUTLER, *supra* note *, at 115 (The system was "created to settle economic disputes between socialist enterprises, institutions, and organizations with the object of strengthening socialist legality, planning discipline, production efficiency, and product quality."); see also *id.* at 118.

²⁵ Working for the World Bank in the early 1990s, I was often asked by government officials in transition countries to help identify priorities for land and housing reform. I always placed creation of property registries among the highest reform priorities because of their role in clarifying ownership, securing mortgage finance, and enabling property taxation. See also Frenkel, *supra* note *, at 290:

One problem arising from land acquisition through privatization has been the inadequate description of the boundaries of land occupied by state enterprises. The issues of boundaries is important because in the absence of maps or other documentation which clearly show the land boundaries, the land is allocated on the basis of "actual use of the parcel of land," forcing the boundaries to be determined administratively.

Id., citing Presidential Decree No. 631 on Approval of Procedures for Sale of Land Parcels to Citizens and Legal Entities During Privatization of State and Municipal Enterprises, Mar. 25, 1992.

(1) *Hierarchy of Property*. Whereas market legal systems tend to dichotomize among *types* of property (real and personal, tangible and intangible) and to focus on the *scope* of individual rights, socialist law categorized property according to the identity of the *owner*.²⁶ In socialist law, the protection afforded property held by different owners created a hierarchy of property.²⁷ At the top was *state socialist* property, which received the most protection.²⁸ *Cooperative* property received somewhat less protection.²⁹ At the bottom was *personal* property, which received still less protection.³⁰ The residual category of *private* property was abolished in the Soviet Union; elsewhere in the socialist world, it received the least protection from taxation, regulation, and confiscation.³¹

²⁶ Cheryl Gray & Assoc., *Evolving Legal Frameworks for Private Sector Development in Central and Eastern Europe 3* (World Bank Discussion Paper 209, 1993); WDR, *supra* note *, at 88. This hierarchy is an artifact of socialist law which does not map well onto market property law dichotomies (real and personal) or property theory categories (state, commons, and private property).

²⁷ WDR, *supra* note *, at 88.

²⁸ Assets under state socialist ownership included property specifically owned by the state, capital equipment, and other property important for the functioning of the national economy. MOZOLIN, *supra* note *, at 11-12. State socialist property could not be used as security or exacted in recovery of creditors' claims. State property that had been socialist was inalienable, and if alienated could be recovered from whomever had acquired it. The supremacy of state property was complete: the State Planning Committee, State Pricing Committee and other ministries and departments could take any decision they saw fit without regard to rights of owners. *Id.*; see also BUTLER, *supra* note *, at 169-70.

²⁹ Cooperative property had similar legal protections as socialist property, but differed in that cooperative property belonged indivisibly to a distinct group of citizens. MOZOLIN, *supra* note *, at 11-12; see also BUTLER, *supra* note *, at 170.

³⁰ Personal property served personal needs such as family houses and apartments, vacation homes, cars, furniture, or clothes. MOZOLIN, *supra* note *, at 11-12. Personal property was the only freely transferable category, but was still limited by prohibitions that often made its entrepreneurial use an economic crime. BUTLER, *supra* note *, at 172. Under art. 107 of the Civil Code of the Russian Federation, and analogous articles of the civil codes of the other Soviet Republics, the State could confiscate any dwelling houses that a family owned above the allowable one house. *Id.* at 175; MOZOLIN, *supra* note *, at 11. Personal property acquired by a bona fide purchaser could not be recovered by the owner unless lost, stolen, or otherwise taken against the owner's will. *Id.* Additionally, socialist law provided less strict penalties for stealing personal property than socialist property. *Id.* at 12.

³¹ Private property was defined as individually-owned means of production and was often severely restricted or eliminated in the socialist world. BUTLER, *supra* note *, at 170-72.

(2) *Objects of Socialist Property.* Within the category of socialist property -- which included the objects of greatest economic value in socialist society -- the boundaries of the objects themselves were defined in ways that are unfamiliar in market legal systems. Since all productive assets were in principle "unitary," and belonged to "the people as a whole," the ordinary physical and legal boundaries of private property objects were not sharply delineated.³² Concretely, the line dividing land between two buildings was often not written down anywhere.³³ In the early years of transition, private owners and public officials often could not answer the question, "who controls the land on which we stand?"

(3) *Ownership of Socialist Property.* Instead of assigning an owner to each object, socialist law created a complex hierarchy of divided and coordinated use rights in the objects it defined.³⁴ These ownership and control rights varied from socialist country to country, but in general could be analogized loosely to western forms of trust ownership.³⁵ Ownership of physical assets was integrated within overlapping state structures, often linking upward from a state enterprise, to a group of similar enterprises, to the local and then central offices of a ministry responsible for that branch of industry.³⁶ Uses were coordinated through the mechanism of the Central Plan; conflicts resolved formally through state arbitration courts and informally within the Communist Party.³⁷

The most valuable assets in socialist countries thus began transition to markets with indistinct boundaries and overlapping ownership. In order to create private property that could be traded in markets, transition reformers first had to

³² Gray & Assoc., *supra* note *, at 4-5; *Hungarian Legal Reform*, *supra* note *, at 310-11.

³³ *Id.* at 311.

³⁴ See Knapp, *supra* note *, at §§ 79-84 (explaining the scope of the right of "operational administration" under socialist law); BUTLER, *supra* note *, at 253 ("An enormous complex of State agencies are concerned with the conservation of each resource and employ hundreds of inspectorates at all levels of State administration.").

³⁵ In Russia, for example, multiple state institutions were sometimes given overlapping rights of "operational administration" in assets. See FELDBRUGGE, *supra* note *, at 236-37.

³⁶ See BUTLER, *supra* note *, at 225-33.

³⁷ See FELDBRUGGE, *supra* note *, at 204, 208-09.

break down the socialist regime.³⁸ Across the socialist world, the task of eliminating socialist property law generally involved addressing the three elements discussed above. The hierarchy of property was eliminated, property was made legally divisible and alienable, and private ownership put on an equal legal footing with state ownership.³⁹ Transition reformers also began to redefine owners and objects in terms analogous to those of market economies.⁴⁰ Following these initial steps to dismantle the socialist legal regime, subsequent reforms then began to build up a new market legal system in the hope of generating well-functioning private property relations.⁴¹

³⁸ The literature on transition from socialism is extensive. For a useful, annotated bibliography on the speed and sequencing of reforms, see WDR, *supra* note *, at 149; see also Jane Perlez, *Eastern Europe, Post Communism: Five Years Later -- A Special Report; Fast and Slow Lanes on the Capitalist Road*, NEW YORK TIMES, Oct. 7, 1994 at A1: 'The mechanisms of the command economy were dismantled everywhere with surprising speed,' said Peter Havlik, [Deputy Director of the Vienna Institute for Comparative Economic Studies.] On the other hand, the formation of new institutions has turned out to be much more difficult, slower, and more painful than most analysts had expected at the outset of reforms in 1990.

³⁹ Gray & Assoc., *supra* note *, at 4; WDR, *supra* note *, at 88-89. China and Vietnam are exceptions in that they still hold to the primacy of state property, although they now allow a wide scope for long-term leases of property by private individuals. *Id.* at 89.

⁴⁰ In 1990, Russia first provided for municipal property and made all property forms equal in status. Law on Private Property of the RSFSR, Dec. 24, 1990, *published in* EKONOMIKA I ZHIZN, No. 1, at 13 (Jan. 1991) *translated in* JOHN HAZARD & VRATISLAV PECHOTA, EDS., *RUSSIA & THE REPUBLICS: LEGAL MATERIALS (Vol: Repealed Laws)* (1996). Resolution 3020 of the Supreme Soviet "On the Delimitation of State Property," defined the categories of property to be assigned to each level of government. Res. 3020, Dec. 27, 1991; see FELDBRUGGE, *supra* note *, at 238; see also April Harding, *Commercial Real Estate Development in Russia* 6 (The World Bank, CFS Discussion Paper 109, 1995).

Other countries went through a similar process. For example, in Hungary, Law XIV of 1991 abolished all forms of socialist ownership, abrogated privileges of state and cooperative ownership as against private ownership, reviewed the range of exclusive state property and inalienable assets, and empowered the state to cede certain property to private owners. *Hungarian Legal Reform*, *supra* note *, at 305. Act I of 1987 on Land, as amended through 1991, then helped Hungary create a private real estate market, in part by defining land and structures as objects of private ownership, and in part by eliminating conflicting categories of socialist law such as the "operational administration" form of land-holding. *Id.*

⁴¹ The process of creating private property could be simplified into three broad steps: (1) *Decentralization*. The federal government assigned newly alienable objects to state enterprises and to local, regional, and federal government agencies. (2) *Privatization*. State enterprises and agencies were instructed to transfer most of their property into private control. (3) *Regulation*. Governments began to create the complex regulatory framework typically used in market economies to protect public welfare and to mediate disputes among private property owners. See, e.g., *Hungarian Legal Reform*, *supra* note *, at 307.

b. The Gradient of Property: Protection and Performance.

When property is organized along the hierarchy of socialist legal protection, a striking (or at least not previously reported) trend emerges.⁴² The empirical material that follows will argue that the more *protection* property received under socialist law, the less successful has been its *performance* in new market economies.⁴³ It is difficult for existing transition literature to explain this inverse correlation between protection and performance.⁴⁴ For example, the level of administrative corruption, judicial incapacity, and clarity of rights is reasonably consistent within a given national real property market, yet residential real estate appears to be performing better than commercial real estate.⁴⁵

The working hypothesis in Part I is that private property emerges less successfully in resources that begin transition with the most divided ownership. In such resources, poorly-performing anticommons property is most likely to appear and persist.⁴⁶ On the other hand, private property emerges more successfully in resources that begin transition with a single owner holding a near-

⁴² This paper abstracts from the significant variations across the 28 transition countries in the pace and scope of reforms; the length of time under communism; and the underlying cultural, historical, and legal background.

⁴³ The measure of "performance" is difficult to pin down quantitatively given available data, but can be described by comparison with similar assets in developed market economies. Simple efficiency-related measures in the real estate context could be the trend in vacancy rates, the ratio of rental value (or sales prices) to incomes, and the aggregate value of sectoral resources compared to market economies at a similar level of economic development. Alternatively, distribution-related measures of performance could be explored. This article considers performance more in terms of the size of the pie, rather than who gets which slice. See generally Stephen Mayo, Shlomo Angel, Michael Heller & Bill Stephens, *The Housing Indicators Project* (World Bank, 1994) (copy on file with author) (developing quantitative indicators for measuring global housing sector performance).

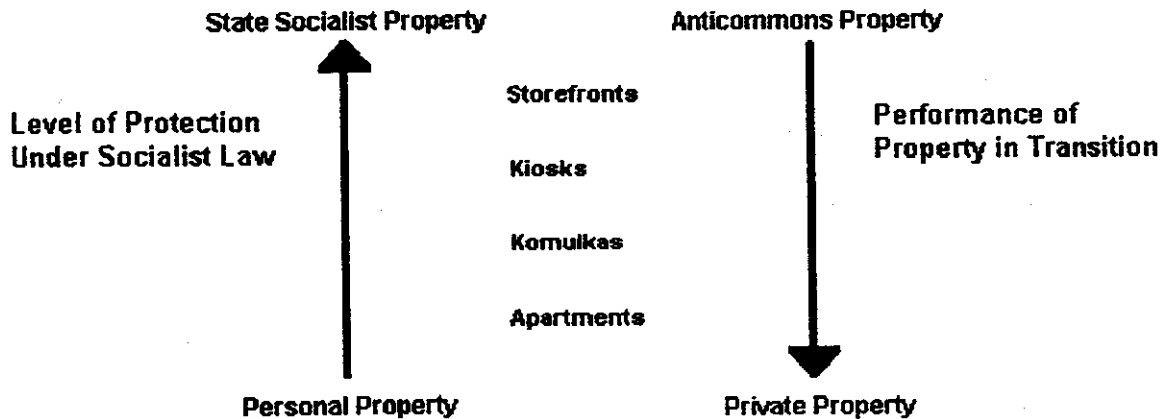
⁴⁴ E.g., *supra* note *, (citing literature on creation of property rights in transition).

⁴⁵ Compare Raymond Struyk, *The Long Road to the Market*, in RAYMOND STRUYK ED., *ECONOMIC RESTRUCTURING OF THE SOVIET UNION: THE CASE OF HOUSING 60* (1996) ("Can households with reasonable purchasing power readily buy housing in the market? . . . '[Y]es' throughout much of the region. True, the whole transaction may not be as efficient as in the West, but the system is working. . . . The clearest evidence we have for our assertion of a positive answer comes from the Russian Federation.") [hereinafter STRUYK, RESTRUCTURING, ED.] with WDR, *supra* note *, at 60 ("Reformers have had meagre success in privatizing commercial real estate: no transition economy has yet embarked on a systematic program.").

⁴⁶ While private property may perform quite badly in market economies, nevertheless it arguably performs better as private property than as anticommons property. See Part II, *infra*.

standard bundle of market legal rights.⁴⁷ In such resources, the transition from a socialist to a market economy occurs most smoothly. Figure 1, below, summarizes this hypothesized relationship.

Figure 1: The Gradient of Property in Transition⁴⁸



In order to hold reasonably constant a number of alternative explanatory variables, I focus the analysis primarily on four Russian real estate examples.⁴⁹ These examples make up a more significant portion of national wealth than is often realized. For example, in market economies, the value of commercial real estate often exceeds the value of the industrial plant and equipment.⁵⁰ Housing

⁴⁷ Personal property, such as cars, which had the lowest socialist legal protection, has been most rapidly and successfully transformed into private property. Most cars owned by individuals were converted directly to private property — the main change being that it was no longer an economic crime to use a car for income-producing purposes. Overnight, in Moscow, getting a taxi became easy because virtually any car would pull over to give one a ride anywhere for a few dollars.

⁴⁸ As a caveat, this gradient is illustrative of anticommons dynamics rather than a comprehensive catalog of socialist property. Large state enterprises, small enterprises, collective farms, intellectual property, and other types of property could each teach additional lessons about anticommons behavior, but are outside the scope of this paper. Part III, *infra*, touches briefly on the emergence of anticommons property during privatization of the state-owned enterprise sector in transition countries.

⁴⁹ I suggest that the relationship between protection and performance holds true for other countries in transition and for other economic sectors, but proof of this proposition awaits further research. See *infra* Part III.A (discussing enterprise privatization); see generally WDR, *supra* note *, at 60; Rapaczynski, *supra* note *, at 94-102 (discussing property rights in the new private sector in transition economies); Gray & Assoc., *supra* note * (discussing lagging areas of property rights development across Central and Eastern Europe).

⁵⁰ WDR, *supra* note *, at 60.

is an even larger share, accounting for about one third of national reproducible wealth in market economies.⁵¹

Each point along the gradient of property in transition suggests lessons about the nature of anticommons property and possible routes to rebundling anticommons property as private property. Property that began transition at the top of the gradient, such as Moscow storefronts, shows an anticommons in its starkest form, and is discussed first and in most detail.⁵² After the Moscow case study, this Part briefly contrasts three additional points along the gradient: apartments, communal apartments (*komulkas*), and street kiosks in Russia. Together, these points give a sense of the major routes into and out of an anticommons.

2. Case Study of Empty Stores In Moscow.

a. Empty Stores as Anticommons Index

Stores in socialist regimes were notoriously bare because of an economic policy that disfavored production of consumer goods.⁵³ Since transition to markets took root in the early 1990s,⁵⁴ many storefronts in Moscow have

⁵¹ WDR, *supra* note *, at 61.

⁵² Privatization of Moscow stores has differed from the experience elsewhere in Russia. See, e.g., Nicholas Barberis, Maxim Boycko, Andrei Shleifer, & Natalia Tsukanova, *How Does Privatization Work? Evidence from the Russian Shops*, 104 J. POLIT. ECON. 764, 783 (1996) (In Moscow, lobbying by insiders “turned privatization of shops into outright giveaways to the insiders”). To contrast shop privatization in Russia with the experience of shop privatization elsewhere in Central Europe, see generally JOHN S. EARLE, ROMAN FRYDMAN & ANDRZEJ RAPACZYNSKI, *SMALL PRIVATIZATION: THE TRANSFORMATION OF RETAIL TRADE AND CONSUMER SERVICES IN THE CZECH REPUBLIC, HUNGARY, AND POLAND* (1994) [hereinafter, EARLE, *SMALL PRIVATIZATION*].

⁵³ FELDBRUGGE, *supra* note *, at 13.

⁵⁴ Transition in property rights is a prolonged process and not easily confined to a single “start” date. In Russia, for example, relevant property rights reforms began during the Gorbachev era in the mid 1980s with *glasnost* and *perestroika*, and accelerated during the early 1990s. See generally IMF, WORLD BANK, ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, EUROPEAN BANK FOR RECONSTRUCTION AND DEVELOPMENT, *A STUDY OF THE SOVIET ECONOMY* (1991) (detailed appraisal of the Soviet economy before its dissolution). In Russia, the creation of anticommons property can be dated perhaps to the 1990 Law on Ownership, *supra* note *, and the Law on Local Self-Government in the RSFSR, July 6, 1991, 29 VEDOMOSTI 1017 (1991), which decentralized state socialist property ownership to local and republic governments and agencies.

By contrast, transition in the political or economic arenas could be perhaps more easily pinned down, for example, the collapse of the Berlin Wall in Germany on Nov. 9, 1989. PETER MARCUSE, *MISSING MARX: A PERSONAL AND POLITICAL JOURNAL OF A YEAR IN EAST GERMANY, 1989-1990*, at 81 (1991). On the economic side, start dates for transition can be similarly traced to dramatic events such as freeing prices or ending wage controls. See

(continued...)

remained empty.⁵⁵ However, on the streets in front of these empty stores, new entrepreneurs have set up thousands of metal kiosks, which they rapidly filled with goods.⁵⁶ The kiosk became a defining icon of transition for casual observers and savvy politicians.⁵⁷ The presence of kiosks can be seen as a visual and analytic indicator for measuring progress from anticommons to private property in transition countries.⁵⁸ In Poland, for example, anticommons property as a dominant form of commercial real estate lasted under a year: kiosks appeared briefly until viable private property rights in commercial storefronts emerged.⁵⁹

⁵⁴(...continued)

generally Peter Murrell, *The Transition According to Cambridge, Massachusetts*, 33 J. ECON. LIT. 164 (1995) (reviewing literature on economic aspects of transition).

⁵⁵ Rapaczynski, *supra* note *, at 98.

⁵⁶ Ellen Barry, *Kiosk Crackdown Yields Sidewalk Space, Bitterness*, MOSCOW TIMES, Feb. 14, 1995 ("In 1990, new laws made it possible to sell goods with your bare hands anywhere except the Kremlin walls. 'At first there were only 60 or 70 kiosks, and that was one thing, but then the number rose sharply' to the 16,000 [metal kiosks] that lined Moscow's streets in 1993, [Moscow Mayor] Luzhkov said.") [*hereinafter* *Kiosk Crackdown*].

⁵⁷ Adam Turner, *City to Cut Kiosks, Urges Move to Stores*, MOSCOW TIMES, July 16, 1994, available in NEXIS, Arcnws File (Kiosks "have come to symbolize the early stage of capitalism in Moscow"); Fred Kaplan, *Dirty Capitalism, The Kiosk has Become Moscow's Symbol of Changing Economy*, BOSTON GLOBE, June 25, 1993, at 61 ("The kiosk has become a double edged symbol of Russia's transition from socialism to capitalism -- a quick way to break into free enterprise and bring merchandise to the market, yet also a shoddy hut of tawdry goods and corruption."); Kathy Lally, *Russian Street Vendors' Kiosks Symbolize Economic Debate*, DALLAS MORN. NEWS, Dec. 20, 1992, at 30A ("Russians look to the kiosks, which sell everything from liquor and fur coats to shampoo and underwear, and see either certain economic ruin or guaranteed salvation."); Sergei Khrushchev, *Stands of Dirty Capitalism*, ASIA, INC., Mar. 1994, at 86 (Kiosks "are symbolic of the chaos in the Russian economy").

⁵⁸ Anne Bernard, *Luzhkov Steps Up War on Kiosks*, MOSCOW TIMES, May 5, 1994, available in LEXIS, Arcnws File (Quoting Moscow Mayor Luzhkov to say that kiosks "have fulfilled their purpose Now it is time for trade to go back into the stores.").

⁵⁹ Bernard, *supra* note * ("[K]iosks sprouted in Poland for about a year as the free market gained a foothold, and then 'naturally disappeared' without pressure from city authorities as merchants moved into shops."); Grzegorz Wojtowicz, *World Bank Assignment: Poles' Retail Privatization Outstrips Region's*, WARSAW VOICE, Apr. 2, 1995.

However, even in Poland, problems of anticommons bundling have not been entirely overcome in practice. Rapaczynski notes:

[T]he western rim countries in transition -- such as Hungary, Poland and the Czech Republic -- have by and large created a legal basis for private ownership of land of all kinds. Although this fact has certainly contributed to the fast growth of the new private sector, the rights actually acquired by most users of commercial premises have been significantly less complete and more insecure than those made possible by the

(continued...)

By contrast, in Russia, kiosks remain an important presence on the streets, though there is conflicting evidence suggesting that kiosk numbers may now be decreasing.⁶⁰ Perhaps Moscow will follow Poland's path.

Why haven't Moscow merchants completed the move from kiosks into the stores? There are a range of practical business reasons why merchants sometimes may prefer to start with kiosks rather than stores;⁶¹ however, it is the legal regime surrounding commercial real estate that dominates discussion of the phenomenon.⁶² For example, one newspaper article reports, "All this buying and selling takes place on the street because the title to most stores is unclear or because stores are occupied by moribund state enterprises. The sidewalks were free and empty so the new entrepreneurs moved in."⁶³ Alternatives to privatization of existing stores have also stalled, such as leasing of stores,⁶⁴

(...continued)

legal system.

Rapaczynski, *supra* note *, at 98; see generally EARLE, SMALL PRIVATIZATION, *supra* note *.

⁶⁰ See *infra* notes *, discussing conflicting evidence on the Moscow kiosk population.

⁶¹ (1) Merchants report that they can more readily accumulate the capital to stock a small kiosk than the relatively large interiors of typical Russian stores, Turner, *supra* note * ("Tvetkov, like many businesspeople, still finds the prospect of opening a store overly daunting. . . . Among the obstacles he cited was the high cost of inventory. His kiosk stocks about 1.5 million to 2 million rubles of goods, far below what a store would require."). This concern might not be determinative if commercial space were divisible among merchants and leases secure and marketable. (2) Merchants may be better able to respond to market demands by moving kiosk location. However, kiosks are often located in prominent pedestrian areas in front of empty stores. (3) Merchants may be more vulnerable to regulatory holdups in a fixed commercial location than in a moveable kiosk. *Id.* ("Other would-be storeowners cite Moscow's hesitation to privatize its commercial space, bureaucracy, crime, and corrupt government officials as barriers to retail expansion."). But, city regulators and mafia gangs are equally adept at tapping kiosk and stores as a source of informal revenue. (4) Merchants prefer kiosks because store rents are high. However, this reasoning is backwards. Store rents are high because space is scarce. If stores leases were more readily available, prices would drop from current levels. There is pervasive excess demand for stores, but they are not available at any price in an anticommons.

⁶² E.g., Celestine Bohlen, *Moscow Journal; It's a Kiosk! It's a Mall! No, It's Slavyansky Ryad!* NEW YORK TIMES, Dec. 23, 1992 at A4 (describing entrepreneur's use of street kiosks: "So far, it is still a sidewalk empire, given the continued difficulties of getting adequate store space. 'Until now, it was simply not worth spending a year and a half fighting the bureaucracy to get space on a first floor,' [said the kiosk owner].").

⁶³ Lally, *supra* note *, at 30A.

⁶⁴ See Frenkel, *supra* note *, at 296-300.

conversion of industrial land to commercial use,⁶⁵ and new commercial real estate development.⁶⁶

b. The Moscow Storefront in a Legal Context.⁶⁷

Within the legal and institutional context of the Moscow storefront, the main actors are a wide variety of state and quasi-state organizations. During the early stage of transition in 1990, formal ownership of real estate was decentralized from federal to regional and local governments.⁶⁸ In an article on commercial real estate markets in Russia, April Harding notes that a major source of the ambiguity of local government ownership can be explained by “conflicting efforts on the part of the federal government to strengthen general ownership and property rights while it is also trying to constrain the property rights of local governments.”⁶⁹

The initial assignments of state property to different levels of government were opaque and varied.⁷⁰ Through a complex set of federal decentralization laws and decrees, local and regional (*Oblast*) government agencies emerged as

⁶⁵ The paralysis in Russia’s commercial real estate is analogous also to Russian enterprise reform, which privatized rapidly, but which has moved slowly in restructuring assets towards more productive uses. The partial success of enterprise privatization can be explained because decentralization and privatization has created an anticommons at the plant level. See *infra* notes * and accompanying text discussing enterprise privatization; see also ROBERT VISHNY, MAXIM BOYCKO & ANDREI SHLEIFER, *PRIVATIZING RUSSIA* (1994) (detailing the process of enterprise privatization).

⁶⁶ See STEPHEN BUTLER & SHEILA O’LEARY, *THE LEGAL BASIS FOR LAND ALLOCATION IN THE RUSSIAN FEDERATION* (The Urban Institute, 1994); Andrei A. Baev, *The Privatization of Land in Russia: Reforms and Impediments*, 17 *LOY. L.A. INT’L & COMP L.J.* 1 (1994); Frenkel, *supra* note *, at 286-96.

⁶⁷ This discussion of the players and their roles in the commercial real estate market in Russia is drawn primarily from a working paper by Harding, *supra* note *, at 6-14, 18-19, and from my work in Moscow for the World Bank in transition countries during 1991-94. In response to a request from senior Government officials to the World Bank, Harding and I wrote a brief response. Heller & Harding, *supra* note *.

⁶⁸ See Nadezhda Kosareva, Alexander Puzanov & Maria Tikhomirova, *Russia: Fast Starter – Housing Sector Reform 1991-1995*, in STRUYK, *RESTRUCTURING*, ED. 256 (“Housing reform in Russia started at the end of 1991 with the law ‘On Local Self-Government in RSFSR.’”).

⁶⁹ Harding, *supra* note *, at 8. According to Harding, “This struggle to seize control over real estate assets is a key front in the much wider power struggle between central and local governments. . . . [T]he lack of transparency, combined with the weakness of the lessees means that there is little pressure on the regulatory agencies to cooperate in freeing up space, or to refrain from intervening in activities after the lease is signed.” *Id.* at 8-9.

⁷⁰ *Id.* at 7.

the key players with near-monopoly control over property such as commercial real estate.⁷¹ The initial decentralization process led to numerous competing claims among local, regional and federal authorities.⁷² Within this organizational set-up, Harding notes four categories of rights-holders that emerged during the transition.⁷³ Each of these categories of right-holders could be said to be an

⁷¹ *Id.* at 7. Harding summarizes the range of administrative bodies that operate on the property stage:

(1) The federal government retained regulatory rights exercised mostly through the *Federal Committee for Management of State Property* (known by its Russian initials, GKI). While the GKI exercises federal rights as to privatization and management of buildings, and is responsible for promulgating property rights legislation in general, another federal agency, the State Land Committee, exercises control over the land rights and legislation. *Id.*

(2) Local and Oblast *Property Committees*, which are formally subordinate both to the federal GKI and to local administration, play a large role in property management, allocation, rent-setting, and maintenance. *Id.*

(3) Oblast-level *Committees for Preservation of Architectural and Historical Monuments* play an important role over allocation and management of any building on their register -- which has included almost every building in a city center, and many outside the commercial core, regardless of historical distinction. Harding notes, "While the formal rights of this agency are not clear, in practice, it is often effective in preventing any sales of real estate. It frequently influences the allocation process, and participates in the rental revenue streams either on a formal or informal basis." *Id.* at 7.

(4) Local *Housing Maintenance Organizations* do not hold any management power, but their consent is required for leasing or sale of assets they maintain. They are frequently able to influence allocation of space and collection of rents because of their day-to-day proximity to the buildings they maintain. *Id.*

(5) Similarly, local *Bureaus of Technical Inventory* have no formal authority over building management or allocation. However, their monopoly role as keeper of the physical and technical specifications of buildings gives them leverage in transfers and registrations. *Id.*

⁷² For example, Harding asks, "a building listed on the balance-sheet of a privatizing enterprise may have restaurant facilities (which should go to the municipal authorities) and a medical clinic (which should go to Oblast officials) -- to whom should the building be handed?" *Id.* at 7.

My concern with anticommons property focuses on the situation where multiple owners are given rights in one familiar object of property such as an apartment, restaurant, or clinic, rather than conflicts over the whole building. Divided ownership of buildings is a standard western property rights arrangement, either through condominium or cooperative form. This distinction between divided rights in a single apartment and divided rights in a building reflects an implicit understanding about what constitutes the scale of the "normal" use of property. For a discussion of this point, see *infra* note * and accompanying text.

⁷³ This framework and the following descriptions are drawn from Harding, (continued...)

"owner" in the sense of being able to block other right-holders from using the store without permission.

1. *Owners.* Owners begin transition with limited and ambiguous rights. Although the local government council (*Duma*) is the formal owner of much commercial real estate, empowered to sell lease or mortgage assets, it holds much weaker rights than those usually associated with ownership in market economies. The federal government retains some control, such as rights to specify a sale or lease process and to define the range of possible prices.⁷⁴

2. *Users.* Users or occupants of commercial property -- often workers' collectives of the state enterprise assigned to the space -- also have ambiguous rights, derived in part from the strong occupancy rights under seventy years of socialist law. Local property committees are trying to convert squatter-type rights of current occupants into more formal lease arrangements.⁷⁵

3. *Balance Sheet Holders.* The third group of claimants are "balance-sheet holders," representing an archaic Soviet form of property ownership that could be analogized to a trust relationship in the west. The balance-sheet holder was a subordinate state organization or individual who had rights to use and dispose of property formally owned "by the people" as state property. The translation of balance-sheet holders' rights into a form compatible with marketability has been uneven. Depending on the strength of the particular balance-sheet holder, it may now have no rights or may be included as a co-lessor, subordinate to the owner of leased property.⁷⁶

4. *Regulators.* Six agencies must approve all leases, including the City Architect, the Committee on Preservation of Architecture and Historical Monuments, and the Land Reform Committee.⁷⁷ This overlap of regulatory agencies does not differ substantially from standard western

(...continued)
supra note *, at 8-9.

⁷⁴ *Id.*

⁷⁵ *Id.*

⁷⁶ *Id.*; see also Note, *Russian Property Law, Privatization, and the Right of Full Economic Control*, 107 HARV. L. REV. 1044 (1994).

⁷⁷ See Harding, *supra* note *, at 8.

models, however, the regulators are included here because the rights they exercise are often decisive in blocking market use of property. Local agencies find themselves using their rights as if they were owners because they lack indirect mechanisms of local government control over real estate, such as zoning boards and property taxes.⁷⁸

c. Emergence of the Anticommons.

During the process of privatization, the new legal regime in Russia ratified some existing socialist and informal use rights at the same time it superimposed a new set of market ownership rights.⁷⁹ For example, the socialist law distinction between ownership of land and structures has carried over from the old regime.⁸⁰ As a result, in post-socialist Russia, a heterogeneous set of "owners" with control rights have been thrown together in any given store. Some of the owners, such as the state enterprise, research institute, and maintenance organization may be private or quasi-private, while the others are local, regional and federal governmental bodies.

Two further complexities should be noted. First, as can be seen below in Figure 2, there may be multiple holders of each right. In this example, the six "owners" of a particular right may potentially consist of a number of players. These owners must agree among themselves to exercise their "ownership" stick in the property bundle.⁸¹ Second, the formal local government agencies must be distinguished from the actual bureaucrats who occupy decision-making roles and control use of the property.⁸² Because the difference between municipally-set rents and market rents is significant, the exercise of lease rights can become a

⁷⁸ WDR, *supra* note *, at 60.

⁷⁹ See, e.g., Gualtieri, *Russia's New 'War of Laws,'* RFE/RL RSCH. REP., Sept. 3, 1993, at 10.

⁸⁰ See Frenkel, *supra* note *, at 266:

Private ownership of immovable (real) property other than land is far less controversial politically and is more firmly settled in Russian law, although the practice of transferring rights in buildings, houses, installations, and other commercial properties also tends to be plagued by the very same bureaucratic problems of local authorities unwilling to effect registration or perform some other ministerial tasks necessary for a valid transfer of ownership or lease rights.

⁸¹ Harding, *supra* note *, at 12.

⁸² Andrei Shleifer applies the terms "legal" and "physical" control rights to describe this distinction. Shleifer, *supra* note *; see also Sanford Grossman & Oliver Hart, *The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration*, 94 J. POL. ECON. 691 (1986) (defining property rights in terms of control rights over assets).

source of revenue for local officials in their private capacity.⁸³ In a more colloquial language, officials may exchange leases at below-market rents for bribes. Typically, the institutional holders of rights in a storefront are.⁸⁴

Figure 2: Property Right	Storefront "Owners" at Start of Transition
<i>Right to Sell</i>	Local Administration Property Committee Cmtee. for Arch. and Historical Preservation State Enterprise or Institute (as balance sheet holder) Budget Organization Relevant Council
<i>Right to Lease</i>	Property Committee State Enterprise or Institute Maintenance Organization
<i>Right to Receive Revenue from Sale</i>	Local Administration Oblast Administration Federal Government Property Committee Cmtee. for Arch. and Historical Preservation.
<i>Right to Receive Revenue from Lease.⁸⁵</i>	Relevant Administration Maintenance Organization State Enterprise or Institute Property Committee Cmtee. for Arch. and Historical Preservation
<i>Right to Determine Use⁸⁶</i>	Planning Committee Property Committee Balance Sheet Holder
<i>Right to Occupy</i>	Workers' Collective

⁸³ See WDR, *supra* note *, at 60.

⁸⁴ See Harding, *supra* note *, at 12 (Figure 2). This table collates the actors discussed in note *, *supra*, with the categories of ownership discussed in the text above.

⁸⁵ This right is locally determined. The most frequent recipients are listed.

⁸⁶ The "right to determine use" exists apart from similar rights ordinarily held by local zoning regulators in Russia and market economies. *E.g.*, Anna Fomin, *Retailers, Look Before You Lease*, MOSCOW TIMES, Sept. 3, 1996:

The legal documents [for a retail store] may require that the area be used for a specific area of retail activity, often stipulating that a space must be used for its previous function -- for example, as a bread store or housewares shop. The landlord of the site must make additional payments to relevant authorities if the retail tenant wishes to change the use of a store. The process takes time, and the landlord cannot guarantee that tenants are automatically granted a change of use upon signing lease or purchase documents.

Figure 2 suggests that almost any use of the storefront would require the agreement of multiple parties.⁸⁷ If the parties cannot agree, then any single party may be able to block the others from exercising their rights.⁸⁸ The Moscow storefront thus meets my definition of anticommons property, that is a property regime in which multiple owners hold rights of exclusion in a scarce resource. The tragedy of the storefront anticommons is that the resource is wasted when the multiple owners fail to agree on a use. As of 1995, about 95 percent of commercial real estate in Russia still remained in some form of local government ownership⁸⁹ and a significant portion of that remains unused today.⁹⁰

⁸⁷ Frenkel, *supra* note *, at 297-98:

[A variety of leasing arrangements] are often used when the lessor does not have legal capacity to grant lease or even sublease interests in a land parcel. Often the lessor has subleased the rights from the city or holds land use rights, but has not obtained any right to sublease to third parties. Often the lessor is a governmental or a state-owned entity without clear ownership or even possession rights to the premises it currently occupies.

⁸⁸ How owners exercise their rights to block use varies from formal measures such as requesting court intervention, to the informal or self-help measures that characterize the Russian retail scene. See SHEPHEN HANDELMAN, *COMRADE CRIMINAL* (1995); Vladimir Shlapentokh, *Russia: Privatization and Illegalization of Social and Political Life*, WASH. Q., Jan. 1996. From the perspective of an entrepreneur looking to set up a shop, even the threat of formal or informal measures from competing claimants to the storefront may be enough to dissuade long-term investment.

⁸⁹ Continued local government ownership of stores suggests an alternative explanation for why stores remain empty. Local governments do not behave like private profit-maximizing actors managing their real estate portfolio. This public-private distinction does matter and, I think, may help explain some of the storefront vacancies. The fact of public ownership does not explain the difference between the performance of the storefront and kiosk real estate markets, both publicly-owned space. Local governments in some countries in transition, such as Poland, quickly marketed credible storefront leases. See EARLE, *supra* note *. Also local governments in transition countries are desperate for revenue because they have significant social welfare responsibilities and little independent fiscal capacity or intergovernmental transfers. Store leases could make up an important source of revenue. See Christine Wallich, ed., *Russia and the Challenge of Fiscal Federalism* (World Bank Regional and Sectoral Studies, 1994). Finally, apart from the fiscal pressures on local governments, the storefronts represent a significant potential source of illicit wealth for local government officials. See WDR, *supra* note *, at 60. If these officials have proven their ability to create illegal markets in space for street kiosks, why not storefronts?

⁹⁰ Hard data on store vacancies by city or region is not available for the period under discussion in this paper. The common understanding of widespread vacancies is thus largely impressionistic, rather than a result of survey data. E.g., Rapaczynski, *supra* note *, at 98. Note that well-functioning market economies normally have a certain level of vacancies, but that vacancies in Russia appear to exceed that level.

d. Overcoming the Anticommons.

Moving a storefront from anticommons to private property will require unifying existing property rights into a usable bundle. In other words, creating private property requires moving from too many owners (each exercising one right) to a sole decision-maker (controlling a bundle of rights) in a storefront. To have private property in a storefront, a sole owner must in principle be able to sell or lease the property, receive the revenue from the sale or lease, and determine how a lessee may use the property.⁹¹

After transition policy has created anticommons property, there are two main *ex post* routes by which rights can be assembled into bundles -- through markets or governments. An entrepreneurial property bundler may assemble control over a single store by negotiating in the market with each holder of a right of exclusion. Over time, store by store, the anticommons could be converted through these individual market transactions. Indeed, there is some evidence that this process may be happening already in Russia.⁹² On the other hand, the market route to bundling rights may fail altogether if the transaction or other costs of bundling exceed the gains from conversion.

The market route may be further subdivided into two types -- legal and illegal market transactions. In a legal transaction, a property bundler would buy each right from its holder through formal, enforceable contracts. In the storefront example, with such divergent incentives between public agency owners and their bureaucratic agents, negotiations may only be possible through informal or corrupt channels.⁹³ Over time, these corruption channels can be routinized

⁹¹ Michelman, *Ethics, supra* note *, at 5. After a sole owner collects a standard bundle of rights, the owner may subsequently decide to break up her bundle along spatial or temporal dimensions (such as by selling a portion of the space or leasing for a period of time). Part II, *infra*, discusses how market economies prevent excessive fragmentation by a private owner through hierarchical controls that establish priority and resolve conflicts among competing rights holders. These rules for priority are lacking in anticommons relations and are a locus of conflict in Moscow storefronts.

⁹² Tatyana Leiye, *Where's the Rent Going?*, MOSCOW TIMES, Nov. 26, 1994: A look at nine buildings on Tverskaya Ulitsa [a prime downtown Moscow street,] found 4,100 square meters of commercial space that was either empty or was illegally occupied by firms with forged documents. These firms, instead of contributing to the city budget, are either paying someone off on the side or paying nothing at all. The figure of 4,100 square meters refers to just nine Moscow buildings. What would we find if we surveyed the entire city? Or the entire country?

⁹³ *See id.*:

According to current legislation, there are two ways to obtain a lease on commercial property in Moscow. Either one can participate in competitive bidding or one can pass along a complex bureaucratic chain, gathering numerous signatures and approval forms. . . . Needless to say, there are always those who don't want to go through all
(continued...)

and may replace legal transactions. However, routinized corruption imposes its own, hard-to-measure costs on economic efficiency, particularly in terms of long-term investments that may be foregone.⁹⁴

The alternative route to bundling is through government intervention in the redefinition and reallocation of property rights. The federal government could abolish rights previously granted, could abolish subordinate levels or agencies of government, could expropriate or condemn existing rights. Local governments could attempt to exert more control over their subordinate agencies and transfer or consolidate rights in the equivalent of a "sole owner," a single public decision-maker able to act as a owner on behalf of the local government. However, existing rights holders, including local government agencies and the private actors who have invested in reliance on the current property regime, cling tenaciously to their rights. Many now have plausible claims that their rights have vested, and a redefinition of rights to bundle them more sensibly would amount to a compensable taking of their property.⁹⁵

Were the government to revoke or confiscate existing rights without compensation, existing and potential investors in Russia might be even more discouraged from entering the market.⁹⁶ Because of their precarious fiscal condition, neither federal nor local governments in Russia are likely to pursue the alternative route of rebundling the rights more sensibly and paying compensation to those whose rights are taken.⁹⁷ More generally, transition governments may

⁹³(...continued)

this red tape and who therefore try to find some way around that is faster and cheaper. So, naturally, a third variant has developed - going straight to the director of a certain property and striking a direct deal to lease a portion of it. That is why . . . so far not a single desirable property in the center of the city has come up for competitive bidding.

⁹⁴ See WDR, *supra* note *, at 94-96; SUSAN ROSE-ACKERMAN, CORRUPTION: A STUDY IN POLITICAL ECONOMY (1978); Andrei Shleifer & Robert Vishny, *Corruption*, 108 Q.J. ECON. 599 (1993).

⁹⁵ The formal right to compensation for expropriation of private property is now established in Russian law though the practice is undeveloped. *E.g.*, Law on Fundamentals of the Federal Housing Policy, *supra* note *. The issue of compensation for intergovernmental takings is more complex and less documented. It is bound up in the larger struggle in Russia between central and local control noted above. See *supra* note *.

⁹⁶ See Michelman, *Property*, *supra* note * (elaborating the calculus of settlement and demoralization costs for use in deciding whether a government should compensate for a regulatory change); see also *infra* text accompanying notes * (using game theory models to suggest intermediate government interventions).

⁹⁷ Compulsory unitization of anticommons rights could provide governments with an alternative method of assembling private property bundles that may avoid the
(continued...)

be forced to choose between defending badly designed property rights and waiting for the market to sort out the problems, or intervening in the market and potentially losing investor confidence.

This case study suggests four themes to be developed further:

- ▶ *An anticommons may emerge when initial endowments in property are mistakenly allocated at the level of rights, rather than bundles.*
- ▶ *Once an anticommons has emerged, the market may provide one path out. Owners may rebundle their rights legally through allowable market trades or illegally through corruption.*
- ▶ *Another path to overcoming an anticommons is for governments to reassign rights more sensibly. But then governments face the problem of paying compensation or losing investor confidence.*
- ▶ *Both markets and governments may fail to convert an anticommons to private property and the resource may be wasted.*

3. *Moving Along the Gradient: Apartments, Komulkas, Kiosks.*

Storefronts represent only one point along a gradient of socialist property in transition. Experience at other points along this gradient suggests possible paths into and out of the tragedy of the anticommons. This section compares commercial real estate to three points ascending the property gradient: (1) individual apartments, (2) communal apartments (*komulkas*), and (3) kiosks.

⁹⁷(...continued)

compensation/demoralization trap. In U.S. law, unitization is the process by which all of the rights holders in an asset (such as landowners located over an oil field) are formed into a single unit who then operate the asset as if there were held by a single owner. Proceeds from the unit are then distributed to the rights owners according to a pre-set formula. See 2 AMERICAN LAW OF PROPERTY 723-55 (1952 & 1977 Supp.); JESSE DUKEMINIER & JAMES KRIER, PROPERTY 54-55 (3d ed. 1993).

An analogous process of "land pooling and readjustment" has operated in Germany, Australia, Korea, Taiwan and Japan. STEPHEN MAYO & SHLOMO ANGEL, HOUSING: ENABLING MARKETS TO WORK 132 (1993) ("Two of the main requirements for success are consensus among landlords and trust in the implementing organization."). Similarly, in Russia, governments could establish a process by which multiple owners of a storefront could trade their rights for a percentage share in a unit that leased or sold the asset. However, compulsory unitization in Russia would run into familiar problems of valuation and administrative incapacity.

a. Individual Apartments

The creation of private property in housing lies at the opposite end of the protection/performance gradient from storefronts.⁹⁸ Apartments provide a useful counterpoint in part because the physical space is often identical to the storefront. In a typical Russian apartment building, the ground floor may be commercial while the matching units directly above are residential.⁹⁹ Thus the difference in performance may be attributable more to the legal regime and cultural milieu in which the object is embedded, than to intrinsic physical distinctions in the space.

New housing markets have been remarkably successful across the former socialist world, not just in terms of raw numbers of units sold, but more importantly in the private property relations that have been created.¹⁰⁰ This is not to say that private property markets in housing work as well as in western market economies.¹⁰¹ Many countries are still struggling to create the basic framework for private property in housing: real estate taxation systems need to be

⁹⁸ The empirical material in this section is drawn primarily from my work in Russia during 1992-94 on a team putting together the Russia Housing Project for the World Bank. See RUSSIA HOUSING PROJECT: STAFF APPRAISAL REPORT (World Bank, SAR 13022-RU, 1995) (copy on file with author) [*hereinafter* RUSSIA HOUSING PROJECT].

For a thorough discussion of residential real estate in Russia, see BERTRAND RENAUD, ED., RUSSIA, HOUSING REFORM AND PRIVATIZATION: STRATEGY AND TRANSITION ISSUES (World Bank Sector Report, 1995) [*hereinafter* RENAUD, HOUSING REFORM]; see also Bertrand Renaud, *The Housing System of the Former Soviet Union: Why do the Soviets Need Housing Markets?*, 3 HOUSING POLICY DEBATE (1993); STRUYK, ED., RESTRUCTURING *supra* note *; Raymond Struyk & Nadezdha Kosareva, *Transition in the Russian Housing Sector, 1991-1994* (Urban Institute, 1994) (contains a useful bibliography) (copy on file with author) [*hereinafter* Struyk & Kosareva, *Transition*].

⁹⁹ Struyk & Kosareva, *Transition*, *supra* note *, at 38.

¹⁰⁰ *Id.* at 46 (“The real estate market has developed rapidly during the period of reforms. . . . The real estate market which has sprung to life with the easing of restrictions on private ownership and market transactions is developing on two fronts: new housing construction and the sale of existing units.”). While housing is often overlooked as an economic good, the economic consequences for successful creation of private property in housing rivals the importance of enterprise privatization. See RENAUD, ED., HOUSING REFORM, *supra* note *; WDR, *supra* note *, at 61-62.

Privatization of housing may represent the single largest transfer of wealth during the transition process, despite its decentralized and relatively invisible nature. By comparison, even the British “Right to Buy” program, which offered tenants large price discounts, sold only about 20% of British social housing units during the period from 1979 to 1982. STRUYK, ED., RESTRUCTURING *supra* note *, at 23. As Struyk notes, “most countries in the former socialist bloc have bettered the British record.” *Id.*

¹⁰¹ For example, housing in Russia now constitutes only about 20% of national reproducible assets as compared with 29% in the US and 43% in France. RUSSIA HOUSING PROJECT, *supra* note *, at 3. As financial and legal reforms deepen, the share of housing in national wealth can be expected to increase towards the market economy range.

implemented, land registries need to be created, boundaries drawn, ownership disputes resolved, condominium rules created and implemented, and the entire apparatus of modern regulation of property created -- zoning, eminent domain, and so on.¹⁰² Despite the lack of this legal and institutional infrastructure, apartment owners have created vibrant real estate markets, even in remote parts of Russia.¹⁰³

In socialist legal regimes, the standard property bundle for apartments was divided between private and public actors.¹⁰⁴ After a local government or enterprise assigned an apartment to a family, then the family owned a "lifelong inheritable tenancy."¹⁰⁵ This socialist form of property included strong tenancy rights and some rights to devise.¹⁰⁶ Various government departments held the balance of rights; but no one could sell or lease the unit at market rates.¹⁰⁷ Generally, residential privatization laws offered to the sitting tenant, either for free or a very low price, the ownership and control rights previously held by the state.¹⁰⁸ Rights to sell, to receive sale revenue, to lease and receive lease revenue, to occupy, devise, and mortgage were collected by households, with little competition from other potential stakeholders such as local governments or state enterprises. Governments reserved the regulatory rights typical in advanced market economies: rights to zone, eminent domain, and so on with some implied limitations on the scope of government intervention.¹⁰⁹ Combined with pre-existing personal property rights, privatization gave tenants the option to control

¹⁰² See Michael Heller, *Legal Framework*, in RENAUD, ED., HOUSING REFORM, *supra* note *, at 82-93; RUSSIA HOUSING PROJECT, *supra* note *, at 71-80 (annotated list of 40 major laws, decrees, and resolutions relating to housing reform and status of pending reforms), and 165-77 (regulatory action plans for Russian cities); Stephen Butler, *The Legal Basis for Land Allocation in the Russian Federation* (Urban Institute, 1993) (copy on file with author).

¹⁰³ E.g., Natalya Gamayunova, *Wild Apartment Hunt*, MOSCOW TIMES, May 14, 1996, available in LEXIS Curnws File (noting existence of 1200 apartment broker firms in Moscow).

¹⁰⁴ Struyk & Kosareva, *Transition*, *supra* note *, at 89.

¹⁰⁵ STRUYK, ED., RESTRUCTURING, *supra* note *, at 53; RENAUD, ED., HOUSING REFORM, *supra* note *, at 158.

¹⁰⁶ Struyk & Kosareva, *Transition*, *supra* note *, at 89.

¹⁰⁷ STRUYK, ED., RESTRUCTURING, *supra* note *, at 53.

¹⁰⁸ *Id.* at 22-28 (housing privatization patterns in former Soviet Bloc); WDR, *supra* note *, at 61-63 (summary of housing privatization across transition countries); RENAUD, ED., HOUSING REFORM, *supra* note *, at 15-44 (analyzing privatization of housing in Russia).

¹⁰⁹ Heller, *Legal Framework*, *supra* note *, at 82-93.

a property rights bundle in apartments that would be recognizable to a western condominium owner.¹¹⁰

One price of achieving these well-functioning bundles has been that governments ignored certain distributive goals.¹¹¹ In the apartment privatization process, most people were given apartments with negligible or negative net present economic value (because of poor maintenance, high energy costs, or bad locations).¹¹² The large number on waiting lists, particularly young families doubled up in their parents' homes, simply lost out.¹¹³ By contrast, a small number of well-connected *aparatchiks* (high officials of the old regime) used their positions under socialism to receive high-value well-maintained apartments in the city center.¹¹⁴ During privatization, these *aparatchiks* (and their elderly neighbors who had received their units decades earlier) kept the valuable apartments.¹¹⁵ Privatization of housing was not distributively just in terms of market values conveyed, but was a coherent process from a property rights point of view. Unlike the storefront where many parties got some rights in an object, with apartments each sitting family received a standard bundle.

Not surprisingly, some western legal academics tried to persuade governments to make the tradeoff differently: achieve more distributive justice by distributing more equally the windfalls from privatization.¹¹⁶ For example, Duncan Kennedy, a leading critical legal scholar, proposed dividing rights to equity and capital appreciation among sitting tenants and local governments.¹¹⁷ These proposals were not well received nor implemented during the early period of transition when there was high enthusiasm for a *laissez faire* version of

¹¹⁰ As an aside, even where privatization programs have been most successful, a large percentage of tenants in relatively less valuable buildings chose to remain as tenants, rather than become owners. STRUYK, ED., RESTRUCTURING, *supra* note *, at 23.

¹¹¹ *Id.* at 28.

¹¹² Struyk & Kosareva, *Transition*, *supra* note *, at 63-64; FELDBRUGGE, *supra* note *, at 302.

¹¹³ STRUYK, ED., RESTRUCTURING, *supra* note *, at 28; RENAUD, ED., HOUSING REFORM, *supra* note *, at 26.

¹¹⁴ Struyk, *supra* note *, at 28

¹¹⁵ RENAUD, ED., HOUSING REFORM, *supra* note *, at 26.

¹¹⁶ *E.g.*, Duncan Kennedy, *Neither the Market nor the State: Housing Privatization Issues*, in GREGORY ALEXANDER & GRAZYNA SKAPSKA, EDs., *A FOURTH WAY? PRIVATIZATION, PROPERTY, AND THE EMERGENCE OF NEW MARKET ECONOMIES* 253 (1994); Duncan Kennedy & Leopold Specht, *Limited Equity Cooperatives as a Mode of Privatization*, in *id.* at 267.

¹¹⁷ *Id.* at *.

capitalism.¹¹⁸ Even tenants who were net losers in the privatization process often rejected such proposals because of an apparent consensus on what constitutes an ordinary property bundle in a market economy.¹¹⁹ Tenants resisted proposals that kept governments involved in their lives and that derogated from their understanding of private property ownership.

The apartment example suggests that:

- ▶ *Governments can avoid creating a tragedy of the anticommons by transferring coherent bundles in familiar objects.*
- ▶ *There may be a tradeoff between avoiding anticommons tragedy and achieving distributive goals in the initial endowment of property rights.*
- ▶ *When rights are bundled coherently, well-functioning private property markets may emerge even without familiar supporting legal institutions. People can trade standard property bundles when they see them.*

b. Communal Apartments.

1. *The Property Bundler's Equation.* Komulkas are a subset of apartments which have engendered a special loathing across the former Soviet Union, where they were prevalent.¹²⁰ Komulkas also prove to be a particularly fruitful example to contrast with storefront anticommons behavior.

¹¹⁸ Michael Heller, *Property Rights, A View from the Trenches*, 19 YALE J. INT'L L. 203 (1994); see also Vladimir Gurevich, *What the Russian Public Thinks About Privatization*, MOSCOW NEWS, Oct. 7, 1992 (reporting strong support of privatization in survey of 5000 people).

¹¹⁹ In one amusing example, my World Bank team and I were called "communists" in a public forum held to discuss a proposed loan for housing rehabilitation in Budapest. Our sin was to propose that some of the profits from sale of municipally-rehabilitated apartments be used to capitalize a fund that would help pay off the rehabilitation loans of elderly and low income tenants.

¹²⁰ See, e.g., MIKHAIL BULGAKOV, MASTER AND MARGARITA (Satan observes on his visit to the city that Muscovites are "extraordinary people" but the "apartment question has only spoiled them.") cited in *Communal Apartments A Mix of Horror, Pride*, MOSCOW TIMES, Nov. 23, 1996; Mikhail Zoshchenko, *Nervous People* (1925) and *The Crisis* (1925) (wonderfully bitter short stories about communal living), translated in NERVOUS PEOPLE AND OTHER SATIRES (1963) (*Nervous People* begins, "[n]ot long ago, a fight took place in our communal apartment. Not just a fight, but an out-and-out battle. . . . The main reason is -- folks are very nervous. They get upset over mere trifles. They get all hot and bothered. And because of that they fight crudely, as if they were in a fog.").

Many komulkas were large pre-revolutionary apartments, well-situated in downtown apartment buildings.¹²¹ At some points in Soviet history, several dozen people might have shared one komulka, with each family (of up to three generations) assigned one room. Kitchen and bathroom facilities were shared.¹²² During privatization, tenants received some ownership rights in their room and, indirectly, the right to block others from using the whole apartment as a single family or office space. In other words, each owner could keep any other owner from renting out the entire apartment in its most valuable market use.

This division of rights in the communal apartments helps introduce the concept of a *spatial anticommons*, distinct from the *legal anticommons* discussed so far. In a spatial anticommons, an owner may have a relatively standard bundle of rights, but in a too small an amount of space for ordinary use. By contrast, in a legal anticommons, sub-standard bundles of rights are allocated to competing owners in a normal amount of space, such as a storefront.

In the komulka case, the apartment *qua* apartment remains empty so long as any room-owner can veto use effectively. If all the owners sell their rooms and leave the unit, then the whole apartment could be marketed as a single piece of real estate. Entrepreneurs (often in partnership with one of the existing tenants) quickly discovered that the well-situated komulkas could be converted to private property by exchanging the owners' rights to rooms for complete apartments on the city outskirts.¹²³ In the old, centrally-located komulkas in Moscow, the market value of the entire apartment might approach \$500,000.¹²⁴ Assume such a komulka has four tenants each occupying one room. Because of the discomforts and irritations of communal living, each of four communal rooms might have a market value of only \$25,000 if the rooms will be kept in anticommons use, so that the whole apartment has an anticommons value of \$100,000.¹²⁵ Thus in this simple example, there is a dead weight loss of

¹²¹ Lyudmila Ivanova, *You and Me, He and She, Together a Communal Family*, 26 ARGUMENTY I FAKTY, June 1995, at 6, *translated and condensed in* 47 CURR. DIGEST OF THE POST-SOVIET PRESS, Aug. 9, 1995, at 10.

¹²² *Id.*

¹²³ See, e.g., Warren, *Door Shuts on a Russian Phenomenon*, SUNDAY TELEGRAPH, Jan. 10, 1993, at 14; Bohlen, *Comes the Revolution in Apt. 26*, NEW YORK TIMES, Feb. 28, 1993, at 1.

¹²⁴ The numbers used in this hypothetical reflect approximate values for the good downtown Moscow komulkas during the past few years. E.g., Tatyana Leiye, *Where's the Rent Going?*, MOSCOW TIMES, Nov. 26, 1994 ("It is well known that an apartment in the center of the city now costs roughly as much as a similar apartment in New York.")

¹²⁵ Of course, some of that potential gain from conversion is capitalized back into the value of a single room. In a well-functioning market, the value of the room would
(continued...)

\$400,000, which is equal to the difference between the value of the apartment in private and anticommons use.¹²⁶ In other words, conversion from one property regime to another could create a \$400,000 gain in net social welfare.¹²⁷

Many komulka owners wanted a place of their own, not just a room with a view. Once an apartment was in play, and conversion seemed possible, tenants would not sell out for \$25,000 each, but would typically demand a substitute apartment. Adequate substitute apartments could be bought on the city outskirts for perhaps \$75,000 each. In this example, by accepting the substitute apartment, each tenant places an implicit \$50,000 value on the option giving the property bundler the right to convert the komulka. In sum, removing the four

¹²⁵(...continued)

represent the sum of its value as an anticommons space plus the value from conversion to private property use (discounted by the probability of conversion).

The strategic moves for tenants and developers are complex: developers may prefer take-it-or-leave-it offers to the group in order to avoid holdout problems. Tenants, too, could maximize their individual values by forming a single bargaining unit among themselves so that developers avoid discounting for the transaction costs of bundling. No tenant should sell first, because the last tenant can then holdout for his monopoly position to extract the gains from conversion. Cooperation with the other tenants may be the best strategy for the each tenant.

On the other hand, an alternative strategy for a developer could be to pick off a single apartment at the beginning of conversion in order to block other developers from entering the bidding for the space. Once a developer has a foot in the door, literally, she can scare off other bidders and thus pay the remaining tenants a below market price for the whole. If other tenants refuse to sell, the developer can rent the room to a particularly noxious neighbor until the holdouts capitulate. The tenant who sells out first may be able to command a lock-up premium from the developer. In this case, defection may be the best strategy for each tenant.

¹²⁶ Society bears a deadweight loss whenever the costs of an individual's self-interested act exceed the individual's benefits from the act. Robert C. Ellickson, *Property in Land*, 102 YALE L.J. 1305, 1326 (1993) [*hereinafter* Ellickson, *Property*].

¹²⁷ Note that while many komulkas were well-situated and had high market values, some were poorly located or in run-down buildings. In many cases, market pressures have not operated to convert these marginal komulkas to single-family use. As of 1996, 12.5% of Moscow families and 22.4% of St. Petersburg families still live in komulkas. Yulia Ulyanova, *This Is a Communal Country*, IZVESTIA, Oct. 26, 1996, at 3, *translated and excerpted in* 48 CURR. DIGEST OF THE POST-SOVIET PRESS, Nov. 27, 1996, at 19:

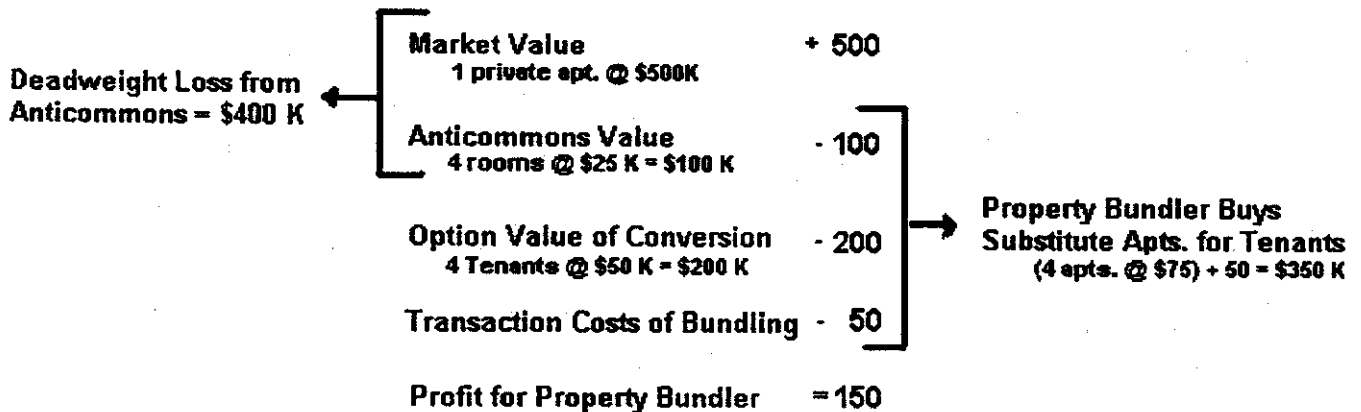
"The process of relocating communal apartment dwellers went on at a fairly brisk pace for a little over two years . . . but then it slowed abruptly. Now upscale housing is being built in every major city, and it's no longer necessary to agonizingly relocate fussy communal apartment dwellers and then invest enormous amounts of money in renovating these Augean stables. . . . [R]eal estate agents have an economic interest only in the "cream of the crop" -- those communal apartments that can be turned into prestigious or fairly good housing. Most communal apartments, even in the two capital cities, do not meet this criterion. . . .

Id.; see also Tatyana Andriasova, *Getting Rid of the Neighbors*, MOSCOW NEWS, Feb. 29, 1996 (9% of Moscow residents live in komulkas).

room-owners and converting the apartment to single-family use might cost an entrepreneur \$300,000 in relocation costs. In this example, the tenants collectively were able to capture \$200,000 of the available economic rent through their option value on the right of conversion.¹²⁸

In addition to paying the implicit *option value* on conversion, property bundling entrepreneurs incurred the *transaction costs* of bundling anticommons property into private property form. These costs involved finding and negotiating with komulka owners, locating and buying alternative apartments, finding renters or buyers for the new private property unit, policing the deal, and incurring various carrying costs and market risks (arbitrarily, assume such transaction costs total \$50,000 for this deal). Thus, in this simple example, overcoming the anticommons might leave a profit for the entrepreneur of \$150,000 (\$500,000 market value minus \$300,000 relocation costs minus \$50,000 other transaction costs). Whether the deal takes place is an empirical question that depends on the entrepreneur's ability to keep costs of conversion low and to sell the apartment high. Figure 3 summarizes this hypothetical transaction.

Figure 3: The Property Bundler's Equation



In this sort of multiparty bargain, each tenant is a monopolist with an incentive to engage in familiar types of strategic behavior, such as holding out for the bundling surplus.¹²⁹ But, in practice, entrepreneurs were often able to keep

¹²⁸ See WDR, *supra* note *, at viii (economic rents “can arise through the acquisition of a claim on a resource whose ownership was ambiguous or weakly exercised, or through a change in a government policy that creates an artificial scarcity”); RICHARD POSNER, ECONOMIC ANALYSIS OF LAW 9-10 (4th ed. 1992) (defining “economic rents”).

¹²⁹ See Robert Coote, *The Cost of Coase*, 11 J. LEGAL STUD. 1, 17-20 (1982). If the komulka owners act strategically, they may increase transaction costs in excess of the net
(continued...)

down the transfer of the economic rents from conversion and total transactions costs by coercing komulka owners. Some property bundlers achieved conversion quickly by intimidating or murdering recalcitrant tenants.¹³⁰ In this spatial anticommons, there are only a small number of owners, often elderly tenants.¹³¹ An unintended consequence of creating anticommons property during privatization of communal housing has been the creation of a group of komulka tenants who are particularly vulnerable to predatory private property bundlers. Further, an unintended cultural consequence of the brutality engendered by overcoming the komulka anticommons may have been to discredit markets and market reforms generally.¹³²

¹²⁹(...continued)

gains from trade, at which point the entrepreneur will abandon the deal. Ellickson speculates that adjoining owners, "are likely to be bound by norms that dictate cooperative behavior in routine interactions." Ellickson, *Property*, *supra* note *, at 1330 n.56. However, disbanding the komulka is a one-shot deal around which such norms may not coalesce.

¹³⁰ See, e.g., Gray, *Capitalist Crimes*, MACLEANS, Jan 10, 1994, at 17:

'Privatization of apartments started in October 1991, and it soon led to a new problem: homeowners, most of them old people, started disappearing.' . . . The trend is particularly noticeable in the center of [Moscow], where competition for prestigious addresses . . . has sent prices soaring. The area has many former mansions that the Bolsheviks converted into barracks-like communal apartments after the 1917 revolution. And for enterprising developers there is only one obstacle to recovering those once elegant buildings to high-quality private housing: the current tenants.

Id.; Warren, *Door Shuts on a Russian Phenomenon*, SUNDAY TELEGRAPH, Jan. 10, 1993, at 14; Bohlen, *Comes the Revolution in Apt. 26*, NEW YORK TIMES, Feb. 28, 1993, at 1; Hiatt, *The Dark Side of Privatization: To Moscow Con Men, Scant Housing is Worth Killing For*, WASH. POST, Nov. 13, 1993, at A1; Clark, *Dying to Get a Home of One's Own*, THE OBSERVER, Nov. 28, 1993, at 28.

¹³¹ Ulyanova, *supra* note *, at 19..

¹³² See generally Richard Pildes, *The Unintended Cultural Consequences of Public Policy*, 89 MICH. L. REV. 936 (1991). It would be interesting to consider further the unintended social consequences of property bundling mistakes. By mistaking anticommons relations for ordinary private property, people in transition countries have given the idea of a market economy a worse reputation than perhaps it merits. "Wild capitalism" -- a common pejorative term to describe the early stages of transition to markets -- results perhaps from bundling mistakes as much as from any intrinsic element in moving to markets. *E.g.*, Carey Goldberg, *Moguls at the Gates; Part Robin Hood, Part Robber Baron, Russia's Wild Capitalists Are Skirting the Law, Making Fortunes And, Maybe, Saving the Country*, L.A. TIMES (Magazine), Aug. 29, 1993, at 22 ("[C]haos and illogic of Russia's transition from socialism . . . is now known here as 'wild capitalism.'"); Ann Imse, *Russia's Wild Capitalists Take Aluminum for a Ride*, N.Y. TIMES, Feb. 13, 1994, at 4 (discussing "the ugly brand of Russia's 'wild capitalism'").

2. *Transaction Costs and Strategic Behaviors in Bundling.*

What have been the key differences that have allowed anticommons property in well-situated komulkas to be overcome while ground-floor stores in the same buildings may remain empty? The different outcomes are explained in part by five factors relating to the *transaction costs* of bundling and *strategic behaviors* of owners locked in bilateral monopolies.¹³³

(a) *Type of Anticommons Owner -- Public v. Private.* The transaction costs of negotiating with private owners may be lower than those with state and corporate parties. Komulka owners are private individuals, often elderly, who are not well positioned to resist concerted market pressures presented by aggressive entrepreneurs. Bundlers can avoid strategic behavior among komulka owners by sharing the economic gains of conversion and through intimidation. By contrast, storefronts began mostly with corporate, quasi-state and state owners. Storefront owners have relatively more access to power and protection and may not be easily intimidated by deviant property bundlers. Instead, public and corporate owners must be bribed. It may be more difficult initially to identify whom to bribe, and to enforce such corruption contracts later. Finally, public owners may not behave in profit-maximizing ways and may not perceive the lost revenue from the storefront as central to their decisionmaking.¹³⁴

(b) *Number of Anticommons Owners.* There are fewer and more easily identifiable owners in komulkas than in stores -- again lowering transaction costs and allowing more effective intimidation against komulka owners. For example, komulka owners in Russia could be tracked down in part through *propiska* records (essentially, internal passport information that identified each individual in each residence).¹³⁵ Such records allow entrepreneurs some assurance that once all the listed people are bought off, additional claimants will not appear.¹³⁶ Even with

¹³³ Though strategic behaviors may be considered as a class of transaction costs, see A. MITCHELL POLINSKY, AN INTRODUCTION TO LAW AND ECONOMICS 18-20 (2d. Ed. 1989), instead of as a distinct explanatory variable, such labeling does not affect the analysis that follows.

¹³⁴ See *supra* note * (discussing incentives of public owners).

¹³⁵ Simona Pipko & Albert Pucciarelli, *The Soviet Internal Passport System*, 19 INT'L L. 915 (1985); FELDBRUGGE, *supra* note *, at 226.

¹³⁶ Jim Kennett, *The Home-Buyer's Guide to Nasty Surprises*, MOSCOW TIMES, Oct. 31, 1995 ("For starters, buyers should make sure that the apartment's seller is indeed the
(continued...)

few anticommons owners, familiar problems of bilateral monopoly could surface, but have not appeared in the komulka case for the reasons discussed above. By contrast, there are a larger number of corporate and state owners. Bribes to one bureaucratic owners may not bind other owners even within the same organization, at least until such bribery channels are routinized.

(c) *Boundary of Anticommons*. Each komulka could be easily bounded, both as an object of anticommons and private property. Of course, without condominium-like laws, the status of much of the remainder of the apartment building may be unclear. Who controls the land, party walls, facade, hallways, roofs, elevators, lobbies, basements, attics, and so on?¹³⁷ Nevertheless, people seem generally to agree that the living area of each apartment is the core object of value. By contrast, store boundaries are not as transparent. For example, a workers' cooperative may claim that the *single* bakery they occupy constitutes the object of property subject to their private ownership. Another anticommons owner, such as a defunct state bread-making enterprise, may claim that the entire *chain* of several dozen enterprise bakery outlets is a single, indivisible corporate asset. (Indeed, underused real estate is often the only potentially valuable asset of former socialist enterprises). Finally, the local administration may claim that *all* local bakeries belong to them and are subject to privatization through auction. What is the ordinary boundary of this object of property?¹³⁸

(d) *Spatial v. Legal Anticommons*. Possibly, overcoming spatial anticommons such as privatized komulkas is less difficult than overcoming legal anticommons where rights are difficult to exchange credibly. In a storefront, the problem is not that the space was overly sub-divided, but that legal rights were handed out to too many owners. These dispersed rights may be more difficult to delineate and trade than tangible physical control over discrete spaces, such as rooms in a komulka.

¹³⁶(...continued)

owner and that the guardians of any children involved have signed off on the deal. . . . Many realtors shy away from flats that already have been sold several times, as each sale increases the chance that a past owner will appear to restake his or her claim.”).

¹³⁷ Presidential Decree on Approval of the Provisional Regulations on Condominiums, No. 2275, Dec. 23, 1993 (Russian Federation decree), cited in Struyk & Kosareva, *supra* note *, at 23.

¹³⁸ Frenkel, *supra* note *, at 291-96.

(e) *Starting Points Within Socialist Legal Regime.* Tenants in komulkas began transition holding more of the familiar bundle than did owners of socialist property such as storefronts. Komulka tenants had rights which gave them most of what families seem to expect from ownership, including physical possession and strong rights of exclusion, but minus a collection of alienability rights. When komulka were privatized, local governments transferred their previous socialist control rights, so komulka tenants received relatively standard legal bundles. By contrast, stores often began empty, as part of the holdings of bankrupt state and local organizations. Legal rights were scattered among the anticommons owners, as discussed above in the Moscow storefront case study.

3. *Contingent Values in Anticommons Property.* In addition to transaction costs and strategic behavior explanations, uncertainty about the future may help explain differences in bundling komulka and store anticommons. There are different types of uncertainty about the future that give rise to speculative value in an object. For example, the “fair market value” of an ordinary home includes some premium (however slight) for the possibility that oil or diamonds may be discovered underneath and some discount for the possibility that government may adversely change zoning or tax laws.

I focus on two of these speculative values that affect the value of an anticommons right in an object, but do not affect its private property value. To distinguish these two values, I label one the *option value* and the other the *contingent value*. The option value has already been discussed in the komulka bundling context. It reflects the expected gain from converting anticommons property to private property through market transactions -- an economic contingency. The contingent value represents the expected gain from rent-seeking that privileges one anticommons owner at the expense of the others -- a political contingency. Either option or contingent values may dominate an anticommons owner’s decision on how to deploy her rights.

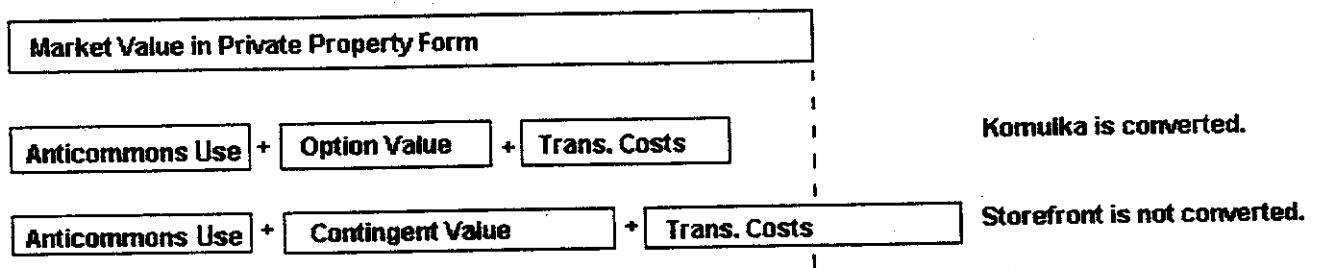
If the owner believes that the property rights regime will remain relatively stable, then the option value may determine whether the anticommons property is converted to private property. For example, in komulkas, tenants often appear to set the option value on their rights at a level that allows conversion to go forward. These tenants appear to value their contingent or political claims at close to zero. That is, it is unlikely that one anticommons owner in a komulka will be able to significantly improve his or her position vis-à-vis another through politics. Komulka tenants can maximize the value of their anticommons rights by trading them in economic rather than political markets. In trying to capture economic rents from conversion, komulka tenants unintentionally help re-create the apartment as private property and put it to use. Storefront anticommons owners may also face a similar equation if they expect stability in the property

rights regime. Given that today's storefront values in Moscow are among the highest in the world,¹³⁹ storefront anticommons owners may convert their rights into private property when they can overcome transaction costs and holdout problems.

On the other hand, if owners perceive their storefront property rights to be unstable, savvy owners may prefer to keep the store empty, hold on to their anticommons rights, and use them as leverage in political rather than economic markets. Control of an anticommons right, such as the right to maintain or lease out a store, may give the owner a reason for continued bureaucratic existence. For an individual bureaucrat, the anticommons right may be the source of illicit income that dwarfs the formal salary. Additionally, political maneuvering may in time award the entire private property ownership bundle to the current owner of a single right. The contingent value of the right may exceed the option value from conversion. In this context, keeping the store empty may be a signal that shows the continuing validity of the owner's right and increases the value of the contingent claim. In unstable regimes, an anticommons right may become a lever for rent-seeking in political markets rather than profit-maximizing in economic markets.

Figure 4, below, summarizes the differing outcomes for owners of komulka and storefront anticommons.

Figure 4: Differences in Bundling Komulkas and Storefronts



¹³⁹ *Russia: Shortage of Office Space Makes Moscow Rents World's Second Highest*, BBC SUMMARY OF WORLD BROADCASTS, Feb. 8, 1996, available in LEXIS, Curnws file ("Foreign firms pay an incredible average of DM125 per sq.m. per month [for Moscow office space], compared with DM80-85 per sq.m. in London and Paris, DM60 per sq.m. in New York and DM45-50 in Chicago and Berlin. Only Tokyo, where a square metre costs DM280, is more expensive than Moscow."); *Commercial Space Becoming More Expensive*, MOSCOW NEWS, June 2, 1995.

This Figure shows that a komulka anticommons owner may value the contingent claims at zero and the conversion option moderately, while the storefront anticommons owner values the conversion option at zero and the contingent claims quite highly. The Figure also assumes that there are somewhat higher transaction costs for converting a storefront than a komulka, for the reasons discussed above. The sum of these values suggests that, at the end of the day, the komulka may be bundled into an ordinary apartment while the store remains as an anticommons and sits empty.

The komulka example suggests the following points:

- ▶ *Anticommons property may appear in both spatial and legal forms.*
- ▶ *When governments create anticommons property, rights-bundling entrepreneurs may be able to create private property through ex post contracts, either legal or illegal.*
- ▶ *Transaction costs, strategic behaviors, conversion options, and contingent valuation models may help explain differences in anticommons behavior.*
- ▶ *If the property regime seems stable, anticommons rights may be exercised in economic markets and holdout problems may arise; if the future is sufficiently uncertain, anticommons rights may be exercised in political markets and rent-seeking problems may dominate.*
- ▶ *Creation of an anticommons may have unintended social and cultural consequences, such as the murder of vulnerable tenants by predatory property bundlers which in turn may discredit markets generally.*

c. Street Kiosks.

1. *Appearance of the Kiosks.* What explains the persistence of the anticommons in stores in contrast to the resolution of the anticommons on the streets?¹⁴⁰ During the early years of transition, kiosk merchants were also faced with an anticommons: a property regime where numerous parties, holding

¹⁴⁰ *Kiosks Are As Russian As Borshch*, MOSCOW TIMES, Jan. 25, 1995: [O]n one hand, Moscow has always been filled with kiosks and, on the other, the government has always been trying to get rid of them. Even before Moscow had real books or very many people who could read them, there were wooden kiosks throughout the city. . . In the days of Ivan the Terrible, you could stop by a neighborhood kiosk for a refreshing cup of kvas. And back when the Kremlin was still made of wood, the government -- even though it did not have those special kiosk-removal trucks -- had to order the kiosks cleared from Red Square because of the danger of fires. . . . Even Stalin could not get rid of them entirely.

both formal and informal rights, could block street access. Yet, by the early 1990s, merchants were able to acquire informal rights on the streets to set up commercial outlets.¹⁴¹ Kiosk merchants were able to negotiate around the anticommons regime through *ex post* contracting: they executed corruption contracts with local government rights-holders and protection contracts with the mafia.¹⁴² By contrast, storefronts continue to remain relatively empty, despite entrepreneurs' willingness to follow formal procedures, bribe city officials, or pay protection money to the mafia in order to get access to the space.

What is the difference? As argued above, owners of storefronts anticommons property may have managed their rights primarily for their contingent value because they perceived the property regime to be unstable and because they are fighting for political survival. In contrast, there was no contingent value to holding streets empty, since there was no likelihood of redefining property rights in a way that would legalize the clusters of kiosks. The alternative to kiosks was keeping the streets clear for public access.

Kiosks were an early resolution to the problem of providing commercial outlets in a country desperately short of retail services.¹⁴³ Indeed, kiosk and storefront real estate markets are linked. The success of kiosks may have taken the pressure off of reducing anticommons in stores. On the streets, there was not a complex web of anticommons rights to be overcome. Instead, kiosk merchants had to negotiate only with a limited number of municipal offices and an easily identifiable mafia organization.¹⁴⁴ By routinizing the corruption process,

¹⁴¹ Khrushchev, *supra* note *, at 86 ("Kiosks trace their roots to Soyuzpechat, the government agency responsible for newspaper and magazine sales in the former Soviet Union. But around 1990, these glass booths began attracting fledgling entrepreneurs. Publications gradually gave way to items such as cigarettes, liquor, food, and toiletries. At kiosks, which now resemble small metal fortresses, consumers can buy anything.").

¹⁴² Margaret Shapiro, *Perils of Kiosk Capitalism: Russia's New Entrepreneurs Pay for Permits and Protection*, WASH. POST, Aug 28, 1993, at A15:

Andrei[, a kiosk owner,] has had to bribe tax inspectors, pay protection money to mafia toughs and fork over 'gifts' to officials whose approval is needed for a business license. . . . To start his business Andrei needed to get a host of city officials -- firefighters, electricians, architects -- to sign his permit request. . . . When a date was set for delivery of the kiosk, Andrei and his partner took care of a key business matter: making peace with the 'protection' racketeers who have carved Moscow up into fiefdoms and who punish those who resist.

¹⁴³ Anne Bernard, *Luzhkov Steps Up War on Kiosks*, MOSCOW TIMES, May 5, 1994, available in LEXIS, Arcnws File ("Stuffed with everything from canned peas to kiwi liqueur to fur coats, kiosks have blossomed as the first alternative to nearly empty Soviet-era stores.").

¹⁴⁴ Khrushchev, *supra* note *, at 86:
[G]etting started is a bureaucratic nightmare and often requires millions of rubles in
(continued...)

entrepreneurs quickly reduced the transaction costs of assembling quasi-private rights in street kiosk locations.¹⁴⁵ Creation of commercial space through corruption and protection contracts can be reasonably stable over time where procedures become routinized and entrepreneurs come to rely on formal forbearance and informal *ex post* assembly of anticommons rights into private property rights.

However, this street kiosk arrangement is not the best of all possible worlds. Hernando de Soto, a leading theorist on the connection between law and economic development, discusses this issue indirectly in much of his work.¹⁴⁶ He notes the prevalence of the informal economy in developing countries and makes two points. First, the vibrant, informal economy should be viewed as an

¹⁴⁴(...continued)

bribes. But entrepreneurs can get the necessary permits for about \$100, not from government licensing authorities, but from non-official businessmen, such as owners of nearby stores. . . . Most of the illegal kiosks are protected by groups (read mafia) . . . [that] lease extensive parts of the city for a 'nominal price' (gigantic bribes) and then divide them into tiny squares that are rented out. The group is czar and god over its territory. It protects the traders and solves any problems with local officials and other gangsters. It even handles taxes.

¹⁴⁵ James Gallagher, *Russia's Kiosk Capitalists Keep Wary Eye on Hard-line Premier*, CHIC. TRIB., Jan. 5, 1993, at 1:

[R]egular payments must be made to local officials and a powerful mafia. 'You have to pay bribes to get financing,' [Karlammov, a kiosk owner] said. 'You have to pay bribes to get permission to put your kiosk on a promising site. And even after things are all set up, you have to pay bribes to make sure they don't close you down. The mafia is the easiest of all to deal with. They don't charge too much, they tell you exactly what they want up front, and when an agreement is made, they live up to it. They don't come back asking for more. . . . The hardest part was finding out who was the right person to bribe,' he explained. 'At first, we had no idea who could do what, so we began visiting the local prefect's office almost every day. We gave candy and other presents to people we met there, and eventually they directed us to people who could help.'

Id.; Frank Brown, *Life in a Metal-and-Plexiglas Box*, MOSCOW TIMES, April 5, 1994 ("Although [one kiosk owner] complained about racketeers, bribes, and stealing, she said the monthly fee paid to the mafia 'is worth it.'"); Khrushchev, *supra* note *:

Most kiosks don't pay taxes. The state, of course, requires tribute but has no practical way of collecting. Tax inspectors can't verify kiosks' earnings and therefore don't know how much to collect. Main enterprises [mafia] routinely help their kiosks hide earnings and inform them when tax inspectors are about to show up. The [mafia] groups have become increasingly important to kiosk owners. Unlike government officials, they act like industrious owners. For example, while the state imposes a 50 percent or more tax on profits, main enterprises are satisfied with a 5 percent to 10 percent cut. Main enterprises also protect traders from rival gangsters.

¹⁴⁶ HERNANDO DE SOTO, *THE OTHER PATH: THE INVISIBLE REVOLUTION IN THE THIRD WORLD* (1988).

important contribution to the overall economic performance rather than a drain.¹⁴⁷ Second, and just as important, is that commentators should not mistake vibrancy for optimality, either along efficiency or distributive dimensions.¹⁴⁸ People are in the informal economy because the formal legal system drives them there. Informal merchants could contribute much more to the economy if the legal system made it possible to work in the formal sector.¹⁴⁹ For de Soto, the definition of “third world under-development” lies precisely in the combination of badly specified formal property rights and the *ex post* rearrangement through illegal contracts.¹⁵⁰ The informal economy represents a second-best solution of the triumph of ingenuity in the face of bad law. de Soto argues that the best solution would be to create the “good law” which characterizes successful economies and which may be within the capacity of developing countries to achieve. Good law would include legal tools such as property registries, patent protection, and provisions for long-term contracts.¹⁵¹

The proliferation of kiosks in Russia suggests that one path to overcoming a tragedy of the anticommons may be through tolerance of informal corruption contracts. However, de Soto’s work suggests that the resulting quasi-private property rights will likely operate at a lower level of economic efficiency than with formal property rights, in part because incentives for long-term investment are blunted.

2. *Disappearance of the Kiosks.* Recently, the Moscow city government has tried to eliminate kiosks from the streets, with mixed results.¹⁵² The apparent reduction in the number of kiosks from 1994 to 1996 could be

¹⁴⁷ *Id.*

¹⁴⁸ *Id.*

¹⁴⁹ *Id.*

¹⁵⁰ *Id.* de Soto argues that the potential efficiency of informal systems is bounded by the need to hide from or bribe the public sector:

Having established that there are costs to being illegal, we asked ourselves whether eliminating those costs would be enough to transform informality into the best of all possible worlds. [We are convinced that this would not be] true and that informals suffer not only from their illegality but also from the absence of a legal system that guarantees and promotes their economic efficiency -- in other words, of good law.

Id. at 158. Developing “good law” on which people may rely -- for example, mechanisms to secure credit or protect intellectual property -- allows much higher levels of economic performance. I would place bundling property rights coherently at the same level as de Soto’s examples.

¹⁵¹ *Id.*

¹⁵² *See supra* notes * (discussing crackdowns in 1994, 1995, and 1996 on kiosks).

interpreted in two ways that link back to the storefront anticommons. The first interpretation is that the government has successfully specified a better set of property rights in retail storefront space and market actors have relied on those rights to shift away from kiosks. If storefronts have become more available, retail lease prices might be dropping, and merchants might decide to substitute storefronts for kiosks.¹⁵³ In this interpretation, the gradual decrease in kiosks would reflect the gradual resolution of the storefront anticommons.¹⁵⁴

Alternatively, and more plausibly from the weight of the available evidence, the apparent decline in the number of kiosks has not been linked to resolution of the storefront anticommons.¹⁵⁵ Instead, with the use of sufficient force, the city could be enforcing existing laws against kiosks and effectively repudiating the corruption bargains that kiosk owners have made with mafia and

¹⁵³ See Margaret Shapiro, *Kiosks, Once Symbol of Free Market, Giving Way to Capitalism's Success; Moscow Stores' Service, Variety Rendering Sidewalk Stands Obsolete*, WASH. POST, Apr. 2, 1995, at A33:

[T]hese once ubiquitous symbols of Russia's free-market transformation are on their way out, no longer needed by a country that has clearly moved up a rung on the economic development ladder. Former state-owned stores, now in private hands, are well stocked, lines have disappeared, and salespeople, astonishingly, have learned to be more polite. . . . In Moscow, where kiosks began, officials have declared an end to the era of the "box," as its occupants call them. The government has begun slowly clearing them away, calling them crime traps and eyesores. Last year there were 17,000 kiosks in Moscow; today there are 10,000. . . . By next year, most of them should be gone. "We believe that kiosks have fulfilled their role," [a city official said.] "It was natural that kiosks developed when they did. . . ." Dusty old state-owned stores that officially had been privatized in 1992 but continued to operate as inefficiently as before have finally started to recognize the bottom line and adapt.

¹⁵⁴ From sketchy accounts, this interpretation does seem to describe the kiosk/storefront trajectory in Poland. In Poland, the small-scale privatization program quickly eliminated most competing anticommons owners from legal or practical control over commercial space and assembled tradeable private property bundles for retail space. Anne Bernard, *Luzhkov Steps Up War on Kiosks*, MOSCOW TIMES, May 5, 1994, available in LEXIS, Curnws File. (Kiosks "sprouted in Warsaw for about a year as the free market gained a foothold, and then 'naturally disappeared' without pressure from city authorities as merchants moved into shops.").

¹⁵⁵ Ellen Barry, *City Bid to Clear Kiosks Falling Short of Targets*, MOSCOW TIMES, Jan. 25, 1995:

The common kiosk will move one step closer to extinction next week, when Mayor Yury Luzhkov's latest clearing order comes due, but statistics from city inspectors show the process has hit some snags. . . . Andrei Sergeyev, who is in charge of cleaning up the western region of the city, is sweating a little. [While, he] agrees with the mayor's policy, he said its pace was straining his resources and shoppers' patience, since new stores had not yet arisen to replace kiosks. 'This is the type of thing that has to be done gradually,' he said.

government officials.¹⁵⁶ In property theory terms, the local government could be converting anticommons property on the sidewalks back into ordinary “state property” with sidewalks open to common access by pedestrians.¹⁵⁷ Under this interpretation, the result of kiosk disappearance could be that the local retail economy may function even worse than before, with even higher repressed demand for retail space.¹⁵⁸ Indeed, if the storefront anticommons still persists, the recent crackdowns will likely fail:

Economists have said that ideally, kiosks should have died out of their own accord, as owners move into more stable premises. In Moscow, they said, that isn't taking place. 'There is the huge challenge of business premises, which are so horrendously expensive,' said Semyon Bekker, head of the city's Department for the Development of Small Business. 'In some sense kiosks should regulate themselves, since stores will eventually take their place. That hasn't happened yet.'¹⁵⁹

In de Soto's terms, the persistence of kiosks reflects the continued failure of the Russian and Moscow governments to provide “good law.” Without good law, the storefront real estate market is not sufficiently elastic to respond to the continued high demand for retail space and kiosks will just appear again when repressed.¹⁶⁰

¹⁵⁶ Ellen Barry, *Kiosk Issue Explodes in One District*, MOSCOW TIMES, Jan. 31, 1995 (“[O]fficers with machine guns watched as a fork lift hoisted one kiosk after another onto a flatbed truck.”).

¹⁵⁷ *State property* can be defined as a property regime where:

[I]n principle, material resources are answerable to the needs and purposes of society as a whole, whatever they are and however they are determined, rather than to the needs and purposes of particular individuals considered on their own. No individual has such an intimate association with any object that he can make decisions about its use without reference to the interests of the collective.

Jeremy Waldron, *What is Private Property?*, 5 OXFORD J. LEG. STUD. 313, 328-29 & n.45 (1985) [hereinafter Waldron, *Private*]; see also C.B. MACPHERSON, *PROPERTY: CRITICAL AND MAINSTREAM POSITIONS* 5-6 (1978) (substantially the same definition of state property).

¹⁵⁸ E.g., Adam Turner, *City to Cut Kiosks, Urges Move to Stores*, MOSCOW TIMES, July 16, 1994, available in NEXIS, Curnws File (“[W]ould-be storeowners cite Moscow's hesitation to privatize its commercial space, bureaucracy, crime, and corrupt government officials as barriers to retail expansion. . . . [A]fter the city removed hundreds of . . . kiosks, they gradually resurfaced in other parts of Moscow.”).

¹⁵⁹ *Kiosk Crackdown*, supra note *.

¹⁶⁰ Ellen Barry, *City Kiosks Outrun The Mayor*, MOSCOW TIMES, Mar. 7, 1995: Those wily kiosk owners. After Mayor Yury Luzhkov's latest crackdown limited the number of kiosks in every subprefecture, many traders simply installed wheels and took them on the road, keeping one step ahead of the city inspectors. . . . [Nevertheless,] according to city estimates, the number of kiosks inside the Garden

(continued...)

Kiosks add the following points to the anticommons story:

- ▶ *Property regimes are interconnected: the persistence of anticommons property in stores and the resolution of the anticommons on the streets reinforce each other.*
- ▶ *Illegal contracts may help overcome an anticommons by creating quasi-private property.*
- ▶ *One cost of overcoming anticommons property through corruption is that inefficient "third world" market structures may appear and become entrenched.*

d. Conclusion.

For each point along the property gradient, governments may be tempted to create anticommons property, perhaps in response to pressure by existing stakeholders, perhaps to address short-term distributional concerns. Rather than assigning to a sole owner a usable bundle in a scarce resource, governments may assign multiple owners rights in an object, so everyone gets a piece of each pie.

Governments in transition may have tried to solve too many problems at once. While a political analysis of why governments created anticommons property is beyond the scope of this article, several reasons stand out. Decentralization eliminated the control rights of many federal actors, but strengthened those rights at the state and local level, often creating competing centers of local power. Downsizing of government functions created intense competition among threatened bureaucrats to hold on to plausible property rights, not just because of the corruption potential for individual state actors, but more generally to preserve their institutional existence. Privatization faced resistance from existing stakeholders who demanded protection and inclusion. In many countries, transition leaders faced the redistributive challenge by co-opting existing stakeholders. I believe reformers parceled out rights broadly rather than facing the politically challenging prospect of declaring winners who received the entire property bundle and losers who got nothing.

Once anticommons property is created, it may be difficult either for markets or governments to assemble rights into usable bundles. After initial entitlements are set, institutions and interests begin to coalesce around them, and the path to private property may be missed.¹⁶¹ Deviant strategic behaviors,

¹⁶⁰(...continued)

Ring has dwindled from 4,000 to 1,500 over the last year, and the total number has dropped from 16,000 to about 7,000.

¹⁶¹ See Mark Roe, *Chaos and Evolution in Law and Economics*, 109 HARV. L. (continued...)

ordinary transactions costs, and contingent values may block deals and scarce resources may be wasted. So far, storefronts seem to represent the paradigmatic case of the failure of bundling and appearance of the tragedy of the anticommons. Under some conditions, people will be able to renegotiate around the anticommons rights through *ex post* contracts. Kiosks shows the benefits and costs of taking the path from anticommons to quasi-private property. In komulkas, property bundlers often were able convert anticommons to private property legally, though against a backdrop of intimidation and violence. At the other end of the gradient of property in transition, with individual apartments, governments have avoided anticommons property but traded off distributional concerns.

Overcoming the tragedy of the anticommons is not synonymous with creating well-functioning markets in private property. Even with full ownership of well-specified formal property bundles, reformers will have to be attentive to the familiar constraints to building markets, including the problems of correlating formal rights with informal norms, creating a stable economic environment that induces investment, committing to a credible political order that focuses attention away from political rent-seeking, and establishing effective legal and administrative infrastructure to enforce contracts and reduce incentives for corruption. Bundling property rights to avoid anticommons property is one element that determines whether countries circle on the path upward to First World prosperity or spiral downward to Third World despond.

Part II -- The Tragedy of the Anticommons

Property theory has long worked with categories such as private property, commons property, and state property.¹⁶² However, anticommons

¹⁶¹(...continued)

REV. 641, 647 (Roe uses the concept of path dependence to explore the consequences of legal rules today on economic outcomes tomorrow. Creation of anticommons property could be an example of "path dependence [leading] to highly inefficient structures that society cannot eliminate."). The standard example of inefficient path dependence is the persistence of the QWERTY keyboard, named for the placement of the letter keys in the keyboard's upper left corner. See, e.g., W. Brian Arthur, *Competing Technologies, Increasing Returns and Lock-in by Historical Events*, 99 *ECON. J.* 116 (1989); but see S.J. Liebowitz & Stephen Margolis, *The Fable of the Keys*, 33 *J.L. & ECON.* 1, 2-3 (1990) (disputing whether QWERTY keyboard is inefficient).

¹⁶² These shorthand labels parallel the conventional usage. See Frank I. Michelman, *Ethics, Economics and the Law of Property*, in *NOMOS XXIV: ETHICS, ECONOMICS AND THE LAW* 3, 5-6 (J. Roland Pennock & John W. Chapman, eds., 1982); Duncan Kennedy and Frank I. Michelman, *Are Property and Contract Efficient?* 8 *HOFSTRA* (continued...)

property has scarcely figured. This Part makes the anticommons a more accessible and precise term for property theory. The first section isolates elements of private property that I use to set up a contrast with anticommons property. The second section explains the limited appearance of the anticommons in the property literature and offers a more useful definition. The third section defines the "tragedy of the anticommons" and uses property and game theory models to explore paths to overcoming the tragedy.

1. *Private Property.*

a. This Land is My Land; This Land is Your Land.

Few social understandings are more deeply intuited and less thought through in developed market economies than core private property rights; for example, the sense of "my land" and "your land." When land is sold, sellers, buyers, neighbors, and governments seem to know what constitutes ownership; in the everyday course of business, people exchange property through contract, but do not create new types of property rights.¹⁶³ The same intuitive understanding of property in land may extend to private property more generally. People know (or think they know)¹⁶⁴ what it means to own a toaster, car, house, or a corporation. People seem to know private property when they see it.

Of course, even in settled market economies, property rights remain unclear on the margins, despite the web of legal rules, institutions, and informal

¹⁶²(...continued)

L. REV. 711 (1980); Jeremy Waldron, *What is Private Property?*, 5 OXFORD J. LEG. STUD. 313 (1985) [hereinafter Waldron, *Private*].

¹⁶³ Property rights differ from contract rights in that property typically does not represent or derive from formal private agreement among individuals defining the content of the relationships. The world of contract assumes a pre-existing process for defining entitlements, and distributing those rights initially among stakeholders, both individual and state. Once rights are defined and distributed, then contract represents the ordinary process of voluntary exchange. Ordinary exchange through contract can give rise over time to new property rights, as when merchants develop business norms, which in turn are codified as property rights. See generally ELLICKSON, ORDER, supra note *; Lisa Bernstein, *The Newest Law Merchant*, U. PENN. L. REV., forthcoming (1996); Eric A. Posner, *The Regulation of Groups: The Influence of Legal and Nonlegal Sanctions on Collective Action*, 63 U. CHI. L. REV. 133, 133-34 (1996) (collecting the classic legal realist and law and society sources)[hereinafter Posner, *Groups*]. Similarly, property rights can be created through legislative schemes, not just through norm codification -- for example, tradeable pollution rights and auctions of radio spectrum.

¹⁶⁴ That people think they know what property is may be enough. As the utilitarian philosopher Jeremy Bentham pointed out long ago, "property is nothing but a basis of expectation . . . There is no image, no painting, no visible trait, which can express the relation that constitutes property. It is not material, it is metaphysical: it is a mere conception of the mind." JEREMY BENTHAM, THEORY OF LEGISLATION 111 (4th ed. 1982).

norms.¹⁶⁵ Ambiguity of property rights can arise from information costs. For example, it may be too costly to pin down in advance the exact boundaries of land relative to the gain from certainty.¹⁶⁶ Ambiguity also may arise because of unresolved conflicts and changing values regarding ownership, such as how far the government may restrict certain land uses without compensation. Nevertheless, most work-a-day activities that require property exchange take place without negotiation over what the thing is that is being exchanged or what are the constitutive rights of the property bundle. If people thought deeply about the property they used, perhaps they might see that even the core meanings are historically contingent and indeterminate.¹⁶⁷ However, the everyday perspective on property masks its mysterious character.

b. What is Private Property?

According to the classical theorists, “property” is a thing and “property theory” defines the relationship between a person and a thing.¹⁶⁸ For example, according to William Blackstone, the right of property is “that sole and despotic dominion which one man claims over the external things of the world, in total exclusion of the right of any other individual in the universe.”¹⁶⁹ To explain the power that the classical metaphor holds, Thomas Gray situates it in a historical context: “To the rising bourgeoisie, property conceived as a web of relations among persons meant the system of lord, vassal, and serf from which they were struggling to free themselves. On the other hand, property conceived as the control of a piece of the material world by a single individual meant freedom and

¹⁶⁵ As Munzer notes, “finally, . . . the idea of property is indeterminate at the margin. No litmus test can separate rights of property from, say, those of contract in all cases.” STEPHEN MUNZER, *A THEORY OF PROPERTY* 24 (1990).

¹⁶⁶ YORAM BARZEL, *ECONOMIC ANALYSIS OF PROPERTY RIGHTS* 3 (1989).

¹⁶⁷ MARK KELMAN, *A GUIDE TO CRITICAL LEGAL STUDIES* (1987); ROBERTO MANGABEIRA UNGER, *THE CRITICAL LEGAL STUDIES MOVEMENT* 6-7 (1986).

¹⁶⁸ WILLIAM BLACKSTONE, *2 COMMENTARIES ON THE LAWS OF ENGLAND* *2 (University of Chicago, ed., 1979) (1765-69); see also JOHN LOCKE, *TWO TREATISES OF GOVERNMENT*, BOOK II, CH. V (*Of Property*) (P. Laslett rev. ed. 1963).

¹⁶⁹ BLACKSTONE, *supra* note *, at *2. Ellickson points out that the concept of property as thing-ownership is not original with Blackstone, but rather comes from the older civil law tradition, a tradition that continues today in much of the world. Ellickson argues that, in fairness to Blackstone, he “would have admitted that his sentence . . . was hyperbolic. His treatise explicitly discussed, for example, a variety of legal privileges to enter land without the owner’s consent.” Ellickson, *Property*, *supra* note *, at 1362 n.237; see also DUKEMINIER & KRIER, *supra* note *, at 99.

equality of status.”¹⁷⁰ The classical metaphor of property as *thing-ownership* still exercises a grip on the popular imagination to this day.¹⁷¹

However, during the twentieth century, property theorists have fundamentally re-imagined property as a *bundle of rights*.¹⁷² Contemporary property theorists focus on the relationships owners establish with each other regarding use of an object. According to Hohfeld, property “consists of a complex aggregate of rights (or claims), privileges, powers, and immunities.”¹⁷³ At this level of generality, the bundle of rights metaphor can describe any type of property relationship, including private, commons, and anticommons property. The distinction between private property and other property types depends centrally on three elements:

- (1) *The Possibility of Full Ownership*. Private property requires that one owner have full decision-making authority over an object. More precisely, Frank Michelman defines private property to mean that “the rules must allow that at least some objects of utility or desire can be fully owned by just one person. To be a ‘full owner’ of something is to have complete and exclusive *rights* and *privileges* over it.”¹⁷⁴ Similarly, Jeremy Waldron defines private property to be a system where “a rule is laid down that, in the case of each object, the individual person whose name is attached to that object is to determine how the object shall be

¹⁷⁰ Grey, *supra* note *, at 73-74.

¹⁷¹ BRUCE ACKERMAN, PRIVATE PROPERTY AND THE CONSTITUTION 99-100 (1977) (discussing the prevalent lay-persons’ view of property as thing-ownership); see MUNZER, *supra* note *, at 16 (contrasting “popular conception” of property as things, with “legal conception” of property as relations).

¹⁷² Grey, *supra* note * (distinguishing between the metaphors of property as thing-ownership and bundle of rights); MUNZER, *supra* note *, at 23; J. E. Penner, *The “Bundle of Rights” Picture of Property*, 43 UCLA L. REV. 711, 724 (1996); DUKEMINIER & KRIER, *supra* note *, at 86 (“For lawyers, if not lay people, property is an abstraction. It refers not to things, material or otherwise, but to rights or relationships among people with respect to things.”).

¹⁷³ HOHFELD, *supra* note *, at 96; see also A.M. Honoré, *Ownership*, in OXFORD ESSAYS IN JURISPRUDENCE 107 (A.G. Guest ed., 1961) (specifying the standard bundle of rights that constitute ownership).

¹⁷⁴ Michelman, *Ethics*, *supra* note *, at 5. Michelman, in turn, draws on the work of Hohfeld. HOHFELD, *supra* note *, at 96; see also *supra* note *, defining rights and privileges.

used and by whom. His decision is to be upheld by the society as final."¹⁷⁵

(2) *Rights and Bundles.* The bundle of rights represents all of the infinite number of potential relations (and non-relations) people may have with each other over any a particular object.¹⁷⁶ In any particular society, however, there is likely to be a subset of rights which are considered essential, so that if these rights are pulled from the bundle, we will no longer consider a person to be an owner. What property rights make up the core of the bundle of rights? Honoré proposed a list of eleven "standard incidents" that he claims make up private property, including the rights to exclusive possession, personal use, and alienation.¹⁷⁷ Honoré's list is now commonly accepted by property theorists as a starting point for describing the core bundle of private property rights in

¹⁷⁵ Waldron, *Private*, *supra* note *, at 327 (italics omitted). These standard definitions of private property are assumed in discussions of the transition from socialist to market economies. For example, Frydman and Rapaczynski define private property to mean "a social and economic order defining a new set of expectations that individuals may have with respect to their ability to dispose of the assets recognized as 'theirs' by the legal system. . . . The concept of a private property regime is designed to reflect the delicate balance between private action and state administration." FRYDMAN & RAPACZYNSKI, *supra* note *, at 170; WDR, *supra* note *, at 48-49 ("Property rights are at the heart of the incentive structure of market economies. They determine who bears risk and who gains or loses from transactions.").

¹⁷⁶ For example, Professor Brian Simpson notes that full ownership of a sweater may include not just the standard rights to sell or lend it to another, but also the non-standard rights to eat or to burn the sweater.

¹⁷⁷ Honoré lists these incidents as follows:

- (1) The right to exclusive possession.
- (2) The right to personal use and enjoyment.
- (3) The right to manage use by others.
- (4) The right to the income from use by others.
- (5) The right to the capital value (including alienation, consumption, waste, or destruction).
- (6) The right to security (immunity from expropriation).
- (7) The power of transmissibility by gift, devise, or descent.
- (8) The lack of any term on these rights.
- (9) The duty to refrain from using the object in ways that harm others.
- (10) The liability to execution for repayment of debts.
- (11) Residual rights on the reversion of lapsed ownership rights held by others.

Honoré, *supra* note *, at 112-128; J. WALDRON, THE RIGHT TO PRIVATE PROPERTY 49 (1988) [hereinafter WALDRON, RIGHT] (summarizing Honoré's list of incidents); see also Ellickson, *Property*, *supra* note *, at 1362-63.

Western market economies.¹⁷⁸ Some theorists challenge the place of one incident or another on the list.¹⁷⁹ Also, the limits of these individual incidents vary from country to country.¹⁸⁰ For example, in the United States and England, the maximum bundle of ownership rights that has emerged over centuries is summarized in the idea of a “fee simple,” which incorporates nuanced restrictions on each of the eleven incidents.¹⁸¹ Any individual incident may be absent from the list in a given country or as to a given owner.¹⁸² Generally, though, if a person controls all or most of

¹⁷⁸ See, e.g., LAWRENCE BECKER, *PROPERTY RIGHTS: PHILOSOPHIC FOUNDATIONS* 1977 (Chapter 2 integrates Hohfeld and Honoré); ANDREW REEVE, *PROPERTY* (1986); MUNZER, *supra* note *, at 16 & 27 n. 14 (“The Hohfeld-Honoré analysis is common among philosophers.”).

¹⁷⁹ Waldron, for example, would leave Honoré’s incident (9) -- the prohibition on harmful use -- out of a list of incidents of private property and regard it instead as a more general restriction on action. WALDRON, *RIGHT*, *supra* note *, at 49. Grey’s argument would go further and claim that notion of property has fragmented too much to allow for a general theory of property along the lines suggested by Hohfeld-Honoré. Grey, *supra* note *; see also MUNZER, *supra* note *, at 31 (discussing Grey).

¹⁸⁰ For example, the civil law establishes the classic trilogy of rights of possession, use, and disposition of property. Richard Epstein, *Private Property and the Public Domain: The Case of Antitrust* in *NOMOS XXIV: ETHICS, ECONOMICS AND THE LAW* 48, 57 (J. Roland Pennock & John W. Chapman, eds., 1982).

¹⁸¹ See generally A.W.B. SIMPSON, *A HISTORY OF THE LAND LAW* (2d ed. 1986) (detailing origins of fee simple in land in England). Ellickson captures Blackstone’s image of property as thing-ownership and transforms it to modern bundle of rights terms. Ellickson, *Property*, *supra* note *, at 1362-63. He creates a “Blackstonian’ Bundle of Land Entitlements,” which includes:

- ownership by a single individual (“that sole and despotic dominion which one man claims . . .”)
- in perpetuity
- of a territory demarcated horizontally by boundaries drawn upon the land, and extending from there vertically downward to the depths of the earth and upward to the heavens
- with absolute rights to exclude would-be entrants
- with absolute privileges to use and abuse the land, and
- with absolute powers to transfer the whole (or any part carve out by use, space, or time) by sale, gift, devise, descent, or otherwise.

Id. at 1362-63. Ellickson intends the graphic image of the “Blackstonian bundle” to describe a more general or “ideal typical” form of private property which shares key characteristics across many legal systems.

¹⁸² For example, in American law, a person contemplating bankruptcy may sell property at its “reasonably equivalent value,” but does not have the right to make a gift of the same property. See 11 U.S.C. § 548(a). Similarly, a trustee may sell but not gift property.

(continued...)

these incidents with respect to a certain thing, then he or she is said to “own” it.¹⁸³ In looking at the range of rights on Honoré’s list and the range of legal regimes in the world, Becker notes that “there are a wide variety of sets of rights which, when they are held by someone, can justify the claim that that person owns something.”¹⁸⁴

(3) *Restrictions on Extreme Decomposition.* Along with the possibility of full ownership and a core bundle of rights in each object, a third essential characteristic of a private property regime is that it has some restrictions against “decomposition of full ownership into . . . rights without their congruent privileges.”¹⁸⁵ Thus, one private property owner is initially endowed with a core bundle of rights in one object and is (nominally) free to use his or her object without permission from others.¹⁸⁶ Following this initial endowment, the owner may break up the bundle of rights, subject to the key caveat that he or she may not “decompose” the bundle in ways that overly impair the object’s marketability.¹⁸⁷ In the American law of property, there are numerous restraints on individual capacity to break up property bundles too

(...continued)

Nevertheless, we consider a near-bankrupt or a trustee to be legal owners otherwise of their property. As to other resources, owners may have the right to give away their property, but not sell it. One example would be wild fish or game caught or killed pursuant to a license. See Cal. Fish & Game Code §§ 3039, 7121, cited in *Moore v. Regents of the University of California*, 51 Cal. 3d 120, 793 P.2d 479, 271 Cal Rptr. 146, (1990), cert. denied, 111 S.Ct. 1388 (1991) (Mosk, J., dissenting) (arguing that one can own one’s internal organs as property, even though one may not have the standard bundle of rights); see generally Susan Rose-Ackerman, *Inalienability and the Theory of Property Rights*, 85 COLUM. L. REV. 931 (1985) (noting range of justifications for restrictions on transferability); DUKEMINIER & KRIER, *supra* note *, at 86-87.

¹⁸³ MUNZER, *supra* note *, at 22 (“These incidents are jointly sufficient, though not individually necessary, for ownership.”). Further, each of these incidents can be defined in various ways different enough from one another to alter the emphasis and practical consequences of the incident. BECKER, *supra* note *, at 19-20.

¹⁸⁴ BECKER, *supra* note *, at 22.

¹⁸⁵ Michelman, *Ethics*, *supra* note *, at 9; see also *id.* at 88-21 (defining “decomposition” and providing examples).

¹⁸⁶ Except that each owner must comply with the normal regulatory constraints in a market economy. Honoré’s bundle does not include the right to be free from such regulation. MUNZER, *supra* note *, at 24.

¹⁸⁷ Michelman, *Ethics*, *supra* note *, at 9; Ellickson, *Property*, *supra* note *, at 1374-75.

much.¹⁸⁸ The effect of these rules against decomposition is that property is generally kept available for productive use, in an alienable form, and with a clear hierarchy of decision-making authority among owners having an interest in the object.

c. Privileges of Inclusion/Rights of Exclusion.

A useful way to understand marketability of “decomposed” bundles is to examine whether multiple incidents function in the world as *privileges of inclusion* or *rights of exclusion*.¹⁸⁹ Multiple privileges of inclusion are non-exclusive. Owners of such privileges may use an object without permission from or coordination with other such owners. For example, in a common field or lake, multiple owners may use the joint property based on ownership of some or all of the incidents in Honoré’s list, subject to the privileges of inclusion of other owners. American property law generally allows an owner to decompose her bundle by granting multiple privileges of inclusion in an object -- such as a tenancy in common or joint tenancy.¹⁹⁰ However, co-owners always have the right to partition their common property so that each owner then holds a core private property bundle in part of the original commons.¹⁹¹

¹⁸⁸ Ellickson, *Property*, *supra* note *, at 1374 (“To deter destructive decompositions, the Anglo-American legal system has developed a complex set of paternalistic rules. . . . Rules that govern the interpretation and termination of sub-fee interests also tilt against creation and continuation of interests ‘repugnant to the fee.’”). In the American law of property, one cannot create new types of estates in land. A conveyance that purports to limit inheritance to a particular class of heirs creates a fee simple, inheritable by heirs generally. *See Johnson v. Whiton*, 159 Mass. 424, 34 N.E. 542 (1893) (“A man cannot create a new kind of inheritance.”), *cited in* DUKEMINIER & KRIER, *supra* note *, at 211. The infamous Rule Against Perpetuities also functions to prevent breaking up the standard bundle across too much time. *See* CRIBBET & JOHNSON, *supra* note *, at 82-85. Contingent grants of property that act as restraints on marriage may be disallowed. Restatement (Second) of Property, Donative Transfers, § 6.1 (1983); CRIBBET & JOHNSON, *supra* note *, at 84.

¹⁸⁹ Any of Honoré’s standard incidents may function as a privilege of inclusion or a right of exclusion under certain circumstances. The incident functions as a privilege of inclusion if each owner must allow other owners to exercise their incidents in the object. An incident functions as a right of exclusion if each owner can block use by other owners of incidents in the object.

Privileges of inclusion and rights of exclusion need not be based on formal legal rights, but also may reflect informal control rights, such as the ability to delay regulatory approvals. *See supra* text accompany notes * (noting Shleifer’s distinction between legal and physical control rights).

¹⁹⁰ CRIBBET & JOHNSON, *supra* note *, at 106-14.

¹⁹¹ *Id.* at 114. The right to partition joint tenancy and tenancy in common has been available in the common law since a 1539 statute in the reign of Henry VIII. 31 HEN.

(continued...)

By contrast, multiple owners of rights of exclusion in an object each have a veto on others' use.¹⁹² Such owners may prevent others from using the object, based on ownership of some or all of the incidents in Honoré's list and subject to the rights of exclusion held by other owners.¹⁹³ An owner can decompose his bundle by granting multiple rights of exclusion in an object -- for example, by creating restrictive covenants in a residential land subdivision.¹⁹⁴ American law again provides mechanisms that, in time, usually operate to restore a core private property bundle to a single owner.¹⁹⁵ Indeed, there are relatively few cases in the American law of property where multiple owners of privileges of inclusion or rights of exclusion in an object can not escape from each other over time.¹⁹⁶ To

¹⁹¹(...continued)

VIII, c. 1 (1539), cited in CORNELIUS MOYNIHAN, INTRODUCTION TO THE LAW OF REAL PROPERTY 213 (2d ed. 1988); see also 4A R. POWELL, REAL PROPERTY § 607 (1950) (detailing modern availability of right of partition by sale or in kind).

As an aside, excess partition *in kind* of land could create an anticommons as parcels become uneconomically small after successive partitions. See *infra* text accompanying notes * (analogous fractionation in Native American allotted lands). I believe the modern trend towards partition by sale is explained partly by the desire to avoid creating anticommons property in land.

¹⁹² Rights of exclusion are as fundamental as privileges of use. In the American law of property, for example, the right to exclude others has long been recognized as "one of the most essential sticks in the bundle of rights that are commonly characterized as property." *Kaiser Aetna v. United States*, 444 U.S. 164, 176 (1979). See, e.g., Morris Cohen, *Property and Sovereignty*, 13 CORNELL L. REV. 12, 21, 26 (1927) ("[T]he essence of private property is always the right to exclude others."). Felix Cohen, *Dialogue on Private Property*, 9 RUTGERS L. REV. 357, 373 (1954) (Property "is a relationship among human beings such that the so-called owner can exclude others from certain activities or permit others to engage in those activities and in either case secure the assistance of the law in carrying out his decision."); DUKEMINIER & KRIER, *supra* note *, at 58.

¹⁹³ The storefront might not sit totally unused, since someone may risk use despite the possibility of removal or sanction by another anticommons owner. See *supra* notes * and accompanying text.

¹⁹⁴ CRIBBET & JOHNSON, *supra* note *, at 380-89; Susan French, *Toward a Modern Law of Servitudes: Reweaving the Ancient Strands*, 55 S. CAL. L. REV. 1179 (1982).

¹⁹⁵ CRIBBET & JOHNSON, *supra* note *, at 394 (noting that some states have passed statutes "to eliminate stale restrictions after the passage of time. . . . Many states have no such legislation and the parties will have to rely on non-statutory methods of extinguishment, such as release, merger, waiver, abandonment, and change of conditions doctrine.").

¹⁹⁶ One example of inescapable multiple privileges of inclusion would be riparian owners to a watercourse who have equal and correlative rights to use the water. CRIBBET & JOHNSON, *supra* note *, at 407. To resolve conflicts among owners locked together

(continued...)

summarize, there are four elements of a private property regime that will be useful for exploring anticommons property:

- ▶ *“Private property” can be defined in terms of a core bundle of rights chosen from among the infinite relations that may exist among people with respect to a scarce resource.*
- ▶ *“Ownership” of private property includes the ability by a single person to control all or most of the the core bundle, such that the owner’s decision on inclusion or exclusion will be treated as final by society.*
- ▶ *Owners may break up the core bundle, subject to constraints on “decomposition” that keep objects available for productive use, in an alienable form, and with a clear hierarchy of decision-making authority among owners.*
- ▶ *In particular, owners of private property may not break up the core bundle by granting too many “privileges of inclusion” or “rights of exclusion” in an object for too long.*

2. Anticommons Property.

a. Previous Definitions.

Anticommons property has received scant attention in the property literature. In his 1982 article challenging the presumptive efficiency of private property, Frank Michelman introduced the concept of an anticommons through his speculative definition of a “regulatory regime.” He defined a regulatory regime to be a type of property “in which everyone always has rights respecting the objects in the regime, and no one, consequently, is ever privileged to use any

¹⁹⁶(...continued)

along the watercourse, American law has developed a doctrine of “reasonable use.” *Id.*; see also RESTATEMENT (SECOND) OF TORTS § 850A (1979) (identifying nine factors relevant to whether a riparian use is reasonable).

It is more difficult to imagine a situation in American law where an owner can create inescapable multiple rights of exclusion. One example is the so-called “one stock rule” for the use of profits à prendre. See *Miller v. Lutheran Camp Ass’n*, 331 Pa. 241 (1938); CRIBBET & JOHNSON, *supra* note *, at 377 (discussing misapplication of one stock rule in *Miller*); DUKEMINIER & KRIER, *supra* note *, at 850. According to the “one stock” rule, joint owners of a profit to extract resources such as fish or timber, must exercise their rights as if they were a single owner. Each can block use by the others. There is no provision to partition such a profit if the two owners fail to reach an agreement on use. The rule has been criticized as obsolete. Note, *The Easement in Gross Revisited: Transferability and Divisibility Since 1945*, 39 VAND. L. REV. 109 (1986), cited in CRIBBET & JOHNSON, *supra* note *, at 377.

of them except as particularly authorized by the others.”¹⁹⁷ Michelman’s understanding of the anticommons was derived from a sense of abstract legal symmetry. If a regime exists where all are privileged to use whatever objects they wish and where no one holds exclusionary rights (i.e., a commons), then, as a matter of logic, an anticommons also should exist where no one is privileged to use objects and everyone has the right to exclude.¹⁹⁸

However, Michelman’s definition of an anticommons has virtually no counterpart in real world property relations. As a result, there has been little development of the concept by property theorists. By contrast with the vast number of pages that have been devoted to analysis of private property and commons property regimes, I have found just two brief mentions of the anticommons in the property literature besides Michelman’s use. Ellickson omits it from his table of the types of land regimes, but mentions the anticommons in a footnote as a “land regime in which each member of a public owns a right to exclude, and consequently for which no one owns a privilege of entry and use.”¹⁹⁹ He imagines one hypothetical example to be “a wilderness preserve that ‘any person’ has standing to enforce”²⁰⁰ Dukeminier & Krier define an anticommons as property “to which everybody has the right to exclude everybody else, and nobody has the right to include anybody.”²⁰¹ Using this definition, they pose the existence of anticommons property as a question for classroom discussion; however, in my experience, students are unable to come up with real world examples.²⁰²

At this level of generality, the anticommons is more of a “thought experiment” than a useful category for property theory or policy analysis. In speculating about possible anticommons property in the world, property theorists have come up with so few candidates in part because they have sought to imagine property that is *best* used in an anticommons state. Examples include Ellickson’s hypothesized wilderness preserves or perhaps a hypothesized nuclear waste

¹⁹⁷ Michelman, *Ethics*, *supra* note *, at 6. Later, in a 1985 address, he defined anticommons property as: “a pure ‘social property’ regime in which everyone has exclusive rights over every resource; or, in other words, no one is privileged to make any use of any resource without the unanimous consent of everyone else.” See Address by Prof. Frank Michelman, 1985 Amer. Assoc. of Law Schools Meeting (Jan. 1985)[hereinafter Michelman, Address], cited in Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L.J. 287, 366 n.126 (1988).

¹⁹⁸ Michelman, *Ethics*, *supra* note *, at 6.

¹⁹⁹ Ellickson, *Property*, *supra* note *, at 1322 n.22..

²⁰⁰ *Id.*

²⁰¹ DUKEMINIER & KRIER, *supra* note *, at 58 (paraphrasing definitions of inclusion and exclusion by Felix Cohen, *supra* note *).

²⁰² *Id.*

dump.²⁰³ Holding such property in anticommons form means that no one would ever be able to enter, even if a super-majority of the community eventually were to decide that entering was allowable.²⁰⁴ *Each individual* in the society would have standing to exclude every other individual. Since no one may enter without *unanimous consent* from all holders of exclusion rights, and since such consent would be nearly impossible to achieve, the anticommons object will never be used. Converting a resource to anticommons form would ensure its non-use, which may be consistent with the highest social value of the hypothesized wilderness preserve or nuclear waste dump.²⁰⁵

b. A More Useful Definition.

I define anticommons property as *a property regime in which multiple owners hold formal or informal rights of exclusion in a scarce resource*. My definition departs from previous definitions along four dimensions: the *universality* of rights of exclusion, the implication of *non-use* as optimal, the *formality* of rights, and the *scale* of anticommons property.

Because Michelman and others define the anticommons to include only situations where “everyone” has rights to exclude, they have missed the existence of anticommons property in the world, where “multiple owners” have rights of exclusion. In Michelman’s definition, a threshold for agreement of “near unanimous simultaneous consent”²⁰⁶ ensures that anticommons property will not be used by anyone. However, the examples presented in Part I demonstrate that non-use can occur even when a few actors have rights of exclusion in a resource that each wants to use.

Likewise, although there may be a few situations in which perpetual non-use of property is optimal, there are more situations in which non-use exists but

²⁰³ In discussion, James Krier suggests a hypothetical nuclear waste dump so dangerous that everyone in the community has standing to exclude.

²⁰⁴ If the object were held as state property, then the state may decide eventually that people could enter and use land previously set aside as a wilderness preserve. *See supra* note * defining “state property” as a property theory category. The state could employ its ordinary mechanisms for reaching such a decision, such as an administrative decision, could reserve the decision to a legislature, or put the matter to a popular vote. In any of these circumstances, a *majority or super-majority* could decide to allow access. By contrast, if held as an anticommons under Michelman’s definition, *every single person* holding a right of exclusion would have to agree before the preserve could be entered.

²⁰⁵ According to this example, consent of every single individual in an anticommons would be even more difficult to obtain than agreement by the state to use the property, where perhaps a majority may be enough to authorize entry. Thus, anticommons is the most efficient property regime for resources where *no use ever* is the best use -- a vanishingly small number of real world cases.

²⁰⁶ Michelman, *Ethics*, *supra* note *, at 6.

is not the socially desirable outcome. Michelman was focused on demonstrating that, in theory, alternative property regimes may be as efficient as private property. However, the fact that an anticommons may be an efficient regime for certain types of property does not preclude the possibility that an anticommons may exist even where it is inefficient.²⁰⁷ For the resources discussed in this article (and indeed, for most resources that people care about) some level of use is preferable to non-use, and an anticommons regime is a threat to -- rather than the epitome of -- optimal use.

Third, multiple rights of exclusion need not be formally granted by through the legal system in order for anticommons property to emerge. For example, in the kiosk case, mafia groups hold informal rights of exclusion which would-be kiosk owners must assemble to secure their space.²⁰⁸ By contrast, Michelman focuses on what "the legal order" allows or prohibits.²⁰⁹

Finally, anticommons property may occur at the level of a particular use of a scarce resource rather than at the level of an entire property regime. For example, in a komulka, an individual room may be held as private property, while the apartment is owned in anticommons form. It is sufficient to note that anticommons property in an object may appear at an efficient scale of use without requiring that all possible uses of the object be characterized by anticommons ownership.

When these four aspects of the previous definitions are modified, then the idea of anticommons property begins to move from a peripheral to an important role for property theory. The term helps identify real world puzzles that are otherwise unexplained and suggests the importance of a focus on how rights are bundled together. In turn, understanding how anticommons property operates may inform practical policymaking.

c. Private Property and Anticommons Property.

Accepting my broader definition of anticommons property, the difference between private property and anticommons property can be expressed in terms of the bundle of rights metaphor. In an anticommons regime, it is rights, rather than bundles, that are the locus of property endowments. An object is held as anticommons property if one owner holds one core right in an object, and a second owner holds a core right in the same object, and so on -- and there is no hierarchy among these owners or clear rules for conflict resolution. My

²⁰⁷ Thus, I disagree with Ellickson's statement that "because anticommons yield no profits, they are typically owned by either governments or nonprofit organizations." Ellickson, *Property*, *supra* note *, at 1322 n.22.

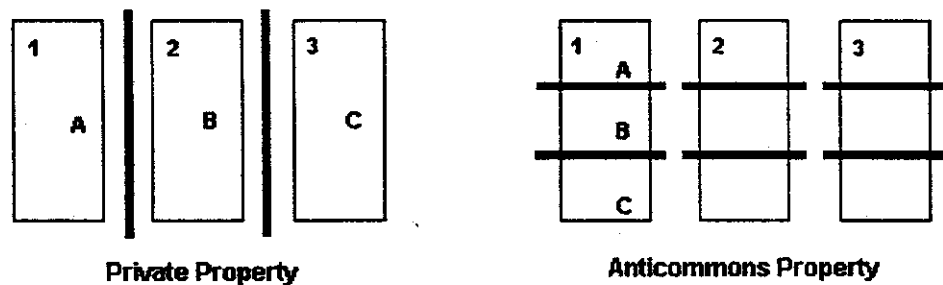
²⁰⁸ See *supra* text accompanying notes * (informal rights in kiosk anticommons); see also DE SOTO, *supra* note * (discussing informal property rights).

²⁰⁹ Michelman, *Ethics*, *supra* note *, at 4-5.

definition assumes that each of these core rights can function as a right of exclusion. For example, the owner of a right of possession may be able to prevent the owner of the capital value from realizing the value of an asset and vice versa. Unlike owners in a private property regime, the owners in an anticommons regime must reach some agreement among themselves in order for the object to be used (except perhaps for some relatively low value uses such as day-to-day occupation subject to eviction by other owners).

This metaphoric distinction between private and anticommons property can also be expressed graphically. In a sense, private property breaks the material world up “vertically” with each owner controlling a core bundle of rights in a single object (subject to allowable forms of decomposition), while anticommons property creates “horizontal” relations among competing owners of rights in an object.²¹⁰ Figure 5 illustrates this distinction:

Figure 5: The Distinction Between Private and Anticommons Property



Boxes 1, 2, and 3 represent familiar objects, such as stores or apartments, and the heavy lines represent the initial endowments of property rights. The left side of the Figure shows a private property regime characterized by a vertical lines separating bundles of core rights in objects. That is, owner A is initially endowed with a core bundle of rights in object 1, owner B gets object 2, and owner C gets object 3. By contrast, the right side of the Figure shows an anticommons property regime characterized by horizontal lines separating rights of exclusion in each object. A heterogeneous assortment of owners A, B, and C are initially endowed with rights of exclusion in objects 1, 2 and 3.²¹¹

²¹⁰ A commons property regime might be shown without *either* horizontal or vertical heavy lines. Owners A, B, and C would each have the privilege to use objects 1, 2, and 3 without seeking permission from the others.

²¹¹ Note that the anticommons owners of object 1 are not necessarily the same (continued...)

Private property owner A may decide to divide her core rights in object 1, perhaps by leasing out a portion or mortgaging her object. The effect of this subsequent division by a private owner differs from an initial endowment as anticommons property. When anticommons owners are thrown together, there is no hierarchical decisionmaking or coordinating relationship among the owners. By contrast, in market legal systems, even if owner A breaks up her core private property rights in object 1, someone remains an identifiable "owner" who exercises hierarchical control over the other rights-holders. As discussed above, private property regimes include rules against excessive decomposition that make it difficult for an owner to re-create her property permanently in anticommons form.²¹²

The graphical image of the anticommons in Figure 5 can also be used to illustrate the distinction introduced in Part I between a *legal* anticommons and a *spatial* anticommons.²¹³ In a legal anticommons, the horizontal lines demarcate core rights of exclusion held by different owners. The Moscow storefront provides an example of such an anticommons, where the core bundle of rights -- rights of ownership, leasing, use and so on -- were given initially to different owners. In a spatial anticommons, by contrast, each of the horizontal lines demarcates the physical subdivision of an object. Each anticommons owner receives a core bundle of rights, but in too small a space for the most efficient use (in that community at that time).²¹⁴ For example, in a komulka, each owner

²¹¹(...continued)

as those for objects 2 or 3. Thus, one can imagine owners D, E, and F having rights of exclusion in object 2, and owners G, H, and I in object 3. Neither the vertical nor the horizontal endowments of property necessarily correspond with any preferred distributive scheme -- some owners might control several rights or objects, others might have none.

²¹² See *supra* text accompanying notes *.

²¹³ A spatial anticommons, though not by this name, has been the subject of some economic modeling in the pollution context where many owners may be given the individual right to keep pollution off their plot unless bought out by the polluter. V. Chari & L. Jones, *A Reconsideration of the Problem of Social Cost: Free Riders and Monopolists* (Federal Reserve Bank of Minneapolis, Staff Report 142, mimeo, 1991) (copy on file with author).

²¹⁴ Defining the normal boundaries of an object is fraught with difficulties in part because it assumes that there is an efficient or socially viable scale of use. In this article, I attempt to elide this difficulty by focusing on objects for which the normal scale of use is reasonably uncontroversial, such as a store or an apartment. Even for such objects, however, there may be values that an efficiency analysis does not capture -- perhaps some form of community solidarity generated by komulka living. See Margaret Radin, *Residential Rent Control*, 15 PHIL. & PUB. AFF. 350 (1986) (advancing non-utilitarian rationale for immobility generated by rent controls). A different line of criticism argues that for some objects there is no single efficient scale of use, because wealth or framing effects may dominate. See Richard (continued...)

received a core bundle of rights in a room, while the optimal use usually appears to be as a single-family apartment.

d. Commons Property and Anticommons Property.

Anticommons property can be further defined in terms of its relationship to commons property.²¹⁵ In discussing the commons, property theorists usually focus on privileges of use as its defining feature.²¹⁶ However, C.B. Macpherson defines a commons as a regime where owners hold *rights not to be excluded*.²¹⁷ This alternative definition captures the close link between anticommons and commons property. In both property regimes there is no hierarchical relationship among owners such that society will regard as final the decision of any single owner regarding the object.

Commons property has been the category that theorists usually use when they describe a property regime that is not private property.²¹⁸ For example,

²¹⁴(...continued)

Craswell, *Passing on the Costs of Legal Rules: Efficiency and Distribution in Buyer-Seller Relationships*, 43 STAN. L. REV. 361, 385-91 (1991) (discussing wealth effects and framing effects). Defining the "normal" scale of an object becomes even more difficult as social conditions change, say when a city is considering converting a residential neighborhood as an industrial plant. See *Poletown Neighborhood Council v. City of Detroit*, 410 Mich. 616, 304 N.W.2d 455 (1981).

²¹⁵ An influential strand of scholarship on property rights has come from economists building on a commons property analogy. For a sampling, see, e.g., Demsetz *supra* note *; BARZEL, *supra* note *; Armen Alchian & Harold Demsetz, *Production, Information Costs, and Economic Organization*, 62 AM. ECON. REV. 777 (1972); Alchian & Demsetz, *The Property Rights Paradigm*, 33 J. ECON. HISTORY 16 (1973); Furnbotn & Pejovich, *Property Rights and Economic Theory*, 10 J. ECON. LIT. 1137 (1972); Pejovich, *Towards an Economic Theory of the Creation of Property Rights*, 30 REV. SOC. ECON. 309 (1972); Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and the Ownership Structure*, 3 J. FIN. ECON. 305 (1976); DOUGLASS C. NORTH & ROBERT P. THOMAS, *THE RISE OF THE WESTERN WORLD: A NEW ECONOMIC HISTORY* (1973).

²¹⁶ E.g., Michelman, *Ethics*, *supra* note *, at 5 (In a commons, "there are never any exclusionary rights. All is privilege. People are legally free to do as they wish, and are able to do, with whatever objects (conceivably including persons) are in the [commons].").

²¹⁷ See MACPHERSON, *supra* note *, at 201.

²¹⁸ In describing non-private property, property theorists have characterized fur-trapping, gold mining, open ranges, ocean fisheries, and potlaching as examples of commons property. E.g., Demsetz, *supra* note * (fur-trappers); Umbeck, *A Theory of Contract Choice and the California Gold Rush*, 20 J.L. & ECON. 421 (1977) (gold fields); Terry L. Anderson & P.J. Hill, *The Evolution of Property Rights: A Study of the American West*, 12 J.L. & ECON. 163 (1975)(western land); Gordon, *The Economic Theory of a Common-Property*
(continued...)

Michelman describes a commons as “a scheme of universally distributed, all-encompassing privilege . . . that is opposite to [private property].”²¹⁹ More generally, as Yoram Barzel notes, the standard economic analysis of property has “tended to classify ownership status into the categories all and none, the latter being termed ‘common property’ -- property that has no restrictions put on its use.”²²⁰ Thus, property theory traditionally dichotomizes between commons (non-private) property and private property.

This dichotomy is too limited to capture the diversity of real-world property relations. Part I, above, shows that the anticommons idea helps to explain the behavior of property across the gradient of property in transition; Part III, below, suggests the usefulness of the anticommons construct in addressing puzzles in American and Japanese property law. More generally, property relations are better characterized as a triumvirate of commons, private, and anticommons.²²¹

In sum, I distinguish anticommons property from private and commons property as follows:

- ▶ *Anticommons property can be defined as a property regime in which multiple owners hold rights of exclusion to a scarce resource.*
- ▶ *Ownership of anticommons property includes the ability by each owner to exclude other owners from exercising a core bundle of rights in an object.*
- ▶ *Anticommons property may be created in objects for which use is preferable to non-use.*
- ▶ *A legal anticommons emerges when multiple owners hold less than a core bundle of rights in an object; a spatial anticommons occurs when multiple owners’ core bundles are in an object too small for efficient use.*

(...continued)

Resource: The Fishery, 62 J. POL. ECON. 124 (1954); A. MCEVOY, *THE FISHERMAN'S PROBLEM* (1986) (fisheries); D. Bruce Johnsen, *The Formation and Protection of Property Rights Among the Southern Kwakiutl Indians*, 15 J. LEG. STUD. 41 (1986) (discussing property rights in potlaching).

²¹⁹ Michelman, *Ethics*, *supra* note *, at 5.

²²⁰ BARZEL, *supra* note *, at 71.

²²¹ Michelman argues that such a triumvirate should exist at the level of abstract logic. Michelman, *Address*, *supra* note *. In this article, using my broader definition, I show that anticommons property is a more widespread phenomena than previously realized.

- ▶ *For most objects of value in society, keeping them in anticommons ownership means that the object may not be alienable, may not be available for productive use, and has no clear hierarchy of decision-making authority among anticommons owners.*
- *Non-private property may be analyzed as anticommons property if rights of exclusion dominate or as commons property if privileges of inclusion dominate.*

3. *The Tragedy of the Anticommons.*

a. The Anticommons is Not Necessarily Tragic.

Why should it matter if owners hold rights of exclusion rather than core bundles of rights in objects? By itself, the appearance of anticommons property is not necessarily a problem for the efficient use of resources. First, in a transaction costless world, owners should rearrange initial endowments through *ex post* bargaining.²²² Such bargains would put resources to their highest use, perhaps by assembling anticommons rights into private property.²²³ Of course, we do not live in a transaction costless world, as Coase recognized.²²⁴ If people hold multiple rights to exclude each other from a resource, they must incur the transaction costs of finding out with whom to negotiate. Despite the presence of transaction costs, in many cases, people will be able to negotiate with each other to overcome an anticommons and put the property to more efficient use (as with some of the komulka examples). On the other hand, even if the number of parties and transaction costs are low, the resource still may not be put to an

²²² The classic citation is Ronald Coase, *The Problem of Social Cost*, 3 *J.L. & Econ.* 1 (1960). Alternatively, assuming no transaction costs or holdouts, anticommons owners may keep the property in anticommons form and perfectly coordinate its use so its performance mimics private property. See Cohen, *supra* note *, at 356.

²²³ Even in a transaction costless world, people would not necessarily bargain to put the anticommons resource to a unique use. Because of the presence of wealth effects there may be multiple efficient uses for an anticommons resource, depending on who initially holds the rights of exclusion. See Harold Demsetz, *When Does the Rule of Liability Matter*, 1 *J. LEGAL. STUD.* 13 (1972); ROBERT ELLICKSON, CAROL ROSE & BRUCE ACKERMAN, *PERSPECTIVES ON PROPERTY LAW* 207-08 (2d ed. 1995).

²²⁴ RONALD COASE, *THE FIRM, THE MARKET AND THE LAW* 174 (1988) ("The world of zero transaction costs has often been described as a Coasian world. Nothing could be further from the truth. It is the world of modern economic theory, one which I was hoping to persuade economists to leave.").

efficient use because of bargaining failures generated by holdouts (as seems to happen sometimes with Moscow storefronts).²²⁵

A second reason why the appearance of anticommons property may not matter for efficient use can be understood by analogy to commons property. Elinor Ostrom has shown that people may be able to manage non-private property efficiently by developing and enforcing stable systems of informal norms.²²⁶ Efficient, informal management of property in anticommons form could develop over time and could promote certain communitarian values -- for example, among multiple dwellers in a *komulka* -- that may be lost in a private property regime.²²⁷ As to some anticommons resources, such as street space for kiosks in Moscow, informal norms seem to have developed that allow some use, albeit at a level of efficiency below that of the retail sector in a well-functioning market economy.

Third, some resources may be most efficiently held as anticommons. By analogy, Carol Rose shows how roads and village greens may be more efficiently held in commons than in private property form.²²⁸ Using my definition of an anticommons, one could imagine familiar property rights, such as a scheme of restrictive covenants in a residential subdivision, to be a form of anticommons property. To the extent that creating such a scheme increases property values more than it imposes negative externalities, the conversion to anticommons form is an efficiency-increasing move.²²⁹ In the transition economy context, however, anticommons property does not appear to have been created for efficiency-

²²⁵ See *supra* notes * and accompanying text; see generally Robert Cooter, *Bargaining and the Cost of Coase*, 11 J. LEGAL STUD. 1 (1982); Cohen, *supra* note*.

²²⁶ OSTROM, *supra* note * (detailing examples of informal norms successfully regulating commons use and avoiding tragedy). Robert Ellickson refines this analysis by distinguishing *closed access commons* like those Ostrom describes -- where close-knit groups may develop efficient norms to conserve scarce resources -- from *open-access commons*, where anyone may enter. In an open-access regime close-knit groups may not be effective in norm enforcement and the tragedy of the commons may play out. See generally ELLICKSON, *ORDER*, *supra* note *.

²²⁷ See, e.g., Carol Rose, *The Comedy of the Commons: Custom, Commerce and Inherently Public Property*, 53 U. CHI. L. REV. 711 (1986) (discussing examples of successful commons property management and possible communitarian values from holding property in commons rather than private property form).

²²⁸ Rose, *supra* note *, at 711; see also Barry Field, *The Evolution of Property Rights*, 42 KYKLOS 319 (1989) (arguing that under certain circumstances, property may shift away from private to commons ownership where it may be more efficiently used).

²²⁹ It is worth reiterating that private property systems place limits on an owner's ability intentionally to create such an anticommons because of the risk that the anticommons may outlive its economic value and may paralyze future use.

maximizing motives, but rather as the unintentional result of governments' political and economic decisions.

Finally, property theorists have shown that the efficiency of a property regime can not be derived *ex ante* from a limited set of axioms, such as the assumption of rational, self-interested individuals.²³⁰ In the typical case, with multiple privileges of use in a commons, one worries about overuse by rational actors. But one can *imagine* underuse of a commons despite multiple privileges of use. For example, if a common pond had a rule that any community member could appropriate fish up until the moment of consumption, then people might prefer to wait on shore and poach others' efforts rather than invest in boats and bait. Whether under-fishing or over-fishing happens on "Poach Pond" is an empirical matter that depends on the gains from fishing and the costs of netting the catch and fending off poachers.²³¹

Similarly, one can *imagine* overuse in an anticommons. For example, if California had a property regime such that any community member -- environmental group, neighbor, and local government agency -- could block development of a coastal plot, the coast might still be overbuilt relative to an efficient level (including neighborhood and environmental externalities). If exercising a right of exclusion is sufficiently costly, then each owner may prefer to wait for the other owners to block the development. Thus one can *imagine* that "free riding" coastal property owners and government agencies might fail to block over-building.²³² Whether under- or over-building happens in the "Free Ride Coast" anticommons can not be determined abstractly. It depends on the gains from development and the external costs imposed, including the costs of exercising rights to exclude. Figure 6 summarizes this point:

²³⁰ Kennedy and Michelman disprove the presumptive efficiency of private property as an abstract proposition. For example, in a commons where people can pillage, farmers might nevertheless not be discouraged from planting. Instead, farmers may plant more so that they end up with a reasonable net amount of food after others have pillaged. At this level of abstraction, the commons might be more efficient than private property (if farmers are more efficient than poachers at farming). Duncan Kennedy and Frank I. Michelman, *Are Property and Contract Efficient?* 8 HOFSTRA L. REV. 711 (1980); Carol Rose, *Property as Storytelling: Perspectives from Game Theory, Narrative Theory, Feminist Theory*, 2 YALE J.L. & HUM. 38 n.8 (1990) (arguing that classical property theorists resort to narrative gambits rather than deriving the creation of private property from *ex ante* principles); James E. Krier, *The Tragedy of the Commons, Part Two*, 15 HARV. J.L. & PUB. POL. 325, 338 & n.44 (1992) (discussing of the contradictory need for cooperation from self-interested individuals when creating a private property regime).

²³¹ I am indebted to William Miller for this point.

²³² See Cohen, *supra* note * (defining free riders).

Figure 6: Resource Use in Commons and Anticommons Property

	Overuse	Underuse
Commons	1. Demsetz's Forest	2. Poach Pond
Anticommons	3. Free Ride Coast	4. Moscow Storefronts

The real world effect of multiple rights of exclusion or privileges of inclusion in an object is not a theoretical absolute, but rather an empirical matter. Boxes 2 and 3 are theoretically possible (as is optimal use). Practical examples, however, seem to appear mostly in Boxes 1 and 4, such as the fur trappers in the Labrador forest whom Demsetz discusses,²³³ and the storefront owners in Moscow whom I discuss. Expectations about overuse or underuse of property (and our policy responses) must be grounded in experience and observation.

b. Commons and Anticommons Tragedy

Although the commons and the anticommons are not necessarily tragic, they often will be in a world of positive transaction costs, strategic behavior, and imperfect information. To the extent one believes that a "pessimistic view of human capacity for trustful cooperation"²³⁴ is a good predictor of behavior, the

²³³ Demsetz, *supra* note *. Though the theoretical contributions of Demsetz's work are robust, the empirical foundations of his article have been criticized. *E.g.*, Arthur A. Leff, *Economic Analysis of Law: Some Realism About Nominalism*, 60 VA. L. REV. 451, 473 n.61 (1974) (Demsetz's anthropological story "extraordinary naive"); Eric T. Freyfogle, *Land Use and the Study of Early American History*, 94 YALE L.J. 717, 740 n.73 (1985) (criticizing Demsetz's "incomplete historical data"); WILLIAM CRONON, *CHANGES IN THE LAND* 184 n.7 (1983) (Demsetz "misconstrues the social and ecological nature of property rights"); DUKEMINIER & KRIER, *supra* note *, at 61-62.

²³⁴ Michelman, *Ethics*, *supra* note *, at 29; *see also* HARDIN, *supra* note *, at *:

Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons. . . [For example, in the pollution context,] [t]he rational man finds that his share of the cost of the wastes he discharges into the commons is less than the cost of purifying his wastes before releasing them. Since this is true for everyone, we are locked into a system of 'fouling our own nest.'

tragic cases may be dominant.²³⁵ This section briefly defines the parallel tragedies of wasted resources that may occur in a commons and an anticommons.

A *tragedy of the commons* occurs when too many individuals have privileges of use in a scarce resource. The tragedy is that rational individuals, acting separately, may collectively *over-consume* scarce resources. Each finds that she benefits by consumption even though she imposes larger costs on the community. Using my definition, the anticommons is prone to the identical but inverse tragedy. A *tragedy of the anticommons* occurs when too many individuals have rights of exclusion in a scarce resource. The tragedy is that rational individuals, acting separately, may collectively waste the resource by *under-consuming* it compared with a social optimum.

Why is it rational for the anticommons owner to block use? For the commons owner of a pond exercising a privilege of use involves netting and using a fish. What does the anticommons owner gain today from keeping the storefront empty? In the Moscow storefront, for example, exercising rights of exclusion by keeping the store empty is relatively costless. An anticommons owner need only drive by now and then to peer in the windows. By contrast, if the store is used, monitoring costs increase because of the need to ensure that the use does not exceed the permission granted.²³⁶ Each owner benefits by excluding others because exclusion preserves the value of the right, perhaps for later trade to property bundlers, perhaps for use in political rent-seeking. The right of exclusion is valuable precisely because others want to use the resource and will pay something to collect the right. If the object can be used without purchasing an owner's right of exclusion, then that owner's right no longer functions as a right of exclusion and may decline in value.

c. Overcoming Anticommons Tragedy

There are several potential paths to overcoming tragedy in an anticommons, while keeping the property in anticommons form. For example, as discussed above, close-knit groups may over time develop informal norms that manage the resource relatively efficiently. However, for many cases where anticommons develop, informal norms are not a likely solution, such as for one-shot deals converting komulkas or where anticommons owners are not close-knit as in Moscow storefronts. In the commons case, property theorists have proposed that societies overcome tragedy by evolving over time towards private property relations. For example, Demsetz suggests that communities move to

²³⁵ On the other hand, to the extent one has a more optimistic understanding of human nature, one might expect that people will find efficient management strategies for both commons and anticommons resources. *E.g.*, Ostrom, *supra* note *.

²³⁶ See Ellickson, *Property*, *supra* note *, at 1327-28 ("Monitoring boundary crossings is easier than monitoring the behavior of persons situated inside boundaries. For this, managers are paid more than night watchmen.").

private property in a resource when technological or population pressures increase the differential between individual gain and social cost.²³⁷ When the effects of resource use are fairly localized, private property better aligns each owner's interest with the efficient level of use because each owner faces the full costs of over-consumption.²³⁸ In other words, the private property owner internalizes externalities for which the commons owner need not account.²³⁹ The theoretical arguments on the commons carry over, by analogy, to the problem of overcoming an anticommons. In the anticommons case, moving to a private property regime may better align each owner's interest with efficient use because a private property owner faces the full cost of under-consumption.

The puzzling question then is the mechanism by which resources shift from commons or anticommons tragedy into private property. This is a question that is underdeveloped in the economics of property rights literature, except for a vague evolutionary story.²⁴⁰ In time, much anticommons property, including the examples discussed in Part I, will probably be converted to private property, although the process may be brutal and uneven. Markets will rapidly convert assets with the largest differential between individual gain in anticommons form and social cost of anticommons use, the lowest transaction costs of conversion, and negligible contingent value in political markets. The mechanisms for conversion of other anticommons property are less clear.²⁴¹

In Part I, I have proposed some paths out of the anticommons toward private property based either on market or regulatory mechanisms. But these

²³⁷ Demsetz, *supra* note *.

²³⁸ Ellickson, *Property, supra* note *, at 1327-30. In addition, to the extent there are some spillover effects in resource use, private property reduces the number of people with whom an owner must negotiate. Ellickson, *supra* note *, at 1330. By reducing the number of decision-makers, private property reduces the transaction costs of internalizing the remaining externalities.

²³⁹ Demsetz, *supra* note *.

²⁴⁰ Krier, *supra* note *, at 338 & n.44 (noting that the standard economic accounts of property contain a contradictory story for cooperation by self-interested individuals when they create private property regimes). Ellickson take up this challenge, "to identify a collective-action mechanism through which a group would succeed in generating cooperative land rules . . . [by offering] some speculations on evolutionary dynamics of property in land." Ellickson, *Property, supra* note *, at 1321 n.19. He suggests a focus on the dynamics of close-knit groups for the evolution of efficient norms within the group. *Id.* at 1358, 1366.

²⁴¹ The enclosure of the medieval open fields perhaps offers a parallel to the conversion of Moscow anticommons property. The shifts in both property regimes appear to enhance efficiency overall while dispossessing and brutalizing certain groups. Both shifts are being accomplished partly through market forces, partly through legislative fiat. See Ellickson, *Property, supra* note 1391-92 (discussing the mixed record of the enclosure movement and citing relevant literature).

paths are fraught with difficulty -- markets may fail because of transaction costs, strategic bargaining, and contingent valuation reasons. Governments may fail because of the cost of compensation, the administrative complexity, and the fear of demoralizing potential investors from uncompensated property rights reforms. While some anticommons resources may make the transition to private property, many other valuable resources may remain stuck on a poorly-performing path. What is to be done?

d. The Tragedy of the Anticommons as a Prisoner's Dilemma.

(1) *The Paradigmatic Case.* Game theory offers one way to help systematize thinking about strategies for overcoming anticommons tragedy. Property rights regimes function as a set of incentives for owners; or in game theory terms, players face certain payoffs from exercising or refraining from exercising a particular strategy.²⁴² What sort of a game is the anticommons?

Although the anticommons is normally a multi-party game and decisions may be made sequentially, for the sake of illustration, we will consider a two-person simultaneous game. For simplicity, I will use the example of Storeowners A and B of a Moscow storefront where each has the right to veto use of an asset by the other. Assume further that A and B have identical rights of exclusion and symmetrical payoffs. In this game, "excluding" is defined to mean blocking the other owner from use or using the storefront in an exclusive manner (such as leasing to a third party who goes into occupation). "Cooperating" is defined to mean tolerating the other owner's occupancy or not holding out in a sale to a private property bundler. This section makes the simplifying assumptions necessary to model the anticommons in its paradigmatic form.²⁴³

Owners of real world anticommons property vary in the incentives they face, so no single game covers the range of practical cases.²⁴⁴ However, I have

²⁴² See generally DOUGLASS G. BAIRD, ROBERT H. GERTNER & RANDAL C. PICKER, *GAME THEORY AND THE LAW* (1994).

²⁴³ I construct a "normal form" game with two players, each of whom must choose one of two strategies in each period. *Id.* at 6 (defining "normal form"). Each player receives a determinate payoff depending on the strategies that were chosen. I assume that both Storeowners know the payoffs that are available -- such as the market value of the storefront and the value in anticommons use and the cost of exercising their rights of exclusion -- but each does not know the strategies the other Storeowner will actually choose. Thus, this is a game of complete but imperfect information. See *id.* at 6-10. Further research could perhaps model more complex games and offer additional insights about paths to overcoming the anticommons.

²⁴⁴ The game that anticommons owners are playing depends on the assumptions one makes about the information available to the players and whether they act sequentially or simultaneously, among other factors. Even with the simplifying assumptions, the anticommons may be represented by any of a number of "normal form" games depending on the payoffs for different strategies. See *id.* at 31-45 (noting games of prisoner's dilemma, stag hunt, matching

(continued...)

shown that anticommons property in transition functions as a mirror image of the familiar tragedy of the commons. In game theory, the tragedy of the commons is synonymous with a prisoner's dilemma.²⁴⁵ By a transitive principle of social theory, the prisoner's dilemma is a logical initial model for understanding the tragedy of the anticommons. The selection of this game is also consistent with the empirical material presented in Part I. Storefronts have remained unused even though the owners would all benefit from conversion to private property. Each owner seems to benefit most, though, if she occupies the store while the others sleep on their rights.

If both Storeowners choose to cooperate, the asset could perform as if it were in single private ownership. For example, both Storeowners could jointly agree to sell their rights of exclusion to a third party. In this cooperative outcome, the anticommons rights would be collected into a core bundle of private property rights and the asset could be put to its most valuable use. By cooperating, A and B would achieve the highest joint payoff possible in the game (assume that the payoff from cooperation is 5 apiece, so the sum of the cooperative outcomes is 10).

The highest payoff to an individual anticommons owner comes from excluding when the other Storeowner cooperates. Why might A achieve a higher value by excluding a cooperative B? If A uses the store by, for example, leasing to a third party who occupies the store, assume she receives lease payments of 3, which are less than she would have received if the tenant had a fully secure lease, but more than she would receive if B exercised his right of exclusion. A also maintains her rights of exclusion, which we assume to have a value of 3. This payoff reflects the contingent value of A rights in political markets and an option value for conversion to private property. In sum, A receives 6. On the other hand, by cooperating, B receives 2. He receives no lease income. Also, by allowing A's use, B suffers a loss to the option and contingent values of his rights of exclusion. They may no longer be credible in the economic or political markets. A's possession is nine tenths of the law and may devalue B's rights.

If both Storeowners choose to exclude, the store remains empty and is wasted from an efficiency perspective. When one Storeowner excludes the other, each earns zero current income, and the contingent claims remain in equipoise, neither Storeowner having gained the advantage of possession to aid in his or her practical and political struggle. A payoff of 3 to each Storeowner represents the

²⁴⁴(...continued)

pennies, battle of the sexes, and chicken).

²⁴⁵ *Id.* at 34 ("Collective action problems that fit the paradigm of the prisoner's dilemma present a possible case for legal intervention. . . . This kind of problem is also generally known as a tragedy of the commons.") (emphasis omitted); see also THOMAS SCHELLING, *MICROMOTIVES AND MACROBEHAVIOR* (1978) (modeling the tragedy of the commons in terms of a "multi-person prisoner's dilemma").

option and contingent value of the rights of exclusion and leads to the lowest joint payoff of 6. With this incentive structure, both Storeowners will exercise their rights of exclusion and the store will remain empty. In game theory terms, defection is the dominant strategy for both players.²⁴⁶ The payoff bimatrix in Figure 7 summarizes the above discussion and reflects the normal form game of a prisoner's dilemma.²⁴⁷

Figure 7: Tragedy of the Anticommons as a Prisoner's Dilemma

		<i>Storeowner B</i>	
		Cooperate	Exclude
<i>Storeowner A</i>	Cooperate	5, 5	2, 6
	Exclude	6, 2	3, 3

(2) *Overcoming the Tragedy.* The prisoner's dilemma framework suggests several routes to overcoming the tragedy of the anticommons in a resource. A useful reminder from the game theory approach is the centrality of empirical work for designing effective policy interventions. The payoffs in a particular game could be such that any marginal government intervention or market innovation would leave defection as a dominant strategy -- and waste the resource -- so long as there are two competing players in the game. In that case, the best approach for governments may be to end the game by redefining property rights and creating a sole owner.²⁴⁸ This approach is fraught with the familiar problem of administrative capability and the dilemma of compensating the losers or demoralizing them.

²⁴⁶ BAIRD, GERTNER & PICKER, *supra* note *, at 11-12. A "dominant strategy" is a strategy that is a best choice for a player in a game for every possible choice by the other player. A player will choose a dominant strategy whenever possible. *Id.* at 306. Here, Storeowner A reasons that she is better off excluding when Storeowner B cooperates (6 > 5). Also, she is better off excluding when Storeowner B excludes (3 > 2). Storeowner A will decide to exclude regardless of what Storeowner B does. Storeowner B faces symmetrical payoffs and makes the same decision to exclude.

²⁴⁷ *Id.* at 33-34. In a "bimatrix," each cell represents the payoffs to each player for any given combination of strategies. The first payoff in each cell is to the row player, and the second payoff is to the column player. *Id.* at 10.

²⁴⁸ See *supra* note * and accompanying text; see also Ellickson, *Property*, *supra* note *, at 1392 (discussing the enclosures of the medieval open field, Ellickson concludes that "[w]hen a group is stymied by large-number coordination problems, it is possible that a state or other higher authority may usefully intervene to facilitate modernization.").

On the other hand, if the payoffs in the Moscow storefront are as I have suggested in Figure 7 above, then relatively modest government interventions or market innovations could change the dominant strategy of both players from exclusion to cooperation. Different policy instruments can change payoffs for individual or joint cooperation, and for individual or joint exclusion. Also, governments can do governments may refrain from policy intervention, but repeat interactions over time between the players may be enough change their strategies.

(i) **Rewarding Individual Cooperation.** An increase in the net payoff from cooperating could make cooperation the dominant strategy for both Storeowners. One way for a government to raise this payoff is to increase the security of property rights generally. In practical terms, governments can set up property registries that provide low-cost, transparent identification of owners and the rights they hold in each asset.²⁴⁹ Other market-driven, institutional changes may also achieve a similar result, such as the emergence of real estate brokers and appraisers.²⁵⁰ When property rights are more secure, the return to cooperation increases, say by 2 for each Storeowner, regardless of whether the other Storeowner cooperates. If A rents out the space, then B may be in a stronger position if he cooperates because his rights of exclusion can be easily verified in the registry. With more secure rights, he also may be able to demand a portion of the rent and may suffer less of a loss to his contingent values. Figure 8 represents this bimatrix, with cooperation as the dominant strategy for both players:

Figure 8: Rewarding Individual Cooperation²⁵¹

		<i>Storeowner B</i>	
		Cooperate	Exclude
<i>Storeowner A</i>	Cooperate	7, 7	4, 6
	Exclude	6, 4	3, 3

²⁴⁹ Significant institutional legal reform efforts in reforming socialist countries has been directed at this point of intervention. WDR, *supra* note *, at 62; RUSSIA HOUSING PROJECT, *supra* note *, at Annex 1.1.

²⁵⁰ Struyk & Kosareva, *supra* note *.

²⁵¹ The bimatrices in Figures 8 to 11 are not cumulative. Each starts from the paradigmatic case in Figure 7 and then incorporates one policy change or market innovation into the players' payoffs.

(ii) Rewarding Joint Cooperation. The solution to a game rewarding only *successful* cooperation is slightly more complex. Improvements in enforcement of long-term leases or the development of property insurance markets could improve the payoff by say 2, but only if *both* Storeowners cooperate and the storefront is converted to private property. Long-term lessees and insurers might not pay the premium solely to A knowing that B still held some right of exclusion, even if he cooperated in this round. The new bimatrix that rewards only successful cooperation is:

Figure 9: Rewarding Successful Cooperation

		<i>Storeowner B</i>	
		Cooperate	Exclude
<i>Storeowner A</i>	Cooperate	7, 7	2, 6
	Exclude	6, 2	3, 3

In this game -- a version of the anachronistically named "battle of the sexes" -- it is a "Nash equilibrium" for both parties to cooperate, for both to exclude, or for each to randomize between the two pure strategies.²⁵² On the other hand, in choosing among the Nash equilibria, the cooperative outcome may be a focal point.²⁵³ The players may adopt the cooperative Nash equilibrium, which is in their joint interest, if there were some possibility of preplay communication between them, even if they had no way of reaching a binding agreement.²⁵⁴

²⁵² BAIRD, GERTNER & PICKER, *supra* note *, at 41-42. A "Nash equilibrium" is based on the principle that the combination of strategies that both players are likely to choose is one in which no player could do better by choosing a different strategy given the one that the other chooses. A pair of strategies will form a Nash equilibrium if each strategy is one that cannot be improved upon given the other strategy. If the players are rational, they should choose strategies that are the best responses to what they predict the other will do. *Id.* at 310.

²⁵³ *Id.* at 39, citing THOMAS SCHELLING, *THE STRATEGY OF CONFLICT* (1960). A "focal point" is the combination of strategies that players are likely to choose because it is especially prominent under the conditions and culture in which the players find themselves. *Id.* at 307. Anecdotal evidence suggests that current economic conditions and Russia cultural mores exhibit a relatively high level of distrust among strangers. If so, then the exclude-exclude outcome may be a focal point, even though it represents the lowest joint payoff.

²⁵⁴ *Id.* at 40.

(iii) Punishing Individual Exclusion. A third route to overcoming the tragedy of the anticommons is to punish exclusion. The property literature has focused on informal sanctions, such as ostracism and negative gossip, as a means for close-knit groups to detect and punish defection.²⁵⁵ However, players locked in anticommons relations are not necessarily close-knit or solidary.²⁵⁶ A more promising path to punishing defection in an anticommons may be devaluing each player's contingent claims, so they do not attempt to exercise them in political markets. One way to achieve this is a credible commitment by the government to a stable property rights regime.²⁵⁷ In the example above, the value of defecting may drop by 2 whether or not the other Storeowner cooperates. Excluding could become a strictly dominated strategy,²⁵⁸ and putting the store to use in the cooperative outcome strictly dominant, as shown by Figure 10:

Figure 10: Punishing Individual Exclusion

		<i>Storeowner B</i>	
		Cooperate	Exclude
<i>Storeowner A</i>	Cooperate	5, 5	2, 4
	Exclude	4, 2	1, 1

²⁵⁵ See generally ELLICKSON, ORDER, *supra* note *; MICHAEL HECHTER, PRINCIPLES OF GROUP SOLIDARITY (1987); Janet T. Landa, *A Theory of the Ethnically Homogeneous Middleman Group: An Institutional Alternative to Contract Law*, 10 J. LEG. STUD. 349 (1981); Robert Cooter & Janet Landa, *Personal versus Impersonal Trade: The Size of Trading Groups and Contract Law*, 4 INT'L REV. L. & ECON. 15 (1984); Posner, *Groups*, *supra* note *, at 141 n.18 (collecting sources).

²⁵⁶ Over time, solidary groups could begin to emerge in anticommons property in post-transition economies for the reasons normally discussed in the game theory literature.

²⁵⁷ Much of the literature on economic privatization has stressed this approach to restructuring socialist enterprises, convincing enterprise managers that the highest payoff comes from restructuring their assets under the current rules, rather than deploying their assets for rent-seeking in the political sphere. *E.g.*, RAPACYZNSKI & FRYDMAN, *supra* note *. How governments can convey this commitment to stability is difficult to specify in practice.

²⁵⁸ When one strategy is always worse than another, it is "strictly dominated." BAIRD, GERTNER & PICKER, *supra* note *, at 306.

(iv) Punishing Joint Exclusion. Another policy approach for governments is to punish joint defection. In the storefront anticommons context, one such policy would be to impose a vacancy tax on each empty storefront that would translate into a negative payoff of -2 for each Storeowner.²⁵⁹ This tax would only be imposed if *both* players exclude and the store remains empty. Figure 11 shows this bimatrix:

Figure 11: Punishing Joint Exclusion

		<i>Storeowner B</i>	
		Cooperate	Exclude
<i>Storeowner A</i>	Cooperate	5, 5	2, 6
	Exclude	2, 6	1, 1

Now the best strategy for A would be to exclude if B cooperates, cooperate if the B excludes (with a symmetrical strategy for B). In game theory terms, this is a game of *chicken*, with multiple Nash equilibria. Each pure strategy equilibrium involves a combination in which each player does the opposite of what the other player does.²⁶⁰ There is no focal point in this game and players are likely to randomize between strategies, with the result that the storefront is usually, but not always, put to some use.

(v) Repeat Play. Another possibility for overcoming the tragedy of the anticommons emerges if we imagine that the two Storeowners must make repeated decisions whether to cooperate or defect. The game theory literature has exhaustively demonstrated that cooperative solutions may evolve over time because players may adopt strategies such as “tit-for-tat.”²⁶¹ Looking back to the original payoff bimatrix in Figure 7, over time cooperating players would consistently generate a joint surplus of 2 from each round.²⁶² This surplus could be available to help lock in the

²⁵⁹ Admittedly, imposing such a tax would be difficult to administer and easy to evade in the transition context.

²⁶⁰ *Id.* at 44-45.

²⁶¹ See generally ROBERT AXELROD, *THE EVOLUTION OF COOPERATION* (1984); Posner, *Groups*, *supra* note *, at 139 n.12 (citing literature on how rational actors cooperate).

²⁶² The joint surplus = the joint payoff from cooperating (5 + 5) minus the (continued...)

cooperative outcome by changing the payoffs, for example, through a real estate tax that helps fund property registration. Given enough time, anticommons owners could develop informal, cooperative norms and the cooperative tendency in repeated games could dominate. The anticommons could evolve into private property even without governments directly changing any of the payoffs in the matrix.

There are several problems with this evolutionary model in the storefront anticommons. Post-socialist transition may appear to the players more as a one-shot game of musical chairs. Because the Storeowners may expect each round of the game to be the last, they are unlikely to play a cooperative strategy. The risk of cooperating today is to be completely frozen out of the storefront, without a right to play in the game tomorrow. Also, even if the evolutionary model works for some anticommons property over some period of time, many scarce resources are wasted in the meanwhile. To conclude:

- ▶ *The prisoner's dilemma is the paradigmatic normal form game of the tragedy of the anticommons.*
- ▶ *Markets may operate to bundle anticommons property by generating institutions that reduce transaction costs or by encouraging cooperative norms to evolve over time.*
- ▶ *Relatively modest changes in the property rights regime may suffice to change the dominant strategy from exclusion to cooperation, depending on the incentives that people initially face.*
- ▶ *On the other hand, initial incentives may be such that no cooperative outcome will emerge and governments may need to intervene directly to end the game and overcome the tragedy of the anticommons.*
- ▶ *Game theory modeling reinforces the centrality of empirical observation for understanding the incentives people face in an anticommons and the likely outcomes from intervention.*

²⁶²(...continued)

second best joint payoff $(6 + 2) = 10 - 8 = 2$.

Part III -- Applications and Implications.

Anticommons property may emerge in developed markets and transition economies wherever new property rights are being defined and pressures to ratify multiple rights of exclusion are great. Both private property owners and governments may create anticommons property in response to short-term economic and political pressures.

This Part very briefly discusses four applications of the idea of the anticommons. The first application suggests how one might develop an anticommons analysis of enterprise privatization in transition economies. The second discusses some of the mechanisms which developed market economies use to prevent private owners from creating and maintaining anticommons property for too long. The third shows the economy-wide consequences when these mechanisms fail. And the last reinforces the idea that governments can make mistakes when they define property rights, mistakes that neither markets nor governments can later overcome.

In addition to these applications, there are numerous other instances of anticommons property that may be noted, primarily in the environmental and intellectual property arenas. In the land use area, restrictive covenants may function to create a "redevelopment anticommons" when neighborhood conditions change.²⁶³ Permitting processes with multiple layers of state and local agency approvals could create a "planning anticommons."²⁶⁴ In the intellectual property area, licensing requirements for multimedia productions could create a "Brady Bunch anticommons."²⁶⁵ Anticommons property appears more often than might at first be expected, in guises ranging from the trivial to the tragic.

²⁶³ E.g. Richard Epstein, *Covenants and Constitutions*, 73 CORNELL L. REV. 906, 920-26 (1988); Steward Sterk, *Foresight and Servitudes*, 73 CORNELL L. REV. 956 (1988) (reply to Epstein).

²⁶⁴ E.g., WILLIAM FISCHER, *THE ECONOMICS OF ZONING LAWS: A PROPERTY RIGHTS APPROACH TO AMERICAN LAND USE CONTROLS* 224-26 (1985) (multiple parties acting with and through California Coastal Zone Commission have rights to delay and in effect exclude development).

²⁶⁵ Use of the Brady Bunch Show has required agreement from *each* of the actors portraying Brady kids (and his or her parents, while the actors were minors), the Brady parents, and the Brady housekeeper, Alice – as is typical of licensing agreements for such shows. The difficulty of getting agreement, particularly from Maureen McCormick ("Marcia Brady"), is reported in BARRY WILLIAMS, *GROWING UP BRADY* 139, 143, 149, 153 (1992). Carey Heckman suggested this application.

find that their assets may come with old anticommons owners still hanging on to control. By contrast, the Czech Republic has succeeded in creating dominant outside owners who have acted as “a powerful lobby for the interests of shareholders not otherwise related to the corporation.”²⁷¹ Perhaps Czech enterprises have achieved faster restructuring because they avoided creating anticommons enterprise property during privatization. However, coherent bundling of corporate governance rights may have come at the expense of setting aside distributional concerns of existing managers, workers, creditors, and local governments.²⁷²

Finally, China has experienced tremendous economic growth,²⁷³ particularly among “township and village enterprises,”²⁷⁴ apparently without “clearly defined” property rights.²⁷⁵ While analysts such as Shleifer suggest that clarifying rights will be key to continued growth,²⁷⁶ the anticommons perspective suggests that clarifying property rights may be only part of the story. Political and fiscal decentralization in China may have kept the core bundle of property rights relatively intact at the village level. Even though rights are not “clearly defined,” perhaps a sole decision-maker can exercise effect control over Chinese enterprise assets. If further research confirms this hypothesis about Chinese enterprise reform, perhaps the content of bundles may be even more important than the clarity of rights in transition.²⁷⁷

²⁷⁰(...continued)

created solely to hold debts or liabilities and other structures so arcane as to leave much of the productive assets in Hungary with no conventional owners at all.

²⁷¹ *Id.* at 101.

²⁷² See WDR, *supra* note *, at 56 (noting success of dominant shareholders in spurring restructuring of privatized Czech enterprises).

²⁷³ E.g., Jeffrey Sachs & Wing Thye Woo, *China's Transition Experience, Reexamined*, TRANSITION, Mar. 1996, at 1; John Ross, *Economic Reforms: Success in China and Failure in Eastern Europe*, 46 MONTHLY REV. 19 (1994).

²⁷⁴ WDR, *supra* note *, at viii (“Township and village enterprises’ are a form of enterprise organization unique to China in which local government owns all or most of the enterprise, but local individuals hold implicit property rights.”).

²⁷⁵ See David D. Li, *Ambiguous Property Rights in Transitional Economies: The Case of Chinese Non-State Sector* (mimeo, 1995) (on file with author).

²⁷⁶ Shleifer, *supra* note * (“[T]he efficiency of Chinese village enterprises may be fragile. Unless local bureaucrats effectively privatize these firms completely to isolate them from political pressure, at some point the Chinese village enterprises are likely to face the same afflictions as do public firms elsewhere in the world.”).

²⁷⁷ The differences between Chinese and Russian enterprise reform are profound. E.g., Sachs & Woo, *supra* note *, at 1. An anticommons explanation could be one factor, (continued...)

1. *Rapid Enterprise Privatization and Slow Restructuring.*

Enterprise reform has been the most discussed point in the literature on transition from socialism -- and one of the the most puzzling.²⁶⁶ Despite rapid privatization of state-owned enterprises, many of these newly-private firms have not begun to restructure their operations in a market-oriented direction.²⁶⁷ The anticommons prism could be usefully applied to this puzzle.

Perhaps, in Russia, for example, the fragmentation of ownership of the socialist firm helps explain the slow pace of change. Privatization broke up the socialist bundle of corporate governance rights among a heterogeneous set of managers, workers, and local governments.²⁶⁸ These new owners now hold excessive rights of exclusion and each prevents the others from restructuring corporate assets.²⁶⁹ To gain support for rapid privatization from socialist-era stakeholders, Russia may have transferred socialist ownership at the state level to anticommons ownership at the plant level.

Similarly, in Hungary, corporate insiders such as plant managers were able to hold on to their rights of exclusion when the government took control of and then privatized large enterprises.²⁷⁰ New owners of Hungarian enterprises

²⁶⁶ For a useful introduction to the literature, see WDR, *supra* note *, at 151-52 (annotated bibliography on enterprise privatization). A careful analysis of the role of anticommons property in enterprise privatization is a subject for further research.

²⁶⁷ See WDR, *supra* note *, at 50-57 (brief overview of goals, methods, and outcomes of enterprise privatization in transition countries)

²⁶⁸ Andrei Shleifer, one of the architects of the 1992-93 Russian mass privatization program, said his fundamental goal "was to consolidate the removal of control rights over firms from the central bureaucracy and to allocate those rights to enterprise insiders, particularly managers and outside shareholders." Shleifer, *supra* note *, at *. See, e.g. VISHNY, BOYCKO, & SHLEIFER, *supra* note *; FRYDMAN, RAPACZYNSKI & EARLE, THE PRIVATIZATION PROCESS IN RUSSIA, UKRAINE, AND BALTIC STATES (1993); Cheryl Gray & Kathryn Hendley, *Developing Commercial Law in Transition Economies: Examples from Hungary and Russia* (The World Bank, Policy Research Working Paper 1528, 1995).

²⁶⁹ "Maximizing the value of the firm is often not the most important objective of these insiders. Maximizing employment, for example, is clearly important for the employees. The management is often busy plundering corporate assets . . . All the while, the insiders try to disempower the minority outside ownership." Rapaczynski, *supra* note *, at 100.

²⁷⁰ Rapaczynski, *supra* note *, at 100:

Hungary has standard property rights on the books, but perhaps the most confusing and fragmented ownership structure in the world. Here, because the state was never able to regain its own full ownership rights to the nominally state property, it was never really able to transfer those rights to new owners. As a result, managers of former state firms used this vacuum to perpetuate their control through a series of cross-ownerships, joint ventures, pyramids of holding companies, legal entities

(continued...)

These enterprise examples suggest that transition policy should focus on the particulars of property bundling in political decentralization and enterprise privatization, the paths by which anticommons are formed and avoided.

2. *The Quaker Oats Big Inch Land Giveaway.*²⁷⁸

I borrow from one of the most successful promotional gimmicks in advertising history to show an extreme and perhaps trivial way that private individuals may create spatial anticommons property. In a 1955 radio broadcast, the fictional "Sergeant Preston of the Yukon," promised every child who purchased a box of Quaker Oats cereal a deed for one square inch of land in the Yukon.²⁷⁹ The advertising executive who thought up the idea had flown to the Yukon and bought about 19 acres on behalf of Quaker Oats.²⁸⁰ Quaker Oats then transferred the land to a subsidiary that subdivided the land into square inch parcels, printed up deeds, and put them in 21 million specially marked boxes of cereal which flew off the shelves.²⁸¹

The 21 million deeds live on and have generated a lore of their own. One deed owner offered to donate his three square inches to create the world's smallest national park; another declared independence on his.²⁸² One young boy sent the local title office four toothpicks so they could fence his inch,²⁸³ neglecting to note that the "language on the deeds said that each owner must acknowledge the right of every other owner to cross his inch at will."²⁸⁴ Unfortunately for deed holders, Quaker Oats never registered the subdivision and never paid taxes on the land, which escheated whole to the Canadian

²⁷⁷(...continued)

among many others, that may account for apparent Chinese success and Russian failure.

²⁷⁸ Andrew H. Malcolm, *Quaker Oats' Land Scam: a Case for Sgt. Preston*, NEW YORK TIMES, Sept. 28, 1980 at C7 (On Jan. 27, 1955, Quaker Oats began placing legal-sounding deeds to one square inch of Yukon land in each box of Puffed Rice and Puffed Wheat. "And so began the Great Klondike Big Inch Land Caper, one of the most successful sales promotions in North American business history.").

²⁷⁹ Malcolm, *supra* note *. ("The promotion was begun on the Sergeant Preston radio show, which despite the husky barks and Yukon wind sound effects, originated in Detroit.").

²⁸⁰ Bob Greene, *Give Them an Inch, and They'll Buy Oats*, CHICAGO TRIB., (Tempo Section), July 7, 1987, at 1.

²⁸¹ Malcolm, *supra* note *.

²⁸² *Id.*

²⁸³ *Id.*

²⁸⁴ Greene, *supra* note * ("Also, it was spelled out that no mineral rights were involved.").

Government in the mid-1960s.²⁸⁵ Not surprisingly, others have imitated the Quaker Oats promotion: now it is possible to buy a deed that conveys one square inch in all fifty states,²⁸⁶ and to buy one square foot of the ranch where the television series *Dallas* was filmed.²⁸⁷

Well-functioning market economies appear to contain a number of mechanisms that encourage owners to create high-value anticommons property and that limit owners' ability to create low-value anticommons. As a profit-maximizing firm, Quaker Oats had an incentive to create the most valuable Big Inch anticommons that it could. Indeed, the company reserved access and mineral rights for itself.²⁸⁸ In other words, the legal regime allowed Quaker Oats to create anticommons property as to some uses of the land, while keeping the land in private property for other purposes.²⁸⁹ In addition, the requirements that

²⁸⁵ Malcolm, *supra* note * (The government "repossessed all the land back in 1965 for nonpayment of \$37.20 in property taxes."); Greene, *supra* note * ("The individuals who had received the deeds in the cereal boxes had become the owners of the land,' [Quaker Oats] said. 'Obviously, none of them ever paid taxes on it. So the ownership of the land went back to Canada. The promotion was long over, anyway.'").

²⁸⁶ Bill Cunniff, *Catalog Can Help Rehabbers in Hunt for Right Item*, CHICAGO TRIB. (Homelife Section), Jan. 29, 1993, at 35 (According to Scott Moger, who created the deeds, "[i]t was just as hard getting the legal approval as it was acquiring the land. I had a highfalutin legal firm looking into it."); Rick Hampson, *Looking for Piece of Land? He'll Take Care of it for You*, CHICAGO TRIB., Dec. 1, 1991, at 2A ("After some legal maneuvering - 'I spent more on lawyers than land' - he was cleared by New York state and the federal Securities and Exchange Commission, which ruled he was selling a novelty gift item, not an investment."); Nina Munk, *A Cheap Ticket to the Promised Land*, FORBES, Feb. 1, 1993 at 90:

The main customers have turned out to be mainland Chinese. There's a strong suspicion that the poor Chinese customers are being had. Some of them seem to believe that owning even a tiny slice of America increases one's chances of winning U.S. citizenship or at least a visa. 'Even though people can't live on their land, build on it or get any financial benefit from it, they still love the idea of being an American land owner,' Moger said.

²⁸⁷ *Other Business Real Estate in Texas*, NEW YORK TIMES, Dec. 21, 1980, at D19 ("Now the same gimmick is being used to popularize not cereal but a serial. . . . "We have actual deeds we send out with the documents to transfer the land to the new buyer,' [J.R.] Duncan said. Those who buy the land will have only limited rights to it [not including grazing rights]. Mr. Duncan has also arranged to pay property taxes so the city clerk will not have to send thousands of assessment bills around the world.").

²⁸⁸ See *supra* note *.

²⁸⁹ The medieval open field system offers an analogy. Ellickson suggests that the system created commons property as to uses for which there were efficiencies of scale -- harvesting, fencing, shepherding -- and private property as to uses for which there were no scale efficiencies -- planting, weeding, and thinning. Ellickson, *Property*, *supra* note *, at

(continued...)

owners incur the costs of registering title and paying property taxes, and subsequent escheat of the land for failure to do so, functioned as powerful mechanisms to bundle the low-value spatial anticommons created by Quaker Oats back into usable private property.

More generally, such mechanisms ensure that decisions by private owners to create anticommons property will not paralyze alienability of scarce resources for too long or diminish value too much. If the deeds had been registered, and if no taxes were levied, it is difficult to imagine anyone ever using the land again once ownership had been broken up at the square-inch level. (One collector did amass 10,500 of the Quaker Oats deeds and asked the company to consolidate them into one parcel of "his land," about 75 square feet, but the company dissuaded him.²⁹⁰ He eventually profited by selling the deeds as collectibles.²⁹¹)

3. *Post-Earthquake Reconstruction of Kobe, Japan.*

Unlike the Quaker Oats case, in Japan, the mechanisms to prevent anticommons property have failed dramatically. When these mechanisms fail and governments accidentally create anticommons property, interests vest, and the consequences can last for decades or more. For example, Japanese pay the highest prices for housing in relation to income of any industrialized country in the world,²⁹² in part because of the "world-class tangle of real estate laws, a thicket that makes New York's labyrinth of rent regulations look simple by comparison."²⁹³ In addition, the effect of bad law spreads beyond housing costs:

The whole system is a drag on the economy and can even pose trade barriers. Japan's bad loan crisis will take years to mop up, in part because squatters and deadbeat debtors have such strong rights to stay put. Tokyo's Narita Airport is still unfinished 18 years after opening, because farmers refuse to give up land on what would become a second runway.²⁹⁴

²⁸⁹(...continued)

1390-91.

²⁹⁰ Michael Gershman, *Try, Try Again; Marketing Case Studies*, 9 FOOD & BEVERAGE MARKETING 28 (Dec. 1990) available in LEXIS Arcnws File; Joseph P. Mastrangelo, *Protocol, Presidents, Penny-Purchase Offers and the Yukon Rush*, WASH. POST, Nov. 20, 1978, at D1 ("The deeds were not in sequence and the great land grab fizzled out.")

²⁹¹ Gershman, *supra* note *.

²⁹² MAYO & ANGEL, *supra* note *, at 97.

²⁹³ Jathon Sapsford, *Building Blocked, Quake-Hobbled Kobe Shows How Land Law Can Paralyze Japan*, WALL. ST. J., Dec. 12, 1996, at A1.

²⁹⁴ *Id.*

In Japan, the failure to prevent the emergence of anticommons property has appeared most vividly during the rebuilding following the 1994 Kobe earthquake. While \$30 billion has flowed into the city, and highways (held in undivided state ownership) have been rebuilt, much of the rest of the city still lies in rubble, because “a single angry tenant can block urban renewal. And does.”²⁹⁵

Anticommons property has appeared because of mistakes in Japanese land law put in place after World War II. Parcels have fractionated to the point where there are “thousands of parcels the size of a U.S. garage,” and a building “can be based on a plot that is actually dozens of smaller parcels thrown together by developers.”²⁹⁶ In one block of Kobe, over 300 renters, lessees, landowners, and subletters own often-overlapping claims -- each of whom must agree before rebuilding can go forward.²⁹⁷ According to a city official, “It’s like trying to get thousands of little corporate presidents to agree on one plan.”²⁹⁸

Once anticommons property has been created, paths out are difficult to see. Japan faces a set of historical and cultural constraints on local government intervention. “The city could conceivably evict any [Kobe] tenant or landlord and buy the land under laws of eminent domain. But Japanese authorities frequently decline to seize property because of the nation’s preference for harmony and consensus.”²⁹⁹ Instead, several years after the Kobe earthquake, seven out of ten buildings remain damaged or in rubble, rebuilding plans are set, but are blocked by anticommons owners.³⁰⁰ “[T]he only bargaining chips left to the participants in this debate are property rights.”³⁰¹

4. *Fractionation of Native American Allotted Lands.*

In the American context, the facts behind the 1987 U.S. Supreme Court decision in *Hodel v. Irving*³⁰² and the 1997 decision in *Babbitt v. Youpee*³⁰³ graphically illustrate how government mistakes in breaking up the core bundle of

²⁹⁵ *Id.* at A1, A9.

²⁹⁶ *Id.*

²⁹⁷ *Id.*

²⁹⁸ *Id.*

²⁹⁹ *Id.* at A9.

³⁰⁰ *Id.*

³⁰¹ *Id.* at A9.

³⁰² *Hodel v. Irving*, 481 U.S. 705 (1986); see also Ronald Chester, *Is the Right to Devise Property Constitutionally Protected: The Strange Case of Hodel v. Irving*, 24 SW. U.L. REV. 1195 (1995).

³⁰³ *Babbitt v. Youpee*, 1977 US Lexis 469, 65 U.S.L.W. 4069 (1997). The underlying factual issues are the same in *Irving* and *Youpee*.

property rights can create anticommons property, and how difficult it is subsequently to rebundle property sensibly. In the 1880s, Congress enacted a series of Land Acts that broke up Native American reservations and allotted communal lands to Native American individuals who received 160 acres (heads of households received 320 acres).³⁰⁴ In order to protect Native Americans from white settlers, the lands were held in trust by the United States and often could not be alienated or partitioned. In practice, land could be transferred only through devise or, in most cases, through intestacy.³⁰⁵

As the Court noted in *Irving*, “The policy of allotment of Indian lands quickly proved disastrous for the Indians. . . . The failure of the allotment program grew clearer as successive generations came to hold the allotted lands. . . . Because the land was held in trust and often could not be alienated or partitioned, the fractionation problem grew and grew over time.”³⁰⁶ As early as 1928, Congress realized that the program was not working and “[g]ood, potentially productive land was allowed to lie fallow, amidst great poverty, because of the difficulty of managing land held in this manner.”³⁰⁷ In trying to reform the allotment program in 1934, one Representative noted,

[T]he administrative costs become incredible. . . . On allotted reservations, numerous cases exist where the shares of each individual heir from lease money may be 1 cent a month. The Indians and the Indian Service personnel are thus trapped in a meaningless system of minute partition in which all thought of the possible use of land to satisfy human needs is lost in a mathematical haze of bookkeeping.³⁰⁸

Reforms finally ended further allotment, but could not solve the problem of the millions of acres that already had been allotted and continued to fractionate.³⁰⁹ Further failed attempts were made in the 1960s to solve the

³⁰⁴ *Id.* at 706-07; see FELIX COHEN, HANDBOOK OF FEDERAL INDIAN LAW 615-16 (1982 ed.) (“[A]llotment is a term of art in Indian law, describing either a parcel of land owned by the United States in trust for an Indian (‘trust’ allotment) or owned by an Indian subject to restriction on alienation in favor of the United States or its officials (‘restricted fee’ allotment).”).

³⁰⁵ *Irving*, 481 U.S. at 707.

³⁰⁶ *Id.* at 707.

³⁰⁷ *Id.* at 707-08.

³⁰⁸ 78 CONG. REC. 11728 (1934) (speech of Representative Howard), cited in *Irving*, 481 U.S. at 708.

³⁰⁹ *Id.* at 708; see also *Escheat of Indian Land as a Fight Amendment Taking in Hodel v. Irving: A New Approach to Inheritance*, 43 U. MIAMI L. REV. 739, 741-42 (1989) (continued...)

problem. By the 1980s, according to the Court, the average tract had 196 owners and the average owner had undivided interests in 14 tracts.³¹⁰ One particularly egregious tract, Tract 1305 of 40 acres, produced \$1080 in annual rents, was valued at \$8000, and cost the Bureau of Indian Affairs \$17,560 *annually* to find and pay the 439 owners and manage the property.³¹¹ On Tract 1305, two thirds of the owners received less than one dollar in annual rents and one third of whom received less than a nickel, while the smallest heir received less than a penny once in 177 years.³¹² Thus, the Court noted that the fractionation had become “extreme”³¹³ by the time Congress passed the 1983 Indian Land Consolidation Act.³¹⁴ Section 207 of this Act tried to consolidate these overly fractionated parcels by providing for small allotment interests to escheat to the tribe on the owner’s death.³¹⁵

Once governments create anticommons property, it may be difficult for them to redefine away rights without either paying compensation or suffering a credibility blow. In the American constitutional context, given current takings jurisprudence, the Court found *Irving* to be a relatively easy case. The regulation was unconstitutional because Congress made no provision for compensating Native Americans when they regulated away the possibility of devise and descent

³⁰⁹(...continued)

(“The fractionation of individually owned Indian trust or restricted land represents one of the outstanding problems in Indian law.”); John Leavitt, *Hodel V. Irving: the Supreme Court's Emerging Takings Analysis – a Question of How Many Pumpkin Seeds per Acre* 18 ENVTL. L. 597 (1988).

³¹⁰ *Irving*, 481 U.S. at 712.

³¹¹ *Id.* at 713. In 1934, John Collier, Commissioner of Indian Affairs noted: [T]he Indian Service is forced to expend millions of dollars a year. The expenditure does not and cannot save the land, or conserve the capital accruing from land sales or from rentals. . . . For the Indians the situation is necessarily one of frustration, of impotent discontent. They are forced into the status of a landlord class, yet it is impossible for them to control their own estates; and the estates are insufficient to yield a decent living, and the yield diminishes year by year and finally stops altogether.

Readjustment of Indian Affairs: Hearings on H.R. 7902 of the House Comm. On Indian Affairs, 73d Cong., 2d. Sess. Pt. 4, at 117-18 (1934), *cited in* U.S. Supreme Court Petitioner’s Brief, *Babbitt v. Youpee*, 1996 WL 435925, at 10.

³¹² *Irving*, 481 U.S. at 713.

³¹³ *Id.* at 712.

³¹⁴ Pub. L. 97-459, Tit. II, 96 Stat. 2519.

³¹⁵ 96 Stat. 2519.

of small undivided property interests in allotted lands.³¹⁶ The Court held that “the regulation here amounts to virtually the abrogation of the right to pass on a certain type of property -- the small undivided interest -- to one’s heirs.”³¹⁷ Because the Court considered anticommons property as if it were ordinary private property, it took away one potential mechanism by which the government could reassemble allotted land into useable form.

In 1984, while the *Irving* litigation was pending, Congress made several changes to section 207 in an attempt to ensure its constitutionality.³¹⁸ The *Irving* Court expressed no opinion on the amended section 207.³¹⁹ However, this new attempt to overcome the tragedy of the allotment anticommons was struck down by the Ninth Circuit Court of Appeals in a 1995 decision³²⁰ affirmed recently by the Supreme Court.³²¹ It is difficult to imagine quite how Congress or the Indian tribes may be able overcome the tragedy of the allotment anticommons.³²² How will these resources be put back to productive use?

Conclusion

Anticommons property is prone to the tragedy of underuse. Once anticommons property appears, neither markets nor subsequent regulation will reliably convert it into useful private property -- even if the property rights are “clearly defined” and contracts are subject to the “rule of law.” Transaction costs, holdouts, and rent-seeking may prevent economically justified conversion from taking place. Over time, markets may develop formal or informal mechanisms that allow rights-bundling entrepreneurs to assemble private or quasi-private property. More directly, governments can tinker around the edges

³¹⁶ *Irving*, 481 U.S. at 717-18.

³¹⁷ *Id.* at 716.

³¹⁸ Indian Land Consolidation Act, *as amended*, 25 U.S.C. 2206 (1984); see *Youpee*, 1997 U.S. Lexis 469, at *13 (listing three relevant amendments to section 207).

³¹⁹ *Irving*, 481 U.S. at 710 n.1.

³²⁰ *Babbitt v. Youpee*, 67 F.3d 194 (1995).

³²¹ *Youpee*, 1997 U.S. Lexis 469 at * 18-19 (“The recent revisions Congress made to section 207, without benefit of our ruling in *Irving*, do not warrant a disposition different than the one this Court announced and explained in *Irving*.”).

³²² By analogy to the Quaker Oats Big Inch example, one solution to fractionation of Indian lands could be the imposition of property taxes. However, the Court in *Youpee* notes, “Indian lands were not subject to state real estate taxes, which ordinarily serve as a strong disincentive to retaining small fractional interests in land.” *Youpee*, 1997 U.S. Lexis 469, at *9.

with policy reforms to change individual incentives in favor of bundling or they can risk the instability that comes from revoking excessive rights of exclusion. However, this article has shown that both markets and governments may fail to re-bundle anticommons property once it has emerged.

Governments must take care to avoid creating anticommons property accidentally when they define new property rights. One path to well-functioning private property is to convey core bundles of rights rather than multiple rights of exclusion. Subsequently, individual owners may have good reasons to convert their ownership into anticommons property. Well-functioning private property allow this conversion, but have numerous escape mechanisms to ensure that private property can again emerge. When these mechanisms fail, anticommons property can become entrenched even in developed market economies

Property theory and transition practice have given insufficient weight to the role that bundling of rights plays in avoiding anticommons tragedy. Both theorists and practitioners seem to have assumed that the key to creating private property is to define rights clearly, enforce contracts predictably, and let the market sort out entitlements. The experience of anticommons property in transition suggests that the content of property bundles and not just the clarity of property rights matters more than we have realized. We pay a high price when we inadvertently create anticommons property.